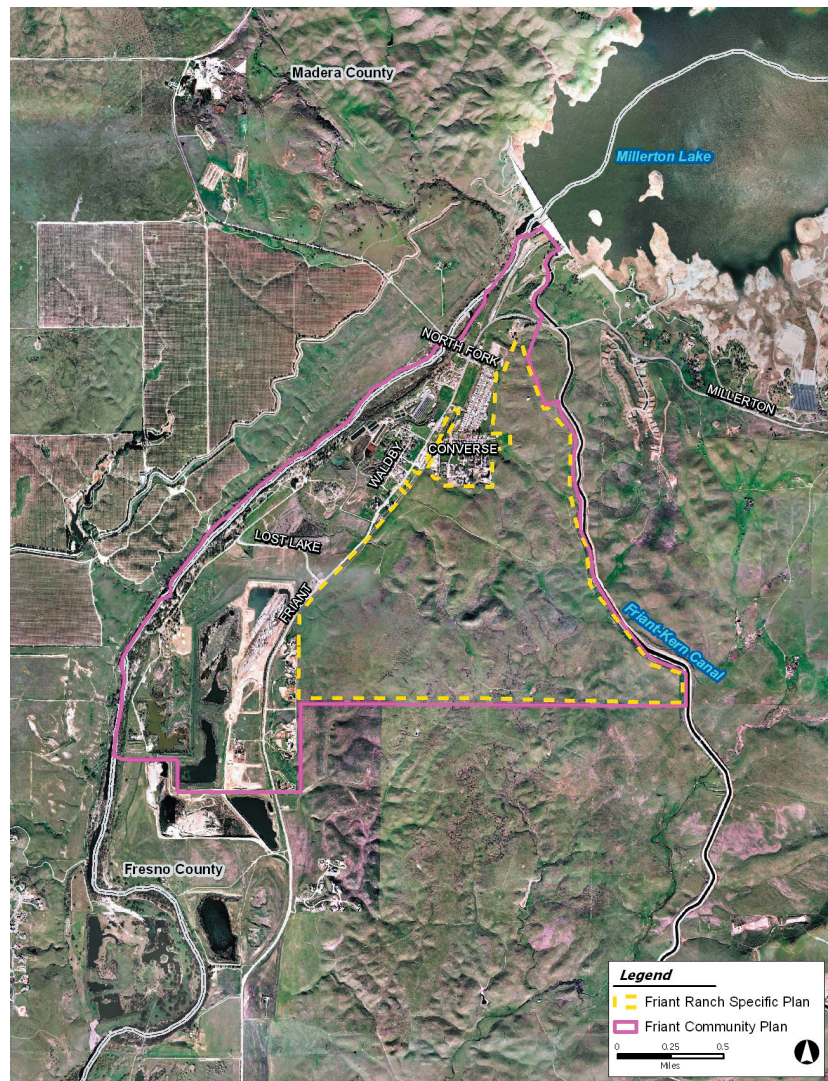


FINAL ENVIRONMENTAL IMPACT REPORT - APPENDICES

FRIANT COMMUNITY PLAN UPDATE & FRIANT RANCH SPECIFIC PLAN



August 2010

FINAL ENVIRONMENTAL IMPACT REPORT - APPENDICES

FRIANT COMMUNITY PLAN UPDATE & FRIANT RANCH SPECIFIC PLAN



Lead Agency:

County of Fresno
Department of Public Works and Planning
Development Services Division
2220 Tulare Street, 6th Floor
Fresno, CA 93721
Contact Person: Briza Sholars, Planner III
Phone: (559) 262-4454
Fax: (559) 262-4893

Prepared by:

5110 West Cypress Avenue
Visalia, CA 93277
Contact Person: Travis Crawford
Phone: (559) 733-0440
Fax: (559) 627-2336

August 2010

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- P Comment Letters Received on Draft EIR
- Q Memorandum, *Beck Property Biological Resources Analysis*, Live Oak Associates, Inc., March 17, 2009
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- R Technical Memorandum, *Assessment of Stormwater effects on Aquatic Resources with Low Impact Development (LID)*, Robertson – Bryan, Inc., April 28, 2010
- S State Water Resources Control Board Exhibit - *SWRCB Place of Use for CVP Friant Division M&I Users*

APPENDICES

APPENDIX P



ARNOLD SCHWARZENEGGER
GOVERNOR

Letter 1

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT
DIRECTOR

December 17, 2009

Briza Sholars
Fresno County
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Subject: Friant Community Plan Update and Friant Ranch Specific Plan
SCH#: 2007101016

Dear Briza Sholars:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 15, 2009, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Acting Director, State Clearinghouse

Enclosures
cc: Resources Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2007101016
Project Title Friant Community Plan Update and Friant Ranch Specific Plan
Lead Agency Fresno County

Type EIR Draft EIR
Description NOTE: Review Per Lead

Friant Ranch, a Limited Partnership is proposing to develop a master planned community for the Active Adult population (55 yrs of age and older) adjacent to the existing community of Friant. The Friant Ranch Specific Plan would serve as an overall framework and regulatory document for the development of a mixed use community with 2,683 single family age-restricted units, 83 multiple family age-restricted units, 180 non-age-restricted multi-family units, and 250,000 sf of commercial within a Viillage Core that also provides for up to 50 residential units. The Friant Ranch Specific Plan incorporates two active adult recreation centers, ~15 miles of trails and parkways, ~20 acres of parks and public open space areas, ~92 acres of landscaped slopes, and ~275 acres of conservation open space areas (including 245 acres of undisturbed open space and 30 acres of revegetated open space slopes). The Specific Plan development will require a number of additional actions, which are analyzed in the DEIR. The DEIR also considers the impacts associated with the Friant Community Plan Update, including any impacts resulting from the expansion of the boundaries and the change of land use designation for the Depot Parcel. The DEIR also considers the impacts associated with the Friant Redevelopment Plan Amendment.

Lead Agency Contact

Name	Briza Sholars	
Agency	Fresno County	
Phone	559-262-4454	Fax
email		
Address	2220 Tulare Street, 6th Floor	
City	Fresno	State CA Zip 93721

Project Location

County	Fresno				
City					
Region					
Lat / Long					
Cross Streets	Friant Road / various				
Parcel No.					
Township	11S	Range	21E	Section	8,17
				Base	MDB&M

Proximity to:

Highways	No
Airports	NO
Railways	No
Waterways	San Joaquin River
Schools	Clovis USD
Land Use	PLU: Agricultural, Residential, Commercial, Various Z: Various GP: Various

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual; Wetland/Riparian

Note: Blanks in data fields result from insufficient information provided by lead agency.

**Document Details Report
State Clearinghouse Data Base**

Reviewing Agencies	Resources Agency; Department of Conservation; Department of Fish and Game, Region 4; Office of Historic Preservation; Department of Parks and Recreation; Central Valley Flood Protection Board; Department of Water Resources; Office of Emergency Services; California Highway Patrol; Caltrans, District 6; Department of Housing and Community Development; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Toxic Substances Control; Native American Heritage Commission
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Date Received	10/30/2009	Start of Review	10/30/2009	End of Review	12/15/2009
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DEPARTMENT OF TRANSPORTATION

DISTRICT 6

1352 WEST OLIVE AVENUE

P.O. BOX 12616

FRESNO, CA 93778-2616

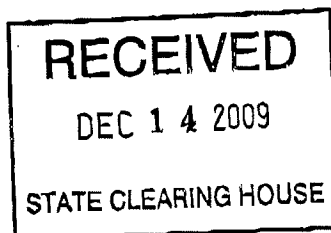
PHONE (559) 445-5868

FAX (559) 488-4088

TTY (559) 488-4066

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December 8, 2009



2131-IGR/CEQA

6-FRE-41-31.6+/-

DRAFT EIR

FRIANT COMMUNITY PLAN UPDATE

FRIANT RANCH SPECIFIC PLAN

SCH 2007101016

Ms. Briza Sholars
County of Fresno
Department of Public Works & Planning
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. Sholars:

We have completed our review of the draft Environmental Impact Report (EIR) for the proposed Friant Ranch Development. The project consists of 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot sit down restaurant, 5,000 square-foot fast-food restaurant, 10,000 square-foot medical/dental office, and 100,000 square feet of general office space. The site is located along the east side of Friant Road, south of Road 206, approximately five miles east of the intersection of State Route (SR) 41 and SR 145 and 12 miles north of the SR 41 interchange at Friant Road. Caltrans has the following comments:

It does not appear that our previous comments have been adequately addressed in the draft EIR. Therefore, our previous comments dated November 1, 2007, April 11, 2008 and September 24, 2009 continue to apply. Copies of these letters are enclosed and should be addressed as part of the environmental document.

Please send a response to our comments prior to staff's recommendations to the Planning Commission and the Board of Supervisors. If you have any questions, please call me at (559) 445-5868.

Sincerely,

MICHAEL NAVARRO
Office of Transportation Planning
District 06

Enclosures

C: SCH

DEPARTMENT OF TRANSPORTATION

DISTRICT 6

1352 WEST OLIVE AVENUE

P.O. BOX 12616

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November 1, 2007

2131-IGR/CEQA

6-FRE-41-31.6+/-

NOP/DEIR

FRIANT COMMUNITY PLAN UPDATE

FRIANT RANCH SPECIFIC PLAN

SCH 2007101016

Ms. Malia Pickering
County of Fresno
Department of Public Works & Planning
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. Pickering:

We have completed our review of the proposal that would expand the Friant Community Plan from 920 acres to 1,505 acres. The proposal would also result in 2,996 dwelling units and 250,000 square feet of retail and office space. Caltrans has the following comments:

A project of this magnitude has the potential to generate in excess of 30,000 daily vehicle trips. This many trips have the potential to significantly impact State facilities. It is anticipated that trips from this project would impact multiple interchanges along the State Route (SR) 41 corridor, SR 168 interchanges, as well as State facilities in Madera County.

A Traffic Impact Study (TIS) is needed to assess the project-related impacts to the State Highway system and appropriate mitigation measures. Please have the preparer of the traffic study reference the Caltrans Guide for the Preparation of Traffic Impact Studies, dated December 2002, and send the scope of the TIS to Caltrans before the traffic study is conducted. Caltrans Guide, while advisory, contains Best Practices and gives insight into Caltrans' expectations when reviewing a traffic study. If the traffic consultant has any issues or concerns regarding the use of the Guide or its interpretation, please contact us so resolution can be reached.

It is recommended that a trip generation estimate and trip distribution be provided so that a scope of work for the TIS can be determined. Without this information, it would be very difficult to determine where trips for a project of this size would be dispersed onto the circulation system.

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Caltrans recommends that the lead agency incorporate the guiding principles of the "San Joaquin Valley Regional Blueprint; Vision for the Valley." The Blueprint represents a collaborative planning process, with the eight San Joaquin Valley counties working together to prepare a guide for growth within the Central Valley. The Blueprint will develop a valley-wide "vision" that will include the integration of transportation, housing, land use, economic development and environmental protection that will serve as a significant contribution to improving the Valley's quality of life.

Please send a response to our comments prior to staff's recommendations to the Planning Commission and the Board of Supervisors. If you have any questions, please contact me at (559) 445-5868.

Sincerely,



MICHAEL NAVARRO
Office of Transportation Planning
District 06

C: SCH

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DEPARTMENT OF TRANSPORTATION

DISTRICT 6

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April 11, 2008

2131-IGR/CEQA
6-FRE-41-31.6+/-
TIS SCOPE OF WORK
FRIANT RANCH

Ms. Malia Pickering
County of Fresno
Department of Public Works & Planning
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. Pickering:

We have completed our review of the TIS scope of work for a proposal to develop 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot medical/dental office, and 100,000 square feet for general office use. Caltrans has the following comments:

Prior to using the proposed trip generation, the Fehr & Peers Technical Memorandum dated April 6, 2007 should be submitted to Caltrans for review. The mixed use of senior housing and typical residential uses could possibly be accepted with reasonable justification. A clear description of any and all legal constraints placed on the buyers or how the CCR's define special conditions is need to warrant any consideration of a trip reduction. Merely being a 55 and older development does not necessarily qualify for trip reductions in that unretired individuals in this demographic would generate trips similar to that of a typical residential development.

The applicant and/or consultant must supply sufficient support data before Caltrans can accept such a trip reduction. The consultant's opinion or reports from outside this area may not necessarily be considered to be reasonable justification for trip reductions. Caltrans will need a clear understanding of the true nature of this "Senior Housing Development".

The following State Routes should be studied:

Madera County:

- The State Route (SR) 41 intersections at SR 145, Avenue 15, and Avenue 12.
- The future SR 41 interchange at Avenue 12.
- The SR 41 segment from SR 145 to Friant.

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Fresno County:

- The SR 41 interchange at Friant Road.
- The SR 41 interchange at Herndon Avenue.

If you have any questions, please contact me at (559) 445-5868.

Sincerely,



MICHAEL NAVARRO
Office of Transportation Planning
District 06

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DEPARTMENT OF TRANSPORTATION

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September 24, 2009

2131-IGR/CEQA
6-FRE-41-31.6+/-
DRAFT TIS/ADMIN DRAFT EIR
FRIANT COMMUNITY PLAN UPDATE
FRIANT RANCH SPECIFIC PLAN
SCH 2007101016

Ms. Briza Sholars
County of Fresno
Department of Public Works & Planning
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. Pickering:

We have completed our review of the draft Traffic Impact Study (TIS) for the proposed Friant Ranch Development. The project consists of 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot sit down restaurant, 5,000 square-foot fast-food restaurant, 10,000 square-foot medical/dental office, and 100,000 square feet of general office space. The site is located along the east side of Friant Road, south of Road 206, approximately five miles east of the intersection of State Route (SR) 41 and SR 145 and 12 miles north of the SR 41 interchange at Friant Road. Caltrans has the following comments:

On Page 3-253 of the draft EIR, the following data should be discussed in greater detail:

- The population of the age 55 and older to be consistent with the proposed project. This section of the document discusses the age 65 and older population.
- The number of working individuals making up the age 55 and older population.
- The amount of current senior housing available compared to the future needs of the County of Fresno.

Caltrans disagrees with the use of ITE #251 and #252 (Senior Housing Detached/Attached) for estimating the trip generation used in the draft TIS. The use of these trip generation rates should only be used once accompanied with and confirmed by an analysis and supporting data.

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Page 3-313 of the document states "...If the identified improvements are provided for in any alternative funding program or if..... The project applicant may request recalculation of the estimated percentages and improvement costs in conjunction with the review of a tentative tract map or site plan review application, ...". These statements should be removed. Recalculation of the Project's mitigation should not be allowed once determined. Is the project willing to allow recalculation of the mitigation if it can be determined that it may result in an increased mitigation responsibility?

Please indicate as to whether the proposed Gunnar Ranch and approved Tesoro Viejo projects were included in the modeling for this project's traffic analysis as they do not appear on the pending projects list (Page 20, Table 5.1).

SR 41/Avenue 12:

- Based on the Caltrans Project Study Report (PSR) for the construction of the SR 41/Avenue 12 interchange dated June 2008 and the Friant Ranch draft TIS dated 07/09/2009, the mitigation cost estimate per trip is estimated to cost \$5,462.35 per peak hour trip. The Project should contribute its fair share to mitigate the construction for this future interchange.
- It should be noted that the Caltrans' PSR to construct the SR 41/Avenue 12 interchange is not programmed and no funding is available at this time. The PSR includes widening the existing one northbound lane to 2 lanes, constructing a 3-lane parallel bridge on Avenue 11, and constructing a partial cloverleaf interchange at Avenue 12.
- Based on the Synchro analysis, there are queuing problems at both the northbound left-turn and through lane approaches during the P.M peak travel hour for the 'existing traffic' condition. However, Page 3-278 of the DEIR and Page 18 of the draft TIS states that the queuing occurred only in the northbound left-turn approach. The intersection is currently experiencing queuing problems in the northbound approach.
- The intersection of SR 41/Avenue 12 is not shown in the Figures 17 and 32. Please provide this information.

SR 41/Avenue 15:

- It is recommended in the study that this intersection should be converted to an interchange by year 2030. However, the current intersection may remain in place and the new interchange will be on a new freeway 41 alignment, which is east of the existing SR 41 alignment.
- An interim improvement may be constructed at the current location before a new interchange on the ultimate location is constructed. The improvements include constructing two through lanes on the northbound and southbound approaches with separate right-turn lanes on SR 41,

a northbound left-turn lane, a separate eastbound left-turn and right-turn lane on Avenue 15, and installing a traffic signal.

- This intersection may be converted to a 4-legged intersection in the future when the Tesoro Viejo Project constructs the fourth leg to serve as their access.
- The intersection of SR 41 and Avenue 15 is not shown in Figures 17 and 32. Please provide this information.

SR 41/SR 145:

- Page 3-312 of the DEIR recommends that the intersection of SR 41 and SR 145 should be converted to an interchange by 2030. This intersection is planned for a future interchange. However, there is no funding available for this improvement and it may not be feasible at this time.
- An interim improvement may be constructed before the new interchange. Based on the 2030 with Project traffic volumes in Figure 32 of the draft TIS, the improvements would include extending the four-lane section on SR 41 from SR 145 to Road 209, exclusive dual northbound right-turn lanes, dual southbound left-turn lanes and a separate southbound right-turn lane, dual westbound left-turn lanes with extending the southbound receiving lanes, a separate westbound right-turn lane, and a signal modification. The mitigation cost estimate for these improvements will need to be calculated.
- In reference to Page 85 of the draft TIS and the Synchro analysis, the Caltrans' project to construct eastbound and westbound left-turn lanes with protected left-turn phasing (EB: 1 left, 1 through, and 1 right, and WB: 1 left, and 1 shared through/right) has been completed. The Caltrans project also widened the northbound and southbound through lane approaches to 2 lanes with a shared through/right-turn lane on the outside lanes.
- The Project may be required to construct a portion of the intersection improvement that is impacted by the Project trips after opening day. Traffic monitoring of the intersection should be conducted after the Project opening day. The 2030 with Project traffic scenario in Figure 32 of the draft TIS shows extremely high traffic volumes at the westbound left-turn on Road 145 and the northbound right-turn on SR 41. Does the modeling show other developments along Road 145 between SR 41 and the proposed Project site?

SR 41/Friant Road Interchange:

- In reference to the summary of the mitigation fair share for the SR 41 interchange at Friant Road on Page 23 of the draft TIS and Pages 3-309 and 3-312 of the DEIR, Friant Road under SR 41 may be widened to 8 lanes, 4 lanes in each direction with the construction of a retaining wall at the bridge abutment. Friant Road at this location is currently a 6-lane roadway. In the westbound direction, there is currently one through lane, one shared through/right-turn to the southbound loop on-ramp, and one exclusive right-turn lane to

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southbound loop on-ramp. An additional through lane is needed in the future due to the traffic volumes going to the on-ramp and at the westbound through lane. In the eastbound direction, there are currently 2 through lanes, and one shared through/right-turn to the northbound loop on-ramp. When the northbound loop on-ramp is widened to two lanes, there would be a need for an additional exclusive eastbound right-turn lane to the northbound loop on-ramp.

- The southbound loop on-ramp is currently two-lanes and metered. An additional lane at the on-ramp may not be feasible. However, a southbound auxiliary lane from the loop on-ramp would need to be constructed in the future.
- In the Synchro analysis for the 'Mitigated 2030 with Project', the direct on-ramps should be included in the analysis. The eastbound and westbound approaches to the off-ramp intersections should have 2 through lanes, 1 shared through/right-turn to the direct on-ramps (2-lane entrance ramps), and one exclusive right-turn lane to the direct on-ramps. Triple left-turn and right-turn lanes at the southbound off-ramp would be needed. The queuing analysis is not attached for this scenario.
- Please indicate as to whether the traffic signals in the study were analyzed as coordinated at the Friant Road intersections at the southbound and northbound off-ramps, Fresno Street, and Blackstone Avenue. These 4 signals would need to be coordinated in the future.
- The direct on-ramp traffic numbers should be provided for the '2030 with Project' in Figure 32 of the draft TIS.
- In the mitigation summary on Page 118 and the Figure 17 (Project Trip Distribution) of the DTIS, the Project should mitigate the southbound auxiliary lane from the loop on-ramp instead of the southbound off-ramp widening.

SR 41/Herndon Avenue:

- The mitigation for the improvements at this interchange should be included in the DEIR and draft TIS. The Synchro study should include the analysis for the 'Mitigated 2030 with Project' scenario.
- The following mitigation cost estimates for the SR 41/Herndon Avenue interchange has been calculated as follows:
 - NB off-ramp widening and an auxiliary lane \$998/trip
 - SB off-ramp widening and auxiliary lane \$1,712/trip
- Other improvements include installing ramp meters at the northbound on-ramps. When the ramp meters are installed, the northbound direct on-ramp would need to have one HOV and 2 mixed-flow lanes, and the northbound loop on-ramp would need to have 2 mixed-flow lanes. The cost estimates for these improvements have not been calculated.

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- The direct on-ramp traffic volumes should be included in the figures.
- Did the study analyze the intersection of Herndon Avenue and Fresno Street? If not, this intersection should be included in the analysis.
- Please indicate whether the traffic signals were coordinated at the Herndon Avenue intersections in the Synchro analysis?

SR 41 is planned for a 6-lane freeway on an 8-lane ultimate right-of-way between the Fresno County line to SR 145 on an adopted new freeway alignment, east of the existing SR 41. The new freeway alignment east of the existing SR 41 would start from Avenue 12 and transition back to the existing intersection with SR 145. The existing SR 41 would need to be widened to a minimum 6-lane freeway between Avenue 10 and Avenue 12 and 4-lane roadway between Avenue 12 to SR 145 as an interim improvement. The existing SR 41 alignment would be converted to a frontage road in the future when the new freeway alignment is constructed. The segment of SR 41 between Avenue 12 and Friant Road, and Friant Road and Herndon Avenue should be studied and analyzed.

Please confirm that Tables 3.13.19 and 3.13.20 are the correct tables being referred to in the fourth Paragraph on Page 3-313 of the DEIR.

Thank you for the opportunity to review the Administrative Draft and draft TIS for the proposed project. If you have any questions, please contact me at (559) 445-5868.

Sincerely,



MICHAEL NAVARRO
Office of Transportation Planning
District 06



DEPARTMENT OF FISH AND GAME

Central Region

1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
<http://www.dfg.ca.gov>

559 2439004

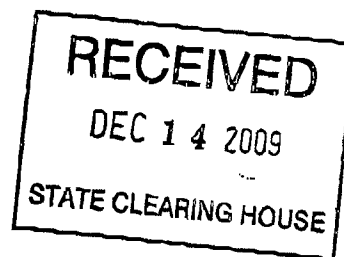
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DONALD KOCH, Director



December 10, 2009

Clear
12.15.09
e



Briza Sholars
Fresno County Public Works and Planning
Planning and Environmental Analysis
2220 Tulare Street - 6th Floor
Fresno, California 93721

Subject: Friant Community Plan Update and Friant Ranch Specific Plan Draft
Program/Project Environmental Impact Report (DEIR);
SCH No. 2007101016

Dear Ms. Sholars:

The Department of Fish and Game has reviewed the DEIR submitted by Fresno County (County) for the above Project. The Project includes the Friant Community Plan Update and the Friant Ranch Specific Plan. The Friant Community Plan is Fresno County's adopted statement of policy for the growth and improvement of the unincorporated community of Friant. The Friant Ranch Specific Plan involves the development of a mixed use community including residential and commercial development on approximately 942 acres on the east side of Friant Road in the community of Friant.

The Department agrees with the assessment in the DEIR that Alternative 3 of the Specific Plan is the environmentally superior development alternative. However, the proposed mitigation measures for the Specific Plan are not fully developed. The measures should include a requirement that the applicant consult with the Department regarding "take" of State-listed species and the need for an Incidental Take Permit as well as the need to consult with Department prior to impacts to on-site drainages and waterways. Additionally, the Mitigation Monitoring Program incorrectly assigns California Environmental Quality Act (CEQA) Lead Agency responsibilities to the Department. Our specific comments follow.

Trustee Agency Authority: The Department is a Trustee Agency with the responsibility under CEQA for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is

Conserving California's Wildlife Since 1870

Briza Sholars
December 10, 2009
Page 2

responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities, as those terms are used under CEQA.

Responsible Agency Authority: The Department has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, pursuant to Fish and Game Code Section 2081. If the Project could result in the "take" of any species listed as threatened or endangered under the California Endangered Species Act (CESA), the Department may need to issue an Incidental Take Permit for the Project. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (Sections 21001{c}, 21083, Guidelines Sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports a Statement of Overriding Consideration (SOC). The CEQA Lead Agency's SOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code Section 2080.

The Department also has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource, pursuant to Fish and Game Code Sections 1600 et seq. The Department is required to comply with the CEQA in the issuance or the renewal of a Stream Alteration Agreement. Therefore, for efficiency in environmental compliance, we recommend that the stream disturbance be described, and mitigation for the disturbance be developed as part of the environmental review process. This will reduce the need for the Department to require extensive additional environmental review for a Stream Alteration Agreement for this Project in the future. For additional information on notification requirements, please contact our staff for the Stream Alteration Program at (559) 243-4593.

Potential Impacts and Recommendations

The mitigation measures for Specific Plan-related impacts to State- and Federally listed species do not include the requirement that the applicant consult with and obtain a permit from either the Department or the United States Fish and Wildlife Service (USFWS). The mitigation measures for the Community Plan Update include such a requirement but the requirement is not included in the Specific Plan measures. The Department recommends that the mitigation measures for each species whose presence is documented, assumed or likely to occur within the Project area include the requirement that consultation between the applicant and the Department occur and that a permit be obtained should "take" of the species occur.

California Tiger Salamander (CTS): In addition to being Federally threatened, this species is a candidate for State listing under CESA. This means the Department currently has jurisdiction over this species under CESA and depending on the outcome of the final listing status ruling (likely in February 2010), the Department could have jurisdiction over this species prior to Project development. Therefore, the Department should be consulted regarding potential impacts to this species and for permitting requirements well in advance of any potential Project-related impacts.

Mitigation Measure #3.4.1d (3) includes compensatory mitigation ratios and proposes off-site lands to be used to partially mitigate for impacts to the species. If a State Incidental Take Permit is needed for this species, the permit and associated mitigation would need to meet the Department's "fully mitigate" standard and the amount of compensatory mitigation required would be determined during consultation with the Department. The inclusion of ratios and acreage values is premature without a permit from the Department being issued.

Succulent Owl's Clover (*Castilleja campestris* ssp. *succulenta*): The DEIR states that direct "take" will be avoided but indirect "take" from water quality degradation in occupied wetlands could occur. The DEIR proposes the use of wetland buffers varying in size from 100 to 450 feet to reduce impacts to this species. Without further information including the size of the buffers proposed around occupied wetlands and the topographic relation of the wetlands to the developed area the Department is unable to determine that these buffers will be effective in eliminating "take" of succulent owl's clover. The applicant should consult with the Department regarding the potential for "take" of this species and the need for an Incidental Take Permit.

Mitigation Monitoring Program (MMP): The MMP (Section 1.6; Table 1.1) includes the Department and the USFWS as responsible for "monitoring and reporting on the implementation of the mitigation measures" for biological resources. Under CEQA, monitoring and enforcement of mitigation measures required as a condition of Project approval and included in the CEQA document are the responsibility of the Lead Agency. The Department and USFWS are not responsible for monitoring and enforcement of CEQA mitigation. In the event that the Department issues a permit under CESA, mitigation enforcement for CESA compliance would be the responsibility of the Department. The mitigation measures in the DEIR are conditions of County approval and as such should be monitored by the County. The Department requests to be removed from the MMP as having monitoring responsibility for biological resource mitigation. As always, we are happy to advise and assist the County with biological issues as staffing resources allow.

Briza Sholars
December 10, 2009
Page 4

Proposed Effluent Site: The Specific Plan proposes to use the Beck Property, a former pit mine site, for disposal of treated effluent. It is unclear if the use of the former mine as a disposal site for effluent is consistent with the approved mine reclamation plan and the proposed end-use of that pit within that reclamation plan. The DEIR should present any potential inconsistencies with the proposed use of the mining pit and the reclamation plan.

If you have any questions regarding these comments, please contact Justin Sloan, Environmental Scientist, at the address provided on this letterhead or by telephone at (559) 243-4014, extension 216.

Sincerely,


Jeffrey R. Single, Ph.D.
Regional Manager

cc: State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, California 95812-3044

Kellie Berry
United States Fish and
Wildlife Service
2800 Cottage Way, W-2605
Sacramento, California 95825-1846

Department of Conservation
Office of Mine Reclamation
801 K Street, MS 09-06
Sacramento, California 95814



STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT



ARNOLD SCHWARZENEGGER
GOVERNOR

December 24, 2009

CYNTHIA BRYANT
DIRECTOR

Briza Sholars
Fresno County
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Subject: Friant Community Plan Update and Friant Ranch Specific Plan
SCH#: 2007101016

Dear Briza Sholars:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on December 15, 2009. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2007101016) when contacting this office.

Sincerely

Scott Morgan
Acting Director, State Clearinghouse

Enclosures
cc: Resources Agency

NATURAL RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, GOVERNOR



DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

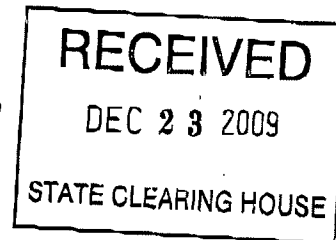
PHONE 916 / 324-0850 • FAX 916 / 327-3490 • TDD 916 / 324-2665 • WEBSITE conservation.ca.gov

December 15, 2009

VIA FACSIMILE (519) 262-4893

Briza Sholars, Planner III
County of Fresno
Department of Public Works and Planning
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Clear
12-15-09
[Signature]
e



Subject: Friant Community Plan Update & Friant Ranch Specific Plan
SCH# 2007101016

Dear Ms. Sholars:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Draft EIR for the Friant Community Plan update & Friant Ranch Specific Plan. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.

Project Description

The project is located on land adjacent to the unincorporated community of Friant in north-central Fresno County. The Friant Community Plan Update proposes expansion of the Friant Community Plan Area boundaries to encompass approximately 1,804 acres, which will include the proposed 942.2 acre Friant Ranch Specific Plan Area.

The proposal also includes development of a master planned community adjacent to the existing community of Friant. The master planned community includes 2,683 single-family units, 263 multiple-family units, and 250,000 square feet of commercial within a Village Core that also provides an additional 50 residential units.

The majority of the Friant Ranch Specific Plan Area is designated Agriculture in the Fresno County General Plan. The Project will result in the conversion of an existing agricultural use (grazing land) to residential, commercial, recreation, open space and public uses. This conversion to non-agricultural uses would result in the loss of approximately 670 acres currently used as grazing land within the Friant Ranch Specific Plan Area.

The Department of Conservation's mission is to balance today's needs with tomorrow's challenges and foster intelligent, sustainable, and efficient use of California's energy, land, and mineral resources.

Ms. Briza Sholars
December 15, 2009
Page 2 of 3

Department Comments:

Agricultural Description of the Project Site

The Physical Setting under the Agricultural Resources section (page 3-22) describes the property as follows:

"According to the California Department of Conservation, there are three types of farmland categories in the Project Area boundary: Grazing Lands throughout the Friant Ranch Specific Plan Area, Prime Farmland and Farmland of Local Importance within the Friant Community Plan Area to the southwest of Friant Ranch, and a small piece of land designated as Farmland of Statewide Importance within the Friant Community Plan Area to the southwest of Friant Ranch, which is not utilized for agriculture. In fact, this Prime Farmland within the Friant Community Plan Area to the southwest of Friant Ranch, including the small piece of land designated as Farmland of Statewide Importance, is subject to sand and gravel excavation which will effectively negate the Prime and Statewide Important Farmland designations."

The Division does not agree with this assessment. Sand and gravel mining operations are a very common permitted use on agricultural land throughout the State and are at times done simultaneously with agricultural operations. They are considered temporary in nature and once completed, agricultural lands can be returned back to their original use. Therefore the Prime and Statewide Important Farmland designations are still considered viable.

Under Impact #3.2.1 the conclusion states, "The conversion of non-prime and non-important agricultural land does not result in a significant impact to agricultural resources."

The Division does not agree with this assessment. Grazing land is still considered an agricultural resource and non-prime farmland is still farmland (Unique, Statewide, or Local). If property is being used for agricultural purposes (grazing), then it still has agricultural value. Therefore, we suggest that mitigation measures be applied for the conversion and loss of agricultural land.

Mitigation Measures

The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. As such, the Department recommends the use of permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land. If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with California Environmental Quality Act (CEQA)

Guideline §15370. The Department highlights this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that for wildlife habitat mitigation.

Ms. Briza Sholars
December 15, 2009
Page 3 of 3

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands can be conducted regionally or statewide, and need not be limited strictly to lands within the project's surrounding area.

The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website:

<http://www.conservation.ca.gov/clrp/index.htm>

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

Thank you for giving us the opportunity to comment on this Draft EIR for the Friant Community Plan Update & Friant Ranch Specific Plan. Please provide this Department with the date of any hearings for this particular action, and any staff reports pertaining to it. If you have questions regarding our comments, or require technical assistance or information on agricultural land conservation, please contact Meri Meraz, Environmental Planner, at 801 K Street, MS 18-01, Sacramento, California 95814, or by phone at (916) 445-9411.

Sincerely,



Dan Otis
Program Manager
Williamson Act Program

cc: State Clearinghouse

Sholars, Briza

From: Tani, Robin
Sent: Thursday, October 29, 2009 10:58 AM
To: Sholars, Briza
Subject: RE: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

[Since a specific commercial or multi-family development is not proposed at this time the Site Plan Review Section has no comments.] 1

From: Sholars, Briza
Sent: Thursday, October 29, 2009 10:39 AM
To: Weaver, Alan; Gorman, Lynn; Fowler, Frank; Jimenez, Bernard; Kettler, William; Acosta-Mena, Theresa; Khorsand, Mohammad; Motta, Chris; Perkins, Richard; Tani, Robin; Ramirez, Augustine; Nakagawa, Stan; Thompson, John R.; Gibbs, Daniel; Palacios, Robert; Kahl, Stephanie; Allen, Glenn; Horton, Jennifer; Werner, Robert; Redmond, Zachary; Hafner, Carol
Cc: 'b.oneal@comcast.net'; 'Travis Crawford'
Subject: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

Inter Office Memo

DATE: October 30, 2009

TO: Alan Weaver, Director
Lynn Gorman, Deputy Director, Planning
Frank Fowler, Deputy Director, Public Works
Bernard Jimenez, Development Services
Will Kettler, Development Services
Theresa Acosta-Mena, Environmental
Mohammad Khorsand, Policy Planning
Chris Motta, Current Planning
Richard Perkins, Zoning
Robin Tani, Site Plan Review
Augie Ramirez, Water/Geology/Natural Resources
Stan Nakagawa, Design Division
John Thompson, Resource Division
Dan Gibbs, Road Maintenance & Operations
Bob Palacios, Road Maintenance & Operations
Stephanie Kahl, Community Health, Environmental
Glenn Allen, Community Health, Environmental
Jennifer Horton, Sheriff's Office
Robert C. Werner, Assessor's Office

Letter 3

Sholars, Briza

From: Perkins, Richard
Sent: Tuesday, November 03, 2009 12:24 PM
To: Sholars, Briza
Subject: DEIR - Friant

[No DEIR comments from Zoning.] 1

Richard Perkins

Sholars, Briza

From: Graham, Paula@EDD [Paula.Graham@EDD.ca.gov]
Sent: Tuesday, November 03, 2009 2:51 PM
To: Sholars, Briza
Subject: Friant Community Plan and Friant Ranch Plan

Ms. Briza Sholars, Planner
Fresno County Public Works and Planning Department
Planning & Environment Analysis
2220 Tulare Street-6th Floor
Fresno CA, 93721

I was pleased to be able to speak with you this morning. I am an Employment Services Representative with the Employment Development Department. It is good to see the progress being made for the development and restoration of the Friant Community. I have reviewed the project descriptions and am optimistic regarding the changes to come. I would like to offer the services of the Employment Development Department to assist the companies that are involved in this project. We will be glad to utilize our experience and resources to meet the hiring needs to help make this project a success. We have access to a diverse workforce which also includes our many skilled Veterans and other groups. This will help to facilitate your employment diversity needs. Please share my information with the employers involved so they will be able to contact me for assistance.

Thank you,

Paula Graham, Employment Services

Representative

Employment Development

Department

Phone: (559) 230-4055

paula.graham@edd.ca.gov

11/3/2009

Travis Crawford

From: Sholars, Briza [bsholars@co.fresno.ca.us]
Sent: Monday, January 11, 2010 10:30 AM
To: Travis Crawford
Subject: FW: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

-----Original Message-----

From: Jane Smith [mailto:SMITHJ@slc.ca.gov]
Sent: Wednesday, November 04, 2009 9:47 AM
To: Sholars, Briza
Subject: RE: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

Briza, thanks ... my main concern is whether there is any development proposed west of Friant Road, immediately adjacent to the River.

>>> "Sholars, Briza" <bsholars@co.fresno.ca.us> 11/04/2009 9:34 AM >>>

Hi Jane,

The Friant Ranch Specific Plan eastern boundary is Friant Road however the Friant Community Plan boundary goes west to Madera County. If you would give me your mailing address I would be happy to send you a CD of the project document for your review. Regards,

Briza Grace Sholars, Planner III
Department of Public Works & Planning
2220 Tulare Street, Fresno CA 93721
Phone: 559-262-4454 Fax: 559-262-4893
* Keep it Green

-----Original Message-----

From: Jane Smith [mailto:SMITHJ@slc.ca.gov]
Sent: Wednesday, November 04, 2009 7:33 AM
To: Sholars, Briza
Subject: Re: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

Briza, would you be kind enough to confirm that this EIR is related to the proposed incorporation of an additional 920 acres (Friant Ranch Specific Plan) into the Friant Community Plan and that all of the proposed development will be east of Friant Road?

>>> "Sholars, Briza" <bsholars@co.fresno.ca.us> 10/29/2009 4:05 PM >>>

Attached is the Notice of Availability and public meeting/ opportunity to receive comments on the Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan.

Regards,

Briza Grace Sholars, Planner III
Department of Public Works & Planning
2220 Tulare Street, Fresno CA 93721
Phone: 559-262-4454 Fax: 559-262-4893
* Keep it Green

Travis Crawford

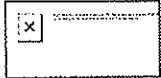
From: Sholars, Briza [bsholars@co.fresno.ca.us]
Sent: Monday, January 11, 2010 10:29 AM
To: Travis Crawford
Subject: FW: Friant Ranch

From: Prado, Joe
Sent: Tuesday, November 10, 2009 5:54 PM
To: Sholars, Briza
Cc: Thompson, John R.; Jimenez, Bernard
Subject: RE: Friant Ranch

That's great news. Thank you for following up.

From: Sholars, Briza
Sent: Tuesday, November 10, 2009 12:23 PM
To: Prado, Joe
Cc: Thompson, John R.; Jimenez, Bernard
Subject: RE: Friant Ranch

Hi Joe, Please see email below from the applican'ts attorney:



From: Jacqueline McDonald [mailto:jmcdonald@somachlaw.com]
Sent: Tuesday, November 10, 2009 12:18 PM
To: Sholars, Briza
Cc: Dennis Bacopulos
Subject: Re: Friant Ranch

Briza,

Street lighting for Friant Ranch will not be provided by a CSA. As discussed with Alan Weaver, WWD 18 will pursue LAFCO approval to be responsible for the street lighting for Friant Ranch. The applicant prefers that WWD 18 be responsible for street lighting. However, HOA responsibility for the street lighting remains a viable option that has been and will continue to be considered.

Please let me know if I can be of further assistance on this issue.
Thanks, Jakki

From: Prado, Joe
Sent: Wednesday, November 04, 2009 8:39 PM
To: Sholars, Briza
Subject: RE: Friant Ranch

The LAFCO reference is on page 7 of the 2007 Notice of Preparation. It seems the HOA would already have some responsibilities and thus street lighting should be expanded in the HOA's scope. Now that I look at it closer it seems its labeled under LAFCO but it may not have been them recommending it. Please advise how this will move forward and if street lighting would be required to be provided by a CSA.

From: Sholars, Briza

Sent: Tuesday, November 03, 2009 1:07 PM
To: Prado, Joe
Subject: RE: Friant Ranch

Hey Joe, I wanted to follow up on this so I make sure and get you the necessary information from the applicant. Please let me know, thanks
(There is a proposed HOA in the plan but I am not sure what services they provide)

From: Sholars, Briza
Sent: Friday, October 30, 2009 10:19 AM
To: Prado, Joe
Subject: RE: Friant Ranch

Hi Joe, I am working with the applicant's attorney to provide you with additional information. Can you tell me know where the "LAFCO recommendation" noted is memorialized? They were not aware of any such formal recommendation. Thanks!

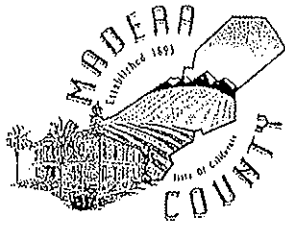
From: Prado, Joe
Sent: Thursday, October 29, 2009 2:47 PM
To: Sholars, Briza
Cc: Thompson, John R.; Jimenez, Bernard
Subject: Friant Ranch

Briza,

It seems LAFCO has made a recommendation that lighting services be provided under CSA 44. I don't concur with this recommendation. A more efficient proposal would be that the HOA provide the service. I believe that's the comments I made when we first commented on the project. Water and wastewater are being provided by WWD #18 so no issues there. Is there a proposed HOA in the plan?

Joe Prado, Principal Staff Analyst
Public Works and Planning
Resources Division
Special Districts Administration
Telephone: (559) 262-4259
Fax: (559) 262-4286

2
cont.



RESOURCE MANAGEMENT AGENCY PLANNING DEPARTMENT

Norman L. Allinder, AICP
Director

• 2037 W. Cleveland Avenue
• Mail Stop G
• Madera, CA 93637
• (559) 675-7821
• FAX (559) 675-6573
• TDD (559) 675-8970
• mc_planning@madera-county.com

December 3, 2009

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DEC 07 2009

Briza Sholars, Planner
Fresno County Public Works and Planning Department
Planning & Environmental Analysis
2220 Tulare Street – 6th Floor
Fresno, CA 93721

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

RE: DEIR, Friant Community
Plan Update & Friant Ranch
Specific Plan

Dear Ms. Sholars:

Thank you for the opportunity to review and comment on the Draft Programmatic Environmental Impact Report for Friant Community Plan Update and Friant Ranch Specific Plan. What follows is our comments on that document.

- Page 1-12, Mitigation Measure #3.1.4, Time Span is listed as "Prior to Construction" whereas the wording in the mitigation measure would lead the reader to believe that mitigations will occur after completion of construction. 1
- Page 1-73 Mitigation Measure #2.5.12 implies that there is the potential of discovery of resources during construction while the Time Span indicates prior to construction. Revise. 2
- Page 1-80 Mitigation #3.10.2c indicates hours of construction that would be acceptable. However, in previous mitigations, it would seem as if construction would be permitted outside these hours. Please clarify. 3
- Same page and mitigation, it is suggested that the hours of construction for Saturday be changed to a later start time and earlier end time, especially if construction were to occur in areas where there are residential units already occupied. Along the same logic, it is suggested that the Sunday hours be eliminated. 4
- Page 3-12, "Interior lighting..." This paragraph discusses how interior residential lighting has the potential of spilling out onto neighboring development and the road system. The way the paragraph is written would make the reader assume that light spillage from residences was a significant issue requiring some form of shielding or other measures to reduce the impact. Granted, one could potentially see residential interior lighting depending on the orientation of structures and point of view of the observer, interior lighting should not be much of an impact to cause a problem. One could make the point that it falls under the consideration of "light pollution" in terms of aesthetics, but overall should not require any 5

special consideration. More consideration should be given to those lights outside of the residential structures (i.e. street lights) that could potentially be more of an impact if not shielded/hooded or directed downwards.

- Pages 3-12 to 3-13, mitigation measures for lighting. The section included discussion of light spillage from interior residences and buildings; however there are no mitigations readily apparent to address that issue. It is suggested to either remove the discussion of interior lighting being an impact, or include mitigations appropriate to the impact.
- Page 3-16, in the discussion of the Williamson Act, the information provided is incorrect. The way it is written in this document it is implied that the initial ten year term must first expire before additional years are added barring submission of a notice of non-renewal. However, this is incorrect. Per the process, each year, unless otherwise provided for in the contract, the contract adds a year until such time as a notice of non-renewal is submitted.
- Page 3-16. Fresno County Zoning, missing a close parenthesis after "12,000); and A-c should probable read A-C.
- Page 3-94, top of page, "...The occurrence of elderberry bushes would be, especially likely..." no need for the comma in this sentence.
- Page 3-94, Kern brook lamprey paragraph. In the first sentence, lamprey is capitalized, while in the second sentence, it is not. Choose style and maintain it throughout.
- Page 3-107, Mitigation #3.4.1d, number 3 discusses off-site locations for preservation of the California Tiger Salamander (CTS), which includes portions of Madera County. This provision does not discuss how and where in Madera County these off-site habitats will be provided for. Further discussion into this matter should be included in the EIR as it would appear to not be fully analyzed.
- Page 3-109, Mitigation #3.4.1e has the same issue regarding habitat establishment within Madera County. No discussion or analysis has been made as to how this will be accomplished. Some analysis needs to be done.
- Page 1-80 Mitigation #3.10.2c indicates hours of construction that would be acceptable, however on page 3-112, Mitigation #4.1.4h(4) would imply night time construction is permissible. Please clarify.
- Page 3-117. Mitigation #3.4.3a(1) is similar to Mitigation Measure #3.4.1d and e, and thus the same issue is raised in how and where the off-site habitats will be established in Madera County. Please provide analysis accordingly.
- Page 3-118, Mitigation #3.4.3a(2)(a) is similar to Mitigation Measure #3.4.1d and e, and thus the same issue is raised in how and where the off-site habitats will be established in Madera County. Please provide analysis accordingly.
- Page 3-122, Mitigation #3.4.5 is similar to Mitigation Measure #3.4.1d and e, and thus the same issue is raised in how and where the off-site habitats will be established in Madera County. Please provide analysis accordingly.

5 cont.

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- Page 3-349, solid waste: there is no discussion if Phase I (the unlined cell of the landfill) is still in use or has been closed for acceptance of solid waste. Please include a discussion.
- Page 3-349, solid waste, second paragraph, there appears to be an extra period embedded within the paragraph.
- Page 3-351, Table 3.14-7, column marked "Total Demand (GPD)" total amount is off by 600 gallons (323,262).
- The section that discusses greenhouse gases does not include a discussion on how landfill methane production could potentially impact that production of greenhouse gases. Please include a discussion on that and include mitigation measures (i.e. methane collection for energy production that could then be incorporated into the utilities discussion and lessen those impacts).
- Page 4-22, Table 4-3, acres column, the total is wrong. The total should be 1,301.5.
- Page 4-22, Table 4-3, total dwelling units column, the total is wrong. The total should be 3,970.
- Page 4-27, Table 4-4, acres column, the total is wrong. The total should be 1,287.3.
- Page 4-27, Table 4-4, total dwelling units column, the total is wrong. The total should be 4,770.
- Page 6-1, no discussions on landfill production of methane gas as it contributes to greenhouse gas production nor its' mitigations.
- Beginning on page 3-270, transportation and circulation, there is little to no discussion on the impacts of traffic on Madera County roadways. The tables in the section do show some information, but there does not seem to be very much narrative wise.
- Transportation section beginning on page 3-270 refers to "Road 145" and SR 41, check validity as there is no Road 145 in Madera County, there is a Highway 145.

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Again, thank you for the opportunity to review the documents.

Sincerely,



Robert Mansfield, REA
Planner III

cc: Norman L. Allinder, Planning Director

Sholars, Briza

From: Allen, Glenn
Sent: Monday, December 07, 2009 4:37 PM
To: Sholars, Briza
Cc: Gardner, Janet
Subject: RE: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

Briza,

I have completed our review of the Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan and have no further comments to add at this time. Please feel free to give me a call if you have any questions or comments.

Thank you,

Glenn Allen, REHS, M.S.
Supervising Environmental Health Specialist
County of Fresno Environmental Health Division
Office (559) 445-3271 fax (559) 445-3379
glallen@co.fresno.ca.us

From: Sholars, Briza
Sent: Thursday, October 29, 2009 10:39 AM
To: Weaver, Alan; Gorman, Lynn; Fowler, Frank; Jimenez, Bernard; Kettler, William; Acosta-Mena, Theresa; Khorsand, Mohammad; Motta, Chris; Perkins, Richard; Tani, Robin; Ramlrez, Augustine; Nakagawa, Stan; Thompson, John R.; Gibbs, Daniel; Palacios, Robert; Kahl, Stephanie; Allen, Glenn; Horton, Jennifer; Werner, Robert; Redmond, Zachary; Hafner, Carol
Cc: 'b.oneal@comcast.net'; 'Travis Crawford'
Subject: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

Inter Office Memo

DATE: October 30, 2009

TO: Alan Weaver, Director
Lynn Gorman, Deputy Director, Planning
Frank Fowler, Deputy Director, Public Works
Bernard Jimenez, Development Services
Will Kettler, Development Services

Letter 9

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 445-5868
FAX (559) 488-4088
TTY (559) 488-4066

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Flex your power!
Be energy efficient!

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

December 8, 2009

2131-IGR/CEQA
6-FRE-41-31.6+/-

DRAFT EIR
FRIANT COMMUNITY PLAN UPDATE
FRIANT RANCH SPECIFIC PLAN
SCH 2007101016

Ms. Briza Sholars
County of Fresno
Department of Public Works & Planning
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. Sholars:

We have completed our review of the draft Environmental Impact Report (EIR) for the proposed Friant Ranch Development. The project consists of 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot sit down restaurant, 5,000 square-foot fast-food restaurant, 10,000 square-foot medical/dental office, and 100,000 square feet of general office space. The site is located along the east side of Friant Road, south of Road 206, approximately five miles east of the intersection of State Route (SR) 41 and SR 145 and 12 miles north of the SR 41 interchange at Friant Road. Caltrans has the following comments:

It does not appear that our previous comments have been adequately addressed in the draft EIR. Therefore, our previous comments dated November 1, 2007, April 11, 2008 and September 24, 2009 continue to apply. Copies of these letters are enclosed and should be addressed as part of the environmental document.

Please send a response to our comments prior to staff's recommendations to the Planning Commission and the Board of Supervisors. If you have any questions, please call me at (559) 445-5868.

Sincerely,

MICHAEL NAVARRO
Office of Transportation Planning
District 06

Enclosures

C: SCH

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 445-5868
FAX (559) 488-4088
TTY (559) 488-4066



*Flex your power!
Be energy efficient!*

November 1, 2007

2131-IGR/CEQA
6-FRE-41-31.6+/-
NOP/DEIR
FRIANT COMMUNITY PLAN UPDATE
FRIANT RANCH SPECIFIC PLAN
SCH 2007101016

Ms. Malia Pickering
County of Fresno
Department of Public Works & Planning
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. Pickering:

We have completed our review of the proposal that would expand the Friant Community Plan from 920 acres to 1,505 acres. The proposal would also result in 2,996 dwelling units and 250,000 square feet of retail and office space. Caltrans has the following comments:

A project of this magnitude has the potential to generate in excess of 30,000 daily vehicle trips. This many trips have the potential to significantly impact State facilities. It is anticipated that trips from this project would impact multiple interchanges along the State Route (SR) 41 corridor, SR 168 interchanges, as well as State facilities in Madera County.

A Traffic Impact Study (TIS) is needed to assess the project-related impacts to the State Highway system and appropriate mitigation measures. Please have the preparer of the traffic study reference the Caltrans Guide for the Preparation of Traffic Impact Studies, dated December 2002, and send the scope of the TIS to Caltrans before the traffic study is conducted. Caltrans Guide, while advisory, contains Best Practices and gives insight into Caltrans' expectations when reviewing a traffic study. If the traffic consultant has any issues or concerns regarding the use of the Guide or its interpretation, please contact us so resolution can be reached.

It is recommended that a trip generation estimate and trip distribution be provided so that a scope of work for the TIS can be determined. Without this information, it would be very difficult to determine where trips for a project of this size would be dispersed onto the circulation system.

Ms. Malia Pickering
November 1, 2007
Page 2

Caltrans recommends that the lead agency incorporate the guiding principles of the "San Joaquin Valley Regional Blueprint; Vision for the Valley." The Blueprint represents a collaborative planning process, with the eight San Joaquin Valley counties working together to prepare a guide for growth within the Central Valley. The Blueprint will develop a valley-wide "vision" that will include the integration of transportation, housing, land use, economic development and environmental protection that will serve as a significant contribution to improving the Valley's quality of life.

Please send a response to our comments prior to staff's recommendations to the Planning Commission and the Board of Supervisors. If you have any questions, please contact me at (559) 445-5868.

Sincerely,



MICHAEL NAVARRO
Office of Transportation Planning
District 06

C: SCH

DEPARTMENT OF TRANSPORTATION

DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 445-5868
FAX (559) 488-4088
TTY (559) 488-4066



*Flex your power!
Be energy efficient!*

April 11, 2008

2131-IGR/CEQA
6-FRE-41-31.6+/-
TIS SCOPE OF WORK
FRIANT RANCH

Ms. Malia Pickering
County of Fresno
Department of Public Works & Planning
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. Pickering:

We have completed our review of the TIS scope of work for a proposal to develop 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot medical/dental office, and 100,000 square feet for general office use. Caltrans has the following comments:

Prior to using the proposed trip generation, the Fehr & Peers Technical Memorandum dated April 6, 2007 should be submitted to Caltrans for review. The mixed use of senior housing and typical residential uses could possibly be accepted with reasonable justification. A clear description of any and all legal constraints placed on the buyers or how the CCR's define special conditions is need to warrant any consideration of a trip reduction. Merely being a 55 and older development does not necessarily qualify for trip reductions in that unretired individuals in this demographic would generate trips similar to that of a typical residential development.

The applicant and/or consultant must supply sufficient support data before Caltrans can accept such a trip reduction. The consultant's opinion or reports from outside this area may not necessarily be considered to be reasonable justification for trip reductions. Caltrans will need a clear understanding of the true nature of this "Senior Housing Development".

The following State Routes should be studied:

Madera County:

- The State Route (SR) 41 intersections at SR 145, Avenue 15, and Avenue 12.
- The future SR 41 interchange at Avenue 12.
- The SR 41 segment from SR 145 to Friant.

"Caltrans improves mobility across California"

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Ms. Malia Pickering

April 11, 2008

Page 2

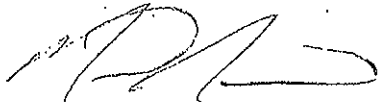
Fresno County:

- The SR 41 interchange at Friant Road.
- The SR 41 interchange at Herndon Avenue.

7 cont.

If you have any questions, please contact me at (559) 445-5868.

Sincerely,



MICHAEL NAVARRO
Office of Transportation Planning
District 06

DEPARTMENT OF TRANSPORTATION

DISTRICT 6
 1352 WEST OLIVE AVENUE
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September 24, 2009

2131-IGR/CEQA
 6-FRE-41-31.6+/-
 DRAFT TIS/ADMIN DRAFT EIR
 FRIANT COMMUNITY PLAN UPDATE
 FRIANT RANCH SPECIFIC PLAN
 SCH 2007101016

Ms. Briza Sholars
 County of Fresno
 Department of Public Works & Planning
 2220 Tulare Street, Sixth Floor
 Fresno, CA 93721

Dear Ms. Pickering:

We have completed our review of the draft Traffic Impact Study (TIS) for the proposed Friant Ranch Development. The project consists of 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot sit down restaurant, 5,000 square-foot fast-food restaurant, 10,000 square-foot medical/dental office, and 100,000 square feet of general office space. The site is located along the east side of Friant Road, south of Road 206, approximately five miles east of the intersection of State Route (SR) 41 and SR 145 and 12 miles north of the SR 41 interchange at Friant Road. Caltrans has the following comments:

On Page 3-253 of the draft EIR, the following data should be discussed in greater detail:

- The population of the age 55 and older to be consistent with the proposed project. This section of the document discusses the age 65 and older population.
- The number of working individuals making up the age 55 and older population.
- The amount of current senior housing available compared to the future needs of the County of Fresno.

Caltrans disagrees with the use of ITE #251 and #252 (Senior Housing Detached/Attached) for estimating the trip generation used in the draft TIS. The use of these trip generation rates should only be used once accompanied with and confirmed by an analysis and supporting data.

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Page 3-313 of the document states "...If the identified improvements are provided for in any alternative funding program or if..... The project applicant may request recalculation of the estimated percentages and improvement costs in conjunction with the review of a tentative tract map or site plan review application, ...". These statements should be removed. Recalculation of the Project's mitigation should not be allowed once determined. Is the project willing to allow recalculation of the mitigation if it can be determined that it may result in an increased mitigation responsibility?

Please indicate as to whether the proposed Gunnar Ranch and approved Tesoro Viejo projects were included in the modeling for this project's traffic analysis as they do not appear on the pending projects list (Page 20, Table 5.1).

SR 41/Avenue 12:

- Based on the Caltrans Project Study Report (PSR) for the construction of the SR 41/Avenue 12 interchange dated June 2008 and the Friant Ranch draft TIS dated 07/09/2009, the mitigation cost estimate per trip is estimated to cost \$5,462.35 per peak hour trip. The Project should contribute its fair share to mitigate the construction for this future interchange.
- It should be noted that the Caltrans' PSR to construct the SR 41/Avenue 12 interchange is not programmed and no funding is available at this time. The PSR includes widening the existing one northbound lane to 2 lanes, constructing a 3-lane parallel bridge on Avenue 11, and constructing a partial cloverleaf interchange at Avenue 12.
- Based on the Synchro analysis, there are queuing problems at both the northbound left-turn and through lane approaches during the P.M peak travel hour for the 'existing traffic' condition. However, Page 3-278 of the DEIR and Page 18 of the draft TIS states that the queuing occurred only in the northbound left-turn approach. The intersection is currently experiencing queuing problems in the northbound approach.
- The intersection of SR 41/Avenue 12 is not shown in the Figures 17 and 32. Please provide this information.

SR 41/Avenue 15:

- It is recommended in the study that this intersection should be converted to an interchange by year 2030. However, the current intersection may remain in place and the new interchange will be on a new freeway 41 alignment, which is east of the existing SR 41 alignment.
- An interim improvement may be constructed at the current location before a new interchange on the ultimate location is constructed. The improvements include constructing two through lanes on the northbound and southbound approaches with separate right-turn lanes on SR 41,

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DEIR 16

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a northbound left-turn lane, a separate eastbound left-turn and right-turn lane on Avenue 15, and installing a traffic signal.

- This intersection may be converted to a 4-legged intersection in the future when the Tesoro Viejo Project constructs the fourth leg to serve as their access.
- The intersection of SR 41 and Avenue 15 is not shown in Figures 17 and 32. Please provide this information.

SR 41/SR 145:

- Page 3-312 of the DEIR recommends that the intersection of SR 41 and SR 145 should be converted to an interchange by 2030. This intersection is planned for a future interchange. However, there is no funding available for this improvement and it may not be feasible at this time.
- An interim improvement may be constructed before the new interchange. Based on the 2030 with Project traffic volumes in Figure 32 of the draft TIS, the improvements would include extending the four-lane section on SR 41 from SR 145 to Road 209, exclusive dual northbound right-turn lanes, dual southbound left-turn lanes and a separate southbound right-turn lane, dual westbound left-turn lanes with extending the southbound receiving lanes, a separate westbound right-turn lane, and a signal modification. The mitigation cost estimate for these improvements will need to be calculated.
- In reference to Page 85 of the draft TIS and the Synchro analysis, the Caltrans' project to construct eastbound and westbound left-turn lanes with protected left-turn phasing (EB: 1 left, 1 through, and 1 right, and WB: 1 left, and 1 shared through/right) has been completed. The Caltrans project also widened the northbound and southbound through lane approaches to 2 lanes with a shared through/right-turn lane on the outside lanes.
- The Project may be required to construct a portion of the intersection improvement that is impacted by the Project trips after opening day. Traffic monitoring of the intersection should be conducted after the Project opening day. The 2030 with Project traffic scenario in Figure 32 of the draft TIS shows extremely high traffic volumes at the westbound left-turn on Road 145 and the northbound right-turn on SR 41. Does the modeling show other developments along Road 145 between SR 41 and the proposed Project site?

SR 41/Friant Road Interchange:

- In reference to the summary of the mitigation fair share for the SR 41 interchange at Friant Road on Page 23 of the draft TIS and Pages 3-309 and 3-312 of the DEIR, Friant Road under SR 41 may be widened to 8 lanes, 4 lanes in each direction with the construction of a retaining wall at the bridge abutment. Friant Road at this location is currently a 6-lane roadway. In the westbound direction, there is currently one through lane, one shared through/right-turn to the southbound loop on-ramp, and one exclusive right-turn lane to

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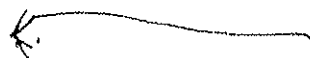
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southbound loop on-ramp. An additional through lane is needed in the future due to the traffic volumes going to the on-ramp and at the westbound through lane. In the eastbound direction, there are currently 2 through lanes, and one shared through/right-turn to the northbound loop on-ramp. When the northbound loop on-ramp is widened to two lanes, there would be a need for an additional exclusive eastbound right-turn lane to the northbound loop on-ramp.

26 cont.

- The southbound loop on-ramp is currently two-lanes and metered. An additional lane at the on-ramp may not be feasible. However, a southbound auxiliary lane from the loop on-ramp would need to be constructed in the future. 27
- In the Synchro analysis for the 'Mitigated 2030 with Project', the direct on-ramps should be included in the analysis. The eastbound and westbound approaches to the off-ramp intersections should have 2 through lanes, 1 shared through/right-turn to the direct on-ramps (2-lane entrance ramps), and one exclusive right-turn lane to the direct on-ramps. Triple left-turn and right-turn lanes at the southbound off-ramp would be needed. The queuing analysis is not attached for this scenario. 28
- Please indicate as to whether the traffic signals in the study were analyzed as coordinated at the Friant Road intersections at the southbound and northbound off-ramps, Fresno Street, and Blackstone Avenue. These 4 signals would need to be coordinated in the future. 29
- The direct on-ramp traffic numbers should be provided for the '2030 with Project' in Figure 32 of the draft TIS. 30
- In the mitigation summary on Page 118 and the Figure 17 (Project Trip Distribution) of the DTIS, the Project should mitigate the southbound auxiliary lane from the loop on-ramp instead of the southbound off-ramp widening. 31

SR 41/Herndon Avenue:



Clean up if it
supposed to be it
EIR

- The mitigation for the improvements at this interchange should be included in the DEIR and draft TIS. The Synchro study should include the analysis for the 'Mitigated 2030 with Project' scenario. 32
- The following mitigation cost estimates for the SR 41/Herndon Avenue interchange has been calculated as follows: 33
 - NB off-ramp widening and an auxiliary lane \$998/trip
 - SB off-ramp widening and auxiliary lane \$1,712/trip
- Other improvements include installing ramp meters at the northbound on-ramps. When the ramp meters are installed, the northbound direct on-ramp would need to have one HOV and 2 mixed-flow lanes, and the northbound loop on-ramp would need to have 2 mixed-flow lanes. The cost estimates for these improvements have not been calculated. 34

- The direct on-ramp traffic volumes should be included in the figures.
- Did the study analyze the intersection of Herndon Avenue and Fresno Street? If not, this intersection should be included in the analysis.
- Please indicate whether the traffic signals were coordinated at the Herndon Avenue intersections in the Synchro analysis?

SR 41 is planned for a 6-lane freeway on an 8-lane ultimate right-of-way between the Fresno County line to SR 145 on an adopted new freeway alignment, east of the existing SR 41. The new freeway alignment east of the existing SR 41 would start from Avenue 12 and transition back to the existing intersection with SR 145. The existing SR 41 would need to be widened to a minimum 6-lane freeway between Avenue 10 and Avenue 12 and 4-lane roadway between Avenue 12 to SR 145 as an interim improvement. The existing SR 41 alignment would be converted to a frontage road in the future when the new freeway alignment is constructed. The segment of SR 41 between Avenue 12 and Friant Road, and Friant Road and Herndon Avenue should be studied and analyzed.

Please confirm that Tables 3.13.19 and 3.13.20 are the correct tables being referred to in the fourth Paragraph on Page 3-313 of the DEIR.

Thank you for the opportunity to review the Administrative Draft and draft TIS for the proposed project. If you have any questions, please contact me at (559) 445-5868.

Sincerely,



MICHAEL NAVARRO
Office of Transportation Planning
District 06

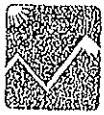
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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Letter 10
HEALTHY AIR LIVING™

December 9, 2009

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DEC 11 2009

Briza Sholars
Fresno County Public Works and Planning Department
Planning & Environmental Analysis
2220 Tulare Street – 6th Floor
Fresno, CA 93721

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

Project: Friant Community Plan Update & Friant Ranch Specific Plan

District CEQA Reference No: 20090707

Dear Mr. Sholars:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above consisting of expanding the existing Friant Community Plan Area boundaries to 1,804 acres to include the Friant Ranch Specific Plan, located at Township 11S, Range 21E, Sections 8, 17, and 18, in the unincorporated community of Friant, CA. The District offers the following comments:

1. Expanding the existing Friant Community Plan Area boundaries to 1,804 acres itself will not have an impact on air quality. However, future development within the area will contribute to the overall decline in air quality due to increased traffic and ongoing operational emissions. New development may require further environmental review and mitigation. The District makes the following recommendations regarding future development:
 - A. Accurate quantification of health risks and operational emissions requires detailed site specific information, e.g. type of emission source, proximity of the source to sensitive receptors, and trip generation information. The required level of detail is typically not available until project specific approvals are being granted. Thus, the District recommends that potential health risks be further reviewed when approving future projects, including those that would be exempt from CEQA requirements. Specific consideration should be given when approving projects that could expose sensitive receptors to toxic air contaminants (TACs). If the analysis indicates that TACs are a concern, the District recommends that a Health Risk Assessment (HRA) be performed. If an HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. If there are questions regarding health risk assessments, please contact Mr. Leland

Sayed Sacredin
Executive Director/Air Pollution Control Officer

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4800 Enterprise Way
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Central Region (Main Office)
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Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org

www.healthyairliving.com

Villalvazo, Supervising Air Quality Specialist, at hramodeler@valleyair.org. Additional information on TACs can be found online by visiting the District's website at http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

- B. Construction Emissions – The DEIR concludes that some of the phases' construction emissions will have a potentially significant impact on air quality but with mitigation these impacts from construction exhaust would be reduced to a less than significant impact. In order to conclude that the construction exhaust emissions would be less than significant, mitigation measures reducing construction exhaust emissions must be fully enforceable through permit conditions, agreements, or other legally binding instruments (CEQA Guidelines §15126.4, subd.(a)(2)). Feasible mitigation of construction exhaust emission includes use of construction equipment powered by engines meeting, at a minimum, Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. The District recommends incorporating, as a condition of project approval, a requirement that off-road construction equipment used on site achieve fleet average emissions equal to or less than the Tier II emissions standard of 4.8 NOx g/hp-hr. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards.

In the DEIR it was stated (pg. 3-51):

The SJVAPCD does not have a threshold for PM10 but instead requires a series of rules known as Regulation VIII as seen in the tables listed below.

The SJVAPCD has an applicable threshold of significance of 15 tons per year for PM10; therefore those project phases that have emissions greater than 15 tons per year for PM10 will have a significant impact on air quality.

- C. In the DEIR it was stated (pg. 3-29):

This new rule applies to new developments that are over a certain threshold size. Any of the following projects require an application to be submitted unless the projects have mitigated emissions of less than two tons per year each of NOx and PM10. Projects that are at least:

- ☐ 50 residential units;
- ☐ 2,000 square feet of commercial space;
- ☐ 9,000 square feet of educational space;
- ☐ 10,000 square feet of government space;
- ☐ 20,000 square feet of medical or recreational space;
- ☐ 25,000 square feet of light industrial space;
- ☐ 39,000 square feet of general office space;
- ☐ 100,000 square feet of heavy industrial space; and
- ☐ Or, 9,000 square feet of any land use not identified above.

The two tons limit is not an exemption from submitting an application but an exemption from the Rule 9510 fees. The determination that a project may be less

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than two tons per year each of NOx and PM10 will be made by the District based on information provided on the application.

District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payments of applicable off-site mitigation fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building permit. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees before issuance of the first building permit, be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at: <http://www.valleyair.org/ISR/ISRHome.htm>.

- 4 cont.
- D. Individual development projects may also be subject to the following District rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). 5
- E. The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. 6
2. The General Plan is the blueprint for future growth and provides guidance for the community's development. The District is currently designated as extreme non-attainment of the federal national ambient air quality standard for ozone and non-attainment for PM2.5. Given the size of the project, it is reasonable to conclude that mobile source emissions resulting from growth and development would have significant impacts on air quality. To reduce the project related impacts on air quality the General Plan should include design standards that reduce vehicle miles traveled (VMT). VMT can be reduced through encouragement of mixed-use development, walkable communities, etc. Recommended design elements can be found on the District's website at <http://www.valleyair.org/ISR/ISROnSiteMeasures.htm>. 7
3. AB 170 (Reyes) requires cities and counties in the San Joaquin Valley to include an air quality element or air quality implementation strategies in their general plans. The District prepared the Air Quality Guidelines for General Plans (AQGGP) to assist in addressing this new requirement. The city is required to forward the air quality element or its equivalent to the District for review. The AQGGP can be found online at <http://www.valleyair.org/transportation/Entire-AQGGP.pdf>. 8

4. Referral documents for new development projects should include a project summary detailing, at a minimum, the land use designation, project size, and proximity to sensitive receptors and existing emission sources.
5. The District recommends that a copy of the District's comments be provided to the project proponent.

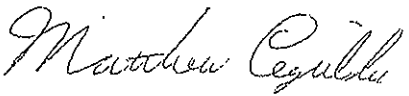
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If you have any questions or require further information, please call Matthew Cegielski at (559) 230-5907.

Sincerely,

David Warner
Director of Permit Services



for Arnaud Marjollet
Permit Services Manager

DW:mc

Letter 11



DEPARTMENT OF FISH AND GAME

DONALD KOCH, Director



Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
<http://www.dfg.ca.gov>

December 10, 2009

Briza Sholars
Fresno County Public Works and Planning
Planning and Environmental Analysis
2220 Tulare Street - 6th Floor
Fresno, California 93721

Subject: Friant Community Plan Update and Friant Ranch Specific Plan Draft
Program/Project Environmental Impact Report (DEIR);
SCH No. 2007101016

Dear Ms. Sholars:

The Department of Fish and Game has reviewed the DEIR submitted by Fresno County (County) for the above Project. The Project includes the Friant Community Plan Update and the Friant Ranch Specific Plan. The Friant Community Plan is Fresno County's adopted statement of policy for the growth and improvement of the unincorporated community of Friant. The Friant Ranch Specific Plan involves the development of a mixed use community including residential and commercial development on approximately 942 acres on the east side of Friant Road in the community of Friant.

The Department agrees with the assessment in the DEIR that Alternative 3 of the Specific Plan is the environmentally superior development alternative. However, the proposed mitigation measures for the Specific Plan are not fully developed. The measures should include a requirement that the applicant consult with the Department regarding "take" of State-listed species and the need for an Incidental Take Permit as well as the need to consult with Department prior to impacts to on-site drainages and waterways. Additionally, the Mitigation Monitoring Program incorrectly assigns California Environmental Quality Act (CEQA) Lead Agency responsibilities to the Department. Our specific comments follow.

Trustee Agency Authority: The Department is a Trustee Agency with the responsibility under CEQA for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is

Conserving California's Wildlife Since 1870

Briza Sholars
December 10, 2009
Page 2

responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities, as those terms are used under CEQA.

3 cont.

Responsible Agency Authority: The Department has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, pursuant to Fish and Game Code Section 2081. If the Project could result in the "take" of any species listed as threatened or endangered under the California Endangered Species Act (CESA), the Department may need to issue an Incidental Take Permit for the Project. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (Sections 21001(c), 21083, Guidelines Sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports a Statement of Overriding Consideration (SOC). The CEQA Lead Agency's SOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code Section 2080.

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The Department also has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource, pursuant to Fish and Game Code Sections 1600 et seq. The Department is required to comply with the CEQA in the issuance or the renewal of a Stream Alteration Agreement. Therefore, for efficiency in environmental compliance, we recommend that the stream disturbance be described, and mitigation for the disturbance be developed as part of the environmental review process. This will reduce the need for the Department to require extensive additional environmental review for a Stream Alteration Agreement for this Project in the future. For additional information on notification requirements, please contact our staff for the Stream Alteration Program at (559) 243-4593.

6

Potential Impacts and Recommendations

The mitigation measures for Specific Plan-related impacts to State- and Federally listed species do not include the requirement that the applicant consult with and obtain a permit from either the Department or the United States Fish and Wildlife Service (USFWS). The mitigation measures for the Community Plan Update include such a requirement but the requirement is not included in the Specific Plan measures. The Department recommends that the mitigation measures for each species whose presence is documented, assumed or likely to occur within the Project area include the requirement that consultation between the applicant and the Department occur and that a permit be obtained should "take" of the species occur.

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Briza Sholars
December 10, 2009
Page 3

California Tiger Salamander (CTS): In addition to being Federally threatened, this species is a candidate for State listing under CESA. This means the Department currently has jurisdiction over this species under CESA and depending on the outcome of the final listing status ruling (likely in February 2010), the Department could have jurisdiction over this species prior to Project development. Therefore, the Department should be consulted regarding potential impacts to this species and for permitting requirements well in advance of any potential Project-related impacts.

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Mitigation Measure #3.4.1d (3) includes compensatory mitigation ratios and proposes off-site lands to be used to partially mitigate for impacts to the species. If a State Incidental Take Permit is needed for this species, the permit and associated mitigation would need to meet the Department's "fully mitigate" standard and the amount of compensatory mitigation required would be determined during consultation with the Department. The inclusion of ratios and acreage values is premature without a permit from the Department being issued.

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Succulent Owl's Clover (*Castilleja campestris* ssp. *succulenta*): The DEIR states that direct "take" will be avoided but indirect "take" from water quality degradation in occupied wetlands could occur. The DEIR proposes the use of wetland buffers varying in size from 100 to 450 feet to reduce impacts to this species. Without further information including the size of the buffers proposed around occupied wetlands and the topographic relation of the wetlands to the developed area the Department is unable to determine that these buffers will be effective in eliminating "take" of succulent owl's clover. The applicant should consult with the Department regarding the potential for "take" of this species and the need for an Incidental Take Permit.

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Mitigation Monitoring Program (MMP): The MMP (Section 1.6; Table 1.1) includes the Department and the USFWS as responsible for "monitoring and reporting on the implementation of the mitigation measures" for biological resources. Under CEQA, monitoring and enforcement of mitigation measures required as a condition of Project approval and included in the CEQA document are the responsibility of the Lead Agency. The Department and USFWS are not responsible for monitoring and enforcement of CEQA mitigation. In the event that the Department issues a permit under CESA, mitigation enforcement for CESA compliance would be the responsibility of the Department. The mitigation measures in the DEIR are conditions of County approval and as such should be monitored by the County. The Department requests to be removed from the MMP as having monitoring responsibility for biological resource mitigation. As always, we are happy to advise and assist the County with biological issues as staffing resources allow.

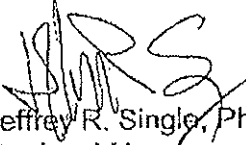
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Briza Sholars
December 10, 2009
Page 4

Proposed Effluent Site: The Specific Plan proposes to use the Beck Property, a former pit mine site, for disposal of treated effluent. It is unclear if the use of the former mine as a disposal site for effluent is consistent with the approved mine reclamation plan and the proposed end-use of that pit within that reclamation plan. The DEIR should present any potential inconsistencies with the proposed use of the mining pit and the reclamation plan. 12

If you have any questions regarding these comments, please contact Justin Sloan, Environmental Scientist, at the address provided on this letterhead or by telephone at (559) 243-4014, extension 216.

Sincerely,


Jeffrey R. Single, Ph.D.
Regional Manager

cc: State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, California 95812-3044

Kellie Berry
United States Fish and
Wildlife Service
2800 Cottage Way, W-2605
Sacramento, California 95825-1846

Department of Conservation
Office of Mine Reclamation
801 K Street, MS 09-06
Sacramento, California 95814

DEPOTS
CLOVIS
KINGSBURG
REEDLEY
SANGER
WESTSIDE

Consolidated Mosquito Abatement District

DISTRICT OFFICE
2425 FLORAL AVENUE
MAIL: P.O. BOX 278
SELMA, CALIFORNIA 93662
(559) 896-1085
(559) 868-2619
FAX (559) 896-6425

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December 11, 2009

Briza Sholars, Planner
Fresno County Dept of Public Works and Planning
Planning & Environmental Analysis
2220 Tulare St 6th Floor
Fresno, CA 93721

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

Re: EIR # 5481, Friant Community Plan Update and Friant Ranch Specific Plan.

The Consolidated Mosquito Abatement District (District) is a local government agency charged by the California Health and Safety Code to protect the public, in our jurisdiction, from nuisance and disease caused by mosquitoes. The above referenced project is in the District's jurisdiction, and we are concerned with the potential for the stormwater management design to produce mosquitoes, which are vectors of public health significance. The stormwater management policies and practices delineated in the EIR do not address the important public health issue which is to prevent the production of habitat for mosquitoes and other vectors.

Stormwater management systems are primarily designed to manage runoff from rainfall events. Springtime rains provide the water necessary for mosquito production at the same time of the year that mosquitoes are becoming active. Other sources of runoff that frequently occur throughout the summer come from the overwatering, and overspray of landscape, both public and privately owned. As a result of the continual flow of water through stormwater systems, many of the facilities designed to reduce sediment and other pollutant loads in runoff frequently hold water for more than three days, creating potential mosquito breeding habitats. This in turn leads to the potential for vector-borne diseases such as West Nile virus.

To prevent the proposed stormwater management facilities from providing vectors with breeding habitats and to protect residents from the potentially significant adverse impacts caused by mosquitoes and vector-borne diseases, we recommend the following:

1. The Applicant and Fresno Co. Planning Dept. Staff, or appropriate representatives meet with District staff for the purpose of developing and defining mosquito control mitigation measures specific to each stormwater management practice.

2. Implementation of District-approved mosquito control mitigation measures as a condition of approval for the project.

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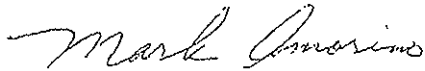
3. The Applicant make resources available for the ongoing operation and maintenance of stormwater facilities including clearing excessive vegetation and other debris in order to minimize standing water build-up and facilitate mosquito control.

3

Additionally, the District will require access to all stormwater management facilities, public and private, to survey for the presence of mosquitoes and vector-borne diseases. Thank you for the opportunity to comment on this project, if you have any questions please call me at (559)896-1085.

4

Sincerely,



Mark Amorino
Field Supervisor



RESOURCE MANAGEMENT AGENCY PLANNING DEPARTMENT

Norman Allinder, AICP
Director

Letter 13

- 2037 W. Cleveland Avenue
- Mail Stop G
- Madera, CA 93637
- (559) 675-7821
- FAX (559) 675-6573
- TDD (559) 675-8970
- mc_planning@madera-county.com

December 13, 2009

Briza Sholars, Planner
Fresno County Public Works and Planning Department
Planning & Environmental Analysis
2220 Tulare Street - 6th Floor
Fresno, CA 93721

RE: EIR# 5481, Friant Ranch
Community Plan Update and
Specific Plan

Dear Ms. Sholars:

We have received the Notice of Availability on the Program/Project Draft Environmental Impact Report regarding the Friant Community Plan Update and Friant Ranch Specific Plan. We have thoroughly reviewed the Draft EIR and the supporting documents. In regards to Madera County, both the Draft EIR and the traffic impact study indicated many significant impacts to Madera County's circulation system to the west of the project area. Already heavily impacted road segments and intersections will experience a dramatic increase in volume as a result of the project.

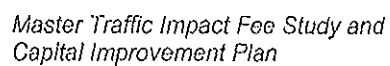
Fortunately, Madera County has recently finished a detailed road impact study based off of County policy. The study concluded with the recent adoption of an impact fee to be assessed to all new development in the "South 41" area, which includes the greater Rio Mesa planning area. The table attached shows the fees adopted for South 41, which is shown as "SR 41 South 145" in the table. The attached map shows impact fee areas adopted. In reviewing the environmental documents, we have noticed that the proposed project will involve impacts to the same road system analyzed in the SR 41 South 145 area, including Highway 41 from Fresno County north to Highway 145, Highway 145 from Highway 41 to Road 206, and Road 206. Due to the significant impacts spread out over the same area, the studied and adopted impact fee should be further assessed to Friant Ranch to alleviate all significant impacts. We appreciate the opportunity to respond to the Notice of Availability and await your favorable response. If you have any questions, please contact me (559-675-7821).

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Harmstead".
SCOTT HARMSTEAD
Planner III

Assumes Additional Trips and Increased Housing Trip Cost (+58%) & Reduced Other Land Use Costs (-51%)

Assumes Additional Trips and Increased Housing Trip Cost (+53%) & Reduced Other Land Use Costs (-51%)											
Land Use	ITE Code	Units	Daily Trip Generation	Adjusted Daily Trips / Net Trips ±1	FEE PER DAILY TRIP			FEE PER LAND USE			
					Valley Fir SR 99	NEW SR 41 SO 145	NEW SR 41 NO 145	Valley Fir SR 99	NEW SR 41 SO 145	NEW SR 41 NO 145	
RESIDENTIAL											
Single Family Detached - per unit	210	d/u	9.57		\$432	\$950	\$672	\$4,136	\$9,091	\$6,432	
Residential Condominium/Townhouse	230	d/u	5.86		\$432	\$950	\$672	\$2,533	\$5,567	\$3,938	
Multi-Family - per unit	220	d/u	6.72		\$432	\$950	\$672	\$2,905	\$6,384	\$4,516	
Mobile Home Park - per unit	240	d/u	4.99		\$432	\$950	\$672	\$2,157	\$4,740	\$3,354	
Assisted Living - per unit	254	d/u	2.74		\$432	\$950	\$672	\$1,184	\$2,603	\$1,842	
INDUSTRIAL											
Gen. Light Industrial / Industrial Park	110	1000 ft	6.97	5.41	\$134	\$295	\$208	\$860	\$1,889	\$1,337	
Gen. Heavy Industrial	120	1000 ft	4.00	3.68	\$134	\$295	\$208	\$493	\$1,084	\$767	
Business Park	770	1000 ft	12.76	11.74	\$134	\$295	\$208	\$1,574	\$3,458	\$2,447	
Mini-Warehouse	151	1000 ft	5.00	4.60	\$134	\$295	\$208	\$617	\$1,355	\$959	
RETAIL/COMMERCIAL											
Retail Shopping	820	1000 ft	42.94	23.50	\$134	\$295	\$208	\$3,150	\$6,923	\$4,898	
New and Used Car Sales	841	1000 ft	33.34	25.01	\$134	\$295	\$208	\$3,352	\$7,366	\$5,212	
Service Station	945	Fuel Station	150.00	21.00	\$134	\$295	\$208	\$2,815	\$6,187	\$4,377	
Convenience Retail	852	1000 ft	40.00	9.60	\$134	\$295	\$208	\$1,287	\$2,828	\$2,001	
OFFICE											
Office	710	1000 ft	11.01	9.58	\$134	\$295	\$208	\$1,284	\$2,822	\$1,997	
MEDICAL											
Medical Offices	720	1000 ft	36.13	27.10	\$134	\$295	\$208	\$3,632	\$7,983	\$5,648	
Hospitals	610	1000 ft	17.57	13.53	\$134	\$295	\$208	\$1,813	\$3,986	\$2,820	
Nursing Homes	620	1000 ft	6.10	4.51	\$134	\$295	\$208	\$605	\$1,330	\$941	
INSTITUTIONAL											
Religious Institution	560	1000 ft	9.11		\$134	\$295	\$208	\$1,221	\$2,684	\$1,899	
HOUSING											
Hotel/Motel	310	Room	8.92	6.33	\$134	\$295	\$208	\$849	\$1,866	\$1,320	



Letter 14



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT


HEALTHY AIR LIVING™

December 14, 2009

County of Fresno
Department of Public Works and Planning
Development Services Division
2220 Tulare Street, 6th Floor
Fresno, CA 93721
Attention: Briza Sholars, Planner III

RECEIVED
DEC 15 2009

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

Re: Transportation Conformity Review for Friant Ranch EIR

Dear Ms. Sholars:

The San Joaquin Valley Air Pollution Control District (District) thanks you for the opportunity to review the Friant Community Plan and Friant Ranch EIR.

The conclusion paragraph on page 3-57 states that "there are no known additional feasible mitigation measures which will reduce the impact to a less than significant level. These projects will create a **significant** impact in regards to the area and operational emission content. While the following mitigation measures won't reduce the impact to a less than significant level, they are included to reduce air quality impacts as a result of the proposed project."

The District encourages you to work with Fresno COG to minimize the project's impact on air quality and the potential to cause an exceedance of the transportation emissions budgets for Fresno County. For more information on the Conformity Budgets, please look in the SJVAPCD 2007 Ozone Plan.

Thank you for your consideration of the above comments.

Please feel free to contact me at (559) 230-5832 or Lucinda.Roth@valleyair.org if you have any questions or concerns.

Sincerely,

Lucinda Roth
Plan Development Supervisor

cc: Arnaud Marjollet

Sayed Sadredin

Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

Dumna Wo-Wah Tribal Government**Feb. 1, 2010****Comments on:**

**Friant Ranch Environmental Impact Report No. 5481, General Plan
Amendment Application No. 511, and Amendment Application No. 3751**

Mitigation Measure #3.5.1b: A qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by the developer to monitor construction activities around the significant cultural resource site (CA-FRE-2653) to ensure that there is no impact to any significant cultural resource. Prior to construction, the developer shall consult with a designated representative of the Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.

Mitigation Measure #3.5.1c: Cultural resource sites protected pursuant to mitigation measure 3.5.1a (1) shall be protected after development from vandalism, illicit excavation or artifact collection. The County shall discuss measures for long-term protection with the Dumna Wo-Wah Tribal Government, and an appropriate plan for permanent protection of the resource shall be instituted by the developer prior to issuance of building permits for the Friant Ranch Specific Plan. The final plan could include any or all of the following: permanent fencing; funding for permanent maintenance of the fencing; annual or semi-annual monitoring by archaeologists and/or by the Dumna Wo-Wah Tribal Government, with reports filed with the County and other agencies.

Mitigation Measure #3.5.1d: During construction within the Friant Ranch Specific Plan Area, protected cultural resource sites (including CA-FRE-2651, -2652, -2653) shall be protected from vandalism, illicit excavation or artifact collection, or inadvertent direct impact. This may be accomplished in part through the installation of orange protective fencing prior to initiation of any construction activities within 200 feet of the site area.

Mitigation Measure #3.5.1e: If unknown cultural resources are discovered during Project construction, all work in the area of the find shall cease, and a qualified archaeologist and a member of the Dumna Wo-wah Tribal Government shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 100 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of

Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.

Mitigation Measure #3.5.1f: Construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the Project Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any construction within the Project area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Mitigation Measure #3.5.1g: If unknown cultural resources are discovered during future development in the existing Friant Community Plan Area, including the Depot parcel, all work in the area of the find shall cease, and a qualified archaeologist and Dumna Wo-Wah Tribal Government Monitor shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 100 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.

Mitigation Measure #3.5.1h: Future construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the existing Friant Community Plan Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any future construction within the existing Friant Community Plan Area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Effectiveness of Mitigation: Implementation of the mitigation measures above will reduce the potential impacts to cultural resources to a *less than significant level*.

1
cont.

Impact #3.5.2 – Disturbance of Human Remains

[Evaluation Criteria (d)]

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 et seq. of the California Public Resources Code and Sections 7050.5, 7051, and 7054 of the California Health and Safety Code. Disturbing human remains could violate these provisions, as well as destroy the resource. Human remains may be present at the significant cultural resource site (CA-FRe-2653), and it is possible that historic period or prehistoric period interments are present elsewhere in the Project Area. If the significant cultural resource site (CA-FRe-2653) is protected as described in the mitigation measures above, then there should be no impact to human remains. If human remains are found outside of the significant cultural resource site (CA-FRe-2653), potential significant impacts related to the inadvertent discovery may result unless mitigated. Mitigation Measure 3.5.1b, set forth above, provides for consultation with the Dumna Wo-Wah Tribal Government to ensure that appropriate steps are taken in the event human remains are inadvertently discovered during construction activities.

Conclusion: Construction activities under the Project could result in the disturbance of human remains. This impact is *potentially significant* and the following mitigation measure is required to address the impact.

Mitigation Measure #3.5.2: If human remains are encountered during Project construction, all work shall cease within 100 feet of the find and the Fresno County Coroner's Office shall be contacted and procedures implemented pursuant to California Public Resources Code Section 5097 et seq. and California Health and Safety Code Sections 7050.5, 7051, and 7054 with Respect to treatment and removal, Native American involvement, burial treatment, and re-burial, if necessary.

Effectiveness of Mitigation: Implementation of the mitigation measure above will reduce the potential impact to a *less than significant* level.

We have spoken to Bob Pennell of the Table Mountain Rancheria, and he will be recommending to The TMR Council:

We (The Dumna Wo-Wah Tribal Government) “contract to be the on site monitors and that TMR be allowed to visit the site periodically and be kept apprised as to any findings, including final reports and mitigation planning”.

We are in agreement with this and see no problem in the sharing of information.

The above changes are mainly in the responsible Contact and Monitoring parties as well as distance from resources, should there be inadvertent discoveries.

We would strongly recommend that a regional study on impacts to Cultural Resources be implemented by the County, and that study be made available to the Native American Tribes who have so much at stake by the Regional Impacts.

We would like to be consulted, prior to any projects within the Friant Development Plan, as well as projects within Fresno County.

Just a reminder; the release of confidential information, Archaeological Reports, is against the SB18 requirements as well as the Statement by the SHPO and the Attorney General. All Lead agencies will be held accountable should this happen again.

There was an obvious oversight by Fresno County when in late 2009 an entire Archaeological report was released to members of the community and posted on the Fresno County website. In the near future we would like to discuss the necessity of a MOU between our Government and the Fresno County Government regarding these issues.

Thank you for the opportunity to comment, and the kind gesture of extending the comment period to address these issues.

With Respect,

Robert Ledger, Chairperson

Jim Redmoon, Cultural Resources Manager

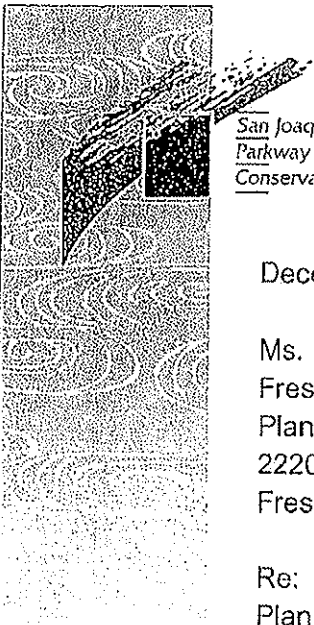
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San Joaquin River
Parkway and
Conservation Trust, Inc.

December 15, 2009

Ms. Briza Sholars, Planner
Fresno County Public Works and Planning Department
Planning & Environmental Analysis
2220 Tulare Street - 6th Floor
Fresno, CA 93721

Re: EIR# 5481 Friant Community Plan Update & Friant Ranch Specific Plan

Dear Ms. Sholars:

Thank you for the opportunity to submit comments on the Friant Community Plan and Friant Ranch Specific Plan. The San Joaquin River Parkway & Conservation Trust is a 501(c)3 nonprofit founded in 1988. Our mission is to preserve and restore San Joaquin River lands of ecological, scenic or historic significance; to educate the public on the need for stewardship; to research issues affecting the river; and to promote educational, recreational and agricultural uses of the river bottom consistent with protection of the river's resources. Our supporters expect us to be the "voice of the river," and comment on projects that may impact the health of the river, riverbottom lands and related upland habitats. Accordingly, we provide the following comments:

1. Friant Ranch, like many other proposed developments in the area, will benefit from the close proximity of Lost Lake Park and other San Joaquin River Parkway facilities. Increased use generated by the project will impact these resources. We suggest that the County work with the project proponents to set up a community facilities district that will pay a fair share portion of operations and maintenance costs of the San Joaquin River Parkway.
2. The Friant Ranch project site contains significant vernal pool habitat and vernal pool dependent species. Vernal pool creation has not proven to be an effective method of replacing the disturbed or destroyed vernal pool wetlands. We therefore recommend avoidance of all 14.38 acres of vernal pool habitat on the project site.

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CREATING AND PROTECTING THE SAN JOAQUIN RIVER PARKWAY

11605 Old Friant Road • Fresno, California 93730-9701 • 559-248-8400 • Fax: 559-248-8174 • www.riverparkway.org

3. In the mitigation monitoring program, all of the mitigation measures relating to *Impact #3.4.1 - Impacts to candidate, sensitive, or special status species* should include a measure stating: A qualified biologist shall conduct a training program for all construction contractors that shall be working on the project to inform workers of the need to avoid [insert name of *candidate, sensitive, or special status species*] and the possible penalties for not complying with these requirements. The training program must include information on the [insert name of *candidate, sensitive, or special status species*] such that a person unfamiliar with the species will be able to recognize it if encountered on the project site.
4. The water supply assessment provided to meet the requirements of SB 610 leaves significant unanswered questions about the sufficiency of the water supply to meet projected water demands. The proposed water supplier, Wastewater District 18, currently has a contract for 150 acre feet of Friant Division water, and provides water to 219 residential and 19 commercial/industrial customers. The Friant Ranch project at full buildout will require delivery of approximately 2000 acre feet per year to more than 2000 customers. It is unknown whether WWD 18 has the technical and managerial capacity to handle such a significant increase in services.
5. The water supply that is relied upon for the project is based on a letter of intent with the Lower Tule River Irrigation District that refers to a *formal water supply agreement which will contain definitive terms covering the water supply and terms...* Until the formal water supply agreement is drafted and executed, the water supply for the project appears somewhat uncertain, and therefore does not meet the intent of SB 610.
6. We strongly object to the alternative location of the wastewater treatment plant on the Beck property, west of Friant Road. Although the alternative location places the treatment plant slightly farther away from the San Joaquin River when measured in feet, the alternative location provides a significantly greater risk of contamination in the case of an accidental release of untreated sewage. Friant Road provides a significant constructed barrier between the WWTP and the San Joaquin River, including Lost Lake Park. Although the treatment plant will provide tertiary sewage treatment and the opportunity for beneficial use of treated wastewater, raw sewage will have to be pumped under Friant Road, *into the river bottom adjacent to Lost Lake Park*. While this may not pose a problem under normal operations, in the event of a pipe breakdown or other catastrophic failure of the system, untreated sewage would be introduced into the riverbottom adjacent to one of the largest parks along the San Joaquin River Parkway.
7. The hazardous materials analysis in the discussion of the alternate WWTP location states that mitigation measures 3.7.6a-b address emergency preparedness related to hazardous materials release by the WWTP. The cited mitigation measures speak to fire and police response, and do not appear to have any relationship to spills of hazardous materials. We suggest that any

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project approvals be contingent upon the use of the original Wastewater Treatment Plant location as analyzed in Appendix G of the DEIR.

7 cont.

Thank you for your consideration of these comments. If you have any questions or need further information, please contact me at sweaver@riverparkway.org or (559) 248-8480 extension 105.

Sincerely,



Sharon Weaver
Deputy Director

cc: Dennis Bacopulos, Friant Ranch L.P.
Bryan Wagner, Wagner & Wagner



Letter 17

December 15, 2009

Briza Sholars, Planner
Fresno County Public Works and Planning Department
Planning & Environmental Analysis
2220 Tulare Street – 6th Floor
Fresno, CA 93721

Subject: Draft EIR No. 5481 for the Friant Community Plan Update & Friant Ranch Specific Plan – East of San Joaquin River approximately nine miles north of the City of Fresno

Dear Ms. Sholars:

The purpose of this letter is to provide the comments of the Clovis Unified School District on the Draft Environmental Impact Report prepared for the Friant Community Plan Update and Friant Ranch Specific Plan.

In order to provide the most up-to-date and accurate information for the Draft EIR, the relevant portions of the document should be revised to reflect the following information:

School Capacity and Enrollment

The Draft EIR should be revised to reflect the following information regarding school capacity and enrollment for District schools serving the project area:

School	Enrollment (CBEDS 2009-10 Data)	Capacity
Liberty Elementary School	530	648
Kastner Intermediate School	1,156	1,331
Clovis West High School	2,442	2,769

Student Generation

As discussed in the Draft EIR, student generation from the proposed project will result from 230 multiple family residential units (without age restrictions) within the Friant Specific Plan Area. Additional residential development could also occur within the approximately 18 acres of Low Density, five acres of Medium Density, and eight acres of Medium High Density of vacant and available land located in the Friant Community Plan Area. The low and medium density units (totaling 46 units) were classified as single family and the medium high density units (totaling 116 units) were classified as multiple family units.

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Michelle Steagall, Ed.D.
Associate Superintendent
Steve Ward
Associate Superintendent
Janet Young, Ed.D.
Associate Superintendent

Based on the District's current student generation rates (see table below), the proposed project would generate 72 grade K-6 students; 20 grade 7-8 students; and 30 grade 9-12 students.

**Clovis Unified School District
STUDENT GENERATION RATES**

Grade Level	Single Family Units	Multiple Family Units
Elementary (K-6)	.3785	.1547
Intermediate School (7-8)	.0922	.0473
High School (9-12)	.1725	.0645
Total (K-12)	.6432	.2665

School Facilities Fees

Although Government Code section 65995.1 limits school fees assessed against age restricted 55+ developments to the maximum rate allowable for commercial/industrial buildings, the District exempts this type of housing from the payment of school facilities fees. However, in order to be exempt from fees, the property owner must enter into a Secured Agreement with the District, provide evidence of the conditional use permit or other entitlements required for senior housing, and a statement of the restrictions on occupancy applicable in the development. If the units are later converted to non age restricted housing, developer fees would be collected at the rate in effect at the time of conversion prior to the release of the lien.

It is stated on page 3-268 that the school facilities fee charged for residential development is \$3.26 per square foot. The fee charged as of July 1, 2009 is \$3.23 per square foot.

Thank you for the opportunity to comment on the Draft EIR. Please contact me if you have any questions regarding this letter.

Sincerely,



Steve Ward
Associate Superintendent
Administrative Services

2 cont.

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NATURAL RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, GOVERNOR

**DEPARTMENT OF CONSERVATION****DIVISION OF LAND RESOURCE PROTECTION**

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0550 • FAX 916 / 327-3430 • TDD 916 / 324-2655 • WEBSITE conservation.ca.gov

Letter 18

December 15, 2009

VIA FACSIMILE (559) 262-4893

Briza Sholars, Planner III
County of Fresno
Department of Public Works and Planning
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Subject: Friant Community Plan Update & Friant Ranch Specific Plan
SCH# 2007101016

Dear Ms. Sholars:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Draft EIR for the Friant Community Plan update & Friant Ranch Specific Plan. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.

Project Description

The project is located on land adjacent to the unincorporated community of Friant in north-central Fresno County. The Friant Community Plan Update proposes expansion of the Friant Community Plan Area boundaries to encompass approximately 1,804 acres, which will include the proposed 942.2 acre Friant Ranch Specific Plan Area.

The proposal also includes development of a master planned community adjacent to the existing community of Friant. The master planned community includes 2,683 single-family units, 263 multiple-family units, and 250,000 square feet of commercial within a Village Core that also provides an additional 50 residential units.

The majority of the Friant Ranch Specific Plan Area is designated Agriculture in the Fresno County General Plan. The Project will result in the conversion of an existing agricultural use (grazing land) to residential, commercial, recreation, open space and public uses. This conversion to non-agricultural uses would result in the loss of approximately 670 acres currently used as grazing land within the Friant Ranch Specific Plan Area.

Ms. Briza Sholars
December 15, 2009
Page 2 of 3

Department Comments:

Agricultural Description of the Project Site

The Physical Setting under the Agricultural Resources section (page 3-22) describes the property as follows:

"According to the California Department of Conservation, there are three types of farmland categories in the Project Area boundary: Grazing Lands throughout the Friant Ranch Specific Plan Area, Prime Farmland and Farmland of Local Importance within the Friant Community Plan Area to the southwest of Friant Ranch, and a small piece of land designated as Farmland of Statewide Importance within the Friant Community Plan Area to the southwest of Friant Ranch, which is not utilized for agriculture. In fact, this Prime Farmland within the Friant Community Plan Area to the southwest of Friant Ranch, including the small piece of land designated as Farmland of Statewide Importance, is subject to sand and gravel excavation which will effectively negate the Prime and Statewide Important Farmland designations."

The Division does not agree with this assessment. Sand and gravel mining operations are a very common permitted use on agricultural land throughout the State and are at times done simultaneously with agricultural operations. They are considered temporary in nature and once completed, agricultural lands can be returned back to their original use. Therefore the Prime and Statewide Important Farmland designations are still considered viable.

Under Impact #3.2.1 the conclusion states, "The conversion of non-prime and non-important agricultural land does not result in a significant impact to agricultural resources."

The Division does not agree with this assessment. Grazing land is still considered an agricultural resource and non-prime farmland is still farmland (Unique, Statewide, or Local). If property is being used for agricultural purposes (grazing), then it still has agricultural value. Therefore, we suggest that mitigation measures be applied for the conversion and loss of agricultural land.

Mitigation Measures

The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. As such, the Department recommends the use of permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land. If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with California Environmental Quality Act (CEQA) Guideline §15370. The Department highlights this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that for wildlife habitat mitigation.

Ms. Briza Shofari;
December 15, 2009
Page 3 of 3

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands can be conducted regionally or statewide, and need not be limited strictly to lands within the project's surrounding area.

The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website:

<http://www.conservation.ca.gov/illrp/index.htm>

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

Thank you for giving us the opportunity to comment on this Draft EIR for the Friant Community Plan Update & Friant Ranch Specific Plan. Please provide this Department with the date of any hearings for this particular action, and any staff reports pertaining to it. If you have questions regarding our comments, or require technical assistance or information on agricultural land conservation, please contact Meri Meraz, Environmental Planner, at 801 K Street, MS 18-01, Sacramento, California 95814, or by phone at (916) 445-9411.

Sincerely,



Dan Otis

Program Manager

Williamson Act Program

cc: State Clearinghouse

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Letter 19



Andrew T. Souza
City Manager

RECEIVED
COUNTY OF FRESNO

DEC 15 2009

DEPARTMENT OF PUBLIC WORKS
AND PLANNING
DEVELOPMENT SERVICES DIVISION

December 15, 2009

Briza Sholars, Planner
Fresno County Public Works and Planning Development
2220 Tulare Street, 6th Floor
Fresno, CA 93721

SUBJECT: Draft Environmental Impact Report, Friant Community Plan Update and Friant Ranch Specific Plan, State Clearing House No. 2007101016

Dear Ms. Sholars:

This letter contains the City of Fresno's (City) comments on the Draft Environmental Impact Report (EIR) for the Friant Community Plan Update (Community Plan) and the Friant Ranch Specific Plan (Specific Plan) prepared by the County of Fresno (County).

The City strongly objects to the Project, which involves a huge expansion of urban growth within the County in an area currently zoned for agricultural use without available public services. The Project violates fundamental principles of the County and City General Plans and the Memorandums of Understanding (MOU) between the County and cities. These documents direct urban development to existing cities and urbanized areas which have available service capacity to accommodate such development. They focus on preserving agricultural land and environmental resources. The Project completely contradicts these principles, not to mention the purpose and intent of SB 375, which requires local agencies to develop regional targets and plans to reduce greenhouse gas emissions from land use and transportation. The Project expands the Community Plan area over 1800 acres and rezones over 900 acres of agricultural land to residential and commercial use. It significantly expands urban development outside the existing Friant community. It will increase the population in the area from 519 to 6,000 and housing units from 236 to almost 3,000. There is no available service capacity in the area for this very large development, so the Project requires building a new wastewater treatment facility, expanding the existing water treatment facility, and importing water from another county/ watershed.

Given the extent of development proposed and its location, it should come as no surprise that the EIR identifies a massive amount of environmental impacts from the Project. The EIR identifies significant impacts in almost all areas (including many significant and unavoidable impacts) and contains numerous mitigation measures. Despite this, the EIR fails to adequately disclose and

City of Fresno

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address all significant environmental impacts and includes many mitigation measures, which will not result in reducing these impacts to less than significant. These impacts will adversely affect City and County residents and impede the City's plans for future development.

The City respectfully requests that the County reconsider moving forward with this Project. If the County decides to continue to go forward with this Project, the Draft EIR needs to be substantially revised and recirculated because, as explained below, it substantially understates the significant impacts of the Project, contains inadequate mitigation measures, and, overall, fails to meet the requirements of the California Environmental Quality Act (CEQA).

General Comments:

The level of detail and amount of information provided in the EIR on Project components do not support project-level review for the Specific Plan. Although the EIR states that it contains project-level review for the Specific Plan, the analysis does not meet the CEQA standard. This is of particular concern because the EIR states that it will be relied on for the CEQA environmental review for the implementation of the Specific Plan project with no further analysis required (esp. given the state law exemption for residential projects that are part of a specific plan with a certified EIR). As currently drafted, the EIR cannot be relied upon for implementation of the Project, including the Specific Plan, and further CEQA environmental review will be required.

As an example, one Project component for which the EIR purports to provide detailed project level review is "a land use designation and zone change" for the Depot Parcel. However, full extent of the Project's proposal for the Depot Parcel is not clear, since the Air Quality chapter of the EIR states that "[t]he Depot Parcel consists of: 73,508 [square feet] of shopping center use . . ." The EIR is entirely inadequate as a project level evaluation of development of a 70,000+ square foot shopping center project on the Depot Parcel site. The EIR provides absolutely no information about the physical configuration of, or anchor tenants for a shopping center proposal for the Depot Parcel site. Therefore, the EIR cannot possibly provide project level analysis of the environmental impacts of such a specific development proposal.

The EIR contains no information on the Development Agreement. Therefore, the approval of the Development Agreement cannot rely on the EIR for its environmental review to the extent its impacts are not analyzed in the document.

The Project Objectives are too narrow and basically recite the elements of the Project. It is a violation of CEQA to tailor Project Objectives to the specific project being proposed which constrains the proper consideration of alternatives. The improper Project Objectives allow the County to reject consideration of certain alternatives as "not meeting the Project Objectives."

The EIR must analyze whether the approval of the Specific Plan will contribute to further blight or urban decay within the Friant Redevelopment Project Boundary by concentrating new development outside the Redevelopment Project Plan Area. The EIR contains no analysis of this potential significant impact. It also does not provide the text of the Friant Redevelopment Plan commercial development standards that are proposed to be repealed and analyze the effect of the repeal on the redevelopment goals and policies.

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The analysis of growth inducing impacts is cursory and completely inadequate. The Project will have significant growth-inducing impacts due to the expansion of public services available in this unincorporated area, especially wastewater treatment and water services. For instance, according to the Municipal Service Review prepared by LAFCO, dated July 2007, Waterworks District 18, the district that will provide water service for this project, currently, encompasses 444 acres and services 234 customers. As such, this project will increase the number of the district's customers in excess of tenfold. These new services and related infrastructure will induce new growth in the entire Community Plan area and beyond. The impacts of this future growth should be analyzed in the EIR.

There is no discussion in the EIR of preliminary consultation by the County with the DWR, RWCB, or the Department of the Interior to investigate the adequacy of the Project's water supply plan or its wastewater discharge plan. Furthermore, the EIR fails to provide any performance history of Waterworks District 18, or provide evidence of its ability to meet regulatory standards. The EIR also needs to describe any impacts to the existing aged water distribution system as a result of the proposed new development and infrastructure.

Chapter 3.1 Aesthetics

County General Plan Policy OS-L.3 requires that development proposals of more than four lots be designed to "blend in" to the natural landscape and minimize scarring of vegetation and terrain. The EIR claims that the Friant Ranch Project will "preserve the integrity of the existing terrain and natural vegetation in visually sensitive areas." Yet it is impossible to judge the accuracy of this claim, since the EIR provides illustrations only of pre-Project conditions, without any illustration showing the effect of the Project on existing scenic vistas and visually sensitive areas. The EIR should be revised to provide this information in visual, illustrative form.

Chapter 3.2 Agricultural Resources

The EIR must include and analyze mitigation measures to address the significant impact from the rezoning of over 900 acres of Agricultural land to urban uses. The EIR does not contain any mitigation measures to address this significant impact because it states that no mitigation measures are "available". Therefore, the EIR identifies the impact as significant and unavoidable. CEQA requires that all feasible mitigation measures be adopted for any significant and unavoidable impact. So, the EIR must analyze any available feasible mitigation measures to reduce agricultural impacts. Examples of feasible mitigation measures to address the loss of agricultural land include, but are not limited to, protecting existing agricultural land from conversion through imposing easements or Williamson Act contracts, and adopting a fee mitigation program to fund permanent preservation of agricultural land. The EIR should evaluate these mitigation measures and the County should adopt any feasible mitigation measures. In addition, since the impact is significant and unavoidable, the EIR should evaluate alternatives that could reduce this impact, such as significantly reducing or eliminating the conversion of agricultural land included as part of the Project.

The EIR incorrectly concludes that the Project's conversion of agricultural land is consistent with the County General Plan. However, this agricultural land conversion violates central goals and policies of the General Plan to protect agricultural land, including Goal LU-A (promote long term conservation of productive and potentially productive agricultural land) and Policy LU-A.1 (County

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shall maintain agriculturally designated land for agricultural use and direct urban growth away from this land). The inconsistency with these policies is a significant environmental impact which requires mitigation.

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The EIR should evaluate the significance of impacts on agricultural land by using soils evaluation criteria (such as use of the Storie index) rather than solely relying on Statewide farmland maps. The lack of designation on the Statewide maps or historic use of the land for grazing does not conclusively determine its viability for agriculture.

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The EIR needs to provide further evidence to support its conclusion that the transfer of water from the Lower Tule River Irrigation District (LTRID) that currently serves agricultural users will not have a significant impact on agricultural. The statement that LTRID will use "supplemental" sources to replace water divert from these users is insufficient, especially given the significant uncertainties surrounding water available for agricultural users in the Central Valley (see comments on water supply analysis below).

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The EIR improperly ignores grazing land as a category of farmland worthy of conservation and fails to analyze or mitigate potential adverse impacts to grazing. Grazing is important to Central Valley agriculture. The 2008 Fresno County Crop & Livestock Report showed Countywide \$7.84 million revenue from beef calf production, \$31.55 million from feeder beef stock, and \$131.39 million from beef cattle slaughter stock. Due to parcelization on the Valley floor and concomitant loss of winter pasture, beef cattle raising is a threatened industry in the County. The EIR contains no data or analysis on the importance of the Project's valley land for the annual rotation of stock from high country (summer) pastures to winter pastures (winter pasture is needed due to snowfall in high country). The EIR does not provide any information on how this proposal could adversely affect supply of grazing land, particularly winter grazing land, in Fresno County. Current conditions are that the Friant Ranch is available for grazing and customarily leased for this purpose. Loss of grazing land from the Project cannot be dismissed as an impact simply because current zoning could allow 40-acre home sites, since grazing and livestock activities occurs on virtually all 40 acre grassland parcels in Fresno County.

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Chapter 3.3 Air Quality

The EIR purports to evaluate, as a standard of significance for air quality impacts, whether Project-related air pollution would result in exposure of sensitive receptors to substantial pollutant concentrations. Yet, in fact, while the EIR discusses the Project's construction and operational emissions, it does not provide any discussion of, or conclusions about, Project-related effects on air pollutant concentrations. Neither does the EIR identify any potentially affected sensitive receptors, nor does it conclude whether sensitive receptors would be exposed to substantial concentration levels. The County must revise the EIR to address this subject, and recirculate the document if any significant air pollutant concentration impacts are identified.

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The EIR also includes, among its standards of significance for air quality impacts, the potential for the Project to expose sensitive receptors or the general public to substantial levels of toxic air contaminants. Yet the EIR does not discuss or determine the significance of the Project's toxic air contaminant impacts. For instance, the bulk of the Project's traffic congestion would be occurring on

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roadways outside the project area, such as Friant Road, yet there is no CALINE 4 or diesel exhaust analysis on these congested segments and intersections to indicate what the health effects would be to Fresno residents and schoolchildren near Friant Road. Furthermore, under CEQA, the EIR must disclose the human health related effects of the Project's air pollution impacts. (CEQA Guidelines section 15126.2(a).) The EIR fails completely in this area. The EIR should be revised to disclose and determine the significance of TAC impacts, and of human health risks due to exposure to Project-related air emissions.

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An EIR is required to evaluate all foreseeable project activities and impacts, including both direct and indirect environmental effects of a Project. The EIR identifies the Project as having a growth-inducing impact, particularly on the area covered by the existing Friant Community Plan. In fact, a key objective of the Project is the "revitalization" of the existing Friant Community. Yet the EIR categorically excludes any evaluation of air quality impacts which will occur in the Community Plan area outside the Friant Ranch Specific Plan Area and the Depot Parcel. (See DEIR page 3-40.) This refusal to evaluate the foreseeable air quality impacts of the Project's "revitalization" of the existing Friant Community is a failure to evaluate a foreseeable environmental impact of the Project, and is fatal to the EIR.

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Impact area 3.3-1 purports to identify construction impacts related to a number of criteria pollutants, as well as particulate matter (PM₁₀) and Fine Particulate Matter (PM_{2.5}). Yet, in fact, the Air Quality chapter contains no disclosure, discussion, or significance determinations related to Project-related PM_{2.5}. The EIR must be revised to provide analysis of PM_{2.5} impacts.

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The EIR's discussion of construction and operational air emissions identifies a significant impact as (inter alia) a violation of SJVAPCD emissions standards. The EIR sets out the federal and state ambient (concentration) thresholds for various pollutants in Table 3.3-1, but does not present the emissions thresholds for CO, ROG, NOx, PM₁₀ or PM_{2.5}. The EIR should be revised to provide that information.

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The EIR's discussion of construction emissions understates and conceals Project impacts by artificially breaking construction of the Project into five discrete "phases" which are each discussed in a vacuum, without reference to *contemporaneous* construction emissions from other "phases." For example, by disclosing and evaluating the air emissions associated with "phase 1" (2010 – 2012) separately from "phase 2" (2011 – 2015), the EIR fails to disclose the *total* construction emissions that will occur during the years when phases 1 and 2 are *both* occurring (2011 and 2012).

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The same is true for 2013 – 2014 (when phases 2 and 3 will overlap), 2015 (when phases 2, 3 and 4 will overlap) 2016 (when phases 3 and 4 will overlap) 2017 (when phases 4 and 5 will overlap) and 2020 (when phase 5 will overlap with construction of shopping center on the Depot Parcel). By segmenting construction of the Project in this manner, the EIR conceals the total level of emissions that will result from Project construction in the years in which phases overlap, and thereby substantially under-reports the Project's significant construction emissions impacts. This segmentation furthermore calls into question the EIR's determination that construction emissions under phases 3 and 4 will be less than significant, since construction emissions under both of those phases will overlap with significant construction emissions impacts under phase 2. The EIR must be revised to disclose and determine the significance of all contemporaneously occurring Project-related construction emissions. Finally, the EIR must be revised to disclose and determine the

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significance of the Project's *total* air emissions, in years when Project *construction* emissions overlap with Project *operational* emissions.

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Phase 1 construction emissions are determined to be significant and unavoidable, even after the application of Option 2 (enhanced mitigation) measures. Yet the mitigation described in the EIR for Phase 1 construction impacts requires "[u]se of diesel oxidation catalysts capable of a 15% - 40% reduction in NOx emissions on all diesel equipment." In light of the significance of this impact, a mitigation measure which allows such a broad range of emission reductions is insufficient. Unless and until the impact is reduced to less than significant, CEQA requires the County to impose all feasible mitigation. This mitigation measure must be revised to require the maximum feasible (40%) reduction in NOx (and other significant criteria pollutant) emissions.

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The EIR must also determine, on the basis of substantial evidence, that no additional feasible mitigation measures would further reduce or avoid the Project's air quality impacts which remain significant after imposition of the EIR's recommended mitigation measures. For example, the EIR must evaluate the feasibility of mitigating significant construction emissions impacts by requiring:

1) all heavy-duty diesel trucks to comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.

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2) Idling restrictions (maximum 5 minutes) on construction equipment, when not in use.

3) Construction equipment to incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.

4) "Other Construction Equipment Mitigation Measures," as listed in EIR Table 3.3-11. Since SJVAPCD requires the mitigation measures listed in Table 3.3-11 for significant construction-related air quality impacts, the EIR is deficient for not imposing them on significant Project construction emissions impacts.

EIR Table 3.3-10 additionally lists "Enhanced [PM] Control Measures" which "should be implemented at construction sites when required to mitigate significant PM₁₀ impacts." Yet EIR Table 1-1 does not list any of these "enhanced" control measures as being imposed on Project construction – even for significant PM impacts. These "enhanced" PM control measures must be imposed on Project construction.

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Table 3.3-10 furthermore identifies "Additional [PM] Control Measures," which are "strongly encouraged at construction sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions." The Project construction site is certainly large, and is likely located near sensitive receptors (although, as discussed above, the EIR provides no disclosure about potentially affected sensitive receptors). Yet Table 1-1 does not list any of these "additional" PM control measures as being imposed on Project construction, either. These "additional" PM control measures must also be imposed on the Project.

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Table 3.3-12 divides Project operations emissions into those under the Friant Ranch Specific Plan, and those under the Community Plan "outside the Friant Ranch Specific Plan." It is unclear from

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this table into which category the EIR places operational emissions from the Depot Parcel. The EIR elsewhere describes development of the Depot Parcel as included within the "project level" analysis which is afforded to the Specific Plan area. Yet 3.3-12 says that the Community Plan Area, *outside* the Friant Ranch Specific Plan Area, "includes the Depot Parcel." From this, it is unclear whether operational emissions from the Depot Parcel are being given general program level analysis or detailed project level analysis. Furthermore, since the shopping center which is apparently proposed for the Depot Parcel is not described in any detail in the EIR, it is unclear how operational emissions from that shopping center were determined, or even whether the EIR included operation of the shopping center when it estimated the Project's operational emissions.

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The EIR identifies a significant and unavoidable impact from Project operational emissions. The EIR imposes mitigation measure 3.3-2, which contains a laundry list of measures. The description of mitigation measure 3.3-2 states an "intent" that some of these measures will be imposed "during review of future project-specific submittals for non-residential development," though only "where feasible and appropriate." Other measures are to be imposed "as determined by the County in consultation with the APCD," although it is unclear when such consultation will occur. Additionally, the mitigation measure provides that "the County and SJVAPCD may substitute different air pollution control measures for individual projects, which are equally effective or superior to" the measures listed in mitigation measure 3.3-2. However, it is entirely unclear how the County and SJVAPCD will determine whether a proposed substitute measure is equally or more effective, since the effectiveness of the measures listed in mitigation measure 3.2 is not quantified or even qualitatively described. This mitigation measure is entirely inadequate for the Project's significant operational emissions impacts – particularly with regard to the activities purportedly receiving project level analysis in this EIR. Mitigation measure 3.3-2 improperly defers committing to specific mitigation measures, without committing to achieve a definite quantity of impact reduction in the EIR. It is therefore not a valid mitigation measure under CEQA.

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The EIR's analysis of Project odor impacts (Impact 3.3.3), while discussing relatively minor irritants such as barbecues, completely fails to address, or determine the significance of, odor impacts from the proposed wastewater treatment plant. This renders the odor impact analysis useless.

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Chapter 3.4 Biological Resources

Despite the numerous significant impacts on biological impacts documented in the EIR, it concludes that all impacts can be mitigated to less than significant. This conclusion is not supported for the vast majority of the impacted biological resources. As explained in more detail below, many of the mitigation measures lack detail and definiteness to determine how they will be implemented and their effectiveness. Others constitute deferred mitigation by requiring only the future development of certain "plans" without identifying elements of the plans or standards they must meet. Also, preservation of existing resources does not mitigate for the loss of resources. Only creation or restoration of resources to replace those lost constitutes mitigation under CEQA. Overall, the Project will result in many significant and unavoidable impacts on biological impacts that were improperly identified as less than significant with mitigation in the EIR.

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For vernal pools and the species they support (vernal pool fairy shrimp), the proposed mitigation is completely inadequate. The EIR does not explain why it is infeasible to design the Project to avoid

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impacts to all vernal pools. Preservation of existing vernal pools is not mitigation for filling pools. Creation and restoration are the only mitigations under CEQA. The EIR does not contain any standards for creation and restoration. It does not require that any created or restored wetlands have the functional and value equivalency to the destroyed pools. The option for mitigation through use of a conservation bank is similarly standardless because it does not establish criteria that the conservation bank must meet. Similarly, the "mitigation" through payment into a fund does not assure that the money will actually result in the creation of the required amount and quality of pools to mitigate the impact.

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The EIR does not analyze indirect impacts of the Project on vernal pools. The EIR must evaluate whether the Project's effects on the uplands and watersheds that support "preserved" vernal pools will have an adverse impact on these pools. Similarly, the EIR does not analyze whether the Grazing Management Plans and Open Space Access Plan required by mitigations will adversely affect the preserved pools. The EIR also does not properly analyze the impacts of storm water runoff on vernal pools. Storm water run-off may result in over-inundation of vernal pools or contamination from urban run-off. All these indirect impacts should be analyzed and mitigated.

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The mitigation measures which require the development of Drainage Plan to address the impacts of storm water runoff on resources is inadequate. The mitigation measure does not specify methods that the Drainage Plans must implement or set performance standards. Rather the Drainage Plans set aspirational and amorphous goals, such as "ensuring" that post-project runoff into open space will "mimic to the extent possible" pre-project conditions and run-off to vernal pools will be "roughly equivalent" to pre-project conditions. These measures are inadequate to assure less than significant impacts. Vernal pools are very sensitive resources and impacts to preserved pools can only be avoided if the amount and quality of water needed to support these resources and their species is mandated by strict standards. The absence of these standards violates CEQA.

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For impacts on the California Tiger Salamander (CTS) and the western spadefoot, the mitigation is inadequate because it relies on preservation of existing potential habitat and does not describe or explain why the preservation areas identified are adequate to support or do support the species. Again, preservation is not proper mitigation. The mitigation should specifically describe sites that have been evaluated for the presence or support of the species and how these sites will be managed to assure that they provide successful habitat for CTS breeding and aestivation and western spadefoot habitat.

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For the succulent owl's clover, it is unclear why the Project will not result in direct impacts to the species since the filling of wetlands and vernal pools (where this species is located) will occur under the proposed Project. It is also unclear how the mitigation requiring the development of a Land Management Plan, which is described in only very general terms, will mitigate any impacts. Both these issues need to be explained in more detail and the actual Plan needs to be included in the mitigation measure. The Plan should specify mandatory elements and actions, and the remedial actions that will be taken if the Plan fails, rather than just stating these elements will be developed. Also, a Management Plan to protect preserved resources does not mitigate for the loss of plants. The information in the EIR is insufficient to support a less than significant finding. The similar mitigation for the Hartweg's golden sunburst has these same deficiencies.

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The removal of 942.2 acres of foraging habitat under the Specific Plan for the burrowing owl and Swainson's hawk should be described as a significant impact and mitigation should be required. The on-site preserve is not proper mitigation. This Project's removal of this large amount of habitat also is a significant cumulative impact which the EIR fails to identify (see discussion of cumulative impacts below).

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The erosion control plan should specify measures that will be required under the Plan. As currently drafted, the mitigation does not require any specific measures, but only identifies possible "typical" measures (Mitigation Measure 3.4.3b).

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The Project is inconsistent with many policies of the County General Plan to protect biological resources. Therefore, the EIR conclusion that there is no inconsistency with plans and no resulting significant impact is incorrect. County General Plan goals and policies that the Project is inconsistent with include: (1) Goal OS-D and Policies OS-D.2 and OS-D.5 which require no net loss of the "function and value" of wetlands and require avoidance, minimization or compensation for impacts. The mitigation measures do not require the created wetlands provide the same function and value as the impacted wetlands. Preservation of existing wetlands is not allowed for mitigation. The proposed mitigation is inconsistent with these policies; (2) Policy OS-D.5 which requires coordination with regulatory agencies at all levels of environmental review. The EIR does not contain any information on the County consulting with regulatory agencies in the evaluation of impacts or development of mitigation measures. In fact, many mitigation measures state that the development of plans and consultation will take place at a later date when agencies consider approval of permits; (3) Policies OS-E.14 and OS-E.17 which require that wetlands, riparian habitat and rare and endangered species habitat should be preserved "to the maximum extent practicable". The Project's numerous significant impacts on these resources violates these policies; and (4) Policy OS-D.6 which requires preservation of riparian habitat and other sensitive communities unless there are public safety concerns. The Project's impacts on these resources violates this policy because there is no underlying public safety concern, such as flood protection, that justifies the Project's impacts

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The use of limited reconnaissance surveys to evaluate impacts in the Community Plan area is insufficient for even a program-level EIR. More detail about the existing conditions should be included in the EIR. A program EIR is allowed to evaluate the project in less detail, but it does not allow a less detailed or cursory review of existing conditions. In addition, some of the mitigation measures for the same species impacts are different for the Community Plan than the Specific Plan. The EIR should explain the basis for differences and inconsistencies in mitigation for similar impacts.

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Chapter 3.7 Hazards and Hazardous Materials

The EIR notes that hazards due to proximity of the Project to the Friant-Kern Canal and abandoned water wells were raised as an issue of concern during the scoping process for the EIR. Yet the EIR's Hazards and Hazardous Materials chapter does not acknowledge this comment in its cursory treatment of existing hazardous material sites or risks of contamination. The EIR should be revised to address this concern.

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Chapter 3.8 Hydrology and Water Quality

The EIR's conclusion that the impact from storm water runoff will be less than significant due to the implementation of Low Impact Development (LID) measures as part of the Project is unsupported by evidence. The Project policies on LID referenced in the EIR do not specify or mandate these measures. Many of the policies are qualified by the words "where warranted" or "where feasible". The Plan does not provide specific information on pretreatment of storm water before it is discharged to "swales", the San Joaquin River or elements of the Fresno Stream Group. Since there are no specific measures and no final Plan that is required as part of the Project, the EIR cannot rely on these potential LID measures to support a less than significant finding. The EIR should be revised to find the impacts from storm water potentially significant and include a mitigation measure which requires the implementation of specific LID measures that will reduce the impact to less than significant.

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The EIR does not properly analyze storm water drainage capacity impacts. There is no quantification of pre-project and post-project runoff amounts. There is no discussion of capacity of existing storm drainage system and how well it functions. The reliance on a LID plan to be approved in the future based on "suggested management practices" listed in the mitigation measure is inadequate. The EIR should require compliance with an already developed plan that shows that these measures can be successfully implemented to handle the estimated increased in runoff from the Project, especially in light of the significant conversion of existing undeveloped and unpaved land proposed by the Project. The Plan also should show the capacity of the soils in retention/detention basins to absorb runoff. The mitigation should require that the amount of post-Project runoff does not exceed pre-Project levels for each Project Phase. The analysis and mitigation measure in the EIR are insufficient to support the less than significant conclusion.

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The EIR does not describe or analyze how effective control of mosquitoes, and mosquito-borne diseases, such as West Nile Virus and dengue fever, will be achieved if the LID concept creates a plethora of small ponding areas in the Project area.

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The EIR does not contain sufficient evidence to support its conclusion that the use of treated effluent for landscaping and on the Beck, Lost Lake Park "or similarly situated property" will be less than significant. The EIR addresses this issue in a single conclusory paragraph. More detail is required to demonstrate that the planned application of treated effluent on open lands will not affect water quality or have other impacts.

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The EIR inadequately analyzes impacts from biosolids generated by the wastewater treatment plant. The EIR, Appendix N, and the Project Infrastructure Plan do not present specific information on storage or disposal of biosolids from the proposed tertiary treatment. The EIR only states that disposal of biosolids will conform to regulations and will go to landfill (which would contravene AB 939 solid waste diversion mandates). No impacts from biosolid storage, transport or disposal are analyzed or mitigated, neither within the Project area, nor for transport to and disposal in some other municipality's area.

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The EIR does not analyze the conflicts between the County Land Use policies for River Influence Areas and the proposal to site wastewater plant facilities serving development unrelated to the River within the River Influence Area.

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The EIR improperly evaluates the required level of protection in the San Joaquin Riverbottom which is now keyed to a 200-year floodplain (not a 100-year floodplain). It also does not analyze the jurisdiction of the Central Valley Flood Protection Board as they now exist, nor as their jurisdiction will be expanded under recent California flood prevention legislation (SB5, SB 17, SB 85, AB 5, AB 70, AB 156, and AB 162 effective in 2008).

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The EIR does not analyze how Corps of Engineers flood detention structures on the Fresno Stream Group could be affected by development of the Project area, which would greatly increase the extent of impervious surfaces and generate runoff.

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For possible inundation from Friant Dam and Millerton Lake, the EIR should include a map that shows the area that is subject to inundation and the land uses allowed in that area to support its less than significant conclusion.

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The EIR identifies 23 pollutants that will exceed regulatory standards in the mixing zone for the wastewater discharge. The EIR should identify this as a significant impact and include mitigation measures to address the impact.

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Chapter 3.9 Land Use and Planning

The Project presents fundamental inconsistencies with the land use and planning policies in the County of Fresno General Plan and the General Plans of surrounding cities. The proposed General Plan Amendment to change the Community Plan boundaries and General Plan land use designations cannot "cure" this fundamental inconsistency. The Project will result in a development that is incompatible with many of the central goals and policies that guide land use development in the County. The main inconsistency that results from the Project is the development of intense urban uses on agricultural land in an incorporated area which does not have adequate public services. The policies of directing urban development to incorporated areas with existing services to support development and away from agricultural land are contradicted by the Project. The EIR conclusion that the Project is not inconsistent with planning policies is wrong.

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The inconsistencies with County land use policies include but are not limited to the following: (1) policies that promote the Friant area as a recreational hub since Specific Plan does not focus on recreational uses; (2) policies for preservation of agricultural land (see comments in Agriculture section above). The Right to Farm notices does not mitigate the impacts of urban development next to agricultural land; (3) inconsistencies with the Community Plan which does not contemplate or allow the type of development under the Specific Plan or the large expansion of its Plan area.

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The EIR does not provide any analysis of the Project inconsistencies with the January, 2003 Amended and Restated MOU between the County and City, and the MOU between the County and the City of Clovis. The Project is inconsistent with the City/County MOU because: (1) The MOU

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requires the County to consult with the City in the early stages of preparation for projects (such as this Project) that involve new urban development inconsistent with existing County Plans (MOU, Section 4.4); and (2) the MOU requirement for the County to adhere with Rural Residential Development Restriction policies and preserve agricultural land (MOU, Section 4.5)

74 cont.

The EIR does not characterize the Bigelow Ranch (Friant Ranch) as eastside rangeland, and does not analyze the Project's consistency with County General Plan policies for Eastside Rangeland and Eastside Grazing Land.

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The EIR fails to evaluate the Project's consistency with the San Joaquin Valley Regional Blueprint: Vision for the Valley.

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The Project is also completely inconsistent with the land use and transportation policies of SB 375. The goal of SB 375 is to reduce greenhouse gas (GHG) emissions from vehicle trips through regional land use and transportation planning. Under SB 375, a sustainable community strategy (SCS) will be developed as part of the regional transportation plan process. The SCS will reduce GHG emissions by reducing vehicle miles traveled relating to land use. The type of development that the SCS promotes is concentrated urban development in existing urban areas and reduced sprawl development. The SCS should include urban infill development that includes mixed use, higher density housing, proximity to transit or incorporation of alternative transportation elements, and the location of housing near jobs. SB 375 also promotes sustaining existing agricultural land and preventing its conversion to urban uses. The Project flies in the face of all these policies. It is classic sprawl development which converts existing agricultural land and open space to create housing that is not proximate to jobs, existing urban development, or transit. It will result in an increase rather than decrease of GHG emissions and vehicle miles traveled. It will impede the creation of a SCS for Fresno County that can meet the GHG reduction goals for the County established under SB 375.

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Chapter 3.10 Noise

The EIR's determination that installation of sound insulation within existing structures is not feasible mitigation is not supported by substantial evidence. The EIR explains that installation of sound insulation is infeasible "because it would require remodeling of existing structures along the roadways." This vague, unsupported, and unquantified assertion is not sufficient to support a determination that mitigation by installing sound insulation in existing structures.

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Chapter 3.11 Population and Housing

This section of the EIR concludes that the Project is consistent with the goals of the County's Housing Element in that the Project will provide adequate housing and supportive services for persons age 55 and older, who have special needs. This conclusion is unsupported, since the Project makes no provision for the skilled nursing facilities, hospital facilities, or community care assisted facilities which are typically required supportive services for this population. The Project, and the EIR, must be revised to address adequate provision of medical care and social services for the age 55+ population accommodated by the Project.

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The population and housing section of the EIR also fails to demonstrate that there is any actual demand for housing for active adults aged 55+ in the Friant area, nor does it provide any evidence to support a conclusion that the Project's housing would be price-accessible to lower-income seniors. The Project also fails to make adequate provision for other housing age groups, particularly children.

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The EIR does not identify any provision that provides the County with power to enforce the "age 55 or older" requirement for the residential units designated for such a requirement. In Fresno County, it is currently estimated that a significant percentage of senior citizens are currently raising or housing their grandchildren, due to socioeconomic conditions. In light of the lack of County enforcement power, the EIR needs to either provide evidence to support a conclusion that CC&R and HOA regulations will be adequate to enforce the residential age requirements, or else revise its projections of the age groups likely to be accommodated by the Project.

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Chapter 3.12 Public Services and Recreation

The EIR's section on Public Services and Recreation determines that a potentially significant impact of increased demand for fire protection services will be mitigated to a less than significant level by establishment of a CFD to serve Friant Ranch "consistent with fire and emergency response time standards established in the County General Plan. However, the County standards do not quantify required response times, nor does the EIR contain any quantification or data on the fire/emergency response times which will be achieved under this mitigation measure. It is entirely unclear, therefore, how the EIR determines that this impact will be reduced to a less than significant level. The EIR must be revised to commit to achieve an acceptable, quantified level of fire/emergency response time. Additionally, as discussed below in comments on the Transportation/Traffic section, the EIR must be revised to address the potential for unacceptable levels of service on the Project's main access roads to significantly impair fire and emergency response times.

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The above comments also apply to the EIR's unquantified analysis of law enforcement services. The EIR concludes that potentially significant impacts in this area will be reduced by formation of a CFD to maintain "adequate" staffing and facilities to serve the Friant Ranch community – without any explanation of how "adequacy" in this regard will be determined. The EIR provides no data or quantification regarding the need for law enforcement staffing and facilities which will be created by the Project. Nor does the EIR address any potential for significant environmental impacts to result from construction/operation of new law enforcement facilities for which the Project will create a need. The EIR needs to be revised to discuss these issues.

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Furthermore, the EIR does not appear to respond to the comments of the California Highway Patrol, on the NOP, that the Project is likely to create a need for a minimum of five, and as many as seven, additional officers to handle the increase in traffic volume and attendant collisions and other traffic-related emergencies created by the Project. The EIR needs to be revised to address those impacts, and to provide for the Project to fund the necessary CHP services.

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Finally, the EIR needs to evaluate whether there will be any additional need to bus students from the Project area to public schools, and to address any impacts to public services related to such a need.

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The EIR should disclose and determine the significance of the impacts on existing recreational facilities (e.g., Lost Lake Park, Millerton Lake Recreation Area, and San Joaquin River Parkway) of increased use by the new residents who would be introduced by the Project.

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Chapter 3.13 Transportation/Traffic

The EIR's traffic and transportation impacts analysis, and Appendix D (Traffic Impact Study, or TIS) is inadequate in many respects.

The City of Fresno does not agree with the peak hour trip generation rate reductions. The EIR appears to assume that active adults aged 55 and above constitute a category of residents whose commuting patterns can be assumed to differ from those of the general population. Even though this is predominately an active senior (55 and over) housing project many people in this low socio-economic region are still working 8AM-5PM positions well beyond the age of 55. This proposed project does not require that the active seniors are retired. The ITE trip generation rates for senior housing are for projects closer in proximity to the city center or adjacent to a metropolitan region. In addition, projects cited in the Fehr & Peers projects were in affluent communities and in a different economic period than a recession. The City of Fresno requires that intersection within its jurisdiction utilize the ITE trip generation rate for a single family home. All impact fees and mitigation should be calculated based on this single family home trip generation rate. Furthermore, this assumption appears at least potentially at odds with the comments by CalTrans, on the NOP, that the Project has the potential to generate in excess of 30,000 daily vehicle trips. It also contradicts the experience of the City of Fresno, which has observed that most or many homeowners in this age group commute to work daily, if only to afford their mortgages. The EIR's traffic analysis should be revised to reflect current societal conditions, under which great numbers of active adults over the age of 55 – particularly in suburban developments like the proposed Friant Ranch Project -- have driving patterns similar to the general population.

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Appendix D identifies Friant Road and Willow Avenue as the major routes providing access to the Project site. Yet the EIR identifies multiple road segments and intersections on both Friant Road and Willow Avenue as operating at unacceptable levels of service either now or by 2030. Furthermore, the EIR concludes that no mitigation can feasibly result in either of these two major access routes operating at acceptable levels of service. Yet the EIR's traffic analysis concludes that development under the Friant Ranch Specific Plan, on property served by these two unacceptably impeded roadways will have absolutely "no impact" to emergency services access. The EIR, as a document providing environmental analysis of a project to create a new community containing nearly 3,000 residences for active adults (age 55+), must explain how it determines that access for necessary medical services will not be significantly affected by the unacceptable traffic conditions on Friant Road and Willow Avenue.

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The City of Fresno does not agree that the Average Daily Traffic (ADT) volumes will decrease due to trip chaining of a remote development. The model is showing that 75% of the proposed project traffic will be directed to the City of Fresno. While the percentage might not change the total amount of the project traffic based on the trip generation may change drastically and have significant impacts. We agree that the total average daily trips (ADT) at the entrance to this subdivision might be less based on the distance it is from the attractions, however I would argue that the Vehicle Miles

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Traveled (VMT) per trip would be substantially higher than a typical trip in the Fresno COG model for the City of Fresno due to its remote location and this could greatly affect air quality emissions in a region that is already not meeting air quality standards.

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In addition the City of Fresno has never approved a pass-by trip reduction of more than 15%, which is consistent with the Caltrans Traffic Impact Study Guidelines. This would assume that the adjacent roadway facility traffic volumes could support this amount of reduction (which was not discussed in the traffic impact study) and that the proposed commercial land uses would be of convenience that would support a pass-by reduction.

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Table 4.1 of Appendix D identifies a number of study intersections as operating acceptably under existing conditions. However field observations by the City of Fresno's Traffic Engineer confirm that these intersections are not operating acceptably due to long queues, demand exceeding capacity, traffic signal cycle length, and unserved demand. Many of these intersections operate at unacceptable levels for multiple hours and periods of the day. The "black box" analysis approach, utilized in the preparation of Appendix D, of merely counting the traffic volume that makes it through the intersection, is inadequate. The analysis must include identifying the demand and calculating the saturation flow rates due to ramp metering, blocked through lanes due to queues that exceed turn pockets, through lane queues that block both left and right-turn pockets, upstream queues that do not accept through traffic, and lane utilization. This requires peak hour field observations and documentation by a qualified professional engineer. Failure to perform this level of analysis appears to have grossly underestimated the impacts of the proposed project, and concealed the true level of service, demand, or capacity of the roadway. Some of the study intersections are misrepresented by 1-4 level of service grades. The entire TIS needs to be redone to actually reflect the existing conditions experienced in the field. Until this analysis is corrected the entire documentation and analysis in the TIS and DEIR is baseless and lacking in evidentiary support.

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The City of Fresno's preliminary review indicates that the following intersections are inaccurately analyzed in the EIR, and as a result affect all the analysis through the environment document as this is the base condition from which all impacts are determined, evaluated, and mitigated:

1. Friant/Shepherd (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour, in addition westbound left-turns are not fully served and northbound right-turn queues exceed capacity)
2. Friant/Audubon (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour)
3. Friant/Fresno (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour)
4. Friant/SR 41 NB off ramp (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour)
5. Friant/SR 41 SB off-ramp (adjacent queues and lane utilization affect this intersection)

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6. Blackstone/Nees (SR 41 southbound on-ramp backs up into this intersection due to ramp metering. Northbound through lanes, Westbound left-turns, southbound U-turns/left-turns, and eastbound right turns all are impacted due to ramp metering)
7. Herndon/Blackstone (City of Fresno has identified the WB right-turn needs to be extended by over 300 feet and become an overlap phase yet the TIS suggests that the queue is only 90 feet. This capital improvement grant application was ranked highly by the regional review panel as most people in the Fresno region are aware of the regular congestion at this intersection)
8. Fresno/Nees (due to queues and delays on Friant many northeast commuters have shifted to Nees Avenue to access the southbound SR 41 on-ramp)
9. Audubon/Nees (needs to be signalized and synchronized with both Palm/Nees and Nees/Ingram)
10. Palm/Nees (adjacent queues from intersections affect intersection operations)
11. Palm/Herndon (intersection capacity exceeds demand. City of Fresno recently installed southbound right-turn overlap phasing as queues extend north to adjacent intersection)
12. Willow/Herndon (City of Clovis just widened intersection because of level of service operations)
13. Willow/Bullard (a capital project is already identified by both the City of Clovis and City of Fresno for unacceptable levels of service for which the traffic consultant that prepared the TIS bid on the design work)
14. Herndon/SR 41 NB off ramp (queues on the northbound off-ramp routinely back up to Sierra and Bullard Avenue on the SR 99 mainline in addition queues from Herndon/Blackstone and Herndon/Fresno block capacity)
15. Herndon/SR 41 SB off ramp (intersection is routinely blocked by queues from Herndon/Blackstone and Herndon/Fresno)

Additional problems with the TIS include the queuing analysis from the software program Output, utilized in preparation of Appendix D. That analysis does not reflect existing conditions during the peak hours/periods in the field. These queues need to be measured in the field to verify that the analysis is done correctly. Queues affect lane utilization, accessibility of turn pockets, saturation of through lanes, and downstream and upstream intersection operations. Some of the worst congestion in the City of Fresno occurs on the intersections and roadway segments analyzed within this DEIR/TIS due to the imbalance of land uses in northeast Fresno. The Friant Ranch proposed project is adding more residential that already exists in northeast Fresno.

Section 4.3 of the TIS, concerning Existing Bicycle and Pedestrian Facilities, also contains errors. Willow Avenue from Shepherd to Friant Road in the County does not have Type II Bike Lanes as

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defined by the Caltrans Highway Design Manual. They need all of the following to qualify: stripe at the appropriate width, bike lane stencil, bike lane regulatory sign, and no parking signs.

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With regard to Table 4.3 of the TIS, how can roadway segments operate worse than intersection level of service? When roadway segments are at capacity the intersections (or nodes) become the capacity constraint.

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The TIS fails to account for the shift in traffic to adjacent facilities caused by the queues and level of service on Friant Road. Motorists will find the path of least resistance such as Audubon Drive (between Friant Road and Nees Avenue), Nees Avenue, and Herndon Avenue that are not reflected in the model because multiple travel time runs and field observations need to be completed to determine the path of least resistance.

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Roundabouts have been identified to calm traffic on Audubon Drive between Friant and Nees as a result of the traffic shift and queues in a number of traffic impact studies in northeast Fresno for large developments. This was not reflected as part of this DEIR/TIS. Contribution to these roundabouts should be included in these environmental documentations as this project further exacerbates Friant Road.

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On page 22 of the TIS, Shepherd Avenue/Willow Avenue traffic signal has already been constructed. The traffic consultants for this TIS prepared the design for this traffic signal and were aware of the construction timing and completion.

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On page 22 of the TIS, Herndon Avenue does not have bike lanes. It is designated as an Expressway from SR 99 to Willow Avenue in the City of Fresno General Plan.

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Rural level of service roadway segment thresholds should not be used for 4 lane divided roadways like Friant Road from Copper to the Town of Friant. When 3,000 homes are added and a 4 lane roadway is constructed it becomes more suburban (urban) setting and not a rural. Failure to correctly evaluate thresholds underestimates the existing conditions and impacts from the proposed project. The entire TIS needs to be redone correctly so that the existing conditions actually reflect the existing conditions experienced in the field so that the proposed project impacts can be evaluated, determined, and mitigated.

106

The City of Fresno does not agree with the methodology for determining how many lanes would be required if the roadways could be more than 6 lanes or that the capacity of a single lane is 742 vehicles per lane. This analysis does not adequately address the further exacerbation of infrastructure created by the proposed project.

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The EIR's transportation and traffic impacts chapter, based on the TIS, is also riddled with errors. The County of Fresno has already identified the Friant Road as a dangerous roadway with fatality/accident billboards and the capital improvement project to widen a LOS A, two lane roadway to a LOS A, 4 lane roadway separated by a median prior to it experiencing capacity deficiency. Fatal accidents were associated with passing, high speeds, and driving under the influence. Adding more traffic to Friant Road without adequately addressing all the safety issues of Friant Road from

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Millerton Lake to the City of Fresno could cause more accidents. Friant Road should have a barrier in the median to keep motorists under the influence from hitting on-coming motorists.

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In addition, a Class 1 Trail may need to be constructed adjacent/parallel to Friant Road from the City of Fresno to Friant Ranch to allow cyclists a separation from the increased traffic volumes. The City of Fresno is concerned about the safety of the cyclist community on Friant Road. This is a main recreation route for many City of Fresno residents. The roadway was recently widened to improve safety of existing traffic, but that project did not anticipate this growth to occur outside of the urban metropolitan areas. More vehicles could cause more conflicts with cyclists that use this route as a major recreation area.

109

Due to the Friant Road 4 lane widening project, traffic volumes on Friant Road are now driving faster than ever before. Fresno Police Department enforces these speeds regularly within the City of Fresno city limits but both County Sheriff Departments and the California Highway Patrol have funding and resource constraints on their ability to adequately serve and protect a new suburban area in northeast Fresno. The traffic impact study does not address the 85th percentile with respect to the posted speed limit of Friant Road. In addition, the speed differential of traffic on Friant Road north of Copper River and south of Shepherd (back of completely stopped vehicles due to ramp metering) has not been adequately addressed. A series of three overhead changeable message signs should be installed southbound between Willow Avenue and Shepherd Avenue (connected to the City of Fresno ITS system) to notify motorists of stopped traffic ahead. Sensors should be constructed between SR 41 and Copper Avenue to determine the flow of traffic and when stopped traffic occurs so that the Changeable Message Signs can automatically notify motorists.

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The County of Madera is currently considering whether to approve two mining operations, the Jackson Mine and the 145/41 Vulcan Mine operation. We understand that both of these mining operations intend to utilize portions of Friant road as truck routes. Truck traffic and mining operations have a significant impact on our circulation infrastructure. Eighty percent of wear and tear damage to roadways is caused by heavy truck traffic, so when the percentage of truck traffic increases on a roadway the failure of the roadway infrastructure occurs faster. Friant Road has failed in the #3 and #2 outside lane because of truck traffic from County Vulcan mine near Copper River/Friant Road. It is our understanding that the County of Fresno failed to collect mitigation for the continued mining operation extension permit for maintenance of Friant Road per the request of the City of Fresno. Furthermore, the EIR does not make clear which of the cumulative projects, discussed in the EIR's cumulative impacts analysis, were or were not included in the EIR's discussion of cumulative traffic impacts. It is not clear whether either of these proposed mining operations in Madera County were included to determine the cumulative traffic impacts caused by this project.

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Another significant impact of the Friant Ranch project is the "temporary" (10-30 years) of construction traffic to build out Friant Ranch. The City of Fresno does not have adequate maintenance resources to mitigate the impacts of Friant Ranch construction traffic.

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The discussion of mitigation in the EIR is also inadequate. While payment consistent with the policies and nexus study of the City of Fresno Traffic Signal Mitigation Impact (TSMI) fee and Fresno Major Street Impact (FMSI) fee may help to mitigate some of the impacts of the Friant

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Ranch, this proposed project was not assumed as part of the modeling for those impact fees. The Friant Ranch project could be further exacerbating conditions for which those impact fees are intended to mitigate. The Friant Ranch project could consume reserve capacity for projects within the City of Fresno that are not fully built out but were assumed to be built out with the impact fee programs. Unfortunately the analysis provided in the existing conditions and subsequent phasing does not represent the field conditions so the City of Fresno is not able to determine the impacts and necessary mitigation measures.

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The County of Fresno does not have an impact fee program for traffic signals or roadway improvements. Payment of pro-rata fair share is not consistent with CEQA to fully mitigate the impacts of the Friant Ranch project. CEQA requires that the mitigation project be included in a Capital Improvement Plan and be fully funded or an impact fee be developed consistent with the Mitigation Fee Act so that the mitigation project can be implemented. Until the details of a mitigation fee program can be finalized between the County and all other public agencies with jurisdiction over potentially affected roadway infrastructure, the mitigation measures in the EIR may be unenforceable and therefore invalid.

116

The EIR states that, where an intersection or roadway segment is identified as operating at an unacceptable level of service but the EIR provides no mitigation for the Project's contribution to that unacceptable level of service, the Project's contribution has been "deemed" not significant or cumulatively considerable. The EIR cannot "deem" Project impacts insignificant simply by refusing to discuss them. Where the Project would result in a significant transportation/traffic impact, or would contribute to a significant transportation/traffic impact, the EIR needs to explain, and support with substantial evidence, any conclusion that the Project's contribution is less than significant or less than cumulatively considerable.

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The EIR also fails to address the NOP comments of the Public Utilities Commission, that the Project will create and/or contribute along with other cumulative development in Fresno and Madera Counties, to traffic impacts at at-grade rail crossings. The EIR needs to be revised to disclose the Project's impacts in this area, to determine their significance, and to provide mitigation for any significant Project-specific or cumulative impacts to at-grade rail crossings.

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The EIR's mitigation measure requiring that "information regarding alternative transportation such as ridesharing and mass transportation" is likely to be ineffective, since the Project does not include infrastructure for park and ride facilities, mass transit facilities, or other transportation services.

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The City has also identified additional infrastructure which may require improvement due in part or in whole to the proposed Project. The intersection of Willow/Friant will definitely need improvements due to the high speed traffic, ability of motorists to judge gap acceptance, and available gaps in traffic.

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Friant Ranch may also be required to fund or contribute to a second San Joaquin River Crossing be constructed or at a minimum an implementation and funding program developed so that Friant Ranch contributes to the construction of the new bridge. The County Board of Supervisors shall be on board with the San Joaquin River Crossing project and implementing that project and fee

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program prior to development in this area of the County to facilitate access to this region. Failure to do so would create a significant and unavoidable impact to the region.

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The TIS/DEIR does not adequately address the existing capacity or substandard design of the existing bridge crossing near Friant Ranch over the San Joaquin River.

122

Friant Ranch may be required to pay the Measure C Regional Transportation Mitigation Fee (RTMF) through the Joint Powers Authority that will be put in place January 2010. Failure to contribute to the RTMF will cause significant and unavoidable impacts to the Measure C program for which this project is relying on to construct infrastructure to mitigate impacts. However, the timing of those assumed mitigation improvements are not consistently identified.

123

Since this proposed project will be utilizing the Friant Road/SR 41 interchange the southbound on-ramp auxiliary lane will need to be constructed from Friant Road to Herndon Avenue interchanges. Friant Road/SR 41 interchange was designed without knowledge of the Friant Ranch project and its associated traffic volumes. This project further exacerbates the need for the auxiliary lane. Payment of the pro-rata Caltrans fair share does not fully mitigate the impacts of Friant Ranch because the improvement is not constructed and there is not an implementation plan or identified funding to construct the project. Failure to construct these freeway improvements will result in a significant and unavoidable impact that is not acceptable to the City of Fresno.

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Additionally, since this proposed project will be utilizing Friant Road/SR 41 interchange and the motorists have to either exit Herndon Avenue/SR41 interchange (or shift existing traffic to the Herndon Avenue/SR 41 interchange from the Friant Road/SR 41 interchange due to exacerbating the impacts of Friant Road) or else drive past the Herndon/SR 41 interchange of the SR 41 mainline, the northbound off-ramp at Herndon/SR 41 will need an auxiliary lane constructed from Sierra to Herndon along with off-ramp widening (to dual lefts and dual rights) to keep three through lanes on Northbound SR 41 operational for sprawl traffic to Friant/SR 41 interchange and Madera County from rear-ending motorists on SR 41 exiting Herndon Avenue. Observation of tire marks on the freeway suggests a lot of rear end accidents at high speeds under existing conditions, which will be exacerbated by the Project. Failure to construct these freeway improvements will result in a significant and unavoidable impact that is not acceptable to the City of Fresno.

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Finally, these and other faults of the EIR's transportation and traffic section contaminate the rest of the EIR, resulting in an underestimation of the impacts of the Project in other areas. The Project will significantly increase the Vehicle Miles Travelled (VMT) for an existing single family home assumed in the Fresno Council of Government model for air quality conformity. Fresno County and the San Joaquin Valley are already in non attainment. In addition, an increase in VMT has a negative impact on the consumption of fossil fuels. This proposed project will not be served by alternative models of transportation such as transit. The proposed density would not make serving this project economically feasible for a region that is attempting to become more sustainable both fiscally and environmentally. In actuality single family homes at this density and at this remote location are not economically feasible to serve public safety, public infrastructure maintenance, or with public services.

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The County is proposing a development outside an incorporated or sphere of influence area that does not have fee programs in place that may cause future sprawl or expansion of our current City of Fresno sphere of influence similar to Copper River Ranch. Until the County of Fresno develops policies on sprawl and new town development or expansions consistent with SB 375 and AB 32 any approval of projects of this magnitude is a significant and unavoidable impact.

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The County developing this project to County standards could cause ADA issues without sidewalks on both sides of residential streets. Seniors have a higher tendency to need ADA infrastructure. How will ADA seniors be served by para transit?

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The widening of Friant Road to four lanes has now become a sprawl inducing transportation capital improvement project when it was originally identified as a safety project. Without the widening of Friant Ranch to four lanes, this proposed project would not be economically feasible.

131

Chapter 3.14 Utilities and Service Systems

The water supply analysis does not satisfy the CEQA standards under Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova. Under Vineyard, the CEQA analysis must show a reasonable likelihood of adequate water being available to meet the Project and cumulative demand in the short-term and long-term. As the EIR acknowledges, there are significant uncertainties regarding the ultimate provision of water to serve the Project including: no water source currently available to serve the project; water is anticipated to be provided through an "agreement in principle" with LTRID involving Central Valley Project (CVP) water which has not been finalized and is subject to approval by the federal government; numerous lawsuits and settlements involving water rights and usage in the area; the need for LTRID to allocate other sources of water for existing agricultural users to replace the water transferred to meet Project demand; and impacts from global warming. Additional uncertainties which the EIR does not discuss include the recently announced reductions in CVP allocations for 2010 and the series of legislative bills passed this fall by the State Legislature which include a bond measure requiring voter approval. In light of all these uncertainties, Vineyard requires that the EIR analyze alternative sources of water and the impacts of obtaining these sources. The EIR does not contain this analysis. Also, since the proposed LTRID Agreement may terminate in the future, the EIR should analyze the impacts of curtailment of the Project after it has been partially built out as required under Vineyard.

132

The EIR does not analyze the environmental impacts of the water facilities needed to serve the Project. These facilities include the expansion of WWD 18 water treatment plant and other water system facilities. These are not included in the Project description and are not specifically analyzed in the EIR.

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The EIR does not adequately analyze the impacts of the proposed water transfer on the LTRID and its water users. There is no adequate description or graphic depiction of the location or size of the LTRID, nor any information on its total water supplies and current water uses. The EIR should specifically identify the customers and crops that will be deprived of the 2,000 AFY that the project proposes to divert to the Friant area. The EIR must analyze the impacts that the diversion of this water supply will have on the LTRID service area. If the EIR is relying upon the impact analysis in a certified environmental document prepared for the transfer of replacement water to the farmland

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located in LTRID, the analysis in the CEQA document must be summarized and the document incorporated by reference in this EIR. The EIR fails to comply with these requirements.

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The EIR should analyze the impacts of LTRID's use pre-1914 water in critical dry periods to meet demand. Although the Water Supply Assessment identifies the shortfall and LTRID's need to use this water to meet the demand, the EIR does not analyze the associated environmental impacts.

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The EIR also does not analyze the regulations governing CVP water transfers, or use of this pre-1914 water. It is the City's understanding that the California Department of Water Resources has not yet obtained the detailed surface water user data to ascertain whether all surface water rights previously deemed "pre-1914" are, in fact, legitimate. The requirement for water used to report this date will begin next year, under provisions of SB7X 8. Until the status of "pre-1914" water rights are evaluated and affirmed after these surveys are done, it is too early to declare that LTRID's water transfers to the Friant Ranch Project can be made up by that surface water supply. Since this DEIR was released just prior to enactment of the SB7X 1, SB7X 2, SB7X 3, SB7 X 7 or SB7X 8 package of water reform legislation and since this legislation has such a significant impact on the projects proposed hydrology, re-analysis of the project under these new regulations, and recirculation of the DEIR, is warranted.

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The EIR's discussion of water supply impacts "conservatively" declines to adjust water use forecasts due to an assumption that residences in the Friant Ranch Specific Plan Area will have lower-than average occupancy rates. By contrast, however, the EIR's discussion of wastewater treatment impacts does not adopt this "conservative" assumption, and instead assumes that active adult housing in the Specific Plan area will produce lower than average demand for wastewater treatment. What is the substantial evidence upon which the EIR bases its decision to adopt these two, mutually inconsistent assumptions. In light of this inconsistency, the EIR needs to re-evaluate anticipated wastewater treatment demands created by the Project, and if necessary revise the Project to provide adequate wastewater treatment capacity.

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The EIR indicates that PG&E has stated that it has a sufficient power supply to serve the Project. Since it is commonly known that overall population growth and development in California and the San Joaquin Valley will lead to future power shortfalls unless there are major gains in energy conservation and alternative energy development, the EIR cannot simply rely on PG&E's purported statement, but must reconcile that assurance with the long-term energy supply outlook for the state and region, and needs to provide mitigation in the form of higher standards for conservation and alternative energy programs, built into every component of the Project.

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Since the Project includes a Specific Plan which is being examined at a project-specific level, the EIR needs to identify the routes of major electrical and gas transmission lines and distribution substations serving the Friant Ranch development. The EIR further needs to evaluate the impacts of transmission line construction, maintenance and operation on the Project site and other lands traversed by these lines (vegetation removal, erosion, fire hazards, EMF, etc.) The EIR cannot defer or segregate this vital component of the proposed Project for later design and evaluation.

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Chapter 3.15 Greenhouse Gas Emissions and Global Climate Change

The discussion of the Regulatory Environmental is completely inadequate. There is no discussion of numerous laws and regulations on greenhouse gas (GHG) impacts and analysis including: (1) the

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latest state CEQA Guidelines amendments on greenhouse gas analysis before the State Resources Agency for adoption which are expected to be in effect January 2010. The greenhouse gas analysis should comply with these CEQA Guidelines; (2) the proposed regulations of the San Joaquin Valley Air Pollution Control District on addressing and mitigating GHG impacts from development. SJVAPCD has been developing these regulations for over a year and they are expected to be adopted shortly. The regulations include guidance on how to address GHG impacts under CEQA.; (3) the AB 32 Scoping Plan which includes reductions from land use development; (4) SB 375 which requires the adoption of regional targets for GHG reductions from land use and transportation and the development of regional plans to achieve these reduction targets; (5) information developed by the State Attorney General's Office on the analysis and mitigation of GHG emissions under CEQA; and (5) the recent determination by the US Environmental Protection Agency that CO₂ threatens public health and the environment due to its impacts on climate change. The EIR should discuss these important regulatory developments and apply these regulations and guidance in its analysis of GHGs.

144
cont.

The EIR should quantify the GHG emissions from all construction and operational activities of the Project, including the construction and operation of the new wastewater treatment plant and the expansion of the water treatment plant. Methodologies for quantification from all the Project uses are known and should be used, so that the full amount of emissions from the Project is disclosed. The EIR's estimated Project GHG emissions only focus on a narrow part of the Project and greatly understate the Project's emissions.

145

Since the EIR concludes that the impact from GHG emissions is significant and unavailable, it needs to evaluate and consider all feasible mitigation measures to reduce the impacts. The Plan policies and so-called mitigation measures included in the EIR to potentially reduce GHG are too general. The policies and programs are mostly to "support", "encourage" and "promote" certain actions, which are not requirements. Also, there is no evidence and analysis to show that the measures, if implemented, will actually reduce GHG emissions and, if so, by how much. The EIR should evaluate the feasibility of the Best Performance Standards proposed by the SJVAPCD as part of its Report for Addressing Greenhouse Gas Emissions Under CEQA (See http://www.valleyair.org/Programs/CCAP/11-05-09/1_CCAP_FINAL_CEQA_GHG_Draft_Staff_Report_Nov_05_2009.pdf) and the mitigations recommended by the Attorney General's Office to address GHG emissions under CEQA (See http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf).

146

The EIR should analyze and reach a conclusion on the significance of the impacts of global warming on the Project for other issues besides water. The EIR should analyze the potential global warming impacts due to flooding and increased temperature (especially as it relates to increasing the likelihood of violations of air quality standards).

147

Even though the EIR finds that the impact on greenhouse gases is significant and unavoidable, it should establish a significance threshold on which to base this determination. Under the proposed SJVAPCD Guidance, the recommended standard of significance is a 29% reduction.

148

Chapter 4 Evaluation of Alternatives

The EIR does not discuss an adequate or reasonable range of alternatives. Aside from the statutorily required No Project Alternative, the EIR only evaluates three alternative configurations of development under the Friant Ranch Specific Plan. These three "alternatives" are so similar as to not represent a reasonable range. The EIR admits that "[t]he North, East, and Northeast Development Configuration Alternatives are similar in terms of their level of impact."

149

The EIR's rejection of analysis of an off-site alternative is entirely self-serving and circular. The EIR bases its decision not to evaluate an off-site alternative primarily on the purpose of the Project to create "a master-planned active adult community" that is "within or immediately adjacent to the Friant Community." This "purpose" describes the proposed Project precisely, and so admits of no meaningful alternative. That is not acceptable under CEQA. An EIR may not reject consideration of off-site alternatives simply because they would not be identical to the proposed Project. The EIR is required to look at a range of reasonable alternatives to achieve the objectives of the Project while lessening its impacts, and so needs to broaden its range of alternatives to consider (1) other potential Project's to "revitalize" the existing Friant Community with fewer environmental impacts than the creation of a vast new residential development in the Specific Plan Area and (2) other potential locations for master-planned active adult communities in the County or neighboring counties, or in established urban areas of the County, which would have fewer impacts than the proposed Project.

150

Additionally, the EIR should discuss a variation on the No Project Alternative, under which the "programmatic" changes proposed for the Community Plan and the Redevelopment Plan would occur, but the "project-level" activities in the Specific Plan Area and the Depot Parcel would not occur.

151

Finally, it does not appear that the EIR discusses any alternative for development of the Depot Parcel as a shopping center. In light of the existing vacant commercial and retail space in the Friant Community, the EIR should evaluate other potential uses for the site that would have fewer environmental impacts and would not potentially contribute to blight in the existing Friant Community by drawing away commerce.

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Chapter 5 Cumulative Impacts

The list of cumulative projects is inadequate. It fails to include past general plan amendments for projects on the east side of the Friant-Kern Canal, Madera County projects across the San Joaquin River north of Friant, and the Blasingame project proposal to the south of the Project. Among relevant cumulative projects which are improperly not included in the EIR's cumulative analysis are (1) commercial developments, already approved but not yet constructed, at Freeway 41 and Friant Road; (2) the 40-acre retail commercial project located at the corner of Friant and Audubon; (3) the proposed Jackson Baker Mining Quarry in Madera County; and (4) the proposed Vulcan mining quarry in Madera County.

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Overall, the cumulative analysis is inconsistent with CEQA requirements and vastly understates the significant cumulative impacts of the Project. The analysis is flawed in two important respects: (1) it

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improperly concludes, without any further analysis, that just because the Project level impact is reduced to less than significant, the Project's impact is less than cumulative considerable. CEQA law is clear that whether a Project's cumulative impact is significant (i.e., cumulative considerable) cannot be determined based on the mitigation of Project level impacts; and (2) the EIR improperly finds that the Project contribution is less than cumulative considerable if the Project impact is a small percentage of a large problem (ex. Project impact on "only 2 acres" of vernal pools as less than cumulatively considerable because small amount compared to overall number of vernal pools impacted by cumulative development). This use of the "ratio" rule has been firmly rejected by CEQA case law (see Kings County Farm Bureau v. City of Hanford). Contrary to the EIR analysis, the bigger the cumulative impact is, the smaller the Project contribution that should be considered significant. These flaws are especially prominent in the analysis of biological impacts where the impacts on vernal pools, CTS and its habitat, and riparian and special status species habitat are found less than cumulatively considerable because Project impacts are mitigated and there still remains a "significant amount" of these resources in County even after project impacts. The majority of the Project's impacts on biological resources should be found cumulatively considerable.

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cont.

Since the Project's impact on **agricultural resources** is cumulatively considerable, there must be mitigation analyzed and adopted to address this significant impact (see discussion of mitigation of agricultural impacts above).

155

The Project's significant conflicts with **land use** and other policies create a cumulatively considerable impact. As discussed above, the Project violates the fundamental policies that guide County and city planning, including directing urban development to cities or within existing developed unincorporated area, preserving agricultural land, directing development to areas with public services in place, and protecting environmental resources.

156

The EIR's analysis of cumulative **air quality impacts** is severely inadequate under CEQA. The analysis does not distinguish among types of air quality impacts (e.g., emissions impacts, ambient or concentration impacts, odor impacts, etc.). The analysis furthermore fails to provide quantified data, or even to qualitatively describe the future cumulative air quality conditions to which the Project will make a cumulatively considerable contribution, or present any information on the relative size of the Project's contribution. The discussion is also entirely lacking in any mention of mitigation for the Project's cumulatively considerable contribution to this significant cumulative impact. The discussion of cumulative air quality impacts must be fundamentally revised, made more detailed, and expanded.

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The EIR's Project-specific analysis of **population and housing** impacts used a threshold under which impacts are significant if a Project would "induce substantial population growth in an area, either directly . . . or indirectly." Under this standard, the EIR identifies a significant and unavoidable Project-specific population and housing impact. However, the EIR's treatment of cumulative **population and housing impacts** is entirely inconsistent with its treatment of Project-specific impacts.

160

The EIR's cumulative analysis inexplicably abandons the standards used in the Project-specific analysis, and purports to recognize cumulative impacts only if they result from *unplanned* growth. By this sleight of hand, the EIR reaches the unsupportable and absurd conclusion that the Project, which even by itself would have a significant and unavoidable population and housing impact, and which would clearly contribute along with other cumulative projects to "substantial population

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growth," would somehow not contribute to a significant cumulative population and housing impact. This conclusion is clearly irrational and unsupported. The EIR must be revised to recognize that the Project, in addition to resulting in significant Project-specific population and housing impacts, will additionally make a cumulatively considerable contribution to significant cumulative population and housing impacts.

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cont.

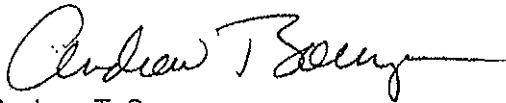
The discussion of cumulative **utilities/service systems** impacts appears to conclude that the Project will not contribute to significant cumulative surface water demand impacts, simply because the Project applicant claims to have obtained adequate surface water supplies for the Project through 2030. That conclusion is incorrect under CEQA, under which a Project may make a cumulatively considerable contribution to a significant cumulative impact even if it has a less than significant Project-specific impact. Furthermore, the EIR's implied conclusion that there is no significant cumulative water supply problem to which the Project would contribute is contradicted by the EIR's own (too brief) discussion of the West's finite water supply, which will likely be drastically reduced by factors including climate change. The EIR's discussion, which is entirely lacking in data about cumulative surface water supply impacts, and which fails to account for the Project's share in compounding those impacts, is completely inadequate under CEQA. The EIR does not contain an analysis of the Project's contribution to the significant cumulative water impact in the region. The EIR analysis is a Project level analysis based on the Water Supply Assessment. The Project requires the reallocation of water from existing users. The EIR does not analyze how the water demand for the cumulative development in the area will be met. Given the existing water crisis and the lack of new supplies, the Project's demand should be found cumulatively considerable.

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Sincerely,



Andrew T. Souza
City Manager

Letter 20



County of Fresno

SHERIFF'S OFFICE
MARGARET MIMS, SHERIFF

December 16, 2009

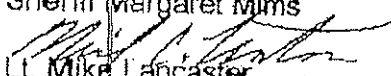
Briza Sholars
Development Services Division
Public Works & Planning Department
Re: Friant Area Plan and Friant Ranch Project

The Sheriff's Office has reviewed the draft environmental impact report regarding the Friant Ranch project in Friant, an unincorporated area of Fresno county, served by the Fresno County Sheriff's Office, Area 2.

We anticipate the location, once completed and operational, will require law enforcement services that will exceed the abilities of current Sheriff's Office staffing in that area. Therefore, prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, we request a Community Facilities District (CFD) be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD should be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.

Respectfully,

Sheriff Margaret Mims


Lt. Mike Lancaster

Fresno County Sheriff's Office
Area 2 Commander

5717 E. Shields Avenue, Fresno, CA 93727

Phone: (559) 292-1104 Fax: (559) 292-6284

E-mail: mike.lancaster@fresnosherriff.org

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Friant Community Plan: Comments on the Draft EIR

Submitted by Charles M. Ashley

As a concerned citizen, I appreciate the opportunity to submit comments on the Environmental Impact Report on the Friant Community Plan.

Regardless of whether the various aspects of the plan meet the legal requirements, this project is undesirable and will diminish both the local environment and the quality of life of residents in and around Fresno and the San Joaquin Valley.

I have lived in Fresno and Fresno County for most of my life since I was born here in 1950. My ancestors first moved to Fresno County in 1882, when my great-great grandparents moved to Burrough Valley, in part at least to take advantage of the real estate boom. Yes, they took advantage of policies and attitudes about land and resource use that persist even today—in spite of all the red flags. I know the history and the natural history of the area, and in my opinion our quality of life has diminished considerably because of overdevelopment and overpopulation.

Two facts about the San Joaquin Valley are of extreme importance: water (or the lack of it) and air quality (or the lack of it). We live in a closed air basin well known for its stagnant air. Every bit of pollution we make stays here for a long time and works on our lungs and health. We are all polluters and we have no more room for more polluters. We must put up the "No Vacancy" sign.

I recall what John S. Eastwood said about California rivers in 1914: "The California slogan ever should be, this a crime to let our rivers reach the sea." Now Eastwood is remembered as a hero for designing the Big Creek Project and the Shaver Flume, which despite what local historians say involved the degradation of more than 200 square miles of Sierra forests and watersheds. Most of us hereabouts—judging from our attitudes about economics and politics—still think the same way. That kind of thinking has been an anachronism for at least 50 years. We need to wake up. We are not satisfied to live in partnership with nature. We have to have it all. One could almost forgive Eastwood as not knowing any better.

But we now have a century of environmental science behind us, and we still don't know any better.

We still think in the same short-sighted way as Leland Stanford did when he rode horseback from Sacramento down to Fresno in 1873 and saw Easterby's fields of grain and Moses Church's ditches irrigating them. All the former governor saw was dollar signs when he decided to site a Southern Pacific railroad station here in the middle of a desert to take advantage of the wheat and cattle trade. 136 years later, our collective vision is no better. Our politicians think only about the next election and the campaign money coming in from the developers. The planners think only what the politicians who appointed them want them to think.

The long and short of it is just this: We have too many people in Fresno, Fresno County, and the San Joaquin Valley. The local resources cannot meet the needs of the people already here, and we have no moral right to steal—legally (with the flick of a politician's pen) or otherwise—from other places to satisfy the greed and convenience of more growth. We must adopt a no-growth policy in Fresno County. There is no more room for growth. In the Central Valley, there is no longer such a thing as "responsible growth." We must learn to work in partnership with the environment. If we don't stop denying nature, nature will have the last laugh and deny us.

This project must not be approved.

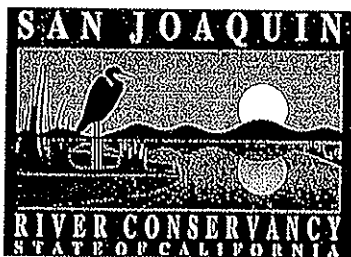
Charles M.
Ashley

Digitally signed by Charles M. Ashley
DN: cn=Charles M. Ashley,
email=wattsvalleypreservation@gmail.com,
o=Save the Foothills Coalition, l=Tollhouse,
CA
Date: 2009.12.16 09:25:18 -08'00'

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Letter 22

350.35

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

December 16, 2009

5469 E. Olive Avenue
Fresno, California 93727
Telephone (559) 253-7324
Fax (559) 456-3194
www.sjrc.ca.gov

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Citizen Representative

Melinda S. Marks
Executive Officer

Arnold Schwarzenegger, Governor
STATE OF CALIFORNIA

Mr. Bernard Jimenez
County of Fresno, Planning and Public Works
Development Services
2220 Tulare Street, 6th floor
Fresno, CA 93721

Dear Mr. Jimenez:

The Conservancy respectfully requests the County of Fresno to modify the proposed maps of the Friant Community Plan to recognize the existing land uses of two properties owned by the State of California, San Joaquin River Conservancy within the plan's boundaries:

1. Parcels 300-10-06 & 07 are a developed San Joaquin River Parkway public access site.
2. Parcel 300-16-50 is habitat conservation land, and will be developed for public access and recreation in conjunction with the County's adjacent Lost Lake Regional Park.

I believe that the Open Space designation would be appropriate for both of these properties. Parcel maps are attached.

The Conservancy also requests the County to edit the trail label on the draft map for clarity, changing it from "River Parkway" to "River Parkway Trail."

Thank you for your attention to these requests.

Respectfully,

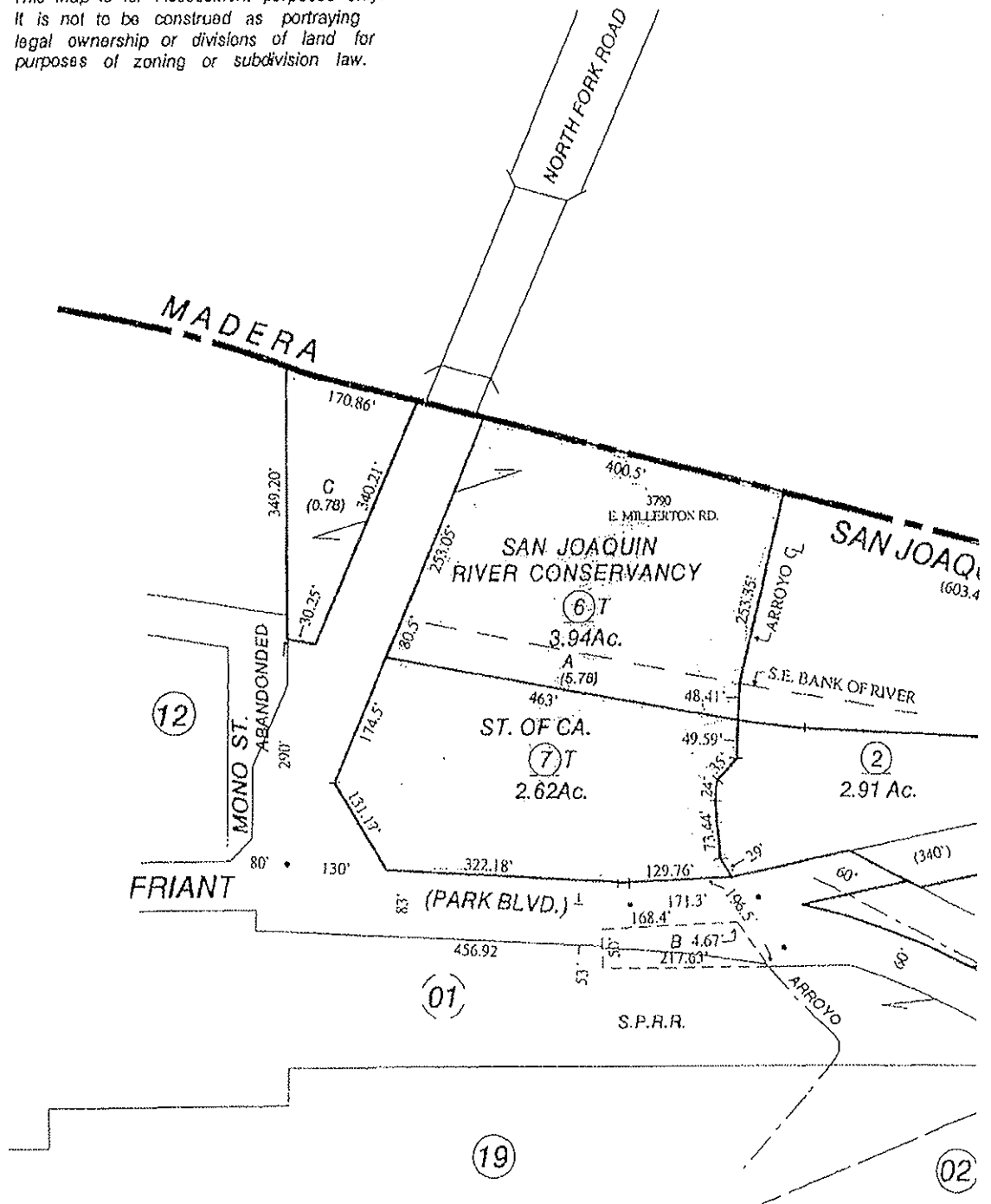
Melinda S. Marks
Executive Officer

C: Mr. Bruce O'Neal, Land Use Associates

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--- NOTE ---

This map is for Assessment purposes only.
It is not to be construed as portraying
legal ownership or divisions of land for
purposes of zoning or subdivision law.

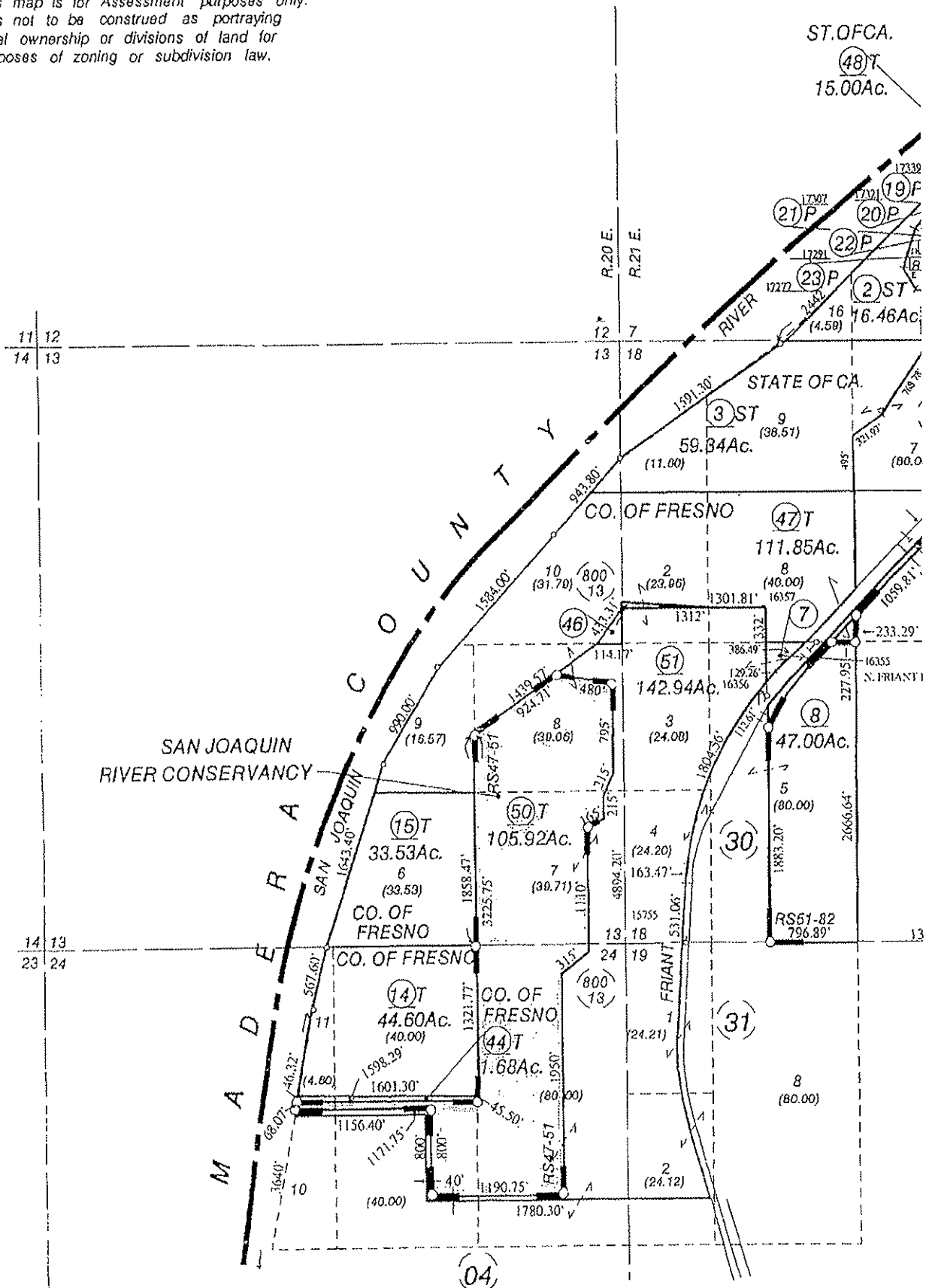


Agricultural Preserve
Record of Survey - Bk. 21, Pg. 3

SUBDIVIDED LAND & POR. SEC'S 7,13,18,19,

--- NOTE ---

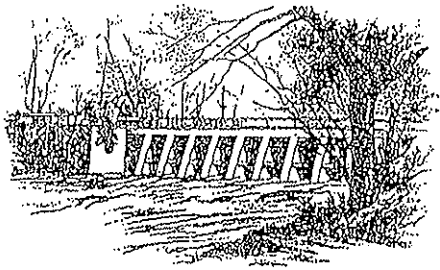
This map is for Assessment purposes only.
It is not to be construed as portraying
legal ownership or divisions of land for
purposes of zoning or subdivision law.



Agricultural Preserve
Pollasky - Plat Bk. 5, Pg. 5

Record of Survey - Bk 47, Pg. 1
Record of Survey - Bk. 51, Pg. 8

Letter 23



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FAX (559) 233-8227
2907 S. MAPLE AVENUE
FRESNO, CALIFORNIA 93725-2218

December 17, 2009

Ms. Briza Sholars
County of Fresno
Public Works and Planning
2220 Tulare Street - 6th Floor
Fresno, CA 93721

RE: Draft EIR - Friant Community Plan Update and Friant Ranch Specific Plan

Dear Ms. Sholars:

The Fresno Irrigation District (FID) has reviewed the Draft Environmental Impact Report (EIR) for the Friant Community Plan Update and Friant Ranch Specific Plan located in and on lands adjacent to the unincorporated community of Friant in north-central Fresno County and has the following comments:

1. Although the subject project area is not located within FID, it is located just a few miles north of FID's northerly boundary line.
2. The proposed development may negatively impact local groundwater supplies. Under current circumstances the project area is experiencing a modest but continuing groundwater overdraft. Should the proposed development lose the imported surface water mentioned in the EIR, this deficit will increase and will impact FID.

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions please feel free to contact James Shields at 233-7161 extension 319 or jshields@fresnoirrigation.com.

Sincerely,

William R. Stretch, P.E.
Chief Engineer

G:\Agencies\County\Environmental Impact Report\Friant Community Plan Update-Friant Ranch Specific Plan.doc

BOARD OF DIRECTORS President JEFFREY G. BOSWELL, Vice-President JEFF NEELY,
STEVE BALLS, RYAN JACOBSEN, GEORGE PORTER, General Manager GARY R. SERRATO

Letter 24

From: Greener, Irina
Sent: Friday, December 18, 2009 3:50 PM
To: Sholars, Briza
Cc: Ramirez, Augustine
Subject: Comments DEIR for the Friant Community Plan Update & Friant Ranch Specific Plan

Briza,

The water/geology section reviewed the DEIR and has no comments at this time.

□ 1

Irina Greener
Geologist
Water, Geology & Natural Resources
Development Services Division
Public Works and Planning Department
County of Fresno
Phone: (559) 442-2403
Fax: (559) 442-6700
Email: igreener@co.fresno.ca.us



Linda S. Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair

1685 E Street, Fresno, California 93706
(559) 445-5116 • Fax (559) 445-5910
<http://www.waterboards.ca.gov/centralvalley>

Letter 25



Arnold
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FRESNO COUNTY
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22 December 2009

Briza Sholars, Planner III
Fresno County
Department of Public Works & Planning
2220 Tulare Street
Fresno, CA 93721

FRIANT COMMUNITY PLAN UPDATE AND FRIANT RANCH SPECIFIC PLAN DRAFT ENVIRONMENTAL IMPACT REPORT, EIR# 5481, FRESNO COUNTY

Your request for comments on the Draft Environmental Impact Report (DEIR) for the Friant Community Plan Update and Friant Ranch Specific Plan project was received on 30 October 2009. Friant Ranch, a Limited Partnership (Applicant) is proposing to develop a master planned community on a 942-acre parcel adjacent to the existing community of Friant.

During a 29 October meeting, the Applicant provided additional information about the project. Specifically, the Applicant has modified configuration of the development from the proposed configuration to Alternative 3: Northeast Development Configuration. This modification reduces the footprint of the developed area to protect biologically sensitive areas.

According to the DEIR, Alternative 3 will concentrate development on approximately 482 acres, including approximately 2500 residential units and 250,000 square feet of commercial area. Approximately 460 acres will be dedicated onsite open space maintained under conservation easements. According to the Applicant, the United States Army Corps of Engineers (Corps) has issued a jurisdictional determination that Alternative 3 will impact 5.43 acres of jurisdictional waters of the U.S. and, therefore, the Applicant must obtain a permit for the discharge of dredged or fill material into these waters pursuant to the Federal Clean Water Act Section 404 of the Clean Water Act from the Corps. For the Corps permit to be valid, the Applicant must also obtain a Section 401 Water Quality Certification from this office. The Central Valley Water Board will review the Section 401 certification application and will issue a certification with conditions to ensure that discharges will not violate State water quality standards. Impacts to an additional 1.35 acres, determined by the Corps to be waters of the State, will also require impact mitigation, which may be included in the Corps permit, or may require individual waste discharge requirements from the Central Valley Water Board.

As construction associated with this development will disturb more than one acre, compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities is required. The General Permit was adopted by the State Water Resources Control Board on 2 September 2009 and becomes effective on 1 July 2010. This

California Environmental Protection Agency

22 December 2009

General Permit requires all dischargers to electronically file all Permit Registration Documents (PRDs), Notices of Termination (NOT), changes of information, annual reporting, and other compliance documents required by this General Permit through the State Water Board's Storm water Multi-Application and Report Tracking System (SMARTS) website. The General Permit requires development of a Storm Water Pollution Prevention Plan to control all pollutants and their sources associated with construction, construction site erosion and all other activities associated with construction activity. Additionally, the General Permit contains post-construction standards that should be addressed within the project planning process.

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cont.

The project proposes to collect and treat wastewater from the development at a new wastewater treatment facility that will be constructed near the project boundaries. The treatment facility will be designed to serve the development as well as the community of Friant, replacing the existing wastewater treatment facility. Proposed wastewater disposal options include discharge to the San Joaquin River, discharge to land, specifically to percolation ponds, and reclamation by irrigation of landscaping and agricultural land. The reclamation option and the consolidation proposal of wastewater treatment facilities within the community are consistent with Central Valley Water Board Resolution No. R5-2009-0028, *In Support of Regionalization, Reclamation, Recycling and Conservation for Wastewater Treatment Plants*, and the federal Clean Water Act goal of eliminating the discharge of pollutants into navigable waters. The project design should only consider a discharge to the San Joaquin River as a last resort disposal option.

3

Thank you for the opportunity to comment on this Draft Environmental Impact Report. If you have any questions regarding our comments, please contact me by phone at (559) 445-6281 or by email at dbates@waterboards.ca.gov.



DEBRA BATES
WRC Engineer

cc: State Clearinghouse, Sacramento

Letter 26

William D. Ross
Kypros G. Hostetter
Karin A. Briggs
Isabel Bicueta

Law Offices of
William D. Ross
A Professional Corporation
520 South Grand Avenue, Suite 300
Los Angeles, CA 90071-2610
Telephone: (213) 892-1592
Facsimile: (213) 892-1519

Palo Alto/Office:
400 Lambert Street
Palo Alto, California 94306
Telephone: (650) 843-8080
Facsimile: (650) 843-8093

File No: 10/44

December 22, 2009

VIA FACSIMILE & US MAIL
(559) 262-4893

Briza Sholars, Planner III
County of Fresno
Department of Public Works and Planning
Development Services Division
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Re: Comments on Draft Environmental Impact Report; Friant Community Plan
Update and Friant Ranch Specific Plan

Dear Ms. Sholars:

This office represents the Fresno County Fire Protection District ("District"). This communication comments on the Draft Environmental Impact Report ("DEIR") for the County of Fresno ("County") Friant Community Plan Update and Friant Ranch Specific Plan ("Project").

I. INTRODUCTION AND SUMMARY OF COMMENTS

The District encompasses approximately 2,655 square miles and serves a population of more than 220,000 citizens. It is bounded on the east by the Sierra Nevada Mountains and on the west by the Coastal Mountain Range and includes the unincorporated areas of the County as well as territory included within the County's sphere of influence.

Although the DEIR provides an assessment of Project's impact to the District's fire protection services for the development authorized by the Project (specifically the DEIR provides for the formation of a Community Facilities District ("CFD") to address Project impacts associated with maintaining adequate District staffing and facilities), the District believes the County in asserting the Project under the California Environmental Quality Act (Public Resources Code §§ 21000 *et seq.*, "CEQA") has an obligation in the DEIR to address the impact

Briza Sholars, Planner III
County of Fresno
Department of Public Works and Planning
December 22, 2009
Page 2

on the Project resulting in physical changes to the environment caused by the past, current and on-going economic impacts of the current state fiscal crisis.

II. CEQA PRIMARY PURPOSES

CEQA has two primary purposes which are only partially satisfied by the DEIR. First, CEQA is designed to inform decision-makers and the public about the potential, significant effects of a project and inform the public of the reasons why a project is approved despite having significant environmental effects.¹ Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring feasible alternatives or mitigation measures.²

III. PROJECT DESCRIPTION

An EIR's project description must contain a general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals, if any, and supporting public facilities.³ An accurate, stable, and finite project description is a prerequisite to an informative and legally sufficient EIR.⁴

The DEIR's Project description⁵ fails to include a description of the State and County's economic condition and, thus, fails to address physical changes to the environment that may be caused by Project's economic effects undercutting public review. Although CEQA generally does not require an analysis of the economic and social effects of a project, physical changes to the environment caused by a project's economic and social effects must be analyzed if those effects are potentially significant.⁶ Economic effects resulting from a project may be found to cause a significant physical impact that must be analyzed in the EIR.⁷

Here, physical changes to the environment, in the form of reduced public services as well as related impacts on facilities and equipment, caused by the Project's economic effects on the physical environment could be potentially significant given the State, County and District fiscal condition. California's cities, counties and special districts face a combined loss of \$2 billion in

¹ See 14 Cal. Code Regs. (hereinafter "CEQA Guidelines") §15002(a)(1) and (4); *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553.

² See CEQA Guidelines § 15002(a)(2) and (3); *Laurel Heights Improvements Ass'n v. Regents of the University of California* (1988) 47 Cal.3d 376, 400; *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1354.

³ CEQA Guidelines § 15124 (c).

⁴ *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192.

⁵ DEIR, 2-1 - 2-31

⁶ See CEQA Guidelines §15064(e); *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1215-16 (holding that EIR improperly dismissed possibility that large shopping center could drive other retailers out of business as economic effect, when urban decay and other blightlike conditions could result.)

⁷ See *El Dorado Union High Sch. Dist. v. City of Placerville* (1983) 144 Cal.App.3d 123.

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cont.

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Briza Sholars, Planner III
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property tax revenue to the state this year alone. In July of this year, Governor Arnold Schwarzenegger *again* declared a State fiscal emergency and, with support from two thirds of the Legislature, suspended Proposition 1A ("Prop 1A") permitting the State to borrow eight percent of property taxes that otherwise would have gone to local government, including the County, the District and other local government entities which provide fire services adjacent to the Project.

Official notice can be taken that the general fund of cities and counties across the State has been severely impacted by the loss of tax revenue over the past few years due to the decline in real estate values and the resulting reduction in the share of one percent of property tax, including the County's property tax. This reduction directly impacts the level of local government services.

The DEIR's Project description addresses physical changes to the environment that may be caused by Project's economic effects to aid public review; the creation of a CFD and the extension of the Friant Redevelopment Plan by twenty (20) years in order to maximize potential redevelopment funds. Although CEQA generally does not require an analysis of the economic and social effects of a project, physical changes to the environment caused by a project's economic and social effects must be analyzed if those effects are potentially significant.⁸ Economic effects resulting from a project may be found to cause a significant physical impact that must be analyzed in the EIR.⁹

An accurate project description is imperative for an intelligent evaluation of the potential environmental effects of a proposed activity.¹⁰ Accordingly, the Project's DEIR description needs to be supplemented to comply with the CEQA requirement that a project description be accurate for an informative and legally sufficient DEIR. Without a project description that includes the County's fiscal condition on which to base the EIR's analysis, CEQA's objectives of public disclosure and informed environmental decision-making are thwarted.

IV. ENVIRONMENTAL SETTING

An EIR must describe the environmental setting for a proposed project to establish the baseline that a lead agency can use to determine whether project impacts are significant.¹¹ Establishment of the baseline is critical to a meaningful assessment of the environmental impacts of a project because the significance of environmental impacts cannot be determined without

⁸ See CEQA Guidelines § 15064(e); *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1215-16 (holding that EIR improperly dismissed possibility that large shopping center could drive other retailers out of business as economic effect, when urban decay and other blightlike conditions could result.)

⁹ See *El Dorado Union High Sch. Dist. V. City of Placerville* (1983) 144 Cal.App.3d 123.

¹⁰ *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 730.

¹¹ CEQA Guidelines § 15125.

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setting this baseline.¹² The EIR must describe the "physical environmental conditions in the vicinity of the project" as they exist when the notice of preparation ("NOP") for the EIR is published. This description of physical environmental conditions must include both a local and regional perspective.¹³

The DEIR describes the Project's environmental setting¹⁴ because it identifies the public service improvements that currently provide public services to property that will be developed. For example, the DEIR identifies CalFire as the current public agency that provides fire protection for the Project property to be developed and states that there is currently one fire station that serves the area.¹⁵ The DEIR also identifies the Fresno County Sheriff's Department as the law enforcement agency that currently provides services to the property to be used for the Project.¹⁶ Stated another way, the DEIR provides an adequate environmental setting to adequately address the impacts that the Project will have on District's public improvements, and other agencies' public improvements and, thus, impact on the physical environment.

The DEIR's identification of the public improvements that currently serve the Project property provides an adequate description of the environmental setting, and thus sets an adequate baseline. However, to provide a truly meaningful assessment of the environmental impacts of the Project's economic effects, the DEIR's environmental setting may need to be revised to incorporate the current fiscal situation in the area.

V. DESCRIPTION OF IMPACTS ON THE ENVIRONMENT

The adequacy of an EIR's project description is closely linked to the adequacy of the EIR's analysis of the Project's environmental impacts. An EIR must contain a project description that is sufficient to allow an adequate evaluation of the project's environmental impacts.¹⁷

Given that the Project description fails to include a description of the State, County, and District's economic condition in light of the suspension of Prop 1A, the Project description may be insufficient to determine whether there will be significant physical changes to the environment caused by the Project's economic effects. The impact analysis for the Project states that development will increase the demand for fire protection services which will result in the need for the CDF to adequately support additional personnel and facilities.¹⁸ However, because the project description does not discuss the ongoing fiscal crisis, and the CDF is to be maintained

¹² *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 199.

¹³ CEQA Guidelines §15125(a).

¹⁴ DEIR, 3-257 – 3-264

¹⁵ DEIR, 3-262.

¹⁶ DEIR, 3-263.

¹⁷ *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 27.

¹⁸ DEIR, 3-265

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by a special tax assessment on the developed property, the DEIR may underestimate the impacts, resulting from the additional demand, to the District's fire protection services for the property that is proposed to be developed.

Additionally, the description of the environmental setting effects the impact analysis and can render it legally inadequate.¹⁹ The DEIR does not identify the status of funding for the public improvements that currently serve the Project property which is part of the environmental setting for the Project. Accordingly, the DEIR fails to establish a baseline that may be necessary for a meaningful assessment of the environmental impacts the Project will have on the District, and other public service agencies, that currently serve the Project property.

Because the District is proposed to be the sole provider of fire services to the Project area, the County, as the lead agency, is required by law to perform an adequate environmental review which takes into account, describes and analyzes the impacts that the proposed will have on the District's fire protection services for the property that is proposed to be detached from the District and impact on fire protection services in the remaining portions of the District.²⁰ Accordingly, the County should be mindful that the DEIR may need to be revised to incorporate such an analysis.

VI. PROJECT ALTERNATIVES

The DEIR describes a range of Project alternatives which may not be sufficient or "feasible."²¹ An EIR must describe a reasonable range of alternatives to the proposed project, or its location, that would feasibly accomplish most of the project's basic objectives while reducing or avoiding any of its significant effects. An EIR must contain sufficient information about each alternative to permit an evaluation of the relative merits of the alternatives and the project.²² The analysis must contain concrete information about each alternative sufficient to allow a fact-based comparison of the alternatives with the project.²³ An EIR's analysis of alternatives must be specific enough to allow informed decision making and public participation.²⁴ Generally, courts review potential alternatives to determine whether they: 1) can substantially reduce significant environmental impacts; 2) can attain most of the basis project objectives; 3) are potentially feasible and 4) are reasonable and realistic.²⁵

¹⁹ *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4th 713.

²⁰ The issue is not simply one of whether the City is able to provide municipal services to the Project area better or more efficiently than other local government agencies. There is no question that such decisions are within the province of LAFCO. Rather, the initial issue is whether the environmental impacts of any proposed revisions to existing land uses and their intensity have been adequately reviewed, analyzed, and disclosed to the public.

²¹ CEQA Guidelines §15364 ("Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors").

²² CEQA Guidelines §15126.6(a).

²³ See CEQA Guidelines §15126.6(d).

²⁴ *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 406.

²⁵ CEQA Guidelines §15126.6 (c).

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Economic viability is a factor that may be considered when assessing the feasibility of alternatives. In *Citizens of Goleta Valley v. Board of Supervisors*, the court noted the agency's conclusion that an alternative site was infeasible was supported by an economic analysis that showed that the site could not support a version of the project large enough to be economically viable.²⁶ Again, the reference to economic viability in the CEQA Guidelines relating to alternatives underscores the general principal that economic considerations are an important component of determining feasibility of alternatives under CEQA.

The DEIR describes a reasonable range of alternatives because, as discussed above, it provides an adequate project description, environmental setting, and adequate description of the impacts on the environment. However, all of the project alternatives would have less of an impact on public services than the proposed project. Thus, the DEIR may need to provide more information about each alternative to allow evaluation, analysis, and comparison with the Project.²⁷ For example, in considering the economic feasibility of each alternative, the DEIR does not go into detail. The DEIR does not provide an economic analysis for each of the project alternatives to adequately assess the potential impacts the Project's economic effects will have on the physical environment. Such an economic analysis may help to determine the feasibility of each project alternative, and aid informed decision making and public participation. Nevertheless, the DEIR's project description adequately describes the Project by addressing potential impacts to the District's fire protection services for the property, informing the public whether the Project can be located at another County location to avoid or reduce negative effects on these public services.

VII. MITIGATION MEASURES

A fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental impacts can be mitigated or avoided.²⁸ Accordingly, an EIR must describe feasible mitigation measures that can minimize the project's significant environmental effects.²⁹ Mitigation measures should be feasible, practical and effective.³⁰

The DEIR proposes the formation of a CFD as mitigation for the increased demand on public services, including the fire protection services provided by the District. The DEIR states that there are plans for a second fire station and that the formation of a CFD, created by an initial per-unit capital contribution and sustained by special tax assessments on the Project property will reduce the impact on public services.³¹ Nevertheless, the DEIR fails to take into account the

²⁶ (1990) 52 Cal.3d 553, 575 n7.

²⁷ CEQA Guidelines § 15126.6 (d).

²⁸ Public Resources Code § 21002.1(a), 21061.

²⁹ CEQA Guidelines §§ 15121(a), 15126(a).

³⁰ *Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 365.

³¹ DEIR, 3-266.

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current fiscal crisis and the suspension of Prop 1A and the impact on local government providing Public Safety services. Thus, even the CFD may not necessarily provide a reliable source of funding for staffing and facilities for Public Services, including fire, for Project.

VIII. CONCLUSION

Given that the DEIR addresses CEQA's directives concerning project description, environmental setting, description of impacts on the environment, project alternatives, and mitigation measures, the District believes that the DEIR complies with CEQA. However, to ensure that the DEIR provides adequate funding for the increased demand on fire protection services as a result of the Project, the District urges the County that additional analysis of the current fiscal crisis may be needed to ensure the long term success of the operation and maintenance of the CFD.

Consistent with Public Resources Section 21177, the District reserves the right to comment further upon the environmental review of the Project.

Very truly yours,



William D. Ross

WDR:ms

cc: Keith A. Larkin, District Chief
Fresno County Fire Protection District

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FRIANT RANCH L.P.

December 23, 2009

Briza Sholars
Fresno County Public Works and Planning Department
Planning & Environmental Analysis
2220 Tulare Street- 6th Floor
Fresno, California 93721

*Re: Comments on Friant Community Plan Update and Friant Ranch Specific
Plan Draft Environmental Impact Report #5481*

Dear Ms. Sholars:

As the Friant Ranch Specific Plan applicant, Friant Ranch, L.P. (Friant Ranch) appreciates the time and effort that Fresno County staff and the consultants have put into the Draft Environmental Impact Report (Draft EIR) for the Friant Community Plan Update and Friant Ranch Specific Plan (Project). We respectfully request your consideration of the following comments pertaining to the proposed mitigation addressing biological and traffic impacts.

The Draft EIR provides a comprehensive and detailed analysis of the Project impacts and proposes extensive mitigation to minimize, to the extent feasible, the effects of the Project on the environment. Friant Ranch understands the need for appropriate mitigation and, despite the associated costs, generally embraces the proposed mitigation.¹ However, with respect to certain biological and traffic impacts, the Draft EIR simply goes beyond the bounds of reasonableness. Consistent with the California Environmental Quality Act, Public Resources Code sections 21000 et seq. (CEQA), and the United States Constitution, Friant Ranch urges the County to reconsider the following mitigation measures:

- MM 3.13-5a: North Fork Road/Road 206 intersection
- MM 3.13-5o: Road 206 segment in Fresno County
- MM 3.13.4b: Road 206 segment in Madera County [Road 206 bridge portion]
- MM 3.4.1b(1): Hartweg's golden sunburst
- MM 3.4.1c(3): Vernal pool fairy shrimp (buffers)
- MM 3.4.1c(4a): Vernal pool fairy shrimp (stormwater runoff)

¹ These comments reflect the priority issues identified upon review of the Draft EIR. Friant Ranch expressly reserves the right to submit additional comments on these and other issues throughout the County process.

- MM 3.4.1d(1): California tiger salamander
- MM 3.4.1g(2): Burrowing owl (pre-construction surveys)
- MM 3.4.1g(4): Burrowing owl (endowment)
- MM 3.4.1g(6): Burrowing owl (weekly monitoring)
- MM 3.4.1h: American badger
- MM 3.4.1i(1-2): Nesting raptors (pre-construction surveys)
- MM 3.4.1i(2): Nesting raptors (buffers)
- MM 3.4.9a(1): Spiny sepeled button celery (Community Plan area surveys)
- MM 3.4.9a(2): Spiny sepeled button celery (Community Plan area avoidance)
- MM 3.4.9b(1): Vernal pool fairy shrimp (Community Plan area)
- MM 3.4.9h(2): Burrowing owl (Community Plan area offsite surveys)
- MM 3.4.9h(4): Burrowing owl (Community Plan area endowment)
- MM 3.4.9h(6): Burrowing owl (Community Plan area weekly monitoring)
- MM 3.4.9h(1): Nesting raptors (Community Plan area surveys)
- MM 3.4.9h(2): Nesting raptors (Community Plan area buffers)
- MM 3.4.9k: American badger (Community Plan area)

As demonstrated herein and within the attached correspondence from David Hartesveldt, a qualified biologist at Live Oak Associates (hereinafter "Exhibit A", incorporated herein by reference), the above-referenced mitigation measures (MM) are not necessary, feasible², practical, roughly proportional to the identified Project impact, or effective. As such, the County should modify or eliminate the above-referenced measures.

Mitigation of Traffic Impacts

The Draft EIR requires the applicant to pay an unquantified fair share mitigation fee for certain improvements to the intersection of Friant Road and Road 206 and the Road 206 segment west of Friant Road. (See MM 3.13-5a, 3.13-5o, and 3.13-4b.) The Road 206 segment west of Friant Road includes an existing 2-lane bridge crossing the San Joaquin River. The midline of the San Joaquin River serves as the county line between Madera County and Fresno County in this area. As such, the Draft EIR includes mitigation for the Road 206 segment within Madera County (MM 3.13-4b) and within Fresno County (MM 3.13-5o.) The Road 206 segment that falls within Fresno County (including the eastern half of the bridge) extends approximately 825 feet from the bridge to Friant Road. Thus, the proposed improvement to widen the river crossing to four lanes is directly connected to the proposed configuration of the short Road 206 segment within Fresno County and its intersection with Friant Road. Thus, we address MM 3.13-5a, 3.13-5o, and 3.13-4b collectively below.

The Draft EIR and Traffic Impact Study are unclear as to the scope of proposed mitigation for the segment of Road 206 west of Friant Road. (Mitigation Measures 3.13-5o and 3.13-4b.) While the Draft EIR makes no mention of the existing bridge crossing the San Joaquin River along Road 206 west of Friant Road, the Traffic Impact Study suggests that Friant Ranch must pay a fair share fee to fund widening this segment to four lanes, "including widening the bridge across the San Joaquin River." (Draft EIR,

² CEQA defines "feasible" as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological and legal factors. (Pub. Resources Code, § 21061.1.)

Appendix D at pp. 113, 129.) In other portions of the Traffic Impact Study, however, "a lane drop in advance of the existing bridge" was contemplated in lieu of a bridge widening. (Draft EIR, Appendix D, pp. 73, 86.) Friant Ranch urges the County to clarify that the Road 206 bridge widening is not included in the scope of mitigation required for the segment of Road 206 west of Friant Road.

Though the Traffic Impact Study casually calls for "widening" of the Road 206 bridge to four lanes, a complete realignment and replacement of the existing bridge and adjacent roadway segment within Fresno County would be necessary to provide a four-lane San Joaquin River crossing along the Road 206 segment west of Friant Road. Moreover, it is our understanding that current engineering and flood control requirements would require constructing the replacement bridge at an elevation considerably higher than the existing bridge (e.g., an increase of approximately 30 feet). The realignment and raised elevation of the bridge would necessitate considerable changes to the entire alignment and elevation of the Road 206 segment within Fresno County, immediately east of the future crossing.

Since the Road 206 bridge falls within both Fresno and Madera Counties, the proposed bridge improvements would require the approval and involvement of both counties. As explained in the Traffic Impact Study, Fresno and Madera Counties have identified the need for improvements to the regional transportation network to facilitate improved and additional San Joaquin River crossings, and commissioned the San Joaquin River Transportation Study prepared by URS Corporation (River Crossing Study) to analyze the feasibility of various alternatives, including replacing the Road 206 bridge. (Draft EIR, Appendix D, p. 24.) As demonstrated by the River Crossing Study, the necessary improvements to the Road 206 river crossing will require inter-agency planning, regional funding, and extensive engineering to design a feasible plan to improve this Road 206 segment and intersection with Friant Road. Though the information provided in the River Crossing Study is a good start, there is no evidence currently available to suggest that Fresno and Madera County will have the plans and funding in place to construct the proposed improvements in the reasonably foreseeable future, if at all. (*Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (*Napa Citizens*) (2001) 91 Cal.App.4th 342, 364 [mitigation measures that cannot be accomplished within a reasonable period of time are infeasible].)

The River Crossing Study suggests that it would take \$399 million to make the necessary improvements to the Road 206 San Joaquin River crossing, the intersection of Road 206 and Friant Road, and the adjacent segment of Road 206 within Fresno County. Though the \$399 million estimate likely analyzes more extensive improvements than what is specifically identified by the Draft EIR, the \$399 million estimate is the only information currently available that provides any idea of what it would take to make the necessary improvements to this Road 206 river crossing and adjacent road segment and intersection.

The Draft EIR estimates that Friant Ranch Specific Plan and Depot Parcel development will contribute approximately 17% of the year 2030 cumulative condition on the Road 206 segment west of Friant Road and its intersection with Friant Road. Given the regional context of this roadway and the limited number of vehicle trips on this segment of Road 206 resulting from the Friant Ranch Specific Plan and Depot Parcel development, this percentage is inappropriately high. However, assuming that the appropriate fair share percentage is 17% and that the \$399 million estimate is a fair indication of what it might take to improve the intersection, Fresno County segment of Road 206, and the San Joaquin River crossing at Road 206, the Friant Ranch Specific

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Plan and Depot Parcel mitigation requirement would be \$67.83 million dollars or roughly \$22,640 per unit. This is an incredible financial burden to impose on one project and completely out of proportion to the Project's share of the traffic delays expected at this location under the anticipated year 2030 cumulative condition. (CEQA Guidelines, § 15126.4, subsections (a)(4)(B) and (a)(5) [mitigation measures are legally infeasible if they are not reasonably related to the adverse impacts created by the project].) Moreover, given that there are no inter-County agreements or funding programs currently in place (or even pending) to effectuate the proposed improvements, the likelihood that the applicant's fair share fees would result in any actual mitigation of the traffic delays in the reasonably foreseeable future is completely speculative and highly unlikely. (*Napa Citizens*, 91 Cal.App.4th at 364 [mitigation measures that cannot be accomplished within a reasonable period of time are infeasible].)

Further, the Draft EIR fails to acknowledge the following significant physical, practical and economic constraints to the proposed improvements to the Friant Road and Road 206 intersection (MM 3.13-5a):

- Significant physical constraints affect the ability to carry out MM 3.13-5a's proposed widening to create a second north bound left-turn. The County recently widened the southbound lanes of this portion of Friant Road. As a result, approximately 200 feet south of the intersection the southbound lanes have an edge of pavement within 10 feet of existing buildings (i.e., a hotel) within the vicinity of the southwest corner of the proposed intersection. At the northeast corner of the proposed intersection there is an existing gas station and commercial area with two access points to Friant (Millerton) Road and one to Reclamation Ave (Road 206). The proposed second northbound left-turn lane would extend along this commercial frontage and would inevitably occupy space currently used by the existing land uses. Even assuming the County condemned these areas or otherwise obtained rights to construct a roadway on the private property on either side of the proposed intersection, due to the vertical elevation differences of the current road and the adjacent land currently occupied by the gas station/commercial area, the proposed intersection configuration could only be constructed with the incorporation of costly retaining walls and the closure of one of the access points for the existing gas station/commercial area. Reduction of an access point at the existing gas station/commercial area would pose safety and access concerns.
- The proposed southbound improvements would require an addition of approximately 24 feet of pavement adjacent to a recently constructed public park and ride facility at the northwest corner of the intersection. This would require additional right-of-way take and potentially impact existing landscaping, established rock monuments, and the size and number of cars that can be parked in the lot.
- The proposed eastbound improvements would require an addition of approximately 24 to 30 feet of pavement which will impact either or both the park and ride parking lot facility at the northwest corner of the intersection and vacant parcels at the southwest corner of the intersection. The park and ride lot could also be impacted by right-of-way take and could result in reduced functionality of the parking lot as intended. Additional right-of-way take to vacant lots on the southwest corner could impose an unreasonable restriction to the respective landowners' ability to build on their property within the reduced lot area.

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- The proposed westbound improvements (2 lanes total) are mainly impacted by the disproportionate number of lanes required eastbound (5 lanes total) because generally accepted traffic safety standards require the east- and west-bound through lanes to be aligned, which will require additional pavement width and transitions not otherwise required to accommodate anticipated westbound traffic. As such, the westbound improvements would unreasonably restrict land uses either at the gas station and commercial area at the northeast corner or the vacant property at the southwest corner.
- As suggested above, the intersection of Friant Road and Road 206 would have to be planned in such a way so as to accommodate the proposed replacement and realignment of the Road 206 bridge. The precise engineering of any such replacement and realignment remains unknown and highly speculative. However, since Friant Road is within 800 feet of the existing bridge, the configuration, alignment, and elevation of the east and west bound lanes would have to coincide with the location and elevation of the Road 206 bridge. As suggested by the \$399 million estimate set forth in the River Crossing Study, the costs of completely altering the existing intersection far exceed the normal costs of adding signals and additional turning lanes to an existing intersection.

In sum, the fair share requirement imposed on the Project for improvements to the intersection of Friant Road and Road 206, the Road 206 segment west of Friant Road within Fresno County, and the Road 206 bridge (MM 3.13-5a, 3.13-5o, and 3.13-4b) are completely infeasible, impractical and out of proportion with the Friant Ranch Specific Plan and Depot Parcel's contribution to the anticipated cumulative traffic delays and inadequate levels of service. Moreover, there is no evidence to suggest that the applicant's payment of a fair share mitigation fee for the identified improvements to this portion of the regional transportation network would be effective in mitigating the identified impacts in the reasonably foreseeable future. As such, these mitigation measures must be eliminated.

Mitigation of Biological Impacts

The Draft EIR provides extensive and comprehensive mitigation and alternatives analysis to ensure that the Project does not result in a significant impact to biological resources. Friant Ranch understands the need to impose reasonable, feasible mitigation measures as necessary to minimize significant impacts to biological resources. However, in several instances the Draft EIR proposes mitigation measures that simply are not practical, reasonable, appropriate or necessary. (See Exhibit A [Live Oak Associates correspondence described above and incorporated herein by reference].)

Substantial evidence in the record demonstrates that the biological studies conducted by Live Oak Associates in conjunction with the preparation of the Draft EIR (Draft EIR, Appendix E) were exhaustive and conclusive. As explained in the attached Exhibit A, mitigation measures 3.4.1b(1), 3.4.1c(3), 3.4.1c(4a), 3.4.1d(1), 3.4.1g(2), 3.4.1g(4), 3.4.1g(6), 3.4.1h, 3.4.1i(1), 3.4.1i(2), 3.4.9a(1), 3.4.9a(2), 3.4.9b(1), 3.4.9h(2), 3.4.9h(4), 3.4.9h(6), 3.4.9i(1), 3.4.9i(2), 3.4.9k do not provide meaningful additional mitigation beyond the extensive mitigation otherwise required in the Draft EIR, which is sufficient to reduce biological impacts to a less than significant level. (CEQA Guidelines, § 15126(a)(4)(B) and (a)(5) [mitigation measures are legally infeasible if they are not reasonably related to the adverse impacts created by the project]; *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1989) 209 Cal.App.3d 1502,

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Ms. Briza Sholars
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1519 [lead agencies "need not, under CEQA, adopt every nickel and dime mitigation scheme brought to its attention or proposed in the project EIR"].) As such, these measures should be modified or eliminated consistent with the recommendations in the attached Exhibit A.

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Thank you for your consideration of these comments.

Sincerely,

FRIANT RANCH L.P.

A handwritten signature in cursive script, appearing to read "Dennis Bacopulos".

Dennis Bacopulos
Operating Manager

Attachment

cc: Bruce O'Neal
Bryan Wagner, Esq.

EXHIBIT A



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

December 22, 2009

Dennis Bacopulos
Friant Ranch L.P.
Operating Manager
1322 East Shaw Avenue, Suite 340
Fresno, Ca 93710

RE: Comments on *Friant Community Plan Update and Friant Ranch Specific Plan, Draft Environmental Impact Report*, "Biological Resources Section"

Dear Dennis:

I provide below my comments on the biological resources section of the Draft Environmental Impact Report (DEIR) for the Friant Community Plan Update and Friant Ranch Specific Plan.

COMMENTS RELEVANT TO THE SPECIFIC PLAN ANALYSIS

Comment 1: Hartweg's Golden Sunburst Impact and Mitigation Discussion (Mitigation Measure 3.4.1b[1])

The DEIR requires pre-construction surveys of the proposed development area for Hartweg's golden sunburst populations not already documented.

LOA conducted extensive surveys for Hartweg's golden sunburst within the Specific Plan Area (SPA) during the spring of 2006, which followed a wet winter (rainfall was approx. 150% of average). Conditions were optimal for viewing this species. It is unlikely that conditions would be better in future years, and in fact conditions would likely be worse. Pre-construction surveys as prescribed by the DEIR would be unlikely to identify previously undocumented populations of this species. Because surveys for Hartweg's golden sunburst were thorough and conducted in an optimal year for observing it, and because all populations of this species were mapped using GPS technology having sub-meter accuracy, additional surveys would not be warranted. This mitigation measure should be dropped.

Comment 2. Vernal Pool Fairy Shrimp Impact and Mitigation Discussion (Mitigation Measure 3.4.1c [3 and 4a])

Mitigation Measure 3 of the DEIR requires that "designated open space proposed for the project site will provide buffers of 100 to 450 feet between developed areas of the project site and

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vernal pools." As noted in the Biological Evaluation (BE) prepared by LOA attached as Appendix E to the DEIR, the minimum buffer distance is to be 75 feet, not 100 feet. This buffer will acceptable for several reasons. These are:

- Robust vernal pool fairy shrimp populations have been found in vernal pools located immediately abutting busy roads (including Hwy. 41 in Madera County) and leveled land used for citrus production (Rio Mesa Planning Area). Vernal pool fairy shrimp populations have also been found in dry-farmed fields that are repeatedly disturbed by discing, planting, and harvesting. Proximity to development does not appear to adversely affect vernal pool fairy shrimp populations. Therefore, a disturbance-free buffer will be more than adequate to protect any vernal pool fairy shrimp that may occur in pools located 75 or more feet from the development boundary.
- The project/open space boundaries will be fenced and signed to keep people and off-road vehicles out of the open space. The concern about human and off-road vehicle encroachment into the open space is somewhat misplaced, since cows and ranch vehicles encroach on the vernal pools of the site under existing conditions, and vernal pool fairy shrimp populations are not only present on the site, but appear to be robust.
- It is not material whether vernal pools of the open space area are 75 feet or 100 feet from the open space/development boundary, since mitigation measures 4a through e stipulate that the project not substantially change the hydrology or water quality of pools of the site.

Mitigation Measure 4a of the DEIR requires that "Design plans to ensure that winter stormwater runoff into open space areas of the project site will mimic to the maximum extent possible pre-project conditions." This language should be modified to read "to the maximum extent feasible," as set forth and justified in the BE.

Comment 3. California Tiger Salamander Impact and Mitigation Discussion (Mitigation Measure 3.4.1d [1])

Mitigation Measure 1 of the DEIR states that "Open space areas and vernal pool complexes of the completed project, totaling 27.4 acres, shall be linked to one another to facilitate the movements of CTS from one preserved habitat area to another," The preferred language would be "Open space areas *with* vernal pool complexes...."

Comment 4: Burrowing Owl Impact and Mitigation Discussion (Mitigation Measure 3.4.1g [2, 4, and 6])

Mitigation Measure 2 of the DEIR stipulates that pre-construction surveys be conducted for ground-nesting raptors including burrowing owls on both on the SPA and in surrounding areas up to 1,000 feet of the SPA. Required mitigation would be the establishment of a maximum 500-foot buffer around any active nests observed within the SPA.

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The requirement to survey areas on adjoining properties up to 1,000 feet in distance from the SPA is not reasonable. This is so for the following reasons:

- The applicant's biologists may not have access to private lands adjoining the SPA. If so, it would be impossible for the applicant to fully comply with this requirement.
- Most lands within 1,000 feet of the SPA are bordered by Friant Road (a four-lane expressway), residential development within the community of Friant, and the Friant-Kern Canal. Site construction would have very little impact on any burrowing owls that might nest in such areas, due to their distance from construction areas and the barriers between them and construction areas.
- The DEIR requires as mitigation for possible impacts to nesting burrowing owls within the SPA a 500-foot radius buffer. No buffer is required around burrowing owl nests outside of the SPA, let alone a 1,000-foot buffer. If only active burrowing owl nests occurring on the SPA are to be provided buffers, why have a requirement to survey adjoining lands up to 1,000 feet from the SPA boundaries? If the DEIR preparer intended to say that a 500-foot radius buffer must be provided around all burrowing owl nests, whether within the SPA or on adjoining lands, then why require surveys on lands up to 1,000 feet of the SPA boundaries? The maximum distance of such surveys from the SPA boundaries should be 500 feet.

LOA recommends that pre-construction burrowing owl surveys be confined to the project site.

Mitigation Measure 4 of the DEIR requires that the project applicant provide the Grantee (entity holding the easement) an endowment to cover the management of the conservation easement within six months of breaking ground on the SPA. The applicant may need to explore a number of options with state and federal resource agencies and a non-profit land trust for funding on-site management activities during phased project construction over a number of years. This mitigation measure could just as effectively ensure funding of management activities within on and off-site open space preserves if it provided the applicant and non-profit land trust options for such funding, rather than specifically requiring the establishment of an endowment within six months of breaking ground.

Mitigation Measure 6 of the DEIR requires that the site be monitored weekly by a qualified biologist to identify any burrowing owls that may move into the construction area while construction is proceeding. This measure further requires that monthly monitoring reports be submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game. The purpose of the weekly monitoring is to reduce the likelihood that project construction will result in mortality of burrowing owls. The preparation of monthly monitoring reports makes sense, because such reports provide clear evidence that the applicant exercised diligence in avoiding owl mortality. This measure should nonetheless be revised to read that a qualified biologist will monitor the construction site weekly if that biologist has determined that suitable burrowing owl habitat in the form of ground squirrel burrows persists on the site or has been created by the storage of open pipes. If suitable burrowing owl habitat is absent from the

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construction site following initial mass grading, weekly monitoring surveys would not be warranted.

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Comment 5: American Badger Impact and Mitigation Discussion (Mitigation Measure 3.4.1h [1 through 12])

The DEIR concludes that mortality to badgers caused by construction activities would constitute a significant adverse impact. Mitigation Measures 1 through 12 required by the DEIR fall into three categories. These include the following:

- Pre-construction surveys for badger dens within the footprint of project construction;
- Verification that likely dens are occupied, badger relocation, and construction of replacement dens in nearby open space;
- Implementation of avoidance and minimization measures drafted for the San Joaquin kit fox.

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The DEIR treats the badger as if it were a federally or state listed threatened or endangered species. The badger is a furbearing mammal, which according to California Fish and Game Code may be trapped with no bag or possession limit from November 16 through the last day of February throughout the state. LOA recognizes that the badger is a California "species of special concern," but it is difficult to reconcile the provisions of California Fish and Game Code with the DEIR's conclusion that mortality of individual badgers incidental to project construction is a significant adverse impact.

LOA concluded in the BE that the loss of badger habitat constituted a significant adverse environmental effect. As set forth in the BE, anticipated habitat loss from the project would be fully mitigated by the establishment of four open space preserves totaling in excess of 1,300 acres (nearly a 2:1 ratio). These preserves would be managed to maximize habitat values for various sensitive species, including the American badger, and the trapping of badgers that is authorized in Fish and Game Code would not be permitted.

Comment 6. Nesting Raptor Impact and Mitigation Discussion (Mitigation Measure 3.4.1i [1 and 2])

The DEIR stipulates that pre-construction surveys be conducted for nesting raptors both on the SPA and in surrounding areas up to 1,000 feet of the site. Required mitigation would be the establishment of a maximum 300-foot buffer around any active nests observed on the project site.

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As noted in the BE prepared by LOA, two cottonwood trees and several power poles provided limited nesting habitat for tree nesting raptors. Active nests were not observed during the time that LOA biologists were surveying the site for wetlands, rare plants, CTS, etc. These surveys were conducted during various seasons between the years 2003 and 2008. It would be helpful if

the EIR noted that nesting habitat for tree-nesting raptors is extremely limited within the SPA and surveys should be limited to those areas where such habitat is present.

The requirement to survey areas on adjoining properties up to 1,000 feet in distance from the SPA is not reasonable. This is so for the following reasons:

- The applicant's biologists may not have access to private lands adjoining the SPA. If so, it would be impossible for the applicant to fully comply with this requirement.
- Most lands within 1,000 feet of the SPA are bordered by Friant Road (a four-lane expressway), residential development within the community of Friant, and the Friant-Kern Canal. Site construction would have very little impact on any raptors that might nest in such areas, due to their distance from construction areas and the barriers between them and construction areas.
- The DEIR requires as mitigation for possible impacts to nesting raptors within the SPA a 300-foot radius buffer. No buffer is required around raptor nests outside of the SPA, let alone a 1,000-foot buffer. If only active raptor nests occurring on the SPA are to be provided buffers, why have a requirement to survey adjoining lands up to 1,000 feet from the SPA boundaries? If the DEIR preparer intended to say that a 300-foot radius buffer must be provided around all raptor nests, whether within the SPA or on adjoining lands, then why require surveys on lands up to 1,000 feet of the SPA boundaries? The maximum distance of such surveys from the SPA boundaries should be 300 feet.

LOA recommends that pre-construction raptor surveys be confined to the project site.

COMMENTS RELEVANT TO THE COMMUNITY PLAN ANALYSIS

Comment 7. Candidate, Sensitive, or Special Status Species Impact and Mitigation Discussion (Mitigation Measure 3.4.9a [1 and 2])

The DEIR has determined that development of the Friant Community Plan Area has the potential to eliminate populations of spiny-sepaled button celery. Any such populations affected by community plan development constitutes a potentially significant adverse environmental impact. Mitigation measures include preconstruction surveys for this species during the appropriate phenological period, and avoidance of observed populations, or compensation for take of this species.

Surveys of Lost Lake Park and the right-of-way along Friant Road have failed to detect this species. It would not occur in areas of existing development. The remaining lands within the community plan are limited, and wetland habitat suitable for this species may not even be present. The impact analysis should be re-drafted to acknowledge that vernal pool/vernal swale habitat suitable for this species is very limited in the community plan area, previous studies for two major projects have failed to detect it, and that future surveys for this species should be limited to previously unsurveyed lands having wetland habitats suitable for spiny-sepaled button celery.

Comment 8. Vernal Pool Fairy Shrimp Impact and Mitigation Discussion (Mitigation Measure 3.4.9b [1])

The DEIR concludes that vernal pool fairy shrimp are likely to occur in ephemeral pools, roadside ditches, and other seasonal water sources within portions of the community plan area. The DEIR stipulates that all possible wet areas be surveyed for vernal pool fairy shrimp according to USFWS survey protocols prior to the issuance of a grading permit. These protocols require two consecutive wet surveys or one wet season and one dry season survey.

While roadside ditches and seasonal puddles that form on disturbed lands constitute possible habitat for vernal pool fairy shrimp, such areas are not typical habitat. Vernal pools are more typical habitat. Unlisted species of fairy shrimp are more common to roadside ditches and seasonal puddles occurring in disturbed lands. *Branchinecta lindali* more frequently occurs on highly disturbed sites.

We have not encountered very many EIRs, if any, claiming ephemeral pools and roadside ditches as habitat for the vernal pool fairy shrimp, thus necessitating surveys and mitigation measures. While we know that the possibility exists that vernal pool fairy shrimp may occur in disturbed habitats such as rain-filled tire ruts, we question the significance of the impact to this species (as "significant" is defined by CEQA), if such habitats are disturbed or eliminated by a project. The following question must be asked. Will the loss of roadside ditches and ephemeral puddles in disturbed lands of the Friant Community Plan Area result in a substantial and adverse effect on vernal pool fairy shrimp populations in the Friant/Millerton area, or throughout its range? The answer is clearly no. Impacts to this species, should it inhabit disturbed human-created ditches and pools, would be inconsequential to the long-term viability of this species. Impacts to vernal pools, however, which are this species preferred habitat, may arguably affect the long-term viability of some local fairy shrimp populations.

Therefore, we recommend that the wording of this measure be revised. It should read that the loss of vernal pool habitat, if present in the community plan area, may result in the loss of vernal pool fairy shrimp, a potentially significant adverse environmental impact. The mitigation measures should be revised to read that surveys for vernal pool fairy shrimp would be warranted if vernal pools are present on a project site and the applicant wishes to determine if vernal pool fairy shrimp are absent. Alternatively, an applicant whose project may affect vernal pools can presume that vernal pool fairy shrimp are present, since the cost of mitigation for a small amount of vernal pool fairy shrimp habitat may be far less than the cost of protocol surveys.

Comment 9. Burrowing Owl and Nesting Raptor Impact and Mitigation Discussion, Friant Community Plan Area (Mitigation Measure 3.4.9h [2, 4, and 6], 3.4.9i [1, 2])

Same comments with respect to burrowing owls and nesting raptor impact and mitigation discussion as for the specific plan area. There is no apparent reason for surveys being conducted on adjoining lands (that may not be accessible to project biologists), when the only

buffers that must be provided are for active nests of individual project sites within the Community Plan Area.

Comment 10. Badger Impact and Mitigation Discussion (Mitigation Measure 3.4.9k [1-12])

Same comments with respect to American badger impacts as for the specific plan area.

Please feel free to contact me with any questions regarding these issues.

Sincerely,



David J. Hartesveldt

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Letter 28



CITY OF CLOVIS

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DEC 28 2009

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

December 24, 2009

Briza Sholars, Planner
Fresno County Department of Public Works and Planning
2220 Tulare Street, 7th Floor
Fresno, California 93721

SUBJECT: COMMENTS ON THE DRAFT EIR FOR THE PROPOSED FRIANT
COMMUNITY PLAN UPDATE AND FRIANT RANCH SPECIFIC PLAN

Dear Ms. Sholars:

We appreciate the opportunity to meet with you and your staff on this project and the opportunity to provide our late comment letter. Our concerns with the Draft EIR are provided below.

ITE Code May Underestimate Trips Generated

The traffic generation for the detached housing is based on ITE code 251 (Senior Adult Housing). It is our opinion that the traffic generation rates for this land use code underestimate the traffic that may be generated by the proposed Specific Plan. As we have pointed out in previous communications to County staff regarding the project, the ITE trip generation manual recognizes that the data set supporting this should not be relied upon at face value because it represents too wide a range of project types, age groups, and geographical settings. The analysis of potential traffic impacts is therefore defective.

It is our opinion that the Specific Plan trip generation is substantially different than the uses employed by ITE, because, though restricted to "active adults," the project exists in a setting and distance from Fresno and Clovis and is more likely to generate vehicle trips closer to single family detached housing. Many of the residents in the target age group will likely have occupations that will take them to Fresno or Clovis on a daily basis. Also, residents who are apt to live in such a setting would not be averse to traveling to the "City" for services that are not offered in the mixed use development. The viability and sustainability of the services provided would certainly play a role, but the DEIR fails to demonstrate or adequately explain how such services would not only support the population, but be supported by the population.

The small sample size in the ITE manual and the fact that the project is remote from urban type facilities such as medical facilities, banks, employment, entertainment, etc. should be accounted for in the TIS. We do not have confidence that the trip generation data set used in the DEIR can accurately reflect potential trips or impacts.

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If an ITE code other than Single Family Detached is to be used for the detached product under the premise that it is senior housing, there would need to be some surety that there's a market for a restricted senior housing development of this size and there will not be opportunity for the project to cater to other demographics under market pressure unless there is further evaluation and mitigation. It is our understanding that the age restriction cannot be made a condition of the County's approval of the project. We therefore recommend that the worst case (or highest possible traffic generator) should be evaluated as the basis for establishing project mitigations. At a minimum, the traffic generation should be estimated based on 80% age restricted units and 20% non-age restricted units.

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The Traffic Impact Study (TIS) and DEIR Analysis May Underestimate the Project's Cumulative Traffic Impacts and Clearly Avoids Feasible Mitigation Measures

The TIS and DEIR fail to analyze the impacts from the *entire* Friant Community Plan Area. The DEIR states that "this EIR also analyzes the potential impacts associated with the future buildout of vacant lands within the Existing Friant Community Plan Area according to the proposed land use designations (DEIR, p. 2-8)." Even with this statement in the project description, there is a failure to provide the analysis in the TIS and DEIR's Transportation/Traffic Section. CEQA Guidelines advise the lead agency to consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect." The traffic impacts from the Friant Community Plan Area are relevant and must be analyzed in the TIS and DEIR. Failure to do so does not provide a complete analysis of the impacts and can lead to unidentified impacts.

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The TIS and DEIR also fail to provide a complete and accurate cumulative project list resulting in an underestimation of cumulative impacts. Both project lists fail to list projects within the City of Clovis. Examples include projects that have regional impacts such as the Clovis-Herndon Shopping Center, Clovis Community Medical Center Expansion, and the Central Valley Research and Technology Business Park Expansion and other smaller projects. Pursuant to CEQA Guidelines Section 15130 (b) (1), the analysis for both individual and cumulative impacts essentially depends on a list of "past, present, and probable future projects" causing related impacts. Not including a complete cumulative list severely limits the cumulative analysis, may lead to unidentified impacts, and thwarts public review and comment of the Project's ultimate cumulative impacts.

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The DEIR inaccurately concludes that the improvements to intersections and roadways within Clovis' sphere of influence and within Clovis' boundaries are fully funded and assumes on that basis that the project has no obligation to participate in the mitigation of its impacts. The mitigation measures neglect to assign a fair share contribution from the Friant Ranch development to the improvements that will mitigate the impact of the

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increased traffic. While the Clovis development impact fee program is fairly comprehensive, it does not fully fund the improvements and relies on other sources of revenue including grants, tax measures, and projects outside the City's sphere. There are many other examples of traffic from projects within the County that impact Clovis' street system. In these projects, the impacts are normally mitigated by a fair share contribution from the development as identified in the CEQA document based on the proportionate share of traffic generated by the project.

As identified in Section 3.13 of the DEIR, including Impacts 3.13-7, a through f, and Table 3.13-19, which assumes that the traffic signals are in place at all the intersections on Willow Avenue between Copper and Shepherd, the proposed project contributes to or exacerbates LOS problems along the Willow Avenue corridor and should contribute a fair share toward the improvements at each intersection and on each road segment, including:

Intersections

- Willow/Copper
- Willow/International
- Willow/Perrin
- Willow/Nees
- Willow/Herndon – Quadrant Intersection
- Willow/Bullard

Road Segments

- Willow – Copper to International
- Willow – International to Behymer
- Willow – Behymer to Perrin
- Willow – Perrin to Shepherd
- Willow – Shepherd to Herndon

The DEIR inaccurately indicates that there are no feasible mitigations to address the LOS deficiency at the Herndon/Willow intersection. This conclusion does not reflect the record: for example, the 2002 Herndon Corridor Study identified a quadrant intersection design to improve LOS at this intersection by relocating left turns at the main intersection. This improvement scheme is feasible and was approved by the City council and planned for future implementation. Portions of the infrastructure have already been built and are not fully funded. The EIR fails to identify this feasible mitigation measure. The Friant Ranch development should contribute a fair share toward this improvement and other intersections/segments that it impacts.

In dismissing feasible mitigation measures, the EIR mischaracterizes the Measure C funding capacity. The measure does not fully fund the Willow Avenue corridor, but will require a minimum 20% match from the local agencies. This match is to be made up from developer contributions, not from the RTMF, but from projects within Clovis and/or from

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projects outside the City sphere, such as Friant Ranch, that add to the traffic on Clovis streets.

Water Demand Estimations

Table 3.14-6 does not appear to accurately estimate acre feet/year demand figure for the MFD (Apartments, etc.). Based on a density of 15.6 units per acre (83 units divided by 5.3 acres), and using Clovis' water use data of 5.1 acre feet/acre of similar development, the average day demand (ADD), should be 4,553 gpd/ac, the demand should be 24,131 gpd or .074 AF/day:

	Number of units	Acres	Density	ADD gpd/ac	Demand gpd	Demand AF/day	Demand AF/yr
MFD (DEIR)	83	5.3	15.7	3035	16085	0.05	18
<u>MFD</u> <u>(Clovis'</u> <u>revision)</u>	83	5.3	15.7	<u>4553</u>	<u>24131</u>	<u>0.07</u>	<u>27</u>

Also, the demand for landscaped slopes seems underestimated. By our calculations it should be at least 258 acre feet/year which would be comparable to water demand for our parks. If the DEIR assumes lower demand by use of drip irrigation this number may be correct, but the assumption should be clear to the reader.

As we understand the analysis, the DEIR includes the total recycled water output from the sewage treatment plant in its supply calculations in the main body of the report; although in the executive summary it indicates only 50%. This apparent discrepancy should be clarified.

While the project's overall supply appears to exceed its demand, it is difficult to ascertain the precise water balance due to this apparent discrepancy. In any case, our experience is that it is not reasonable to consider that 100% of the recycled water produced will be available for supply. Fall through early spring demands for landscape irrigation will likely be substantially less than the recycled water produced during those time periods. The applicant should prepare a water balance which compares recycled water produced and recycled water demand on a monthly basis. This should then be used to identify how much of the recycled water can be used in meeting the overall water demand.

The DEIR indicates that during critical dry year(s) they will use the Lower Tule River Irrigation District's historic Tule River allocation, and that LTRID users will use groundwater to make up the shortage. Given CEQA's direction to address all reasonably foreseeable impacts of supplying water to the project, the DEIR should discuss and analyze the potential impact to that groundwater basin and whether the normal reallocation of 2000 AF will also be offset by groundwater extractions.

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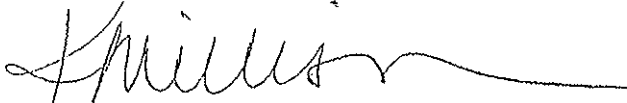
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Thank you for the opportunity to participate on this project. If you have any questions or comments, please contact David Fey, Deputy City Planner, at 324-2338.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kathy Millison', with a long horizontal flourish extending to the right.

Kathy Millison
City Manager

cc: Dwight Kroll, AICP, Director of Planning and Development Services
Steven White, P.E., Assistant Director of Planning and Development Services
Mike Leonardo, P.E., Director of Public Utilities
Lisa Koehn, P.E., Assistant Director of Public Utilities
David Fey, AICP, Deputy City Planner
Executive Officer, LAFCO of Fresno County
John Duggan, Director of Planning and Development, City of Fresno

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File No: 19/44

December 29, 2009

VIA FACSIMILE & US MAIL
bsholars@co.fresno.ca.us

Briza Sholars, Planner III
County of Fresno
Department of Public Works and Planning
Development Services Division
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Re: Corrections Request; Supplemental Comments on Draft Environmental
Impact Report; Friant Community Plan Update and Friant Ranch Specific
Plan

Dear Ms. Sholars:

This communication supplements our prior communication of December 24, 2009 on behalf of the Fresno County Fire Protection District ("District").

The following information within the Draft Environmental Impact Report ("DEIR") for the Friant Community Plan Update and Friant Ranch Specific Plan ("Project") needs to be corrected, or supplemented, as follows:

1. On DEIR page 3-266, the first paragraph should indicate in line 4 the proximity of a "Fire District" station not a "CDF" Station;
2. The reference on DEIR page 3-265 to "equipment for CDF" should be changed to "equipment for the Fire District"; and,
3. In Section 3.12.4 analyzing impact #3.1.12.2 which reads "... the need for the CDF ..." should be changed to read "... the need for the CFD ..."

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Briza Sholars, Planner III
County of Fresno
Department of Public Works and Planning
December 29, 2009
Page 2

In DEIR Section 2.6 "Intended Uses of the DEIR", which begins on DEIR page 2-30, the District should be added to the list of agencies which may utilize the DEIR when it becomes final and is certified under the provisions of the California Environmental Quality Act (Public Resources Code §§ 21000 *et seq.*) for purposes of evaluation of development authorized by both the Community Plan and the Specific Plan.

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Should you have questions concerning the above requests for correction or supplementation to the Project DEIR, please contact the undersigned.

Very truly yours,



William D. Ross

WDR:sf

cc: Keith A. Larkin, District Chief
Fresno County Fire Protection District

From: Novice Tavarez [mailto:natavarez@yahoo.com]
Sent: Friday, January 01, 2010 2:07 PM
To: Sholars, Briza
Cc: dennisbacopulos@cox.net
Subject: Re: Release of Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan

Hi Briza,

I hope you can forward this response to the meeting I attended on December 9th, 2009 regarding the Friant Ranch Project in Friant.

First I would like to state that this project will be be a God send to this little community. I feel that the Friant Ranch Project will bring things to this community that would never happen otherwise. Our water facility is very, very old and with the help of the Friant Ranch Project it will be upgraded, something that we as a community of 800 people cannot afford to do and is so needed. Also, all the other facilities that they want to build and implement will help the whole community in a huge way. I'm sure the benefits will spill over into the other foothill communities and individuals that live scattered out all over the foothills in this area.

I can't wait to see this come and I know everyone I talk to in the area are very upbeat about this project and what it will mean to us all.

Please pass this on to who ever needs to see this, I appreciate you assistance in this matter.

Yours truly, Mrs. Novice Tavarez
PO Box 512
Friant, CA 93626
559 822-2635

Letter 31

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NOV 09 2009

To whom it may concern:

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

As a long time resident of Friant, it's increasingly absurd that any new large scale buildings be put here.

Since Table Mtn., our traffic, dust (valley fever) is immensely increased, the road is always under construction either towards Willow/Shepherd or up here in Friant. I am sick of the dust, having Disseminated Valley Fever anyway. It only makes it more possible to become sicker and sicker. You've already destroyed our peace and quiet, our air, our roads, and potentially our water. What else do you think you can destroy?

I would vote a huge NO.....I would attend, but I'm sick.....get it??????

Oh, and where do you suppose any ag would take place if you keep eating up land. We subsist on food not houses or apts. You've all destroyed many, many tree groves, a good oxygen source to what? Decrease it by building? For your bottom dollar? You are greedy, and that is one thing wrong in the USA. **GREED**

Leave us alone to what peace and quiet we have currently, which is getting worse.....no where in the past did we have gun shots, break-ins.....and they'll be more if you allow this to grow-trust me, they'll be more as more and more people move up here !

S. McKeeman
P.O. Box 506
Friant, CA., 93626.

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Fresno County Public Works and Planning Department
 Planning & Environmental Analysis
 2220 Tulare Street - 6th Floor
 Fresno, CA 93721
 Attn: Briza Sholars, Planner
 RE: Friant Ranch Specific Plan Draft EIR Comments

Dear Ms. Sholars,

I am writing in response to the draft EIR for the Friant Ranch Specific Plan adjacent to the San Joaquin River. Reading the document it is very clear that there are many potential significant environmental impacts and unavoidable cumulative impacts that will have serious consequences to the San Joaquin River and the health of its wildlife. These impacts should be considered in a regional forum where the many water users of the San Joaquin River can be informed of the reasonable potential impacts. My organization is engaged in the restoration of the river below Friant Dam, and the restoration of ecosystems and fisheries that depend on a clean water supply from Millerton Lake. The inability of this document to recognize impacts of the development and its associated uses to the San Joaquin River and its surrounding ecosystem is the primary focus of this letter. The assertion that there will be no significant environmental impacts to the hydrology, water quality, or biological resources of the San Joaquin River system is negligent and the document fails to provide adequate information for use as a decision making tool for environmental accountability under this decision making process. The following sections further discuss concerns with the Draft EIR.

CEQA Alternatives

Section 15126.6(f)(2) of the CEQA Guidelines states alternatives must be discussed. Other locations within Fresno County and contiguous with the existing city limit, or within the existing Sphere of Influence, should be

Board of Directors

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Mark Baquera

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Director Emeritus

Executive Director

Chris Acree

analyzed as viable alternative sites. The economics and land-holdings of the project proponent should not be a valid reason for avoiding consideration of other viable sites. Sufficient capacity exists in the existing new growth areas of the County to accommodate this level of development, with significantly less impact to the County's environmental resources.

San Joaquin River Planning Efforts

If the planned development is allowed at its current site, best control practices and mitigation may not be significant enough to avoid many of the specific and cumulative impacts from the project. The siting of this project adjacent to the San Joaquin River may pose significant threats to the fisheries of the San Joaquin River and its viability as a municipal water supply for downstream users. The proposed development is located on an area with natural drainage channels, ephemeral and seasonal creeks, and wetlands that drain to the San Joaquin River. The river stretch immediately below the dam is the critical spawning grounds for the salmonid species and habitat for other native fishes that are targeted for reintroduction as a part of the San Joaquin River Restoration Program (SJRRP). It is expected that water from Millerton Lake will be adequate in quality to sustain these spawning grounds, and that a multi-agency effort will be needed to sustain the fishery. The draft EIR does not adequately assess the impacts to the river and it conflicts directly with many of the San Joaquin River restoration goals including a revived Spring-run Chinook salmon fishery and reintroduction of Steelhead and possibly 34 other native fishes.

The SJRRP is an active program consisting of a partnership between the Department of the Interior and the State of California. A legal settlement is in effect that would allocate approximately \$750 million to ensure a return of healthy fisheries to the river; including salmon, steelhead, and many species of native fish that could rebound in numbers after water releases begin in 2009. Water released through the Friant Dam for restoration will also present new opportunities for downstream communities as a clean source of drinking water, a use that is currently not in effect with waters released from the dam. The success of this restoration effort is largely dependant on proper land-use, environmental, and economic considerations during project development along the banks of the San Joaquin River. A comprehensive look at impacts along the San Joaquin River is underway and is crucial to establishing the San Joaquin River as a corridor for the transmission of clean drinking water and wildlife habitat.

Any proposed development should not impact negatively any existing San Joaquin River planning efforts or threaten the likely outcomes of those efforts. The document does not adequately take into consideration existing and ongoing planning efforts on the San Joaquin River, including the San Joaquin River Parkway Master Plan, the San Joaquin River Restoration Program, the San

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Joaquin River Conservancy, and the CALFED Bay-Delta Program. Additionally a Fresno County comprehensive water planning effort should be completed before approval of this project to ensure cumulative impacts likely to occur from implementation of the project are considered and mitigated on a regional or cumulative basis.

The project fails to address the impacts of stormwater, wastewater and specifically the impacts of endocrine disruptors, pyrethroids, and cumulative pollutant levels on the species likely to be returned to the river under the restoration program. Also the potential changes in beneficial uses resulting from restoration could drastically alter the water quality standards used for the basis of assessment for the draft EIR.

Possible mitigations could be to re-route all wastewater and stormwater away from the San Joaquin River for offsite application to a crop such as alfalfa in an area that is not hydrologically connected to the San Joaquin River system. The current plans for reuse of treated wastewater at Lost Lake has already received scrutiny at public meetings and would require further discretionary approvals by the County in the face of already existing opposition. Other options explored for reuse along the San Joaquin River floodplain could produce negative impacts to the water quality of the river system as any hydrologically connected discharge would degrade the San Joaquin River through surface seepage or lateral groundwater seepage. Impacts should also be considered to the groundwater supply for the City of Fresno.

Land Use

The proposed specific plan is not consistent with many policies contained within the Fresno County General Plan. The proposed specific plan describing the site development and proposed changes in use must comply with policies within the General Plan unless specific analysis in the CEQA document shows adequate analysis to support a change with its adoption. Compelling arguments are not given in the document to support changes contrary to the following County policies:

Policy LU-A.1 The County shall maintain agriculturally-designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available.
The County did not adequately assess alternatives for growth within the existing Sphere of Influence and did not mitigate farmland conversion impacts.

Policy LU-A.14 The County shall ensure that the review of discretionary permits includes an assessment of the conversion of productive agricultural land and that mitigation be required where appropriate.

Mitigation to create permanent conservation easements should be considered, and project locations within the SOI should be identified.

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Policy LU-G.4 *The County shall encourage orderly outward expansion of urban development by supporting only those city sphere of influence expansion proposals where the city has demonstrated a need for additional territory after documenting a good faith effort to implement an infill development program and minimize conversion of productive agricultural lands.*

A needs test should be done to determine if privately developed 'New Towns' should be allowed in remote County locations.

Policy LU-H.8 *The County shall prepare a regional plan for the Friant-Millerton area. The preliminary study area boundaries for the new regional plan depicted in Figure LU-5 are designed to encompass the area's major recreation facilities and open space resources, include the area's existing and potential residential growth areas, but exclude most productive agricultural land. In the near-to-mid-term, planning and development in the area should focus on expanding and enhancing the area's recreational activities and resources. In the long-term, the area may be suitable for urban development as the unincorporated county's largest remaining area without productive agricultural soils near the Fresno-Clovis Metropolitan Area and recreational and scenic resources.*

The project identifies a change in land use which promotes a precedent setting action that results in the urbanization of land in a remote location (leapfrog development). The County is directed by the General Plan to prepare and adopt the Friant-Millerton Area Regional Plan by FY 02-03. The necessity of the plan as identified in the General Plan is to identify and address issues such as open space, recreation, and groundwater and surface water supply in the near-term. In the long-term the area could be considered for development with identification of regional suitability issues for long-range urbanization. The Plan has failed to materialize and no public process was undertaken to identify or address these regional issues making the current planning process in conflict with the General Plan Policy LU-H.8.

Water Quality

The project is proposing uses in which irreversible damages can occur from potential environmental accidents and increased chronic exposures to elevated levels of pollution from the project. Because the storm-water systems can not guarantee that contaminated waters will not eventually drain to the river, and because discharge of wastewater and direct discharge of storm-water are outlined in the proposal, the development could reasonably exceed design capacity and create irreversible harm to fisheries and wildlife that depend on the river adjacent to the project as defined in Section 15126.2(c) of the CEQA Guidelines.

Storm-water runoff and subsurface shallow groundwater drains to the river and mixes with waters of the San Joaquin River. Storm-water runoff typically contains pesticides, grease, oil, heavy metals, poly nuclear aromatic hydrocarbons, and other organics and nutrients. Sedimentation from construction activities will also pose significant threats to the river ecosystem if

not contained properly. The temperature of water entering the river also impacts fisheries. Trace amounts of pharmaceuticals have been found to disrupt the reproductive cycles of fish. Treatment of urban wastewater using best available technologies is not sufficient to guarantee that trace amount of pharmaceuticals and other constituents will not impact fisheries.

14 cont.

The analysis of water quality does not adequately take into consideration the project impacts to existing or future water quality within this reach of river. Construction activities may be mitigated, but no adequate water quality monitoring plan is available to quantify impacts. The document established that non-point source pollutants and diffuse-source pollutants are significant, but proposes inadequate monitoring or control plans for the development of the site. The RWQCB does not monitor water quality or chemical constituents necessary for fishery health and should not be the platform for proving no impacts to fisheries.

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The planned development could impede other beneficial uses of the river and its waters. Other beneficial uses identified in the State's Water Quality Control Plan for the San Joaquin River Basin include: safe water contact recreation, non-contact water recreation, commercial and sport fishing, warm freshwater habitat enhancement, cold freshwater habitat enhancement, estuarine habitat enhancement, wildlife habitat, preservation of biological habitats of special significance, threatened species habitat, migration of anadromous fish species, sanctuary for safe reproduction and spawning of fish, and private navigation. California Water Code states economic considerations and future beneficial uses must be considered when deciding water quality objectives, the most sensitive use should be protected, and beneficial uses should not be unreasonably affected. The RWQCB regulations impact existing permitted uses, and are not adequate indicators of project siting considerations. Agreements to follow these and other local, federal, or State regulations do not constitute mitigation or guarantees of reduced impacts.

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Development impacts from the project site have potential to degrade water quality above and beyond those impacts identified in the document. No mitigation is considered to ensure that non-point source or diffuse-source pollution will not impact water quality. Point-source direct discharge of treated effluent is a project element that can be mitigated. Compliance with the RWQCB permits do not guarantee that impacts to all users of the San Joaquin River are mitigated. Septic and storm-water systems are not adequately designed to keep pollutants from impacting the San Joaquin River. Direct discharge, discharge through shallow groundwater movement, or storm-water discharges could impact fisheries and drinking water supply for downstream users. Shallow perched groundwater supplies are listed as contaminated by agricultural pollutants beyond domestic or agriculture use standards, further degradation with new pollutants from septic and storm-water infiltration should

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therefore be avoided. With low infiltration rates, additional groundwater quality depletion would impact on-site wetlands and should be investigated.

Water Supply

The water supply for the project is not yet secured. The Bureau of Reclamation will be required to review and approve a long-term transfer agreement for 2,000 af/yr of water from the Lower Tule River Irrigation District. This approval will require NEPA and ESA findings and an analysis of groundwater impacts and economic and social effects, including environmental justice, of the proposed water transfers on both the transferor and transferee, before the transfer is approved. The San Joaquin Basin is losing 3.5 cubic kilometers [2.8 maf] a year due to groundwater overdraft. The groundwater basin below the Lower Tule Irrigation district is severely over-drafted and it is reasonable to assume that until groundwater programs are implemented and sustainability planning is underway, the district does not have a surplus supply to sell out of district. With severe shortages to other CVP users reliant on the Delta it is also reasonable to assume that the District's supplies could be reduced from the Cross Valley Canal Supply creating more demand from within the District for their Class 1 supplies. Any exports of district water can have a significant impact on their ability to recharge groundwater within the district. This water supply is not a "firm" supply and should provide an adequate backup supply for amounts needed in extremely dry years.

The proposed backup supply is proposed as a temporary short-term exchange of water from the Tule River to the downstream Friant Kern contractor to provide adequate supplies to Friant Ranch. This is another supply requiring approval from the Bureau without guarantee of its suitability for use at Friant Ranch. Conditions for short-term exchanges do not allow land conversion activities from agricultural to M&I use which this project would be doing until full build-out was achieved and delivery records could show three consecutive years of sustainable supply. These contractual requirements limit this supply's reliability as a backup source of water. The pre-1914 water rights discussed as a supply of backup water would need to be identified, as the Tule River pre-1914 water rights are fully appropriated. The source of the water rights would need to be contractually identified from specific users and proof supplied that the rights could be handed over during these dry year deliveries. Also the rights if riparian could not be stored behind the dam for delivery due to the nature of riparian rights. Any SWRCB approvals required for short-term transfers should be included as regulatory requirements in the Final EIR.

There was no evidence in the Draft EIR that the project is within the SWRCB Place of Use Boundary or that the use of the existing Point of Diversion is authorized by the State Water Resources Control Board.

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The proposed reuse of treated wastewater onsite and the quantities proposed for reuse are not supported by the Draft EIR. A discussion should be included about what open space and landscaping acreage is suitable for application of wastewater. Areas designated as wetland and wildlife buffers should not receive wastewater and other protected cultural resource areas and drainages should be analyzed for their suitability as disposal sites. Any plans for application offsite should be supported by substantial evidence to determine whether the reuse and application of wastewater is feasible and eligible for consideration as a backup supply or supply reduction for the purpose of the SB 610 water supply assessment.

21

Biological Resources

The Draft EIR does not take into consideration the San Joaquin River Restoration Program and the impacts of development to the reasonably foreseeable goals of a restored Spring-run and Fall-run Chinook salmon fishery. By the time the project will be implemented, the full restoration flows to the river will be in effect and the quantities analyzed in the aquatic study will need to be revised. Other anadromous salmonid species are projected to be returned to the river by 2013, and numerous native reintroduced species will likely be managed along with the salmon reintroduction. The SJRRP planning efforts have been initiated to establish guidelines for maintaining a sustainable fishery. The RWQCB has not established water quality thresholds that would ensure discharge into the San Joaquin River would impact a restored salmon fishery. It is not certain that existing Best Management Practices or regulations are significant to protect water quality or quantity for a restored salmon fishery, therefore potential impacts could occur even if the development is properly permitted. Impacts to San Joaquin River fish and wildlife species are therefore not adequately addressed or mitigated in this report.

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There was no identification of the State designated wetlands, only federally designated wetlands. The identification of State wetlands is an essential tool for analysis of potential biological impacts from the project. State wetlands should be assessed and potential impacts should be mitigated with adequate buffers established to protect the habitat for threatened and endangered species. Without adequate buffers to natural wildlife habitat corridors that run through the property in natural wetlands and drainage channels, wildlife migratory paths will be impacted severing upland migratory paths required for maintaining populations. Wetlands and habitats for biological species of concern should be protected in a natural state and no treated wastewater should be applied to these areas. Wetlands should also be protected from pollutants discharged in Stormwater.

23

Air Quality

The air quality section is grossly inadequate as a document to ensure enforceable mitigation occurs to offset the total impacts of the construction and operational phases of the project. Data was not presented in the Draft EIR showing the total emissions from the project as a whole. Individual and distinct analyses based on development phases are not adequate to assess the total impact from the project. Total construction and annual operational emission estimates must be presented and explained in the document. Total emissions over the CAA emission thresholds represent a significant impact as the region is in non-attainment status for NOx, ROG, and PM10. Emissions that exceed these CAA emission thresholds should be quantified and reduced through off-site emission reductions to reduce the significant impacts resulting from the project. The San Joaquin Valley Air Pollution Control District has a program called the Voluntary Emission Reduction Agreement program designed to mitigate excess emissions through fees for off-site reductions, and this program should be considered as a feasible mitigation measure in the Final EIR.

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The project should identify that it is subject to the SJVAPCD's Indirect Source Review Rule and have completed applications filed with the air district identifying on-site mitigations to be completed and a schedule of fees to be paid. Compliance with the ISR rule is mandatory and must be complied with prior to final discretionary approval with the District. On-site mitigations are voluntary; however, fees must be scheduled for any unmitigated emissions within the rule thresholds as they apply to the project.

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Cumulative Impacts

The Draft EIR does not consider the cumulative impacts of surface water imports to the Friant-Millerton area, or cumulative impacts of wastewater and stormwater releases to the San Joaquin River and its aquifer. Any assessment of impacts to aquatic biological species and fish species should take into consideration not only single-project impacts to these species but also the cumulative impacts of the projects listed on the fish and other species in the San Joaquin River and terrestrial species on the project site. These cumulative impacts to river ecosystems have been the subject of the Bay Delta Conservation Plan that is underway identifying the cumulative impacts of multiple wastewater systems and their impacts to aquatic species. Other possible mitigations would be to sell or give water to nearby farms for agricultural application in areas not hydrologically connected to the river, with firm agreements for acceptance of the treated wastewater.

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Thank you for your time in reviewing these comments to the proposed development project. I have attached several articles and study references to

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support the comments made by Revive the San Joaquin Please feel free to contact me for further explanation of these comments and for any references needed.

| 27 cont.

Sincerely,

Chris Acree
Executive Director
Revive the San Joaquin

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Ammonia from Sacramento waste could hurt Delta ecosystem



By Matt Weiser

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Published: Sunday, Jun. 01, 2008 | Page 8A

After years of searching high and low for a culprit in the collapse of Delta fish populations, scientists are learning the problem may lie right under their noses.

The likely fish killer is ammonia, a common byproduct of human urine and feces.

Sacramento's regional sewage treatment plant is the largest single source of ammonia in the Delta. It discharges treated wastewater from nearly 1.4 million people into the Sacramento River near Freeport – without removing ammonia.

Two recent studies by Richard Dugdale, an oceanographer at San Francisco State University, show that ammonia disrupts the food chain in the Sacramento-San Joaquin Delta.

The discovery, if it holds up to further scientific review, reveals how just one factor can tilt the Delta's complex ecological balance. It also illustrates how fixing the Delta will be a costly task for many California residents who mistakenly assume their lives are not connected to the estuary.

The Sacramento Regional County Sanitation District estimates it needs as much as \$1 billion to remove ammonia from the metro area's wastewater. Monthly sewer bills would have to triple throughout the region.

"We're not going out on the edge to say this is the whole answer," said Dugdale, co-author of the studies along with others at the university's Romberg Tiburon marine lab. "But we think it's part of the reason for the decline in (ecological) productivity."

Ammonia in the river does not make fish unsafe to eat, nor does it pose a threat to recreation. It does, however, seem to interrupt a natural food production line that would otherwise yield abundant blooms of tiny aquatic animals to feed salmon, smelt and bass, Dugdale said.

Those species have been in steady decline.

The ammonia threat was dramatically illustrated last May when dozens of chinook salmon showed up dead in the San Joaquin River near Stockton's sewage outfall. Anke Mueller-Solger, an environmental scientist at the state Department of Water Resources, said the

fish may have been killed by high levels of ammonia in the wastewater.

Sacramento's effluent problem is slightly different. Rather than high concentrations of ammonia, the threat is the enormous volume of ammonia-laced wastewater. The regional sewer agency treats human waste from Sacramento, West Sacramento, Folsom, Carmichael, Rancho Cordova, Elk Grove and other unincorporated communities.

The plant near Freeport each day releases about 146 million gallons of treated wastewater into the Sacramento River. That's enough to fill about 225 Olympic-size swimming pools daily.

Despite this volume, Mueller-Solger said, the Sacramento River is traditionally considered the Delta's lifeblood, because it provides the vast majority of fresh water entering the estuary.

"But there is this big urban area called Sacramento and it's been growing like gangbusters," she said. "Obviously, sewage is produced proportionally to the number of people, so the water's perhaps not quite as nice and clean as we thought."

The ammonia load in Sacramento's wastewater has more than doubled since 1985 due to rapid urbanization, and is now more than 125,000 gallons per month. That's 10 times more than the Stockton sewage plant.

To handle more growth, the regional sewer agency is planning a major expansion that would allow total discharge volume to grow 30 percent. The plan includes no ammonia controls.

"This is a cost of growth that is too often externalized onto a degraded environment," said Bill Jennings, executive director of the California Sportfishing Protection Alliance and longtime Delta water-quality watchdog.

Jennings called it "simply reprehensible" that the sewer agency hasn't already improved its systems to remove ammonia and other contaminants.

Sewage officials counter that they have a responsibility to ratepayers. They estimate upgrading the wastewater treatment plant to filter out ammonia would cost \$740 million. To remove excessive nitrates produced as a byproduct of that treatment would raise the cost to \$1 billion.

District engineers estimate these steps together would boost sewage rates in the region from \$19.75 per month to \$62.17.

"If it's causing a problem, I think we have to recommend going to that," said Mary Snyder, district engineer. "But on the other hand, we don't want to leap into anything precipitously simply because of the effect on ratepayers. The average person is going to object to paying that much."

Growth in Sacramento's ammonia output has coincided with a long-term decline in diatoms, an important phytoplankton at the base of the food chain.

Dugdale's research suggests the volume of human wastewater may be starving Delta fish

by shutting down food production.

It works like this:

- Young fish eat small animals in the aquatic food chain, called zooplankton. The zooplankton, in turn, feed on diatoms and other phytoplankton.
- Phytoplankton require nutrients in the water and enough sunlight to bloom in sufficient numbers. Nitrates are the favored nutrient. Ammonia is another.
- For reasons that remain unclear, phytoplankton can't feed on nitrates when there is too much ammonia in the water, Dugdale said. They must eat the ammonia first, and by the time that's gone, the phytoplankton bloom dies out before it gets big enough to feed fish.

In addition, ammonia is preferred by a bad breed of phytoplankton, called microcystis. A toxic type of algae, it has begun to replace more nutritious phytoplankton that normally dominate the food chain. So ammonia may also encourage the rise of harmful foods.

The phenomenon is especially important in Suisun Bay, Dugdale said. The shallow bay near Pittsburg is a vital feeding area for young fish in spring.

New studies are under way to explore the problem further and confirm whether Sacramento's sewage is the true cause.

"If it's part of the problem, it's big because there's so much of it," Dugdale said. "The river just could never handle that amount and reduce it by the time it gets to Suisun. It just can't absorb that."

Sacramento's regional sewage plant uses a so-called "secondary" treatment process that has become outdated. Most other urban areas have upgraded to "tertiary" systems that add rigorous filtration steps.

Sacramento has been able to avoid this expense so far, Snyder said, because its wastewater is quickly diluted to legally acceptable levels by the strong flow of the Sacramento River.

"We are a very large discharger," Snyder acknowledged. "But when you look at the Sacramento River, we have a small impact on the river."

Sacramento may not be able to rely on this free dilution as urban growth continues.

In November a Sacramento Superior Court judge ruled against the district on a number of points in a lawsuit against the environmental impact report prepared for the planned sewer expansion. The suit was filed by many of the water agencies that divert drinking water from the Delta to serve more than 20 million people throughout California.

Importantly, the court ruled that the Sacramento district "ignored a significant component of the environment" by failing to fully assess the additional nutrients pumped into the Delta in the region's wastewater.

Ammonia is one of those nutrients. The sewer district appealed the ruling.

"We had long discussions with them, before we got to the point of a lawsuit, on ways they might be able to offset their discharges," said Greg Gartrell, assistant general manager at the Contra Costa Water District, the lead plaintiff in the case. "They just weren't willing to entertain any of those issues yet."

Mueller-Solger at DWR noted that, compared with other problems in the Delta, the ammonia threat can be fixed if further research confirms it to be a danger.

There is no ready fix for the predicted sea level rise that could overwhelm Delta levees, nor any practical way to remove foreign species invading the estuary. But technology exists to remove ammonia from wastewater.

"It's expensive and it's sometimes hard to push through, so it needs the political will. But it's possible," she said. "To me as a scientist, it's not about finger pointing. We are all in this together."

Call The Bee's Matt Weiser, (916) 321-1264.

[Water Quality](#)

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[1] <mailto:mweiser@sacbee.com>

Sacramento sewage agency looks at selling wastewater

By Matt Weiser
mweiser@sacbee.com

Californians have grown accustomed to digesting odd ideas that routinely flow out of Sacramento, many of them not so palatable.

But are they ready for this one?

Last week, amid a third year of a statewide drought, the Sacramento Regional County Sanitation District adopted a strategy to sell treated sewage as drinking water. The buyer would hypothetically partner with the district to recycle wastewater from the capital-area's 1.4 million people into a new municipal water source.

The idea is not so far-fetched. Orange County last year opened the world's largest wastewater recycling plant and is now serving treated effluent as high-quality drinking water to 2.3 million residents.

The technology is simpler and cheaper than desalinating seawater. State regulators are working to adjust policies to encourage more such projects.

What's different about Sacramento's plan is that local leaders want somebody else to buy treated sewage and pay to make it drinkable.

"It's kind of like taking lemons and creating lemonade," said Mike McGowan, a Yolo County supervisor and sanitation district board member.

At the heart of the issue is the Sacramento-San Joaquin Delta. The estuary is suffering a puzzling ecosystem collapse that threatens extinction of several fish species.

Suffering along with the fish are 23 million Californians who depend on Delta water supplies, from the Bay Area to San Diego.

These diversions have been curtailed to protect the environment, and may be reduced further this year in response to drought.

One culprit in the Delta's decline is water pollution. Sacramento's treated effluent is the largest single source of urban wastewater in the Delta, though the harmful effects of this source are a matter of dispute.

A key component of the Sacramento waste stream is ammonia, a common byproduct of human urine and feces. Ammonia in Sacramento's wastewater has more than doubled since 1985 because of rapid urbanization, and is now about 125,000 gallons per month.

Recent research suggests ammonia may be disrupting the Delta by limiting blooms of phytoplankton, tiny animals that form the foundation of the aquatic food chain.

The sanitation district questions the scientific findings so far, and has gone on the offensive to forestall modernizing its treatment process. It estimates treatment upgrades could cost as much as \$1 billion, requiring household sewer rates to triple to \$90 a month.

The idea to instead sell effluent is a creative wrinkle in the district's strategy.

The region's total wastewater discharges amount to a lot of water — about 180,000 acre-feet per year. That's enough to serve nearly 400,000 average households.

"We cannot simply sit back and complain and say this Delta is going to cause us problems, and expect things to go away," said District Manager Stan Dean. "We need to set ourselves up to be part of a broader solution."

Even district critics admit the recycling scheme is a clever approach that could help the Delta. But they also note a potential for negative side-effects.

The most obvious is that a buyer could divert the water out of the Delta watershed, causing another drain on an already stressed ecosystem.

"We would have serious issues with diverting that water out of the watershed," said Bill Jennings, executive director of the California Sportfishing Protection Alliance and longtime water-quality watchdog. "In all fairness, I want to see their proposals. It's an intriguing concept, in the sense that the important thing is to get the water adequately treated so it doesn't degrade the Delta."

District officials said they are willing to negotiate with any interested party, whether a local water agency or the sprawling Los Angeles metropolis. It could serve the latter, for example, by pumping recycled wastewater into a controversial canal proposed to divert a portion of the Sacramento River around the Delta.

"When you shift your point of view from looking at effluent as a waste product to looking at it as a valuable commodity, that changes your whole thinking on who your potential customers could be," said District Engineer Mary Snyder.

Another key question is whether the district has a legal right to sell the water at all. The district maintains that it does, and state law appears to support that.

Gregory Weber, an expert in water law at McGeorge School of Law, said a provision of the state Water Code holds that a water treatment entity gains an ownership stake in the water it treats.

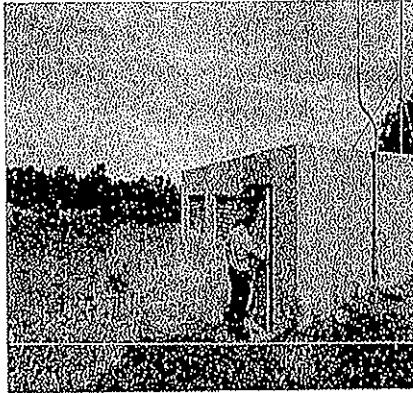
The diversion issue is a thornier one, he said, which would have to be reviewed to avoid harm to the environment.

"There are potential downstream impacts on fish, wildlife and habitat," Weber said. "Downstream water rights holders who have already been appropriating the discharges may be complaining as well."

In other words, the recycling plan could be perceived as an attempt to take more water out of an estuary where there is none to spare.

McGowan cautioned fellow board members, all of them local elected officials, of a possible political backlash.

"If that's what we're going to do, we're picking a big fight," he said. "But to do nothing will see us complaining in a couple years."



José Luis Villegas/jvillegas@sacbee.com

JOS ♦ LUIS VILLEGAS Sacramento Bee file, 2008 Josh Declusin of the Sacramento Regional Sanitation District inspects a discharge pump last May near the Freeport Bridge. The agency is seeking to sell its wastewater and have it made potable.

Satellites detect dramatic Valley water loss

Posted at 02:38 PM on Monday, Dec. 14, 2009

By Tim Sheehan / The Fresno Bee

NASA satellites orbiting 200 miles above Earth are revealing what many in the San Joaquin Valley already know: the region's underground water table is being depleted faster than it's being replenished.

But the amount of water being lost is surprising.

The volume pumped from underground for agriculture, cities and industry is "not sustainable if current trends continue," said Jay Famiglietti, a professor of Earth sciences at University of California at Irvine who worked on the study. And reduced allocations of river water for Valley farmers, he added, will likely increase pumping demands "for the foreseeable future."

Over the past 5 1/2 years, enough water was lost in the San Joaquin and Sacramento river basins to fill Nevada's Lake Mead -- the effect of an extended drought and more pumping of water for agriculture and other human needs.

Scientists from the space agency and UC Irvine presented their findings Monday to the American Geophysical Union in San Francisco.

"Everyone [in the Valley] already knows ground water is being depleted at a rapid clip," Famiglietti said. "But I was surprised at the rate of depletion."

Famiglietti and other scientists said that between October 2003 and March 2009, the overdraft totaled more than 30 cubic kilometers of water. One cubic kilometer is about 264.2 billion gallons -- enough, according to some estimates, to meet the residential water needs of about 7.2 million people for a year.

For years, the U.S. Geological Survey and water agencies have measured sample wells scattered throughout the region. But Famiglietti said the accuracy of NASA's satellites -- which track tiny changes in Earth's gravitational field -- makes the information much more reliable.

"The [depletion] rates we found are bigger than what USGS reported," Famiglietti said. "And when you think of it, it makes sense because of the drought, the reduced water allocations for agriculture and the reduced snowpack. But it's still a surprise."

Famiglietti reported that the San Joaquin River basin, which includes the Tulare Lake Basin, is losing water at the net rate of 3.5 cubic kilometers a year (about what more than 6 million families of four would use in a year) -- most from groundwater pumping. Agriculture typically uses about 80% of groundwater compared to municipal needs, he said.

In the central San Joaquin Valley, every city except Fresno and Clovis relies solely on pumped water for municipal supplies. Fresno and Clovis have small surface-water supplies to augment what they pump from underground.

NASA's twin GRACE (Gravity Recovery and Climate Experiment) satellites were launched in 2002. By measuring minute changes in gravity and mass on Earth, scientists can determine the amount of water under the ground.

The GRACE findings were no surprise to either Valley water officials or conservationists.

"The trend for years has been down, and we all know that," said Randy McFarland, a spokesman for the Friant Water Authority and the Kings River Conservation District.

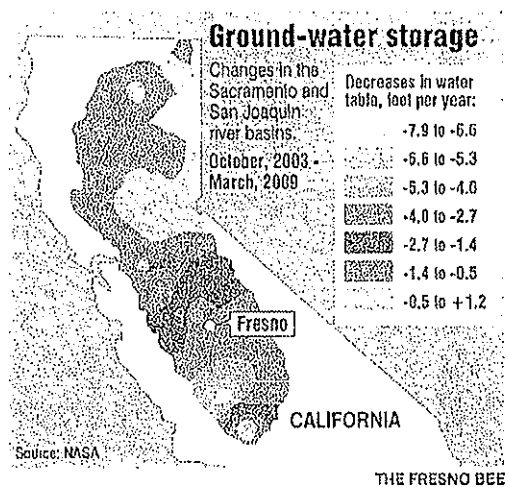
"We've monitored wells for years, and there are periods when it's down and periods when it's recovered somewhat after rainy years," McFarland said. But, he added, drought has reduced the availability of surface water and forced farmers to pump more in recent years to irrigate crops.

Speck Rosekrans, a senior analyst with the Environmental Defense Fund, said the data from the satellites "just puts a better number on things."

"Groundwater overdraft is a huge problem, and it needs to be addressed," Rosekrans added. "While the NASA analysis doesn't represent new data, it may tell a story in a way that forces the public and water managers to act."

Famiglietti said he hopes the data can help politicians and water managers come up with solutions.

"There's no agenda here," he said. "We're telling people, this is what we found. If it's helpful to you, you're welcome to use it."



Final Report: The Environmental Occurrence, Fate, and Ecotoxicity of Selective Serotonin Reuptake Inhibitors (SSRIs) in Aquatic Environments

EPA Grant Number: R829006

Title: The Environmental Occurrence, Fate, and Ecotoxicity of Selective Serotonin Reuptake Inhibitors (SSRIs) in Aquatic Environments

Investigators: Black, Marsha, Armbrust, Kevin

Institution: University of Georgia

EPA Project Officer: Page, Angela

Project Period: September 1, 2001 through August 31, 2004 (Extended to April 30, 2007)

Project Amount: \$522,892

RFA: Drinking Water (2000)

Research Category: Drinking Water , Water Quality

Description:

Objective:

The two primary goals of our investigations were to determine if selective serotonin reuptake inhibitors (SSRIs) could accumulate and persist in the aquatic environment as parent drugs and/or metabolites and if so, at what concentrations would they be toxic to model aquatic organisms. To accomplish these goals we conducted multiple laboratory experiments to determine the chemical characteristics, degradation potential and fate of these chemicals under simulated environmental conditions. These experiments were patterned after established methods for determining the environmental fate of pesticides in the environment. To determine the potential for adverse effects of these chemicals on aquatic organisms we conducted experiments to characterize their acute and chronic toxicities to three taxa, including an aquatic invertebrate, fish and aquatic frog. Finally to determine the potential for exposure to aquatic organisms to these chemicals and their potential for eliciting adverse effects under realistic conditions, we collected and analyzed sediment and water samples from a local watershed receiving permitted municipal effluents, and analyzed them for SSRI parent compounds and metabolites.

Approach:

For each SSRI, laboratory environmental fate measurements will include the following: aqueous solubility; octanol-water partition coefficient (K_{ow}); acid dissociation constant (pK_a); soil adsorption coefficient (K_{oc}); hydrolysis and aqueous direct photolysis rates at pH 5, 7 and 9; indirect photolysis rates including the hydroxyl radical rate constant; irradiated and dark aerobic-aquatic metabolism; and ready biodegradability. Major degradation products will be identified wherever possible. The occurrence of each SSRI and major metabolites/degradation products will be measured over one year in raw and treated wastewater, and receiving water at sub-ppb levels. Potential loads to waste treatment facilities will be assessed through surveys of numbers of prescriptions filled by

local pharmacies. Acute toxicity and chronic exposure tests for survival and reproduction will be conducted with *Ceriodaphnia* following EPA protocols on each SSRI as well as on raw sewage water and treated effluent. Toxicity identification evaluation (TIE) methods will be used to determine if SSRIs are responsible for observed toxicity in any sample. Additionally, the mosquito fish, *Gambusia*, will be chronically exposed to SSRIs in outdoor microcosms to assess their impacts on the fish's spawning, potential and real fecundity, gonadal somatic index and brood clutch size.

Summary/Accomplishments (Outputs/Outcomes):

I. Environmental fate of SSRIs in the Aquatic Environment

Physicochemical properties measured in the five SSRIs (citalopram, fluoxetine, fluvoxamine, paroxetine and sertraline) can be used to predict their environmental persistence and fate. Compound hydrophobicity is a key parameter predicting environmental persistence of organic chemicals and can be measured as water solubility or octanol:water partition coefficient (K_{ow}). As the hydrochloride salt form, all five SSRIs had relatively high water solubilities and relatively low octanol-water partition coefficients (K_{ow} , 1.12-1.39) (Table 1). Results for these two properties are in agreement and predict that these compounds will have low persistence in the aquatic environment. Water soluble compounds typically do not sorb to sediments and are more likely to be degraded by microbial processes, reducing their persistence in the environment. However, it should be noted that these measurements were made on the salt form (hydrochloride) of each SSRI, which is expected to be significantly more water soluble than the free base form.

Sorption coefficients measured for the five SSRIs with soils and sediments indicate a different environmental fate scenario for each compound. Very high sorption coefficients (presented as $\log K_{oc}$ or organic carbon normalized sorption coefficient) were measured for all SSRIs, with a range of $\log K_{oc}$ values from 3.82 to 5.63 for fluvoxamine (lowest degree of sorption) and citalopram (highest degree of sorption) (Table 1). These values indicate that all of the SSRIs have a very high affinity for sorbing to soils and sediments, which in the absence of other degradation processes would increase the half-lives of each of these chemicals in aquatic environments through sequestration in sediments, but greatly reduce their concentration in overlying water.

Other physicochemical measurements of the SSRIs further separate the SSRIs into two types: those that will likely persist in the aquatic environment and those that will likely be degraded into more polar degradation products. Photolysis is a potentially important route of degradation for several SSRIs. Photolysis rates and half lives were measured in buffered laboratory water ($\pm$ synthetic humic acid) and in river water to simulate a more environmentally-relevant condition. Photolysis half lives for the SSRIs in lake water (Table 1) indicate that fluoxetine was far more resistant to photolysis than the other SSRIs, with a half-life ($t_{1/2}$) of 122 days. Fluoxetine was very resistant to hydrolysis and photolysis in buffered laboratory water, with degradation less than 10 percent. Citalopram and sertraline exhibited intermediate photolytic stability in lake water under simulated sunlight. Photolysis rates for sertraline and citalopram were very slow pH 5 and 7 (buffered laboratory water), yet complete photodegradation of sertraline occurred at pH 9 by 10 days and similar conditions greatly increased photodegradation of citalopram.

Degradation of citalopram was faster in synthetic humic water than in pH 9 buffer or lake waters. Paroxetine and fluvoxamine were rapidly degraded (half-lives were less than one day) in river water. The photolysis of paroxetine in buffered laboratory water was accelerated by increasing pH, with two degradation products detected. Fluvoxamine was moderately degraded by simulated sunlight, and degradation kinetics were biphasic, with slow initial degradation followed by more rapid degradation after 7 days. Photolysis rates of citalopram and fluvoxamine were greatly increased in synthetic humic waters, indicating photosensitized degradation.

Table 1. Physicochemical properties of SSRIs

Compound	Log K _{ow} ^a	Log K _{oc} ^b	Photolysis t _{1/2} ^c (d)
Citalopram	1.39	5.63	39
Fluoxetine	1.22	4.65	122
Fluvoxamine	1.21	3.82	0.57; 29
Paroxetine	1.37	4.47	0.67
Sertraline	1.37	4.17	23

^aMeasured on salt form (HCl) of each SSRI.

^bAverage calculated from experiments with five different soils and sediments.

^cAverage calculated from experiments with two different lake water samples (except for fluvoxamine, where both values are presented).

Experiments to determine water/sediment degradation for SSRIs were conducted according to US EPA methods and in general were in agreement with previous measurements of sorption capacity and photolysis half lives. In sediment water systems fluoxetine appears to be stable to light in water. Sediments also are an important sink for fluoxetine, as it rapidly adsorbed to pond and creek sediments and sorbed concentrations decreased minimally within 30 days. Nor-fluoxetine, a major degradation product/metabolite, was not detected in any sample. Sertraline can be degraded while in the aqueous phase, but appears to be stable once it is absorbed to sediments. After 30 days of treatment, more than 80 percent of sertraline remained in the sediments, indicating that the sediments are an important sink for sertraline. Dissipation rates of fluvoxamine from the water phase varied according to light conditions and types of water. Results indicate that fluvoxamine is somewhat susceptible to light, and the properties of natural water affect its degradation in water. Fluvoxamine residues in sediments were highest in all treatments between days 1 and 3, indicating rapid adsorption. Concentrations remained constant in sediments, indicating that fluvoxamine likely is stable to microorganisms in sediments. One photoproduct, a photoisomer of fluvoxamine, was detected in water and sediment under light conditions, but decreased to negligible amounts by day 14. Approximately 46% of paroxetine remained in water and sediment under light conditions at day 1 compared to 66-75% remaining in the dark, indicating that paroxetine is degraded by sunlight. By day 30 of application, very little (0.1-0.2%) of paroxetine remained in water and only 6.0-32.7% remained in sediment, suggesting that paroxetine partitioned to sediment, where it was further degraded in sediment with time. Dissipation rates of citalopram from the water phase under light conditions were identical to those in the dark, indicating that citalopram is stable to light

in water. Although 9-13% of citalopram applied still remained in the creek water phase at day 30, only 0.2 percent remained in the pond water phase at the same day, showing higher adsorption capacity for pond sediments. Of the originally applied citalopram, 45-52% and 52-63% were detected in creek or pond sediments at days 1 and 30, respectively, indicating that citalopram rapidly adsorbed to both sediments and was stable in the sediments.

Ready biodegradability by wastewater treatment was tested with an inoculum from an activated sludge collected from a wastewater treatment plant in Columbus, Mississippi. No degradation was observed in the test period of 28 days for any SSRI. Thus, it can be concluded that none of these drugs may be classified as readily biodegradable in wastewater treatment plants. No significant hydrolytic degradation was detected for any drug in any aqueous solution.

Finally, monthly environmental samples (sediment and water) were collected from the vicinity of the wastewater treatment plant (WWTP) in Columbus, Mississippi from April 2005 through March 2006. The five SSRIs and their two degradation products (norfluoxetine and norsertraline) were analyzed in water samples (upstream, downstream of the WWTP; influent, effluent from the WWTP) and downstream sediment samples. In the water samples, the order of detection frequency of SSRIs were: sertraline (88%) > citalopram (50%) > fluoxetine (48%) > norfluoxetine (15%) > norsertraline (10%) > paroxetine = fluvoxamine (2%). Quantities of each SSRI detected in water samples (ng/L) were as follows: citalopram, 5.7 – 63.7; fluoxetine, 5.6 – 48.0; fluvoxamine, 3.7; paroxetine, 1.6; sertraline, 1.1 – 34.9; norfluoxetine, 3.2 – 31.7; norsertraline, 12.5 – 61.9. Citalopram, fluoxetine, and sertraline were the most frequently detected SSRIs in water samples. Influent samples had the highest detection frequency, with 51% of the seven target compounds detected, followed by 36% detected in effluent, 20% detected in downstream waters, and 18% detected in upstream water. Citalopram was detected in all sediment samples that were collected, ranging from 0.40-2.88 ng/g. Sertraline was also detected in many sediment samples, ranging from 0.09 to 0.67 ng/g, approximately 4-fold lower than citalopram concentrations. Fluoxetine was detected at 1.26 ng/g in only one sediment sample. Results show that the compounds most persistent in laboratory investigations (citalopram, fluoxetine, and sertraline) were most frequently measured in water and sediment environmental samples, and represent a potential threat to aquatic organisms.

II. Toxicity of SSRIs to Aquatic Organisms

Acute and chronic toxicity experiments were conducted on all five SSRIs with the aquatic microcrustacean, *Ceriodaphnia dubia*. Mortality increased with increasing concentration of each SSRI and the 48-h LC50 values ranged from 0.14 mg/L for sertraline to 3.18 mg/L for citalopram. The LC50 values for other SSRIs were: fluoxetine, 0.47 mg/L; paroxetine, 0.59 mg/L; and fluvoxamine, 1.26 mg/L. In chronic tests, the SSRI with the lowest concentration to affect the mean number of neonates produced (LOEC) was sertraline (0.045 mg/L) while the highest LOEC was measured upon exposure to citalopram (4 mg/L). The time to first brood was not significantly

affected after exposure to any of the SSRIs tested; however, the number of broods was reduced after exposure to fluvoxamine, fluoxetine, and paroxetine but not by the other SSRIs at the concentrations tested. Based on these results and literature values for measured amounts of SSRIs in aquatic environments, acute and chronic toxic effects are not expected in *C. dubia* at environmentally relevant concentrations.

A major concern for the ecotoxicology of pharmaceuticals is that exposure to low concentrations of biologically active compounds may exert negative effects on aquatic organisms after multiple generations of exposure. This issue was investigated in *C. dubia*, with fluoxetine used as a model compound and reproduction evaluated over four generations. While results indicated more lethargic swimming in *C. dubia* exposed to fluoxetine, no differences in reproductive output or timing were detected among generations.

Because organisms are most likely exposed to pharmaceuticals in surface waters receiving effluents from wastewater treatment plants, another important issue is that of toxicity of mixtures of pharmaceuticals. All five SSRIs have been detected in surface waters and all are presumed to act by the same mode of action (as in human medicine), warranting examination of multiple compound exposures of these compounds. The toxicity of binary and quaternary mixtures of SSRIs to *C. dubia* were investigated and results confirmed that toxicity was additive and most easily predicted with a concentration addition model. These results emphasize the importance of evaluating joint toxicity of mixture components for biologically active compounds such as the SSRIs and other pharmaceuticals.

Experiments were conducted in to determine the acute and chronic toxicity of fluoxetine to the western mosquito fish, *Gambusia affinis*. In 7-d acute toxicity tests with neonate (age 24-36 h) *G. affinis*, the LC50 for fluoxetine was 614 Fg/L. A 91 d chronic test was conducted with neonate (age 24-48 h) *G. affinis* based on toxicity data obtained from the acute test, and fish were exposed to 6, 0.6, and 0.06 Fg/L fluoxetine. Chronic exposure to fluoxetine did not significantly affect survival, sex ratio, or morphology of the male gonopodium. A second chronic test was conducted in larger tanks (100 L) beginning with older juvenile fish (age 5-6 weeks) and continued until fish were age 140-145 d. At the high exposure concentration (60 Fg/L fluoxetine), expression of mature sexual characteristics (gonopodium, male fish; black spot on abdomen, female fish) was significantly delayed in western mosquito fish exposed to 60 ppb fluoxetine.

Additional experiments were conducted in the laboratory to investigate the effects of fluoxetine on development of western mosquito fish exposed during specific stages of development. Fish were exposed to 0, 6, or 60 ppb fluoxetine in three experiments. In experiment 1, fish were exposed from neonates (age 24-48 h) to an age of 11 d, and then exposure to fluoxetine ended and fish were allowed to develop to an age of 96 d. In experiment 2, fish were exposed from neonates (age 24-48 h) to age 43 d, and then exposure to fluoxetine was ended and fish were allowed to develop to an age of 96 d. In experiment 3, fish were exposed for 164 d from an age of 38-42 d to age 202-206 d at which time the experiment was ended. At pre-selected times during each experiment fish

were randomly sampled from treatments for evaluation of morphological features and were preserved for histological examination. Fish tissues have been sectioned and scored and await secondary scoring/confirmation by a fish pathologist.

Fluoxetine has been reported to inhibit the mammalian thyroid axis. Because events leading to amphibian metamorphosis are cued by circulating thyroid hormone levels, the African clawed frog, *Xenopus laevis* has been used as a model organism to assess chemically-induced impacts on thyroid hormone production, through monitoring the time to metamorphosis in exposed individuals. We conducted three separate experiments to investigate the effects of the SSRIs fluoxetine and sertraline on *X. laevis* growth, development and metamorphosis. In preliminary experiments, tadpoles exposed to high concentrations of fluoxetine (lowest observable effects concentration, LOEC = 29.5 µg/L) in reconstituted exposure water (FETAX solution) had a 30% increase in time to metamorphosis. Smaller metamorphs (wet weight basis) were observed at all fluoxetine exposure concentrations (LOEC = 0.59 µg/L), compared with controls. Subsequent experiments with a lower range of fluoxetine concentrations confirmed that exposure to 1 and 10 µg/L fluoxetine was associated with reduced mass (dry weight) of metamorphs. In the same experiment all tadpoles exposed to sertraline (LOEC = 0.1 µg/L) had significantly reduced mass at metamorphosis. Concentrations of both sertraline and fluoxetine exerting an effect on metamorph mass were 3- to 10-fold higher (sertraline) or 15- to 30-fold higher (fluoxetine) than concentrations of the two SSRIs measured in the vicinity of the Columbus, MS WWTP (this study).

In conclusion, all SSRIs are acutely toxic to *C. dubia* and western mosquito fish, but only at concentrations far greater than measured environmental concentrations. However evidence of additive toxic effects of SSRIs on *C. dubia* emphasizes the importance of quantifying total SSRI concentrations when assessing environmental exposure and subsequent effects. Transient developmental delays were observed in western mosquito fish, again at concentrations over 100-fold greater than measured environmental concentrations of fluoxetine. Histopathology results will ultimately reveal whether fluoxetine affected gonad maturation, in addition to external morphology. Of the organisms tested, *X. laevis* tadpoles were the most sensitive to SSRI exposure, with significant reductions in mass at metamorphosis in individuals exposed to fluoxetine and sertraline. Effects concentrations for both sertraline and fluoxetine fall within a 10- to 100-fold safety factor of their measured environmental concentrations, and raise concerns about exposures of these compounds to amphibians in the wild. Based on our chemical fate studies, these are among the most persistent SSRIs, further emphasizing their potential for causing adverse environmental effects.

Expected Results:

The ultimate benefit of this research will be to provide extensive environmental fate, ecotoxicological, and occurrence information on a class of chemicals for which little data is published in the literature but that have the potential to be present in water bodies, including drinking water sources receiving treated wastewater effluent. This information should allow environmental risk assessments to be conducted for these compounds and could be a model by which pharmaceutical manufacturers could begin to assess their

products as they are commercialized. This work may also indicate that these compounds will degrade quickly in the environment and be of no cause for concern or it may indicate that most pharmaceuticals should be tested for environmental and ecological safety with the same rigor as pesticides.

124 (IRW-1116-377343) Relationships between reproductive endpoints measured in flatfish collected near an outfall in Orange County, California.

Start time: 1:50 PM

Irwin, M¹, Reyes, J², Steinert, S³, Hwang, W¹, Armstrong, J⁴, Sakamoto, K⁴, Kelley, K², Schlenk, D¹, ¹ University of California Riverside, Riverside, CA, USA² California State University Long Beach, Long Beach, CA, USA³ CSC Biomarker Laboratory, San Diego, CA, USA⁴ Orange County Sanitation District, Fountain Valley, CA, USA

Estrogenic activity in fish has primarily been evaluated using vitellogenin (vtg) expression in male and juvenile animals. Although the response has been widespread in field and laboratory studies, the relevance of the response to higher-level adverse effects, particularly in the field, is less than clear. Previous evaluations of vtg within flatfish species collected near the Orange County Sanitation District (OCSD) outfall and stations as far as 7.7 km down current indicated bioavailable estrogens within demersal flatfish populations. In order to evaluate the persistence of estrogenic activity and relationships to reproduction and development, fish were sampled in the winter and summer of 2003 and 2004 from the same locations and vtg, plasma estradiol (E2) concentrations, gonadosomatic indices (GSI), sperm DNA damage, development and gender ratios were measured in English Sole (*Pleuronectes vetulus*) and Hornyhead Turbot (*Pleuronichthys verticalis*). Variable levels of vtg were continually observed in plasma samples from fish collected in the locations analyzed. Vtg expression and plasma E2 levels were significantly correlated in female Hornyhead Turbot and both sexes of English Sole. A positive relationship was demonstrated between plasma E2 levels and sperm DNA damage. Rather than an expected feminization of populations, a trend toward masculinization was observed particularly at the OCSD outfall, as indicated by gender ratios and significantly higher GSI in males versus males from the reference station. These results are consistent with previous studies showing vtg expression in male flatfish, but no alteration in overall flatfish abundance at the sampled sites.

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APPENDIX Q



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

MEMORANDUM

TO: Bruce O'Neal

FROM: Dave Hartesveldt

RE: Beck Property Biological Resources Analysis

DATE: 03/17/09

BECK PROPERTY BIOLOGICAL RESOURCES ANALYSIS

Live Oak Associates, Inc. (LOA) completed a reconnaissance level survey of the Beck Property in Fresno County during September, 2008. LOA biologists did not have access to the Project Site at the time, but on-site biological resources could be assessed by examining it from Friant Road, and from recent aerial photography. Aerial photography used for this assessment was available for the years 2007, 2001, 1987, 1984, 1965, and 1957. LOA also ran the current California Natural Diversity Data Base (CNDDDB 2008) for the Friant Quadrangle, within which the Project Site is located, to determine the special status plant and animal species documented in the Site vicinity. LOA completed the biological resource studies for the Friant Road Widening project, work that began in 1998 and continued through 2006. Surveys included a portion of the Beck property adjacent to Friant Road, and wetland and wildlife issues were addressed for this project that are relevant to the analysis below. LOA also reviewed the hydrology section of the *Supplemental Draft, Environmental Impact Report, Lone Star Processing Plant, Beck Ranch Sand and Gravel Permit, CU2235* (Buada and Associates 1987).

The Beck Property is the former 150-acre CEMEX gravel extraction facility south and east of Lost Lake Park. It consists of highly disturbed agricultural lands and an aggregate mining quarry, which has an active quarry 25 acres in size from which sand and gravel are being extracted.

The mining pit will be used as an effluent storage pond for seasonal irrigation of the remaining lands on the Beck Property. A pipeline from the wastewater treatment plant (WWTP) to the Beck Property would be constructed within disturbed areas directly adjacent to existing roadways. Prior to disposal at the Beck Property, the effluent will be treated to a level that is consistent with Title 22 requirements for the unrestricted use of recycled water. The remainder of the Beck Property will be used for irrigated agriculture. Recycled water from the WWTP will be applied to agricultural fields at agronomic rates.

PROJECT SETTING

Existing Land Uses of the Beck Property

The entire Beck Property has been disturbed by farming or aggregate mining. A 1957 aerial photograph shows that the entire Beck Property was being farmed that year. Additional aerial photographs taken in 1965, 1984, 1987, 2001, and 2007 all depict land that is actively being farmed. Almond orchards were present on much of the Beck Property prior to 2002. Thus, the Beck Property has been continuously farmed for at least the past 50 years. Biotic habitats native to the region are not present. The existing land uses do not support native vegetation, and the terrestrial vertebrates present are those that are well-adapted to periodic or even frequent land disturbance.

Agriculture

The most extensive land use type observed on the Beck Property is best categorized as “agriculture,” which in 2007-2008 consisted primarily of fallow fields. These fields were sparsely vegetated with weedy annuals common to disturbed agricultural lands of the region. Typical species would include Johnson grass (*Sorghum halepense*), common sunflower (*Helianthus annuus*), Russian thistle (*Salsola tragus*), tumbleweed (*Amaranthus albus*), and bermuda grass (*Cynodon dactylon*). These and other weedy annual species were observed in fallow fields along Friant Road at the time that LOA conducted field studies for the Friant Road widening project (LOA 2003). Disturbed fallow fields may be used as foraging habitat by a variety of birds including killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*), and European starling (*Sturnus vulgaris*). Raptors (hawks, eagles, falcons, and owls) such as American kestrel (*Falco sparverius*), Red-shouldered Hawk (*Buteo lineatus*), and red-tailed hawk (*Buteo jamaicensis*) would also hunt small mammals such as the house mouse (*Mus musculus*), deer mouse (*Peromyscus maniculatus*), Botta’s pocket gopher (*Thomomys bottae*) on such lands. Mammalian predators such as coyotes (*Canis latrans*) and domestic cat (*Felis cattus*) are often attracted to such lands by the small mammals that often occur in them.

Aggregate Mining Pit

Aggregate mining began on the Beck Property in 2002 and has continued on a portion of the Beck Property since that time. The 25-acre mining pit was so disturbed from the excavation of sand and gravel that it was barren of vegetation in September of 2008. Native terrestrial vertebrates may pass through or over the pit from time to time, but the pit provides little to no value for native animal species.

Residential

One residence, associated outbuildings, parking areas, and landscaping were located on 3-4 acres of the Beck Property in its southeast corner. The horticultural species making up the landscaping is not known. Terrestrial vertebrates common to residential areas of Fresno County would occur in the residential area of the Beck Property. Avian species would include western scrub jays (*Aphelocoma californica*), northern mockingbirds (*Mimus polyglottus*), and house

finches (*Carpodacus mexicanus*). Mammals occurring in the fallow fields would occur in the residential area as well, although buildings provide roosting habitat for various bat species that is not present in other areas of the Beck Property.

Disturbed Road Shoulder

The pipeline carrying effluent from the sewer plant to the mining pit on the Beck property will follow Friant Road along a disturbed road shoulder. Road shoulders are subject to periodic maintenance and treatment with herbicides to control the growth of weedy vegetation. Road shoulders at most support sparse stands of weedy vegetation consisting of species such as puncture vine (*Tribulus terrestris*), knotweed (*Polygonum aviculare*), and prostrate amaranth (*Amaranthus blitoides*). Animals use road shoulders sparingly.

Special Status Species

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Appendix E, state and federal laws have provided the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for protecting against the take of a variety of species found within the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as “candidates” for such listing. Still others have been designated as “species of special concern” by the CDFG. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened or endangered (CNPS 2001). Collectively, these plants and animals are referred to as “special status species.”

The Beck Property would support no special status plant species. Native vegetation is not present due to more than 50 years of soil disturbance associated with farming activities and, more recently, aggregative mining.

Native special status animal species would not be resident on the Beck Property. Vernal pool species common to nearby lands in Fresno and Madera Counties would not be present, because vernal pools do not occur on the Beck Property. The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) does not occur on the Beck Property, because its native host plant, the Mexican elder (*Sambucus mexicanus*) is absent. The California tiger salamander (*Ambystoma californiense*) breeds on nearby lands and the rodent burrows of the Beck Property are theoretically close enough in proximity to provide aestivation (oversummering) habitat for the salamander. However, a half century of plowing, discing, planting, and harvesting of these lands precludes their use by this species. The San Joaquin kit fox (*Vulpes macrotis mutica*) reportedly occurs in the region, but this claim is based on the possible sighting of one individual in 1994, with no previous or subsequent sightings having been made. It is very unlikely that a kit fox population occurs in the project vicinity, and certainly, lands of the Beck Property provide no habitat for individual kit fox that may wander through the area.

Some species may occasionally forage on the Beck Property. For example, bald eagles (*Haliaeetus leucocephalus*), golden eagles (*Aquila chrysaetos*), Swainson's hawks (*Buteo swainsoni*), American peregrine falcons (*Falco peregrinus*), white-tailed kites (*Elanus caeruleus*), etc. may all forage in fallow fields of the Beck Property from time to time. Generally, the suitability of agricultural lands as foraging habitat for raptors varies according to the agricultural crops being grown. Orchards that have been present on the Beck Property for much of the past 50 years do not constitute suitable foraging habitat for these species.

The presence of other special status species on the Beck Property would be at most incidental to migratory movements over or through the site.

Waters of the United States

A review of aerial photography reveals that waters of the U.S. have not been present on the Beck Property since at least 1957. Natural drainages and wetlands have clearly not been present on the Beck Property since that time. Irrigation infrastructure, including a sump for temporary storage of irrigation water, was constructed and maintained for the sole purpose of providing irrigation water for crops being grown on the Beck Property. The sump was removed when aggregate mining commenced on the Beck Property in 2002 or 2003.

Water sometimes ponds in the bottom of the mining pit. The Beck property is currently an on-going aggregate mining operation dating back to the year 2002. Corps of Engineers regulations exclude from Waters of the United States "water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation activity is abandoned, and the resulting body of water meets the definition of Waters of the United States" (33 CFR, Preamble, Part 328). Regarding abandonment, it is the Sacramento District, Corps of Engineers' policy that abandonment occurs where the facility has been inactive for five years or more. This site remains an active mining operation and had not been abandoned at the time this document was prepared. Therefore, the mining pit does not constitute a water of the United States.

Wildlife Movements

The Beck Property provides limited habitat for some native animal species adapted to human activity and periodic land disturbance. Therefore, the Site is within the home range of such species, which would primarily forage on the disturbed lands. The Beck Property itself is not, however, an established movement corridor for regional populations of native wildlife species. The riparian corridor of the San Joaquin River 1,500 feet west of the Beck Property is a more likely corridor for regionally significant wildlife movements. Riparian trees and understory provide cover and food for such species, and the San Joaquin River itself is a source of water and food. Together, the riparian vegetation along the banks of the San Joaquin River and the San Joaquin River itself facilitate regional wildlife movements in a way that the highly disturbed farmlands of the Beck Property could not.

PROJECT IMPACT/MITIGATION

This discussion addresses likely impacts to sensitive biological resources resulting from the use of the Beck Property for effluent disposal. This discussion recognizes that not all impacts are significant and, therefore, establishes the criteria by which significance is determined.

Discretionary approvals associated with the proposed use of the Beck Property are subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed Projects on the environment before they are undertaken. CEQA defines a “significant effect on the environment” as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific Project impacts to biological resources may be considered “significant” if they will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery areas; reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate an animal community.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065 states that a Project may trigger the requirement to make “mandatory findings of significance” if “the Project has the potential to subsequently degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range on an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.”

The assessment of project impacts below is based on a project that envisions the continued use of agricultural lands of the Beck Property for agriculture and the use of the existing mining pit for the storage of tertiary treated effluent. The only physical disturbances to the Beck Property will be the one-time disturbance resulting from the installation of a pipeline along existing roads from the proposed Friant Ranch Wastewater Treatment Plant to the existing mining pit, and the on-going disturbance common to all farmlands resulting from plowing, discing, planting, and harvesting.¹ The disturbance related to farming activities does not constitute a new disturbance, but rather a continuation of an existing condition. The only new component to the farming condition is the proposed application of tertiary treated water to the crops, in addition to or in lieu of surface water supplies from the San Joaquin River.

Project Impacts Considered Significant

None.

Project Impacts Considered Less than Significant

Impacts to Special Status Species

Special status plant species are entirely absent from the Beck Property. The project would have no effect on special status plant species.

Resident special status animal species would not occur on the Beck Property. The project would have no effect on resident special status animal species.

The presence of other special status animal species would be occasional, and incidental to foraging activities or migration over or through the Beck Property. Because of the Beck Property's use for agriculture during the past 50 or more years, native habitats suitable for special status animal species that may have at one time been present have long since been eliminated, and neither the orchards once present, nor the fallow fields and mining pit currently present provide habitat for special status animal species. Project impact to those special status animal species that occasionally use the Beck Property would be less than significant.

Impacts to Wildlife Habitat and the Wildlife that Uses It

With the exception of tertiary treated effluent storage in the mining pit and irrigation with tertiary treated effluent (in addition to or in lieu of surface water), the Beck Property will continue to be used as it has been for the past 50 years. Continued farming practices will have the same effect on wildlife species passing through the area as has been the case since farming began on the Beck Property.

¹ In order to convert the existing mining pit to a treated effluent storage pond, certain improvements or modifications may be necessary. For example, to accommodate effluent anticipated from the full build out of the planned development, the existing mining pit would need to be expanded slightly. The disturbances associated with these activities would not substantially differ from the existing conditions and would not result in any new impacts.

The effluent pond in the mining pit may attract winter waterfowl (primarily ducks of various species). The quality of the water in the pond would be considerably higher than most of the waterfowl habitat found in California's Central Valley. The effluent discharged into the pond will be treated to a level that is consistent with Title 22 requirements for the unrestricted use of recycled water. Furthermore, municipal wastewater treatment plants of the San Joaquin Valley (Los Banos, for example) commonly employ the use of large oxidation ponds for primary and secondary effluent treatment that provide significant loafing and foraging habitat for winter waterfowl. Other treatment facilities utilize wetlands as part of the treatment process (e.g., City of Stockton, City of Davis, for example). The effluent pond on the Beck property will provide similar loafing and foraging habitat, but the quality of the water will be significantly greater than most municipal sewage ponds. Project impact to winter waterfowl attracted to the pond created in the mining pit will be less than significant.

Impacts to Sensitive Habitats

Sensitive habitats such as wetlands of various types and riparian habitats are entirely absent from the Beck Property. The project would have no effect on sensitive habitats.

Impacts to Wildlife Movement Corridors

The Beck Property is not within an established wildlife movement corridor. The project would have no effect on wildlife movement corridors.

Impacts to Waters of the U.S.

Waters of the U.S. are not present within the Beck Property. The project would have no effect on Waters of the U.S.

Impacts to Water Quality in the San Joaquin River

The Project will result in no direct impact to the San Joaquin River. The river lies well to the west of the Beck Property and the Beck Property and therefore no Project infrastructure will be constructed in or adjacent to the River.

The use of tertiary treated effluent to irrigate crops on the Beck Property during the summer, spring, and fall, and the storage of effluent in an existing pit on the Beck Property would have negligible impact on water quality in the San Joaquin River. This conclusion is based on the following:

- Tertiary Treatment of all Effluent. All effluent will be treated to a tertiary level and will meet Title 22 requirements for unrestricted use.
- Use of Effluent to Irrigate Crops. During the spring, summer, and fall when virtually all effluent will be applied to crops and landscaping, insufficient effluent would infiltrate through the soils of the Beck Property to enter the San Joaquin River. Only that amount of water needed to grow the crop, whatever it might be, would be applied to the land.

During these months, effluent generated by the proposed waste water treatment facility would not enter the river, and therefore, have no effect on water quality in the river. [Editing note: we need to address stormwater runoff issue—factors to mention may be proximity to river, potential for overspill from storage in pit, and RWQCB policy against irrigation within 24 hours of rainfall. (Some of these will be the same arguments we made for Lost Lake Park.)]

- Distance of Winter Effluent Storage Facility From the San Joaquin River. During the winter, effluent will be stored in an existing 25-acre pit already present on the Beck property. This pit is located approximately 1,500 feet to the southeast and as much as 2,500 feet to the east of the San Joaquin River. The pit has been excavated in 50 to 75 feet of alluvium that sits on bedrock. Groundwater studies of the Beck property show that groundwater moves through alluvium onto the property from the west (i.e., San Joaquin River) and through bedrock and alluvium onto the property from the east (Sierra Foothills). The introduction of effluent to the existing pit during the winter may result in some mixing of effluent with groundwater generated from both the San Joaquin River and the Sierra foothills. Initial calculations indicate, however, that the ponded water would not reach the San Joaquin River as there would not be sufficient hydrostatic head available to push it there (see Appendix A). Effluent stored in the pit would essentially be trapped between the groundwater flow from the east and the flow from the river on the west.

Even if a small volume of this mixed water reaches the San Joaquin River, it would not do so before passing through 1,500 to 2,500 feet of alluvium. The passage of a small volume of mixed water through so much alluvium will further filter water that has already been treated to a tertiary level. This mixed groundwater, should it enter the river, would be fully diluted within a few hundred feet of where it enters. Therefore, any impacts on the San Joaquin River would be negligible.

- Findings of Direct River Discharge Study. The findings summarized by RBI (2008) in *Final Report, Assessment of the Friant Ranch Wastewater Treatment Plant on the Aquatic Biological Resources of the San Joaquin River*, as well as the findings of the *Anti-Degradation Analysis part 1, Water Quality Impact Assessment for Proposed Friant Ranch, Waste Discharge to the San Joaquin River and Wastewater Reclamation for Project Landscaping and Irrigation at Lost Lake Park* (Provost and Pritchard 2008) and *Technical Memorandum – Mixing Zone and Dilution Study for proposed Discharge of Treated Effluent to the San Joaquin River* (Larry Walker Associates 2005), further support the premise that in the unlikely event that some effluent reaches the San Joaquin River, the impact to aquatic resources would be negligible. These assessments considered seasonal discharge of the Project's tertiary treated effluent directly to the San Joaquin River via a diffuser type outfall structure during the winter months with spray disposal on land during the spring, summer, and fall.

The RBI report addressed the anticipated effects on aquatic life from the effluent plume during the months of river discharge. Potential operational impacts addressed by this study included possible increased trace metals concentrations, short-term thermal effects,

long-term increases in downstream water temperatures, variations in dissolved oxygen concentrations, variations in pH levels, variations in turbidity and total suspended solids conditions, whole effluent toxicity, habitat loss or alteration, and alteration of instream flow regime downstream of the outfall. This report concluded that all impacts from direct river discharge of tertiary treated effluent would not be significant in terms of mortality to aquatic life, blocking or delaying migration of anadromous fishes, reducing populations of aquatic life including fish and benthic macroinvertebrates through degradation of aquatic habitat, and mortality to fish and benthic macroinvertebrates through channel degradation. The RBI report determined that the impacts to aquatic resources resulting from direct river discharge would be less than significant. Following the same analysis here (i.e., no river discharge), where any discharge would first be filtered through a considerable stretch of alluvium, any impacts to those resources would be even less.

- Stormwater Runoff. There will be no offsite drainage from the Beck property. Any rain that falls on the pond area would be added to the irrigation supply (and has been considered already in the water balance.) Any rain falling on the agricultural fields of the Beck Property would simply soak in; grading would prevent runoff to neighboring parcels.

For the reasons provided above, project impact to water quality in the San Joaquin River will be less than significant.

CULTURAL RESOURCES

Cultural resources of the Beck Property were assessed in the supplemental EIR prepared for the project (Buada and Associates 1987) for the aggregate mining operation. Impacts to cultural resources were determined to be less than significant. The site continues to be highly disturbed, and significant cultural resources are no more likely to occur on the site in 2009 than in 1987. Furthermore, use of the site for effluent disposal would not alter any cultural resources that might be present, because a significant change in site use is not proposed.



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MEMORANDUM

To: Bruce O'Neal

From: John Kirk, C.E.G., C.H.G.

Subject: Friant Ranch ADEIR
Evaluation of the Beck Property for Effluent Storage & Reclamation

Date: March 18, 2009

Provost & Pritchard was retained to investigate the suitability of the Beck Property for effluent reclamation use, involving both short-term storage and ultimate disposal of reclaimed wastewater by irrigation of agricultural crops. The following summarizes the property, our investigations, our findings and conclusions.

Beck Property

The Beck property is the former 150-acre CEMEX gravel extraction facility south and east of Lost Lake Park. The site contains an existing mining pit approximately 25 acres in size. The pit has been excavated to hard, resistant granitic bedrock in the deepest parts of the excavation. Native soils overlying the bedrock are highly permeable sands and gravels deposited by the San Joaquin River. The mining pit will be slightly expanded and used as an effluent storage pond for seasonal irrigation of the remaining lands on the site. A maximum of approximately 100 days of effluent will be stored.

A pipeline from the proposed Friant Ranch wastewater treatment plant (WWTP) to the Beck Property would be constructed within disturbed areas directly adjacent to existing Friant Road. Prior to disposal at the site, the effluent will be treated to a level that is consistent with Title 22 requirements for the unrestricted use of reclaimed water. Reclaimed water from the WWTP will be applied to the Beck property at not more than agronomic rates.

The discharge structure to implement disposal on the Beck Property could be comprised of either a structure similar to a Fresno Metropolitan Flood Control District type E outlet (vertical pipe with a cyclone cage around it), or a horizontal pipe protruding from the bank of the pit with a "duckbill" one-way automatic backflow prevention valve.

Field Investigation

A field investigation consisting of test hole drilling and reconnaissance geologic mapping was performed on October 3, 2008. The property explored is a gravel quarry with quarry pits remaining as open ponds. At the time of the field investigation there was some reclamation activity going on. While most of the gravel appears to have been removed, there remain pockets of aggregate continuing to be removed. The pit has

been excavated to bedrock in most areas and was dry at the time of the field investigation. Bedrock exposures were observed by walking the pit bottom. Test hole drilling was by hollow-stem auger. A number of areas on the pit bottom were explored. A relatively thin veneer (nil to 3-4 feet in most areas) of sand and gravel was found to overlie granitic bedrock. The bedrock is highly weathered in the upper portion and has the texture of a coarse grained sand; a highly permeable material. However, below a depth of a few inches to a few feet, the d.g. becomes firm to hard with a low permeability. This becomes firm, resistive bedrock below a depth of about 5 to 20 feet.

Groundwater was not encountered in the borings but groundwater seepage was observed at the soil/d.g. interface. The seepage is the result of groundwater flowing along this interface from groundwater originating from the foothills to the east.

Sand was observed in the pond walls to the north, west and south. Older terrace deposits and d.g. was observed in the pond walls to the east.

Infiltration and Permeability Characteristics

Permeability and infiltration capacity of the sand comprising the pond walls is high. Although no tests were performed, the material likely has an estimated permeability on the order of 5 to 20 feet per day. The underlying d.g. appears to have a moderate permeability estimated at 0.01 to 1.0 feet per day. This permeability would represent the upper few inches to feet, but the underlying hard bedrock is effectively impermeable.

Similar gravel pits located a short distance southwest of the property are owned by the CEMEX company. The CEMEX property has a number of ponds used for precipitation and runoff control. One pond of interest lies at the northeast end of the CEMEX property. This pond is similar in configuration and location in relation to the subsurface geology to the Beck pond. The CEMEX pond was excavated to bedrock and the pond walls on the north, west and south consisted of sand, while the pond wall to the east was in older terrace soils and perhaps bedrock. Jerold Coburn, the CEMEX plant manager, indicated that this pond currently has about 10 to 12 feet of water in it. The high water mark was observed some 4 feet above the current pond surface. He indicated that the only water added to this pond was from precipitation and that the last addition of water to it occurred the previous winter. The pond appears to be losing water solely to evaporation.

If water were applied to the proposed Beck disposal pond, there would be an initial very rapid infiltration capacity into the thin soil layer. As the soil pores filled, the infiltration rate would slow as the pond water head driving force is overcome by frictional losses as the water percolated laterally through the sand. There would be virtually no vertical flow. The pond would build a groundwater mound on the underlying bedrock and become a static feature varying in configuration in response to varying heads of water in the pond. The sole driving force for lateral flow would be evapotranspiration. This would effectively cease below a depth of about 3 to 5 feet in sandy soils. The CEMEX pond was observed to have this same condition of a static groundwater mound with losses to the pond solely due to evaporation.

Hydrologic Connection to the San Joaquin River

The disposal of effluent through irrigation onsite and storage/evaporation into the abandoned mining pit would have minimal impact on water quality in the San Joaquin River, which at its closest point to the pit is 1,500 feet (0.28 mile) to the northeast. Due to impermeable soil conditions and the existing groundwater flow on the site, it is unlikely that a hydrologic connection exists between the Beck Property groundwater and the San Joaquin River.

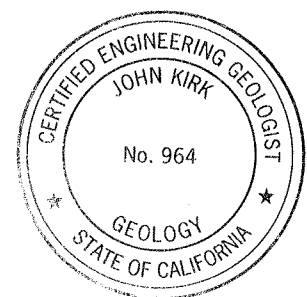
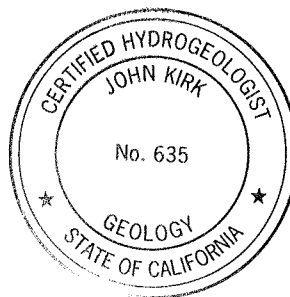
Furthermore, in the event that effluent from the disposal site actually reaches the San Joaquin River, there would be minimal impacts to water quality as the effluent will be treated to a tertiary level and will meet Title 22 requirements for unrestricted use. This conclusion is also based on the findings summarized by RBI (2008) in "Final Report, Assessment of the Friant Ranch Wastewater Treatment Plant on the Aquatic Biological Resources of the San Joaquin River," an appendix to the Water Quality Impact Assessment - Wastewater Discharge (Provost & Pritchard 2008). The RBI assessment assumed that river discharge of effluent would be required during the winter months with spray disposal on land during the spring, summer, and fall. RBI concluded that the resulting project impact to water quality from such a direct discharge would not adversely affect aquatic biotic resources of the San Joaquin River. Therefore, use of the Beck Property for all discharge throughout the year (i.e. no river discharge) would ensure that effluent does not reach the San Joaquin River. Even if a minimal amount of effluent might reach the river indirectly through the groundwater, no effluent would enter the San Joaquin River without first passing through at least 1,500 feet of alluvium, further filtering already-tertiary-treated water, and thus ensuring no adverse effects to aquatic biotic resources of the San Joaquin River.

The Water Quality Impact Assessment Wastewater Discharge (Provost & Pritchard 2008) evaluated the potential impacts of the use of reclaimed water on local groundwater quality. Because of the proposed level of treatment and the application of recycled water at agronomic rates, the irrigation of the Beck Property or other similarly situated lands with the proposed effluent is not expected to cause or contribute to a violation of a water quality criteria or objectives, and is not expected to cause a significant lowering of water quality in the groundwater.



John H. Kirk, C.E.G, C.H.G

c: Dennis Bacopulos
Bryan Wagner
Jakki McDonald
Tess Dunham
DMcG/ABL



APPENDIX R

TECHNICAL MEMORANDUM

Date: April 28, 2010

To: Dennis Bacopulos

From: Michael Bryan, Ph.D; Ben Giudice, M.S.; Jeff Lafer, M.S.

Project: **Friant Ranch Specific Plan**

Subject: **Assessment of Stormwater Effects on Aquatic Resources with Low Impact Development (LID)**

Summary and Conclusions

Stormwater runoff from urbanized watersheds with conventional stormwater treatment best management practices (BMPs) has long been recognized for its potential to adversely affect aquatic resources in the receiving waters. Based on the literature review of low impact development (LID) stormwater management principles and practice provided in this memorandum, it is expected that a properly designed and implemented stormwater management system using LID methods will provide superior performance in reducing runoff rates, volumes, and contaminant mobilization and transport from impervious surfaces compared to a conventional stormwater system. Moreover, the Friant Ranch development has proposed a goal of matching the predevelopment hydrology to the extent possible, and thus not increasing runoff compared to the predevelopment condition. Consequently, the development, implementation, and maintenance of a well-designed LID system at Friant Ranch will provide the means to largely avoid and minimize the long-term and adverse hydrologic and water quality effects known to be of concern to fisheries and aquatic resources. An appropriately designed and maintained LID stormwater management system as part of the Friant Ranch development would provide state-of-the-art stormwater runoff minimization and treatment for the development. As such, the treated, controlled volumes of stormwater runoff from the development that would enter the San Joaquin River would be unlikely to result in adverse population or community level effects on the river's aquatic resources.

Introduction

Friant Ranch, LLC, has proposed a new development (Friant Ranch) within Fresno County's Friant Ranch Specific Plan approximately 5 miles north of the City of Fresno and 21 miles east of the City of Madera. Friant Ranch would be located downstream from Friant Dam, between the Friant-Kern Canal and the San Joaquin River. Drainage and wetlands within the Friant Ranch area eventually drain to the San Joaquin River.

Urban runoff can cause water quality degradation, which, if sufficiently large in magnitude and frequency, can adversely affect beneficial uses. For example, studies indicate that urbanization

has the potential to result in water quality problems such as increased temperatures, sedimentation, and other effects that may result in habitat alteration or loss of fish populations (USEPA 1997).

The Friant Ranch development will utilize a stormwater management approach that incorporates LID to minimize stormwater impacts on the San Joaquin River. Generally, many of the contaminants in untreated stormwater originate from impervious surfaces (e.g., rooftops, sidewalks, streets, and parking lots). Basic principles of LID include managing stormwater as close to the source as possible, preserving or re-creating natural landscape features, and minimizing the effective impervious area of development. To achieve this, LID focuses on lot level features designed to replicate pre-development hydrology, emphasizing infiltration, evaporation, and reuse. Remaining surface runoff is treated through contact with vegetation and soil using integrated management practices (IMPs). In short, the focus of LID is on prevention rather than mitigation. LID elements that reduce volume and peak flow of urban runoff from impervious surfaces reduces pollutant loadings, while LID IMPs reduce both pollutant concentrations and loadings.

This Technical Memorandum (TM) discusses: (1) typical constituents found in untreated stormwater and how those constituents affect aquatic resources, (2) how LID and IMPs generally address stormwater constituents of concern, and (3) general conclusions regarding the relative potential for stormwater impacts to aquatic resources of the San Joaquin River from the Friant Ranch development assuming an appropriate LID stormwater system is implemented.

Untreated Urban Stormwater Quality

Untreated urban stormwater quality can vary considerably depending on numerous factors, including effective impervious area (EIA), runoff velocity, land use, residential home and lot design, and stormwater routing and management. Urban stormwater runoff from a variety of land uses and conventional stormwater BMPs contain constituents often cited as threats to aquatic resources in receiving waters, including total suspended solids (TSS), nutrients nitrogen and phosphorus, and total recoverable fractions of heavy metals such as copper, lead, and zinc.

Table 1 shows some example constituent levels in untreated urban stormwater runoff.

Typically, total recoverable trace metal concentrations are in excess of California Toxics Rule (CTR) criteria expressed as the dissolved fraction (USEPA 2000a). It should be noted that typically a fraction of the total recoverable measurement in stormwater is associated or bound to suspended solids (i.e., sediment, organic matter) or otherwise unavailable to aquatic organisms as a more complex chemical compound. The partitioning of a trace metal ions between the dissolved phase, which is more available for uptake by organisms, and the biologically unavailable metal adsorbed to sediments or part of large complexes depends on many physical and chemical properties of the water. Comparisons of total recoverable metals measurements to dissolved CTR criteria likely provide a conservative representation of the actual potential for exposure and effects to aquatic organisms because metal ions that are bound to particulates are not available for uptake by organisms. Averages in Table 1 are calculated based on the references cited in the table and are intended to give an approximation of the range of levels that have been found in untreated runoff. These averages will be used in calculating approximations of expected final stormwater quality in the next section.

Table 1. Constituent Concentrations in Untreated Urban Runoff.

Reference	Constituent ¹					
	TSS (mg/L)	TN (mg/L)	TP (mg/L)	TZn (µg/L)	TCu (µg/L)	TPb (µg/L)
USEPA 1983	100	-	0.33	160	34	144 ²
Horner 2007 ³	79	-	0.53	129	19	-
Bedan and Clausen 2009	24	2.5	0.17	40	10	2
Li and Davis 2009	102	2.1	0.26	81	22	6.5
Davis 2007	34	-	0.61	107	10	5.8
Average	68	2.3	0.38	103	19	4.8

1 – TSS = Total Suspended Solids; TN = Total Nitrogen; TP = Total Phosphorus; TZn = Total Zinc; TCu = Total Copper; TPb = Total Lead.

2 – The USEPA National Urban Runoff Program (NURP) study was conducted between 1979 and 1983 when leaded gasoline was commonly used. Lead values are not representative of current conditions and are excluded from the calculation of the average.

3 – Values from Horner are arithmetic mean values from six development types, including residential and commercial roofs, driveways, parking lots, walkways, and landscaping.

Other constituents that may be present in untreated urban stormwater runoff include organic carbon, bacteria, cadmium, chromium, fuels and oil/grease, polycyclic aromatic hydrocarbons (PAHs), and pesticides. Certain endocrine disrupting compounds (EDCs), such as some pesticides and PAHs, may be present in urban stormwater runoff. Typical levels of any of these constituents in urban stormwater runoff are not very well characterized, largely because they can be dependent on site-specific factors. Urban stormwater runoff has not been identified as a source of pharmaceutical and personal care product (PPCP) pollution to receiving waters.

In addition, greater runoff volume and warmer runoff from impervious surfaces found in urban environments has the potential to impact temperatures in the receiving stream. The extent to which untreated stormwater runoff is elevated in temperature depends on climactic factors including dew point temperature, air temperature, solar radiation, temperature of the surface prior to the storm, and rainfall amount and duration (Herb et al 2008).

Stormwater Quality with Low Impact Development (LID)

As noted above, LID systems are designed to provide more effective stormwater runoff controls through implementation of lot level features that emphasize infiltration, evaporation, and reuse. IMPs such as planter boxes, infiltration trenches, filter strips, swales, and constructed wetlands are designed to provide improved and integrated contaminant removal functions. The following section describes the available information regarding differences between stormwater quality produced with conventional stormwater management and BMP systems compared to an LID stormwater management system.

Stormwater Quality Constituent Loading with LID

LID components are designed to mimic predevelopment hydrology, which thereby reduces runoff from impervious surfaces and thus contaminant loading to the receiving water.

Remaining surface runoff is treated using various IMPs. The Effective Impervious Area (EIA) is

a metric defined as the percentage of the total drainage basin area that consists of hardened, impervious surfaces that are hydrologically connected directly via sheet flow or a discrete conveyance to a drainage system or receiving water body. Generally speaking, the lower the EIA, the lower the overall potential for an increased rate and volume of stormwater runoff and discharge to surface water from a drainage basin compared to the predevelopment condition. For example, a 5% EIA would result in only 5% of surface runoff from the site originating from impervious surfaces. In LID systems, the runoff originating from impervious surfaces would also undergo some level of treatment. Under this scenario, constituent loadings to the receiving water from impervious surfaces are generally reduced by 95% or more, depending on the treatment effectiveness (Horner 2007).

Stormwater Quality Constituent Concentrations with LID

Whatever surface runoff that remains and is discharged to receiving water is treated with various IMPs. IMPs under consideration at Friant Ranch include bioretention, biofiltration strips, biofiltration swales, infiltration trenches, and pervious pavement (Infrastructure Master Plan, Appendix A). **Table 2** shows average treatment effectiveness of various LID IMPs on constituents of concern. Removal of TSS, zinc, copper, and lead is generally greater than 50%, while nitrogen and phosphorus treatment can vary considerably between IMPs. **Table 3** presents concentrations of these constituents in IMP outflow assuming average untreated input concentrations from Table 1 and treatment effectiveness from Table 2, as well as actual LID pollutant discharge data from recent research studies.

Table 2. Percent Removal Effectiveness of Integrated Management Practices (IMPs) on Urban Stormwater Constituents.

Integrated Management Practice	Constituent ¹						Reference
	TSS	TN	TP	TZn	TCu	TPb	
Infiltration Basins/Trenches	89	83	65	99	-	98	USEPA 1999a
Extended Detention Basin	72	22	50	62	58	70	Caltrans 2004, USEPA 1999a, Horner 2007
Surface Sand Filters ²	84	27	44	78	46	79	Caltrans 2004, USEPA 1999a
Biofiltration Strip	70	11	34	67	60	58	Caltrans 2004, USEPA 1999a, Horner 2007
Biofiltration Swale	62	21	41	69	59	59	Caltrans 2004, USEPA 1999a, Horner 2007

1 – TSS = Total Suspended Solids; TN = Total Nitrogen; TP = Total Phosphorus; TZn = Total Zinc; TCu = Total Copper; TPb = Total Lead; all values are percent removals.

2 – Surface sand filters are generally classified as a conventional BMP rather than an integrated management practice under LID, but can and have been used in combination with LID in practice.

Table 3. Constituent Concentrations in Urban Runoff Treated with Low Impact Development Integrated Management Practices (IMPs).

Scenario		Constituent ¹					
		TSS (mg/L)	TN (mg/L)	TP (mg/L)	TZn (µg/L)	TCu (µg/L)	TPb (µg/L)
Average Untreated (From Table 1)		68	2.30	0.38	103	19	5
Predicted Output	Infiltration Basins/Trenches	7	0.39	0.13	1	N/A	0
	Extended Detention Basin	19	1.79	0.19	39	8	1
	Surface Sand Filters	11	1.69	0.21	23	10	1
	Biofiltration Strip	20	2.06	0.25	35	8	2
	Biofiltration Swale	26	1.83	0.22	32	8	2
Actual LID/ IMP Output	Bedan and Clausen 2009	11	1.7	0.29	17	6	1
	Li and Davis 2009	6.5	1.4	0.16	8	10.5	2
	Davis 2007	15.5	-	0.16	46	3.5	2.5

1 – TSS = Total Suspended Solids; TN = Total Nitrogen; TP = Total Phosphorus; TZn = Total Zinc; TCu = Total Copper; TPb = Total Lead.

The values in Table 3 show that constituent concentrations may be significantly reduced relative to untreated urban runoff. It is important to note also that the majority of surface runoff from impervious surfaces is eliminated under LID conditions, and therefore constituent loading to the receiving water is decreased substantially.

Concentrations in Table 3 should not be interpreted as predicted concentrations entering the San Joaquin River from Friant Ranch. Values in the table represent a range of potential values based on a few evaluation studies and several assumptions. With the exception of Bedan and Clausen (2009) data, all concentrations in Table 3 assume only a single IMP. In reality, several IMPs may be utilized prior to discharge. Site specific land use, public outreach programs designed to reduce contaminant inputs, soil chemistry, and climactic considerations all affect concentrations and contaminant fate and transport. The intent of the tables is to communicate that while total constituent loadings are reduced significantly by reductions in surface runoff volume, concentrations of constituents in treated surface runoff have potential to exceed CTR standards. This does not establish whether exceedances of criteria in treated stormwater runoff, if they were to occur, would be of a frequency and magnitude to affect beneficial uses in the San Joaquin River. To make such determinations, site-specific stormwater volumes and concentrations would need to be assessed relative to San Joaquin River quality and dilution capacity.

As mentioned previously, various other constituents in urban stormwater have received attention as possible risks to the environment. Cadmium and chromium have been shown to behave similarly to copper, lead, and zinc. Organic carbon, bacteria, hydrocarbons/PAHs, and pesticides can all be either free in solution or associated with particles. Depending on the specific nature of the contaminant, the vast majority may be associated with the particle phase (for example, high molecular weight PAHs and pyrethroid pesticides). In that regard, the extent to which TSS is

removed is largely the extent to which these contaminants are removed as well. As shown in Table 3, TSS concentrations leaving IMPs are generally low.

As noted in the previous section, certain EDCs, such as some pesticides and PAHs, may be present in urban stormwater runoff. However, the magnitude of these compounds in runoff will vary considerably based on site-specific considerations, and their fate, transport, and effects will be limited by surface water runoff volume reductions and reductions in TSS by IMPs. Generally, urban stormwater runoff is not viewed as a major source of EDC pollution in receiving waters.

Bioretention areas, if appropriately sized, have been found to significantly reduce both maximum and median water temperatures between the inlet and outlet (Jones and Hunt 2009). Furthermore, since these systems reduce outflow quantity, they also reduce thermal impact. Design considerations, such as installing drains at depth, keeping soil well shaded, and using light-colored mulch can increase these systems' effectiveness in reducing runoff temperatures (Jones and Hunt 2007).

Stormwater-Related Effects to Fisheries and Aquatic Resources

Adverse changes to aquatic life beneficial uses in streams have been documented in watersheds that have undergone increasing urbanization with conventional development and stormwater management methods. The development of LID stormwater management techniques has been a direct response to the recognition that previous approaches to stormwater management have not been sufficient to address these concerns. The following section describes the available information regarding the known effects of conventional urban stormwater runoff on fisheries and aquatic resources compared to the effects anticipated to occur with the implementation of an LID stormwater management system.

Effects Associated with Inadequately Treated Urban Stormwater Runoff

Stormwater research and monitoring studies have generally demonstrated that receiving waters and aquatic biota in watersheds with conventional stormwater management practices are affected by a combination of long-term hydrologic and channel geomorphic changes to habitat and long-term contaminant exposure (USEPA 1999b). In addition to direct exposure to toxicants, the potential adverse effects to aquatic species are complex and include changes in competitive and trophic dynamics in the food chain, energy dynamics in streams (i.e., nutrients), and species behavior (e.g., feeding), presence of exotic species, and predation (National Research Council 2008).

The effects of increased magnitude, frequency, and duration of urban runoff events associated with increased impervious surfaces in urbanized watersheds primarily affects channel geomorphology through channel enlargement (e.g., widening, downcutting), increased local sediment yield from channel scour, changes in bed substrate conditions, decreased bank stability, and simplification of stream habitat features such as elimination of pools and riffles (USEPA 1999b). The geomorphic-related changes (i.e., channel erosion and bank instability) may result in long-term changes and loss of riparian vegetation. Horner (2007) found that ephemeral streams in California are likely to be more susceptible to the adverse effects of hydromodification compared to streams of the humid eastern United States, and changes in biotic parameters can be measured when EIA begins to exceed as little as 3-5% of the total watershed

area. However, the level of EIA that results in substantial changes to aquatic habitat is site-specific and not well defined.

Exposure of aquatic biota to toxic contaminants is one of the principal concerns for stormwater management and protection of aquatic life beneficial uses in watersheds with conventional stormwater management measures. Whole effluent toxicity (WET) tests using *Ceriodaphnia dubia* (water flea), *Pimephales promelas* fathead minnow), and *Selenastrum capricornutum* (green alga) in urbanized watershed streams in the Santa Clara valley has documented infrequent acute toxicity. Monitoring with chronic WET tests has documented chronic toxicity in about 35% of stream samples for *Ceriodaphnia* and *Selenastrum*, and in about 10% of samples for fathead minnow (Santa Clara Valley Urban Runoff Pollution Prevention 2007). Conversely, stream reaches in sparsely developed or undeveloped watersheds in the Santa Clara monitoring program exhibit infrequent toxicity. EPA has concluded that, in general, the concentrations of toxic contaminants in stormwater are not the primary cause of typical adverse receiving water effects that are evident in urban environments, considering that stormwater results in short exposure periods to toxicants and toxicants are primarily associated with particulates (USEPA 1999b). Moreover, it is generally recognized that documented adverse acute exposure effects to contaminants in stormwater have been rare (USEPA 1999b).

Anticipated Effects Associated with Stormwater Runoff from LID Systems

Because the design and implementation of LID stormwater measures is a relatively new practice in the United States, there have been no comprehensive assessments conducted that compare the level of adverse effects to aquatic biota and integrity of the aquatic ecosystems in LID-managed watersheds relative to watersheds with conventional stormwater practices. The frequency and magnitude of exposure concentrations relative to adopted acute and chronic CTR aquatic life water quality criteria are important factors in identifying the potential for adverse water quality effects to occur to aquatic biota. Based on data from LID stormwater systems presented in Table 3 above and comparative analyses of LID systems presented by Horner (2007), it is expected that LID systems can reduce stormwater constituent concentrations to levels that are generally comparable with respect to the lower CTR chronic criteria for trace metals.

LID systems also are effective in eliminating potential adverse effects to aquatic organisms from higher-contaminant concentrations of runoff during so-called “first flush” events. These events can occur in the initial fall months as a result of the transport of wastes (e.g., oils, greases, organic matter) that accumulate on impervious surfaces during the preceding dry summer months. LID stormwater systems may be particularly well-suited to the Central Valley of California because summers are dry, and storm events of sufficient magnitude to generate surface runoff occur primarily in association with large winter storms which also result in dilution and assimilative capacity in the receiving waters. The parcel-level implementation of distributed stormwater capture, infiltration, and detention features with LID systems are expected to be effective in reducing first flush runoff relative to conventional stormwater BMP systems, due to the improved capture and infiltration properties of soils and vegetation in IMPs of LID systems.

Based on the known hydrologic and water quality effects of properly designed and implemented LID methods described herein, it is expected that LID-managed stormwater will be much less likely than traditional urban development to cause long-term adverse effects to aquatic biota.

The key aspects of LID measures that will lessen the effects to receiving waters include the attenuation of stormwater runoff rates and associated hydrologic and geomorphic changes in stream channels, and attenuation of contaminant transport and loading to receiving waters.

LID Performance Requirements for Effective Stormwater Quality Control

Proper maintenance is necessary to allow for design performance of IMPs. LID measures can be lower in maintenance than conventional, structural stormwater BMPs, but maintenance issues can be more complicated because most LID measures reside on private property. Retention ponds and wetlands may require cleaning and removal of debris after major storm events, removal of accumulated sediment, and control of excess vegetation. Bioretention facilities typically require replacement of dead vegetation, mulching as needed, and replacement of soils, while grass swales require periodic mowing, control of vegetation, and removal of sediments (EPA 1999a, 2000b).

As a means of ensuring proper function of IMPs, water quality monitoring and/or receiving stream assessments may be useful tools. Measuring pollutant inflow and outflow from IMPs, as well as overall input and output flow provide a means of evaluating the hydraulic and treatment performance of the control measure.

An appropriately designed and maintained LID stormwater management system as part of the Friant Ranch development would provide state-of-the-art stormwater runoff minimization and treatment for the development. As such, the treated, controlled volumes of stormwater runoff from the development that would enter the San Joaquin River would be unlikely to result in adverse population or community level effects on the river's aquatic resources.

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Dr. Michael Bryan has over 18 years of combined consulting and research experience in water quality, toxicology, and fisheries biology/aquatic toxicology. Dr. Bryan also has extensive expertise in CEQA/NEPA documentation, study design and management, data compilation and analysis, and permitting—particularly municipal wastewater NPDES permitting. Dr. Bryan applies his expertise to assist clients with strategic planning; compliance monitoring, technical evaluations; project refinement, permitting, and implementation; and, when needed, expert witness testimony. Currently, Michael is working with municipal wastewater dischargers and Central Valley Regional Water Quality Control Board (RWQCB) staff to develop and process Region-wide amendments to the Central Valley Water Quality Control Plan (Basin Plan) for pH and turbidity. He also is leading efforts to de-designate cold freshwater habitat and municipal and domestic supply beneficial uses for individual water bodies within the Central Valley Region.

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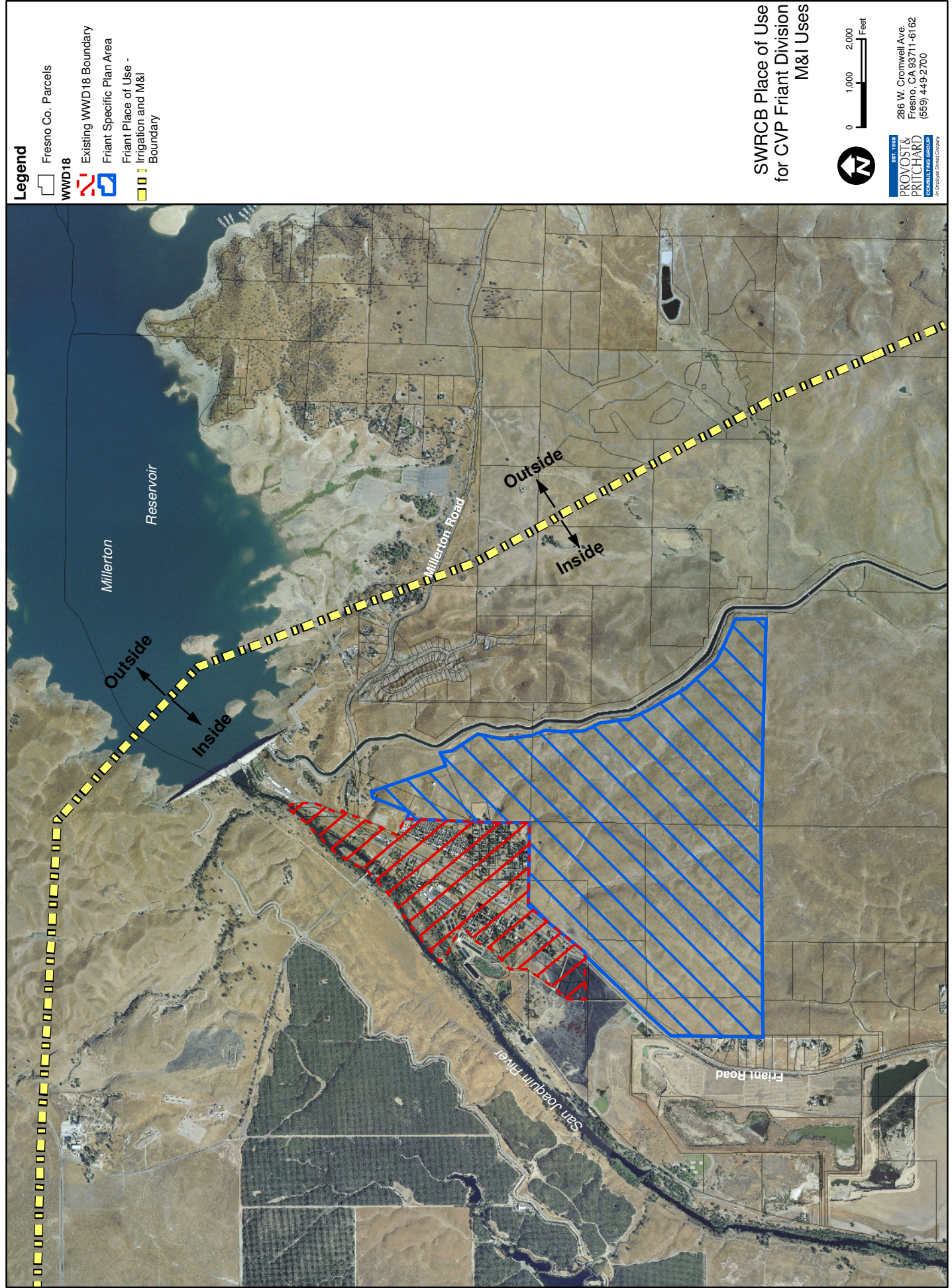
REPRESENTATIVE PROJECT EXPERIENCE **NPDES PERMITTING.** Providing technical and strategic services to review, evaluate, and negotiate waste discharge requirements in tentative NPDES permits for wastewater treatment plants issued by the RWQCB, develop and conduct special studies, and assess impacts of discharges.

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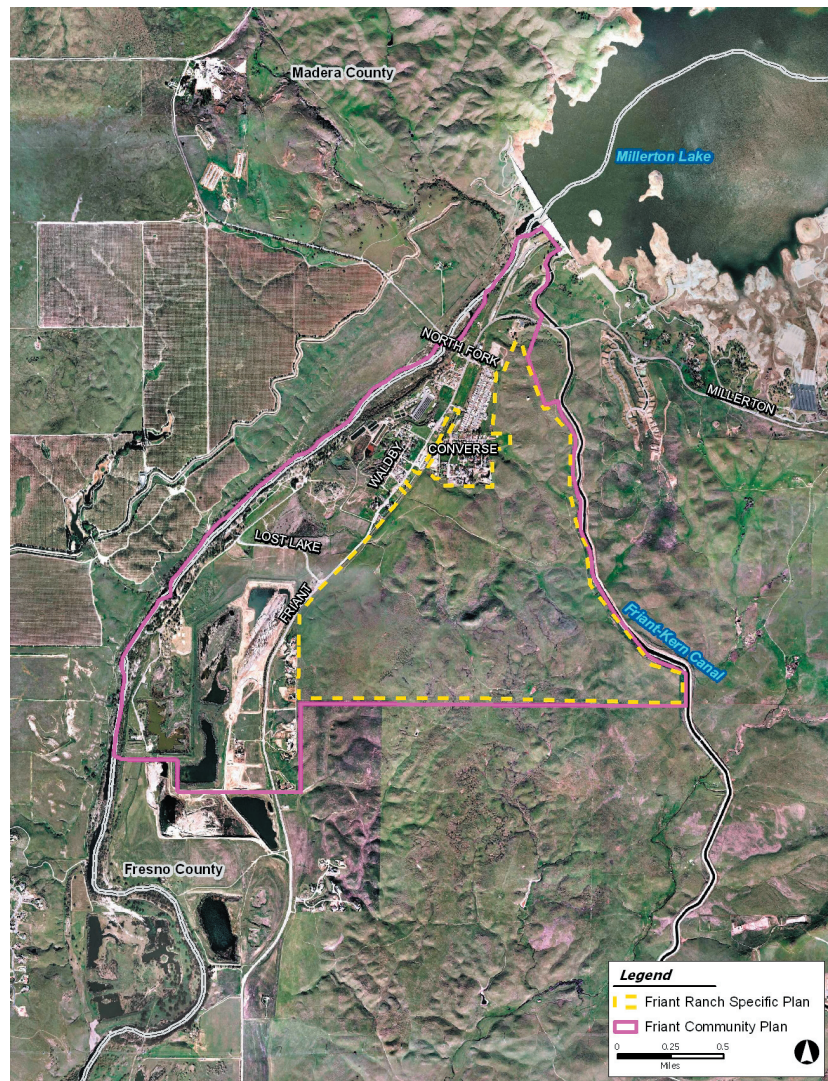
PROFESSIONAL AFFILIATIONS / CERTIFICATIONS American Fisheries Society
Society of Environmental Toxicology and Chemistry, Northern California Chapter Member

APPENDIX S



FINAL ENVIRONMENTAL IMPACT REPORT

FRIANT COMMUNITY PLAN UPDATE & FRIANT RANCH SPECIFIC PLAN



August 2010

FINAL ENVIRONMENTAL IMPACT REPORT

FRIANT COMMUNITY PLAN UPDATE & FRIANT RANCH SPECIFIC PLAN



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August 2010

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R	Technical Memorandum, <i>Assessment of Stormwater effects on Aquatic Resources with Low Impact Development (LID)</i> , Robertson – Bryan, Inc., April 28, 2010	
S	State Water Resources Control Board Exhibit - <i>SWRCB Place of Use for CVP Friant Division M&I Users</i>	

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SECTION ONE

INTRODUCTION

SECTION ONE – INTRODUCTION

1.1 Purpose of the Final Environmental Impact Report

This Final Environmental Impact Report (FEIR) has been prepared to respond to agency and public comments received on the Draft Environmental Impact Report (Draft EIR) prepared for the Friant Community Plan Update and Friant Ranch Specific Plan (SCH# 2007101016). The County of Fresno (County), as the Lead Agency under the California Environmental Quality Act (CEQA), is required to prepare a Final EIR that responds to all environmental comments received on the Draft EIR.

Responses to comments are directed to the disposition of significant environmental issues that are raised in the comments, as set forth in Section 15088 of the State Guidelines. When reviewing the comments and in developing responses thereto, every effort was made to compare the comment to the information contained in the Draft EIR. In most instances, responses are not provided to comments on non-environmental aspects of the proposed project. For comments not directed to significant environmental issues or the adequacy of the EIR, the responses indicate that the comment has been “noted” and will be forwarded to the County decision making body for review and consideration during the public review process for the Project.

CEQA requires that a Final EIR be prepared, certified and independently considered by the decision-making body of the County prior to taking action on the project. The Final EIR provides the County with an opportunity to respond to comments on the Draft EIR and to incorporate any changes necessary to clarify and/or amplify information contained in the Draft EIR. This Final EIR will be available to all commenters for at least ten (10) days prior to its certification.

The Final EIR consists of (1) the separately bound Draft EIR and its Appendices incorporated herein by this reference; (2) Project Description; (3) a list of commenters on the Draft EIR; (4) the comments received concerning the Draft EIR; (5) responses to these comments; and (6) errata text, appendices, figures and tables to amend and/or supplement the Draft EIR contents.

1.2 Public Review and Consultation Process

On October 3, 2007, the County distributed to public agencies and interested citizens a Notice of Preparation (NOP) for the Friant Community Plan Update and Friant Ranch Specific Plan. The NOP informed these agencies of the County’s intent to prepare a Draft EIR. The 30-day review period for the NOP started on October 3, 2007 and ended on November 1, 2007.

A notice was published in the Fresno Bee on October 30, 2009, notifying the public of the availability of the Draft EIR and soliciting comments thereon. In addition, a public meeting was held on December 9, 2009 at the Friant Elementary School to distribute Draft EIR information and materials and to receive comments on the document. The Draft EIR was delivered to the State Clearinghouse and mailed to agencies, organizations and interested individuals on October 30, 2009 to begin the 45-day review period, which was held from October 30, 2009 to December 15, 2009.

SECTION TWO

SUMMARY OF DRAFT ENVIRONMENTAL IMPACT REPORT

SECTION TWO – SUMMARY OF DRAFT ENVIRONMENTAL IMPACT REPORT

This section sets forth Chapter Two – Project Description from the DEIR, but for clarity and ease of reference incorporates any errata changes thereto discussed within this FEIR, including the matrix. The Mitigation Monitoring Program, which also incorporates any errata changes thereto discussed within this FEIR, is included at the end of this section to provide a complete list of project mitigation measures.

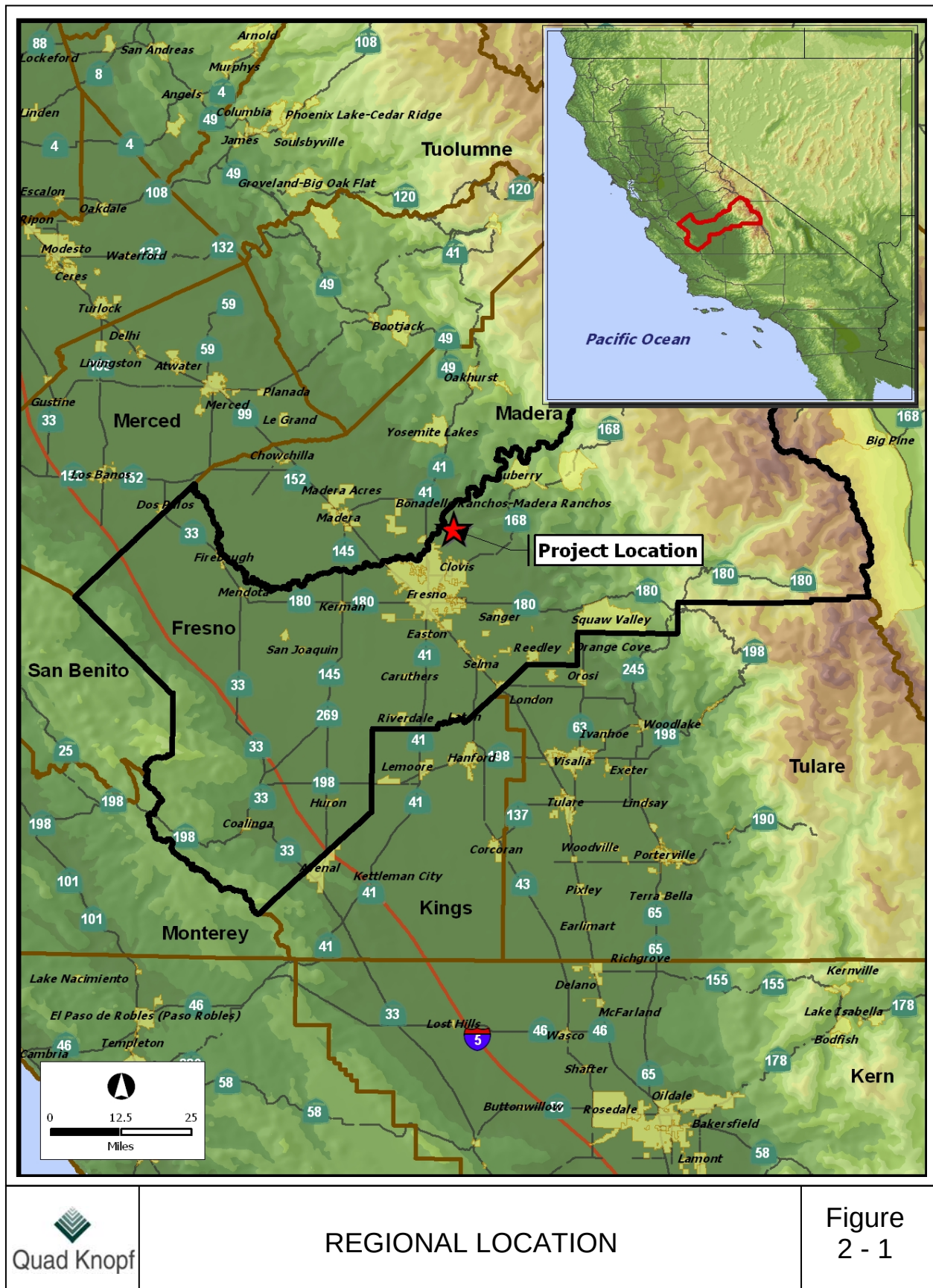
2.1 Project Summary

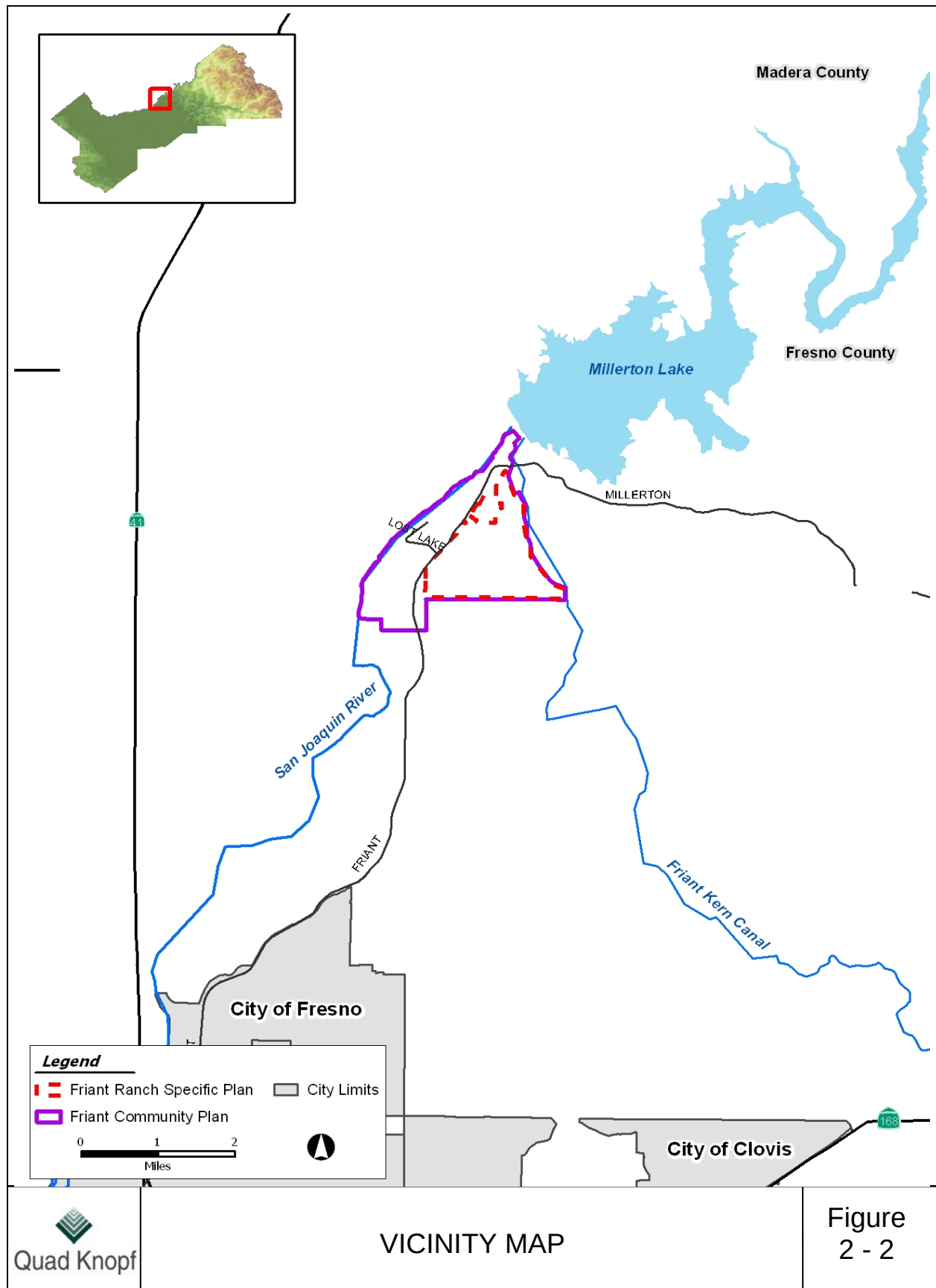
The County of Fresno is the Lead Agency for the preparation of this Program/Project EIR for the Friant Community Plan Update, Friant Redevelopment Plan Amendment, Friant Ranch Specific Plan, and related actions described in section 2.4 below (collectively referred to herein as the “Project”).

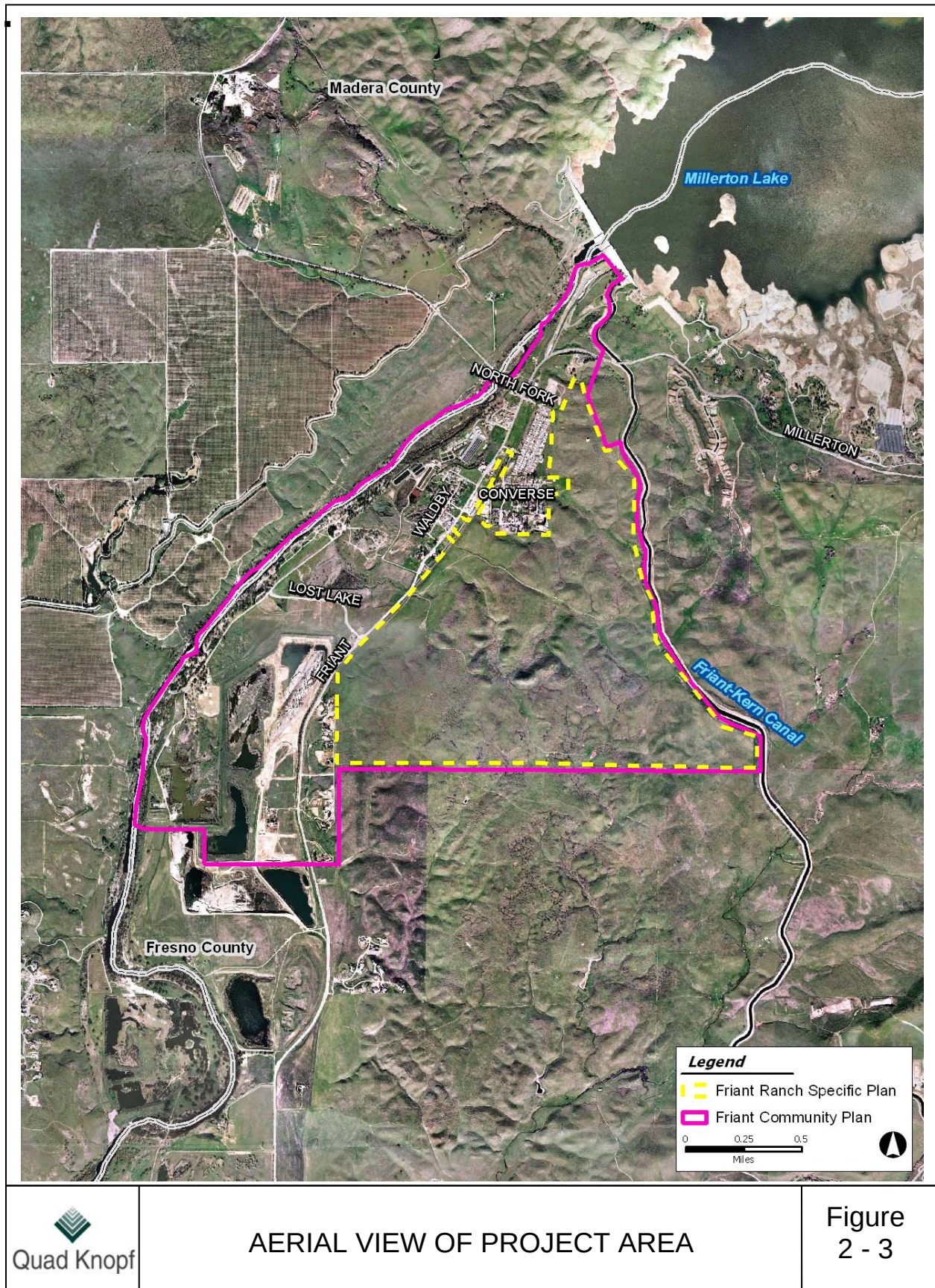
2.2 Project Location

Figure 2-1 shows the regional location of the Project Area. The white numbers on the map represent state highways. Figure 2-2 shows a vicinity map for the Project. The Project Area lies on the eastern side of the San Joaquin Valley. The San Joaquin Valley is bordered on the east by the Sierra Nevada Mountains, on the west by the South Coast Ranges, and on the far south by the Tehachapi Range. The Project Area is located in and on lands adjacent to the unincorporated community of Friant in north-central Fresno County, north of the cities of Fresno and Clovis. The Project Area is just east of the San Joaquin River, which forms the western boundary between Fresno and Madera Counties in this portion of Fresno County.

- The Project involves the following property: Figure 2-3 shows an aerial photo for the expanded boundaries of the proposed Friant Community Plan Update (“Proposed Community Plan Area”). Figure 2-4 identifies the lands currently included within the boundaries of the 1983 Friant Community Plan. For purposes of this EIR, the lands within the 1983 Friant Community Plan are referred to herein as the “Existing Friant Community Plan Area.” The Friant Community Plan Update proposes to expand the Existing Friant Community Plan Area boundaries to encompass a total area of approximately 1,804 acres.
- Figure 2-3 shows an aerial photo of the Friant Ranch Specific Plan boundaries (“Specific Plan Area”). Figures 2-2 and 2-3, identify the approximately 942.2 acres proposed for development through the Friant Ranch Specific Plan. The Specific Plan Area is located approximately nine miles north of the Fresno City limits and 21 miles east of the City of Madera. Portions of the Specific Plan Area are already within the existing Community Plan Area identified in Figure 2-4. The Friant Community Plan Update will expand the Friant Community Plan boundary to include the remaining Specific Plan Area.







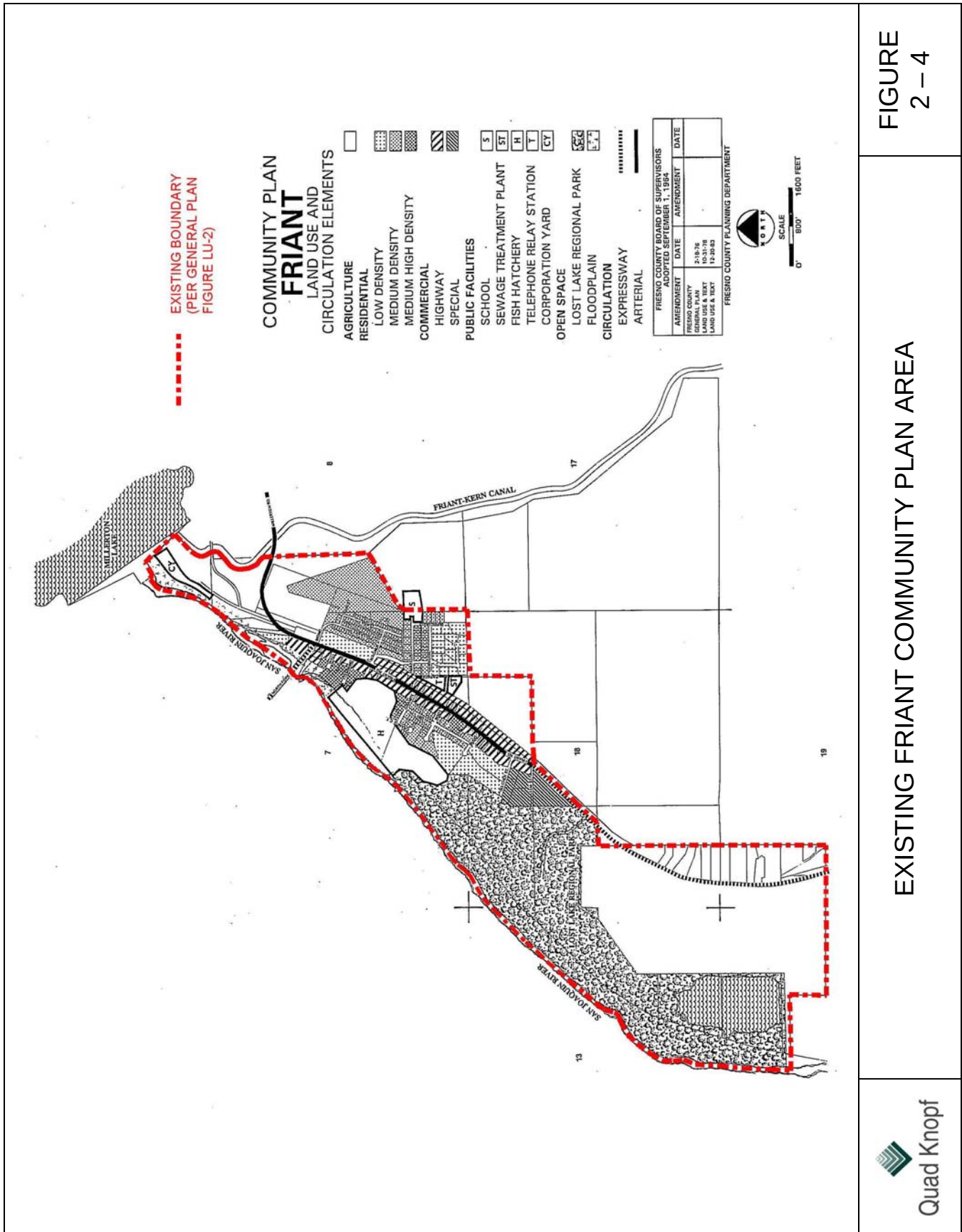


FIGURE
2 - 4

- The Depot Parcel, which is within the Existing Community Plan Area and is owned by an affiliate of the Project applicant, is located on the east side of Friant Road, just below the intersection with Road 206 and above Bugg Street. Figure 2-4a shows the Depot Parcel.¹
- The existing Redevelopment Project Plan area (“Redevelopment Plan Area”), as shown in Figure 2-5, is located within the western portion of the Community Plan area and is bordered by the San Joaquin River to the west, Lost Lake Regional Park to the south, and the Friant Dam and Millerton Lake to the north. The eastern border extends slightly beyond Burroughs Avenue and Bluewater Bay and encompasses a portion of the Specific Plan Area. The Project does not propose to change the boundaries of the Friant Redevelopment Plan Area.
- The proposed expanded Water Treatment Facility will affect previously disturbed lands under and immediately surrounding the existing Water Works District 18 Water Treatment Facility within the Existing Friant Community Plan Area.
- The proposed water transfer between Water Works District 18 (Figure 2-10) and Lower Tule River Irrigation District (Figure 2-11) will benefit lands within the Proposed Community Plan Area and indirectly affect lands within the Lower Tule River Irrigation District in Tulare County that currently use the water subject to the proposed transfer.

2.3 Surrounding Land Uses

The Project Area is in central Fresno County, north of the cities of Fresno and Clovis. The Existing Community Plan Area is bounded by the San Joaquin River and Madera County to the west, Friant Dam and Millerton Lake to the north, open space land to the south, and the Friant-Kern Canal to the east.

The Specific Plan Area is bounded by residential single-family homes to the north, Friant Road to the west, and vacant open space to the south and east beyond the Friant-Kern Canal, which runs along the eastern edge of the Specific Plan Area. The Specific Plan Area is in the vicinity of several neighborhoods within the Existing Community Plan Area. Nearby developments include but are not limited to Millerton New Town which is still being entitled (although some areas have been graded, significant portions of the proposed development are not yet under construction), Brighton Crest (with approximately 80 of the 420 approved lots built at this time) and Table Mountain Casino which is already built. (Please see Chapter Five – Cumulative Impacts for more information about regional developments.)

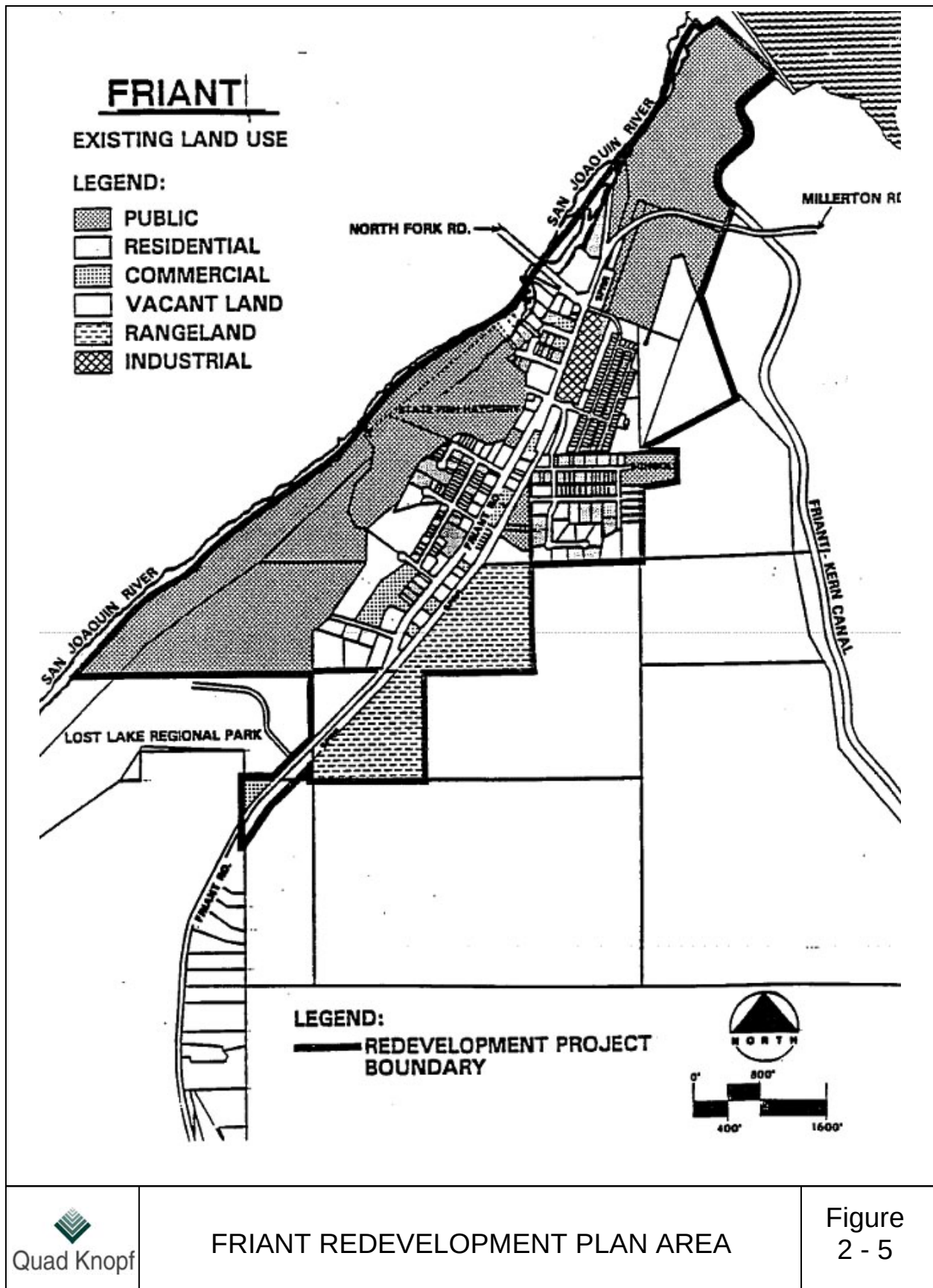
¹ The recorded size of the entire APN 300-200-20S is 11.48 acres. The north section (1.72 acres) is already in commercial use. Portions of the parcel (0.54 acres) are dedicated to access roadways. A portion of the Depot Parcel, which comprises the middle section of APN 300-200-20S is 6.82 acres. The recorded size of the entire APN 300-200-02 is 0.37 acres. The middle section of APN 300-200-20S and APN 300-200-02 is designated Low Density Residential and is zoned as Single Family Residential—Agricultural District (R-A). The southern section of APN 300-200-20S (2.30 acres), which is located within the Friant Ranch Specific Plan Area, is designated for Highway Commercial and zoned as General Commercial District (C-6). For purposes of this EIR, the middle 6.82 acres of APN 300-200-20S and the 0.37 acre APN 300-200-02 for a total acreage of 7.19 acres is referred to as the “Depot Parcel”.



FIGURE
2 – 4a

DEPOT PARCEL LOCATION MAP





The Depot Parcel is surrounded to the north by commercial uses, to the east by residential areas, to the south by vacant buildings and some commercial uses, and to the west by Friant Road and additional vacant buildings and commercial uses.

The Redevelopment Plan Area is bordered by open space to the west, open space and residential to the south, a public facility to the north, and open space and residential to the east.

2.4 Project Description

Friant Community Plan Update

The Friant Community Plan is Fresno County's adopted statement of policy for the growth and improvement for the unincorporated community of Friant, situated just below Friant Dam along Friant Road. The Friant Community Plan establishes planning goals and policies to guide development of the unincorporated community of Friant. The original Friant Community Plan was adopted on July 23, 1964. The first amendment was adopted on September 25, 1975, followed by a second amendment on June 29, 1978, and a third amendment on October 20, 1983. The County is now processing an update to the Friant Community Plan. This EIR considers the impacts associated with the Friant Community Plan Update, including any impacts resulting from the expansion of the boundaries and the change of land use designation for the Depot Parcel (as described in Section 2.2 and depicted in Figure 2-4). Though the Friant Community Plan Update does not propose any changes to land use designations for lands other than those within the Friant Ranch Specific Plan Area and the Depot Parcel, this EIR also analyzes the potential impacts associated with the future buildout of vacant lands within the Existing Friant Community Plan Area according to the proposed land use designations (as set forth in the 1983 Friant Community Plan and proposed for re-adoption in this Friant Community Plan Update). The change in Friant Community Plan boundaries and the land use designation changes for the Depot Parcel and Friant Ranch Specific Plan Area parcels will also require a Fresno County General Plan amendment.

The Friant Redevelopment Plan, adopted in 1992, covers 597 acres within the Existing Friant Community Plan Area and includes specific projects that are anticipated to encourage redevelopment of the area. The Friant Redevelopment Implementation Plan for the years 2005-2009 contains as a primary program, "the design and construction of a sewage treatment and collection system for the commercial strip along Friant Road and for new and existing residential development within the Community of Friant." As part of the Project, the County proposes an amendment to the Friant Redevelopment Plan to extend the term an additional 20 years and to eliminate the commercial development standards set forth in the 1992 Friant Redevelopment Plan. The Friant Redevelopment Plan amendment is related to the other Project actions in that the lands involved overlap. Moreover, the development proposed within the Friant Ranch Specific Plan will provide commercial development within the Friant Redevelopment Plan Area, which will create additional revenues to fund the redevelopment program.

Friant Ranch Specific Plan

The Friant Ranch Specific Plan would serve as an overall framework and regulatory document for the development of a mixed use community with 2,683 single-family age-restricted units, 83 multiple-family age-restricted units, 180 non-age-restricted multi-family units, and 250,000

square feet of commercial within a Village Core that also provides for up to 50 residential units. The Friant Ranch Specific Plan incorporates two active adult recreation centers, approximately 15 miles of trails and parkways, approximately 20 acres of parks and public open space areas, approximately 92 acres of landscaped slopes, and approximately 275 acres of conservation open space areas (including 245 acres of undisturbed open space and 30 acres of revegetated open space slopes). The Specific Plan development will require a number of additional actions, which are analyzed in this EIR, including but not limited to a water transfer agreement for 2,000 acre-feet of water annually between Lower Tule River Irrigation District and Fresno County Waterworks District No. 18 (WWD #18), Regional Water Quality Control Board permits for irrigation with treated effluent of Specific Plan landscaping and off-site disposal of treated effluent on suitable nearby lands such as the Beck Property² (identified in Figure 2-6) and/or Lost Lake Park (and, if sufficient winter land disposal areas are not available, seasonal discharge to the San Joaquin River), United States Army Corps of Engineers and Regional Water Quality Control Board permits for dredge and fill of wetlands, Endangered Species Act and California Endangered Species Act compliance through United States Fish and Wildlife Service, United States National Marine Fisheries Service, and California Department of Fish and Game, replacement of the current wastewater treatment plant servicing the Millerton Lake Village Mobile Home Park, construction of a new water treatment plant, annexation of Friant Ranch Specific Plan Area into Fresno County Waterworks District No. 18, and various agreements and permits related to the water treatment plant and wastewater treatment plant infrastructure and operation. The Project also includes the adoption of a new zoning ordinance for the Friant Ranch Specific Plan Area.

As noted above in the Friant Community Plan discussion, the Project also includes a land use designation change for the middle 6.82 acres of APN 300-200-20S and the 0.37 acres of APN 300-200-02 for a total of 7.91 acres (this middle portion of APN 300-200-20S and APN 300-200-02 is referred to herein as the “Depot Parcel”), which is within the Existing Friant Community Plan Area, from Low Density Residential to Highway Commercial.³ The Project also includes a corresponding zone change for the Depot Parcel from Single Family Residential—Agricultural District (R-A) to General Commercial District (C-6).

² The Beck Property is the former 150-acre CEMEX gravel extraction facility south and east of Lost Lake Park. It consists of highly disturbed agricultural lands and an aggregate mining quarry. One existing residence, associated outbuildings, parking areas, and landscaping currently occupy 3-4 acres of the Beck Property in its southeast corner. The mining pit at the north end of the property will be used as an effluent storage pond for seasonal irrigation of the remaining irrigable lands on the Beck Property. A maximum of approximately 100 days of effluent will be stored. A pipeline from the wastewater treatment plant to the Beck Property would be constructed within disturbed areas directly adjacent to existing roadways. Prior to disposal at the Beck Property, the effluent will be treated to a level that is consistent with Title 22 requirements for the unrestricted use of recycled water. Recycled water from the WWTP will be applied to irrigate the Beck Property at agronomic rates.

³ The recorded size of the entire APN 300-200-20S is 11.48 acres. The north section (1.72 acres) is already in commercial use. Portions of the parcel (0.54 acres) are dedicated to access roadways. A portion of the Depot Parcel, which comprises the middle section of APN 300-200-02 is 6.82 acres. The recorded size of the entire APN 300-200-20S is 0.37 acres. The middle section of APN 300-200-20S and APN 300-200-02 is designated Low Density Residential and is zoned as Single Family Residential—Agricultural District (R-A). The southern section of APN 300-200-20S (2.30 acres), which is located within the Friant Ranch Specific Plan Area, is designated for Highway Commercial and zoned as General Commercial District (C-6). For purposes of this EIR, the middle 6.82 acres of APN 300-200-20S and the 0.37 acre APN 300-200-02 for a total acreage of 7.19 acres is referred to as the “Depot Parcel.”

The Specific Plan Area is planned as an active adult community and will qualify for the exemption⁴ as a community for age 55 and older persons based on the Fair Housing Amendments Act of 1988, and the Housing for Older Persons Act of 1995: Final Rule (Department of Housing and Urban Development: 24 CFR Part 100) and California Government Code section 65008(a)(1)(B).

⁴ The applicant has provided information and a legal opinion to show that age-restricted units within the Friant Ranch Specific Plan Area are exempt from the general ban on discrimination in housing based upon familial status.

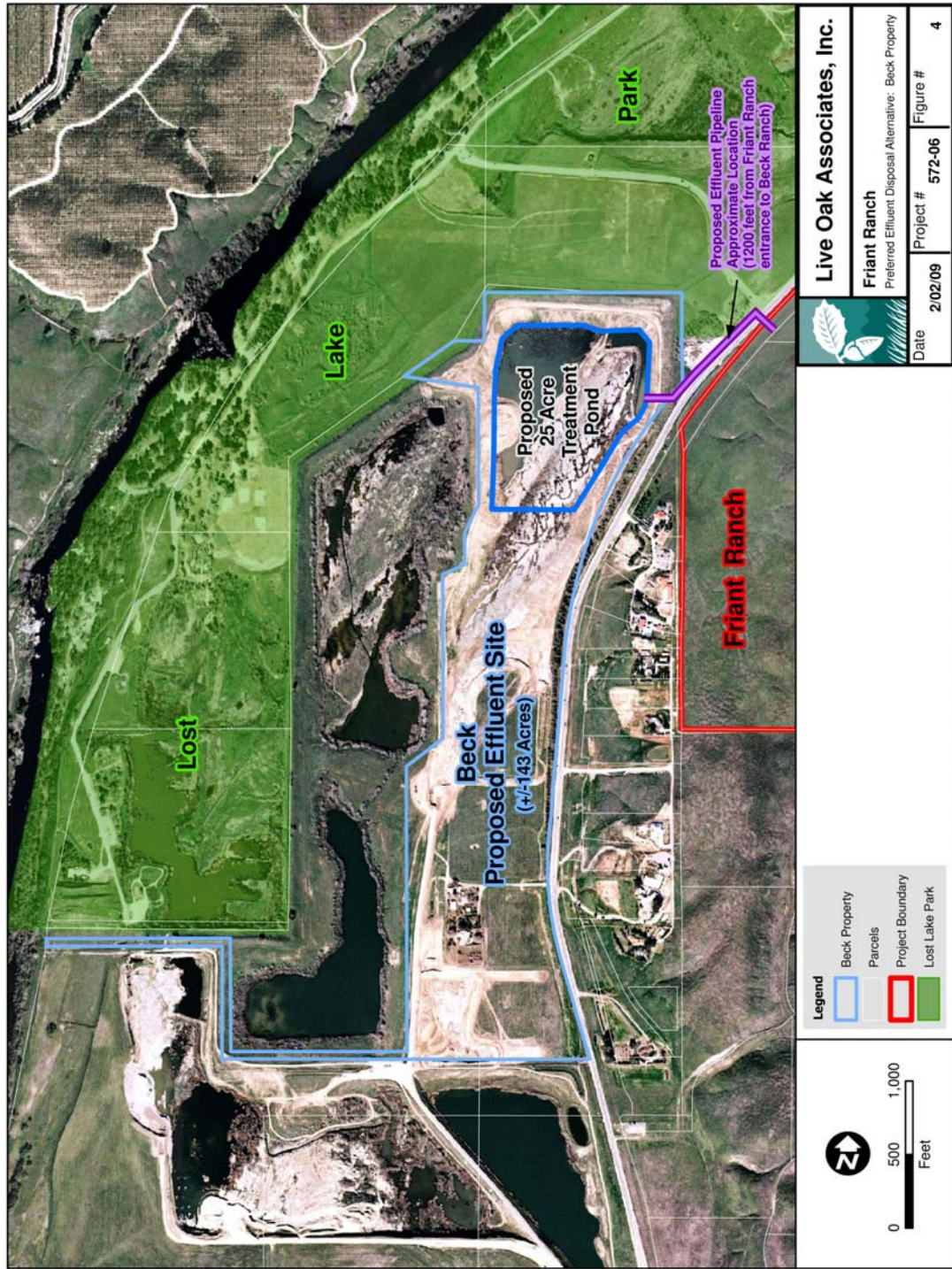


FIGURE
2 – 6

TREATED EFFLUENT DISPOSAL SITES



The age restrictions for the Project are enforceable as covenants and deed restrictions that run with the land. The Covenants, Conditions, and Restrictions (CC&Rs), by-laws, and policy each will reflect that the age restriction is intended to run with the land. The age restriction relates to the land because it governs the residency of the community and membership in the Home Owners Association (HOA). Since the age restriction is common to the community, any lot owner and/or the HOA would be able to enforce the age restriction.

Since 2,766 (approximately 92%) of the maximum 2,996 dwelling units will be age-restricted units (55 years and over), it is anticipated that some of the potential environmental impacts associated with the Project may be different than with a typical multi-generational residential subdivision. This is because active adult (55+) communities have, on average, a lower per unit number of residents than non-restricted communities. The 2001 American Housing Survey by the US Census Bureau and the Department of Housing and Urban Development states that the combined demographic for the 55-64 and 65-74 age categories averages 1.9 persons per dwelling unit. Additionally, active adults (55+) have unique lifestyles that differentiate their habits from residents of multi-generational communities. This EIR considers the potential effect of the age restrictions that would be in effect within all but one non-age restricted multi-family section of the Specific Plan Area (180 units) in its evaluation of Project impacts.

In accordance with federal law, the covenants, codes and restrictions to be recorded against the property deeds for the Friant Ranch Specific Plan Area will require each dwelling unit to be occupied by at least one person not less than 55 years of age so that at all times a person 55 years of age or older will reside in at least 80% of the occupied dwellings. Similarly, the Friant Ranch Homeowners Association (HOA) By-Laws will limit new membership in the association to those dwelling units with at least one resident at 55 years of age or older. Finally, the association age-restriction policy will declare the association's requirement to maintain the percentage of age qualified occupancy as close to 100% as possible without mandating a greater percentage than the minimum 80% required by federal law. The age restrictions are enforceable as covenants that run with the land. The age restriction relates to the land because it governs the residency of the community and membership in the HOA.

Consistent with these policies and state and federal law, for the foreseeable future 100% of the age-restricted units will be occupied by at least one person of the age 55 years and older. However, if the age-qualified individual ceases to reside in the home, it is conceivable that over time some of the units will not be occupied by someone over 55 years of age (e.g., the 50 year old widow remains in a unit after her 55+ husband passes away). Although the legal restrictions assure that the community as a whole will maintain resident(s) over the age of 55 no less than 80% of the age-restricted units, the actual percentage of homes (ie, from 80% -100%) that would, over time, not be occupied by someone over the age of 55 is speculative. However, at any given time during the life of the Project, no fewer than 2,212 of the 2,776 age-restricted units will be occupied by at least one person of age 55 years or older. This amounts to nearly 74% of the maximum residential units contemplated under the Friant Ranch Specific Plan. Since the age restriction is common to the community, any lot owner and/or the HOA would be able to enforce the age restriction. This analysis considers the age-restricted nature of the proposed community in assessing potential impacts.

The Friant community is home to the County's only redevelopment area. The Redevelopment Plan was adopted in 1992 and includes specific projects anticipated to encourage redevelopment of the area. The Friant Redevelopment Implementation Plan for the years 2005-2009 contains as a primary program, "the design and construction of a sewage treatment and collection system for the commercial strip along Friant Road and for new and existing residential development within the Community of Friant." These improvements have not been implemented due to lack of funding sources. The Project applicant proposes to construct a new tertiary treatment plant that will have capacity to treat wastewater from the existing community of Friant as well as the proposed Friant Specific Plan development, but construction of the collection system necessary to provide sewer service to the community is not part of this Project. Additional improvements (such as wastewater collection infrastructure for the existing community) will require financing from redevelopment funds or other funding sources. In order to maximize the benefits from the proposed redevelopment improvements, the County is proposing a redevelopment plan amendment to extend the term of the already designated redevelopment area from 2012 to 2032.

2.4.1 COUNTY OF FRESNO GENERAL PLAN DESIGNATIONS AND ZONING

The Project will amend the General Plan and zoning designations for the: (1) 942.2 acres of the Specific Plan Area; and (2) approximately 6.75 acres of the Depot Parcel.

- The majority of the Specific Plan Area is designated Agriculture in the Fresno County General Plan, with the exception of approximately 47 acres within the Specific Plan Area that are currently designated as Medium Density Residential (the northernmost tip of the Specific Plan Area) and Highway Commercial (along Friant Road frontage). The current zoning designation for the majority of the Specific Plan Area is Exclusive Agriculture (AE-20 and AE-40), however, approximately 20 acres are zoned Trailer Park-conditional (TP-C), approximately 15 acres are zoned Trailer Park (TP), approximately 4 acres are zoned commercial (C-6), and approximately 2.5 acres are zoned residential (R-A and R-1).
- The Project proposes to change the land use designation and zoning for the approximately 6.75-acre Depot Parcel. The Depot Parcel is currently designated Low Density Residential in the Fresno County General Plan and 1983 Friant Community Plan. As depicted in Figure 2-7, the Project proposes to change this designation to Highway Commercial. The Project proposes to change the zoning of the Depot Parcel from Single-Family Residential Agricultural District (R-A) to General Commercial District (C-6).

2.4.2 PROPOSED STATE AND LOCAL ENTITLEMENTS AND APPROVALS

1. County of Fresno

a. Fresno County General Plan Amendment

A General Plan amendment is required for the proposed Community Plan Update. The proposed General Plan amendment will have the following effects:

- Increase the size of the Community Plan area to approximately 1,804 acres.

- Change the land use designations for the Specific Plan Area to Medium Density Residential, Medium High Density Residential, Community Commercial, Open Space, and Public Facilities. The current land use designations for the Specific Plan Area include Agriculture, Medium Density Residential, and Highway Commercial.
- Change the land use designation for the Depot Parcel from Low Density Residential to Highway Commercial.

b. Friant Community Plan Update

The Project includes updating the Friant Community Plan (Community Plan). The Friant Community Plan was first adopted on September 1, 1964 and subsequently amended in 1976, 1978 and 1983. Figure 2-7 shows the proposed Community Plan map.

The Community Plan is Fresno County's adopted statement of policy for the growth and improvement for the community of Friant. The Community Plan area is bounded by the San Joaquin River and Madera County to the west, Friant Dam and Millerton Lake to the north, open space land to the south, and the Friant-Kern Canal to the east. Friant and Millerton Roads provide access to surrounding communities in Fresno County, while North Fork Road/Road 206 provides access to Madera County. The proposed Community Plan area will encompass approximately 1,804 acres. The Community Plan establishes planning goals and policies to guide development of this growing small town, consistent with the Fresno County General Plan goals to create a recreational hub within the Friant area.

The Community Plan Update designates appropriate areas for agricultural, residential (Low Density, Medium Density and Medium High Density), commercial (Highway, Special and Community), recreational, public facilities and open space uses. The Community Plan Update also recommends road and other infrastructure (water, sewer and storm drainage) improvements. In addition, the Community Plan Update identifies the goals and policies designed to guide land use planning, expand the community's tourism resources, expand community services and provide a guiding framework for future development, while conserving environmental resources and natural habitat.

The Community Plan Update includes goals, policies, implementation programs, transportation, infrastructure and trails, public facilities and services, and environmental resource management. The Community Plan Update maintains the existing designations for all lands outside of the new Friant Ranch Specific Plan Area, except for the Friant Depot Parcel (Figure 2-7 identifies the Depot Parcel change from Low Density Residential to Highway Commercial). The Community Plan Update includes a Community Map, an Implementation Program, and the following five elements:

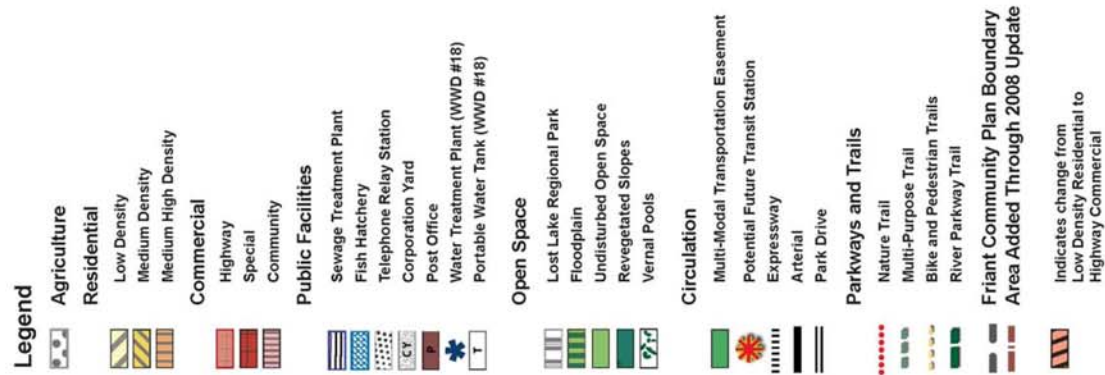
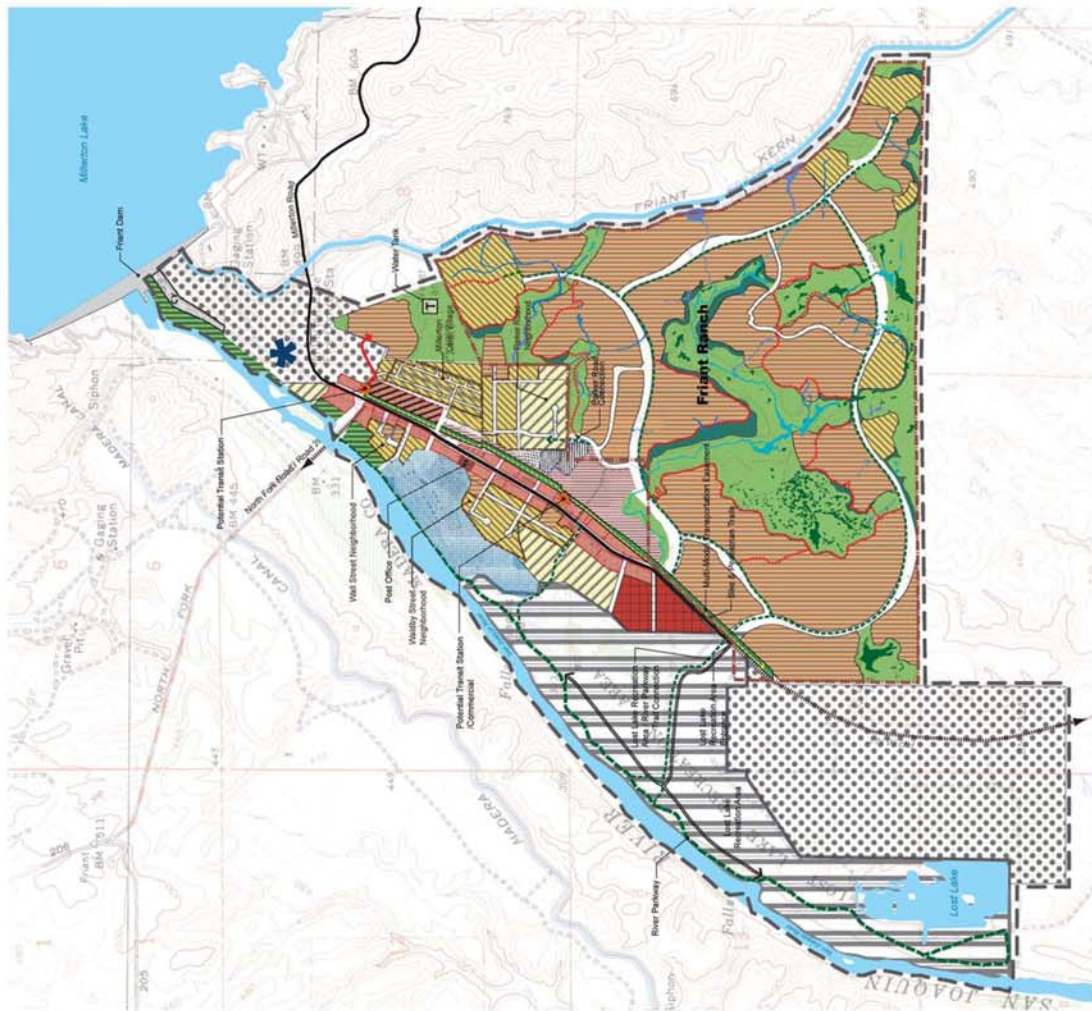


FIGURE
2 - 7

PROPOSED FRIANT COMMUNITY PLAN AREA



- Land Use Element – designates the type, intensity and general distribution of land uses for housing, commercial, industrial, open space and other categories of public and private uses. Notably, the only land use changes proposed within the Community Plan Update are: (1) the changed land use designations for the Specific Plan Area, which is proposed for complete inclusion within the Community Plan area by way of the Update; and (2) the change of designation for the Depot Parcel from residential to commercial uses.
- Economic Development Element – addresses revitalization, redevelopment, attracting tourism, creating a small-town image, economic development, and employment growth for Friant.
- Transportation Element – identifies the general location and extent of existing major thoroughfares, transportation routes, and other local public transportation facilities. This chapter also addresses roadways, regional transportation, alternative transportation methods, road abandonments, parking facilities, trails, and scenic roadways.
- Public Facilities and Services Element – addresses public facilities and services in Friant, including sewer, water, storm drainage, utilities, police and fire, and solid waste. This element also addresses public health and safety including flood hazards, seismic and geological hazards, hazardous materials and noise.
- Environmental Resources Management Element – addresses natural resources found in Friant, including scenic resources, agricultural resources, watershed management, water conservation, and protection measures for wildlife species, habitat, and the night sky.

These elements update and expand on the 1983 Friant Community Plan, which contained land use, circulation, and public facilities elements. Many of the policies within the Friant Community Plan Update merely readopt those set forth in the 1983 Friant Community Plan, however, policies in the Friant Community Plan Update are more comprehensive with an emphasis on quality design, neighborhoods, and environmental preservation, and the creation of places that benefit all Community of Friant residents.

c. Friant Ranch Specific Plan

The Specific Plan proposes the development of an age-restricted active adult community located on approximately 942.2 acres comprising the Specific Plan Area. The Specific Plan contains a mix of attached and detached single-family homes and multi-family residences. Approximately 31.8 acres are planned for a mixed-use Village Center. In addition to the Village Center, the Land Use Plan identifies neighborhood residential clusters, open space and recreational amenities. The proposed Specific Plan Land Use Plan is shown in Figure 2-8.

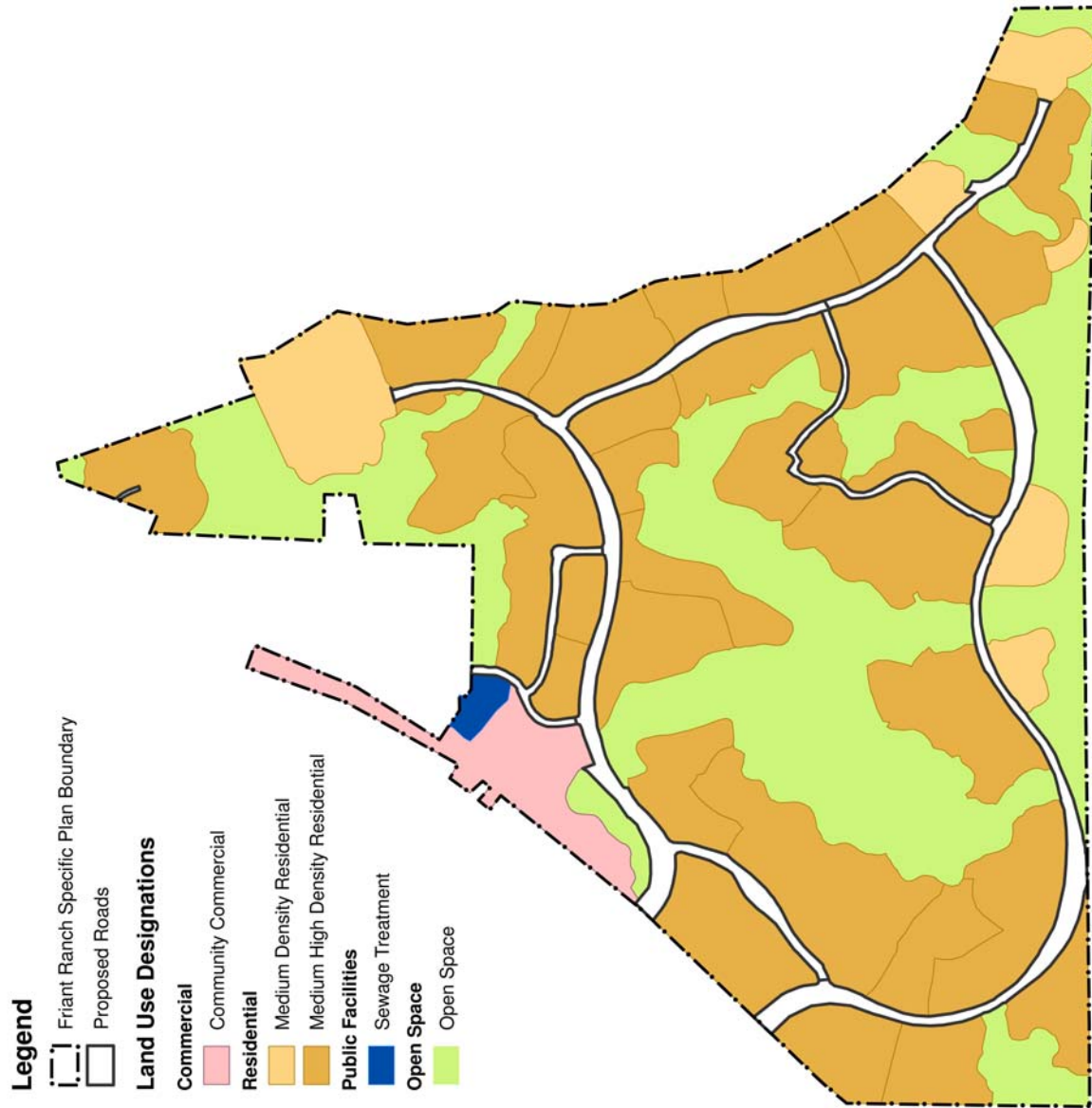


FIGURE
2 – 8

PROPOSED SPECIFIC PLAN LAND USE PLAN



Land use designations are established to identify uses and development. The designations identify the types and nature of development allowed on all properties within the Specific Plan Area. The following land uses in Table 2-1 are proposed for the Specific Plan (acreages and dwelling unit numbers are estimated figures):

**Table 2-1
Friant Ranch Specific Plan Land Uses**

Land Use Designation³	Specific Land Use Description	Estimated Acres	Estimated Maximum Total Dwelling Units
Medium Density Residential	Active Adult Single-Family Density One (SFD-1)	63.7	293
Medium High Density Residential	Active Adult Single-Family Density Two (SFD-2)	271.0	1,295
Medium High Density Residential	Active Adult Single-Family Density Three (SFD-3)	178.0	1,095
Medium High Density Residential	Active Adult Multi-Family Density (MFD)	6.0	83
	Active Adult Total	518.7	2,766
Medium High Density Residential	Non-Age-Qualified Multi-Family Density (MFD)	14.6	180
Community Commercial	Village Center (Mixed Use)	31.8	50 ¹
Medium High Density Residential	Active Adult Recreation Centers	20.8	--
Open Space	Undisturbed Open Space	245.4	--
Open Space	Revegetated Open Space Slopes	30.0	--
Public Facilities	Wastewater Treatment System ²	4.0	--
N/A	Roads	76.9	--
Total		942.2	2,996

1) Fifty dwelling units are permitted within the Village Center, as either freestanding multi-family housing or vertical mixed-use development with commercial/office on the first floor and residential units on the upper floors. A portion of these units may be constructed as live/work units.

2) Several additional acres of land devoted to the Wastewater Treatment System are located outside of the Project boundaries in CSA 44.

3) Residential and commercial acreages include lands to be used for accessory parks, parkways, and landscaped slopes as required by Specific Plan Policies 2.1, 2.2, and 2.6.

Medium Density and Medium High Density Residential. Three single-family land use designations and one multi-family residential category are proposed for Friant Ranch. The residential development will be arranged in clusters around small pocket parks to create identifiable neighborhoods. Approximately 2,996 dwelling units are planned within Friant Ranch. As neighborhood amenities, the Specific Plan allocates approximately 20.8 acres in two active adult recreation centers. The larger recreation center will be an accessory structure on approximately 17.8 acres, while the smaller facility will be an accessory structure on approximately 3.0 acres.

Community Commercial. Friant Ranch will include a Village Center on 31.8 acres expected to contain a mix of retail, office, medical, social gathering and light rail opportunities, possibly in conjunction with mixed-use development. The actual site plan for the Village Center may vary from that indicated in Figure 2-8 depending on the final mix of uses identified for inclusion. The Village Center is designed to serve the regional shopping needs for residents of and employees in Friant Ranch, the community of Friant

and other nearby areas. The commercial/office development in the Village Center would provide retail and office uses that are compatible with a residential environment. The Village Center would include 50 multi-family dwelling units and 250,000 square feet of retail and office uses. The Village Center is proposed for designation as a Community Commercial zone to allow for flexible mixed-use development. The timing of the Village Center will be driven by the rate of residential development within Friant Ranch and surrounding areas.

Open Space. The Specific Plan proposes the preservation of approximately 245.4 acres of undisturbed open space (Specific Plan Policy 2.5), and 30 acres of revegetated open space slopes for habitat conservation. The Specific Plan anticipates that the undisturbed open space will be dedicated via easement to a conservation trust with the appropriate endowment for management and preservation. The Specific Plan provides for setbacks around the environmentally sensitive areas located within the habitat conservation areas.

Medium High Density and Medium Density Residential/Community Commercial: Parks and Parkways. In addition to the natural, undisturbed open space, the Specific Plan provides an extensive amount of open space in the form of parks, trails, greenbelts and landscaped slopes, as set forth in the following Specific Plan policies:

Policy 2.1: Require that residential development within the Medium Density Residential and Medium High Density Residential areas include neighborhood parks and parkways, at a rate of 5 to 8 acres per 1,000 dwelling units.

Policy 2.2: Require that development within the Village Core (Community Commercial) include 5 acres of parks, parkways, and town greens.

Policy 2.6: Require that residential development within the Medium Density Residential and Medium High Density Residential areas include landscaped slopes at a rate of approximately 5 acres per 1,000 dwelling units.

The parks, trails, and greenbelts will be maintained and operated by a Homeowners Association. The Specific Plan will include a series of smaller neighborhood-serving parks and pocket parks scattered around the Project. These parks will be passive facilities that will range in size from approximately 0.25 acre to more than an acre in size.

Public Facilities: Wastewater Treatment Plant. The proposed Land Use Plan also provides a location for a new Friant Wastewater Treatment Plant. The Project wastewater will be collected and treated at the new wastewater treatment facility to be constructed adjacent to the existing facility. The new wastewater treatment facility will utilize tertiary treatment technology and will be designed to have capacity to service current and planned future Existing Community Plan Area uses in addition to the development proposed through the Specific Plan. However, no collection system exists or is proposed by the Project to serve areas other than the existing Millerton Village Mobile Home Park and the Specific Plan development. It is anticipated that treated effluent from the wastewater treatment system will be used for irrigation of landscaping.

The Specific Plan divides the proposed development into five phases, as shown in Table 2-2 and Figure 2-9. The phasing is conceptual only; the actual phasing may vary from that identified in this section. The Specific Plan phases provides that new development will commence from the area abutting the existing community of Friant and the planned Village Center.

**Table 2-2
Phasing**

Phase	Acres	Dwelling Units	Comm. Center Sq. Ft.	Rec. Center (acres)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Phase 1	111.3	564 ¹		17.8	200	200	164							
Phase 2	155.6	781				100	200	300	181					
Phase 3	102.1	524	50,000	3.0				100	224	200				
Phase 4	110.2	625	100,000							175	375	75		
Phase 5	110.7	502	100,000									300	150	52
Total	589.9²	2,996	250,000	20.8	200	300	364	400	405	375	375	375	150	52
Annual Cumulative Units					200	500	864	1264	1669	2044	2419	2794	2944	2996

¹ Includes 50 dwelling units allocated to the Village Center.

² Active adult recreation center acreage included in total acres.

Phases may occur in any sequence and concurrently with one another provided, however, that the necessary infrastructure and utilities needed to support each phase are in place prior to issuance of any certificate of occupancy for that phase. The Friant Ranch Specific Plan development is estimated at a 10-year buildout.

Phase 1. Phase 1 initiates the development of approximately 564 residential units located near the northern boundary of the Specific Plan Area, the residential and commercial buildings within the 31.8-acre Village Center, and the larger active adult recreation center. The advantage of initiating the project implementation from this area is that it ensures planned growth that starts adjacent to existing communities and also ensures completion or near completion of necessities and residential amenities prior to residential occupancy. Also, developing the infrastructure adjacent to the commercial component will allow for implementation of various commercial services as quickly as demand allows.

Phase 2. Shortly after Phase 1 commences, construction will begin on the residential areas located near the western boundary of the Specific Plan area. Development will consist of up to 781 residential homes anchored by pocket parks and surrounded by undisturbed open space.

Phase 3. Phase 3 starts the construction of residential areas located in the center and southern portion of the Specific Plan Area. Development will consist of up to 524 single-family residential homes, a pocket park, and the smaller active adult recreation center.



**FIGURE
2 – 9**

FRIANT RANCH PHASING



Phase 4. Phase 4 includes the construction of up to 625 residential homes and park land located in the eastern portion of the Specific Plan Area.

Phase 5. The final phase (Phase 5) will occur in the southeastern portion of the Specific Plan Area with up to 502 residential homes and park land.

d. Friant Redevelopment Plan Amendment

The County proposes, through and in coordination with the Fresno County Redevelopment Agency, to amend the Redevelopment Plan to extend the timeframe for implementation of improvement projects identified within the Friant Redevelopment Plan, which are planned for the benefit of the existing community of Friant. The Redevelopment Plan Amendment also proposes to delete the commercial standards set forth in the 1992 Redevelopment Plan.

e. Zoning Changes

The County will process and consider the following zoning change applications pertaining to the Project:

- Amendment to Text Application No. 361. Application to create new zone districts for the Specific Plan Area. The creation and application of new zone districts will change the zoning designations for the Friant Ranch Specific Plan Area to new designations that relate back to the Fresno County zoning designations for Community Shopping Center District (C-2), Single-Family Residential (R-1), Low Density Multi-Family Residential District (R-2), Recreational District (R-E), and Open Space Conservation District (O). The current zoning designation for the majority of the Specific Plan Area is Exclusive Agriculture (AE-20 and AE-40), however, approximately 20 acres are zoned Trailer Park-conditional (TP-C), approximately 15 acres are zoned Trailer Park (TP), approximately 4 acres are zoned commercial (C-6), and approximately 2.5 acres are zoned residential (R-A and R-1).
- Amendment Application No. 3715. Application to change zoning on the Depot Parcel, identified in Figure 2-4, from Single-Family Residential Agricultural District (R-A) to Commercial (C-1). The Depot Parcel is approximately 7.85 acres, which will be reduced to approximately 6.75 acres with the widening of Friant Road.

f. Development Agreement

The County will process a development agreement for the Project in accordance with the Fresno County Development Agreement guidelines and the California Government Code Sections 65864-65869.5.

g. Conditional Use Permits

The County will consider issuance of conditional use permits for: (1) the wastewater treatment plant serving the Specific Plan Area and related use of treated wastewater for

irrigation of Lost Lake Park and/or other land disposal sites; and (2) the active adult recreation centers.

h. Subsequent Actions

The development of the Specific Plan Area will likely include the processing of tentative maps, parcel maps, site plans, grading permits, building permits, and an agreement to accommodate discharge of treated effluent on County lands within Lost Lake Park.

2. Water Works District No. 18

The applicant proposes to pursue annexation of the Specific Plan Area into the service area of the existing County Water Works District No. 18 (WWD #18) or any successor agency thereof. The preferred option for water and wastewater services, and potentially lighting services, is to include the Specific Plan Area within the WWD #18 service area and designate the Specific Plan Area as a separate zone of benefit within WWD #18 to appropriately allocate service costs. As part of the development Project, the applicant proposes to provide and finance an expansion to the existing WWD #18 water treatment plant and a new tertiary level wastewater treatment plants sufficient to provide capacity for WWD #18 to serve the population at full build out within the Specific Plan Area and the current and planned future uses within the Existing Community Plan Area. The anticipated actions of WWD #18 are:

a. Approve Change in Water Supply, Stormwater Lighting, and Wastewater Service Area/Annexation

Figure 2-10 identifies the proposed area of inclusion into WWD #18's boundaries for water supply, stormwater lighting, and wastewater service.

b. Approve and Execute a Water Transfer Agreement with the Lower Tule River Irrigation District

c. Designate a Separate Zone of Benefit for the Friant Ranch Specific Plan Area

d. Approve and Execute a Utility Service Agreement for the Friant Ranch Specific Plan Area

e. Issue a Will-Serve Letter for the Friant Ranch Specific Plan Area

3. Lower Tule River Irrigation District

The Lower Tule River Irrigation District (LTRID) has provided a notice of intent to enter into a long-term water transfer with WWD #18 for 2,000 acre feet of water annually to serve the Specific Plan uses (see Figure 2-11 for District boundaries). To effectuate this long-term transfer of Central Valley Project (CVP) Friant Division water to WWD #18, the following action would be taken by LTRID (or, if deemed necessary in the planning process, an alternative water purveyor able and willing to transfer Central Valley Project Friant Division water supplies):

a. Approve Water Transfer Agreement with WWD #18

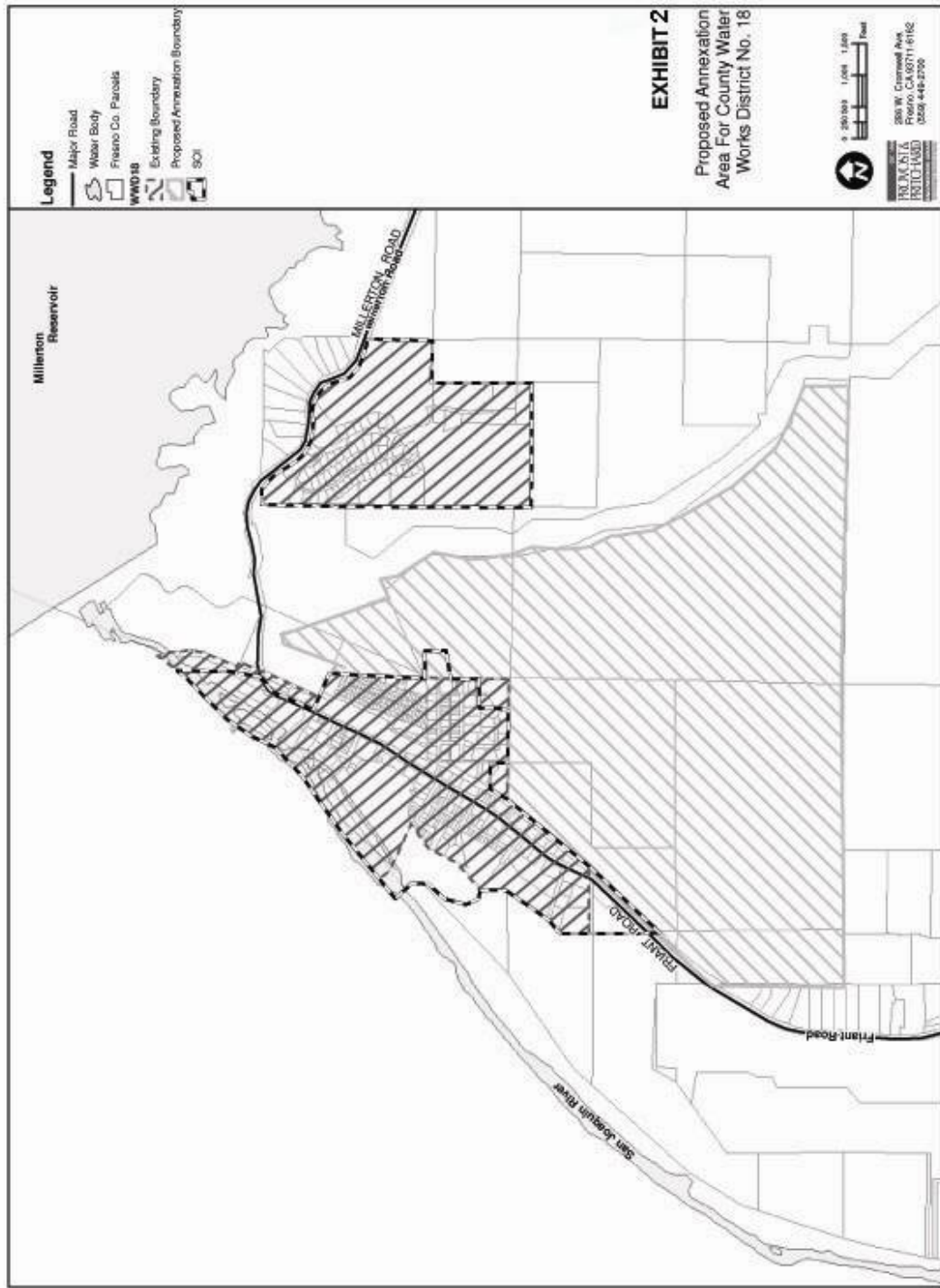


FIGURE
2 – 10

WWD #18



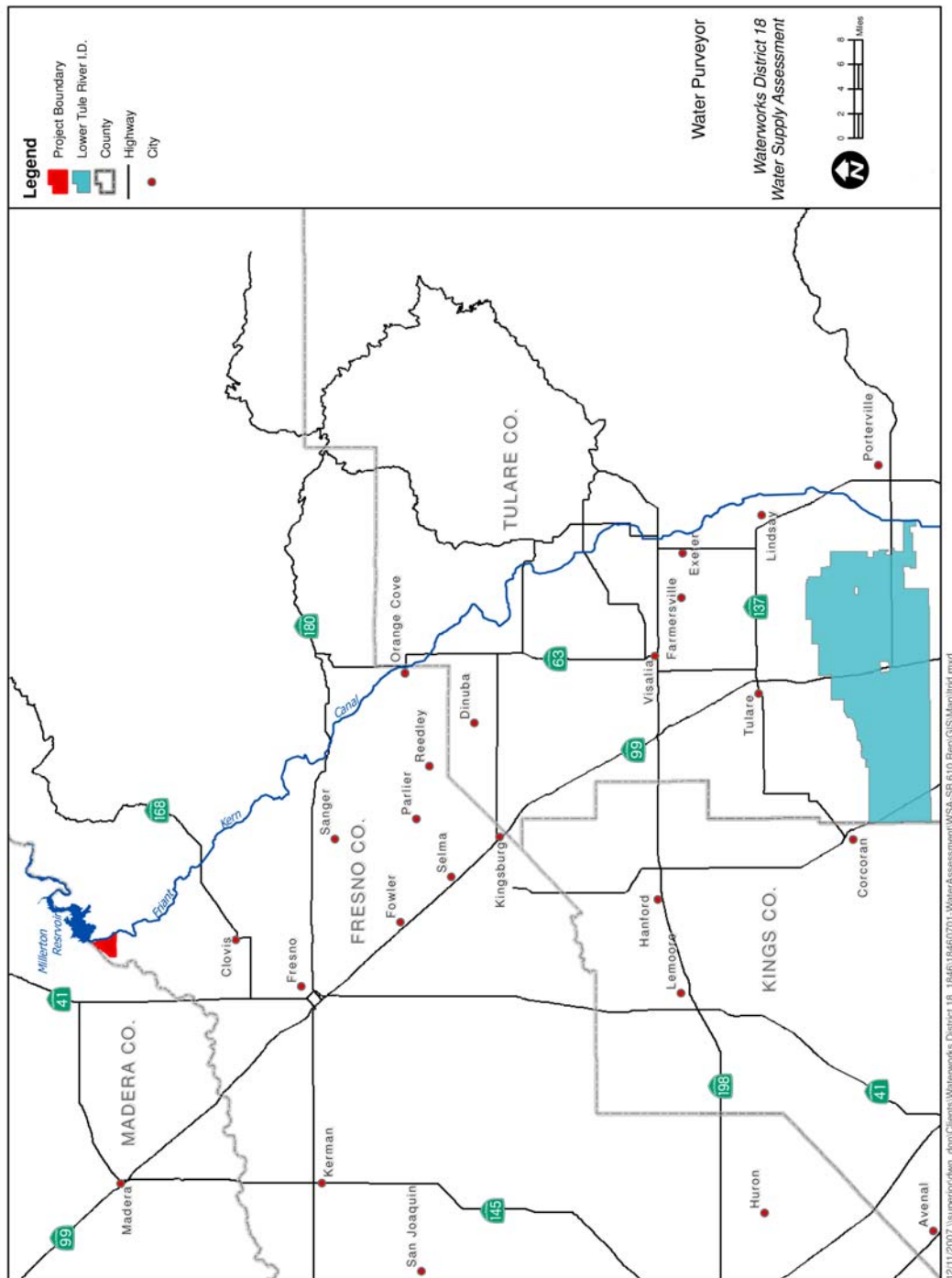


FIGURE
2 – 11

LOWER TULE RIVER IRRIGATION DISTRICT



The proposed transfer is for up to 2,000 acre-feet annually of LTRID's U.S. Bureau of Reclamation (USBR) contract water supply. The proposed transfer commits to providing the contracted amount of water supply to the Project for so long as LTRID has a right to receive USBR water, including the current USBR contract that expires in 2026 with provision for renewal, and any renewal or conversion thereof. One renewal of the LTRID's contract is required in accordance with federal law and additional renewals of said contract are anticipated. This transfer, likewise, is anticipated to be renewed on terms mutually agreeable to the parties for subsequent periods consistent with multiple renewals of LTRID's contract. The transferred water will be delivered from the Millerton Lake Reservoir at existing diversion points at Friant Dam into an existing pipeline owned by USBR, for delivery to treatment facilities owned by WWD #18 for treatment and subsequent delivery through new and existing distribution system of WWD #18. No other CVP facilities will be utilized in the delivery of the transferred water. The volume of annual transferred water supply is less than one percent of LTRID's annual contract entitlement.

To make up to 2,000 acre-feet of its CVP contract water supply available to WWD #18 each year, LTRID will utilize its new water distribution facilities (Tule River Intertie) that allow LTRID to divert to groundwater recharge either by direct or "in-lieu" recharge methods, additional water held under LTRID's rights to Tule River water. The additional water so recharged will become available to the LTRID's water users and pumped to meet consumptive crop demands under their rights to groundwater as overlying landowners, offsetting the District's need to provide an equivalent amount of LTRID's annual CVP surface water supplies (thus freeing up water that can be transferred to WWD #18). The Tule River Intertie construction underwent independent environmental analysis pursuant to CEQA, copies of which can be obtained from LTRID.

The physical facilities associated with the Tule River Intertie are composed of three connected pieces: the Tule River Diversion Rehabilitation, the Wood Central Ditch Modification, and the construction of the Intertie Canal. The Tule River Intertie facilities provide for improved delivery of Tule River water and the construction of a new canal that increases the District's ability to deliver Tule River water to lands served by the Tipton Canal (LTRID Canal #2), Poplar Ditch and the Casa Blanca Canal (LTRID Canal #1).

4. Central Valley Regional Water Quality Control Board and State Water Resources Control Board

The following actions of the Central Valley Regional Water Quality Control Board (RWQCB) and/or the State Water Resources Control Board will be required for the proposed development at the Project site:

- a. Adopt Waste Discharge Requirements for Land Disposal of Treated Effluent
- b. Adopt Water Reclamation Requirements for Land Disposal of Treated Effluent

- c. Adopt National Pollutant Discharge Elimination Permit for any Discharge of Treated Effluent to San Joaquin River
- d. Issue Clean Water Act Section 401 Certification
- e. Action on Notice of Intent to Dredge and Fill Isolated Wetlands
- f. Accept Notice of Intent for Coverage Under General Stormwater Permit for Construction Activities

5. Fresno Local Agency Formation Commission

The Fresno Local Agency Formation Commission (LAFCo) will review and process the appropriate reorganization necessary to annex the lands identified on Figure 2-10 into the appropriate wastewater and water supply, and others as appropriate, service areas of WWD #18. This action may involve some reorganization between WWD #18 and County Service Area 44 (CSA 44). Figure 2-10 identifies the proposed area of inclusion into WWD #18's boundaries.

LAFCo will conduct a Municipal Service Review and likely require the following actions to approve the proposed development:

- a. Take Appropriate Action to Effectuate Inclusion of the Friant Ranch Specific Plan Area into WWD #18 Wastewater Treatment, Lighting, and Water Supply Service Area, Including Expansion of the Sphere of Influence and Annexation
- b. To the Extent Deemed Appropriate by the County and LAFCo, Take Appropriate Action to Effectuate Inclusion of Other Lands within the Friant Community Plan Area into WWD #18 Wastewater Treatment, Lighting, and Water Supply Service Area
- c. To the Extent Deemed Appropriate by CSA 44 and LAFCo, Take Appropriate Action to Expand Lighting Service Area of CSA 44 to Include the Friant Ranch Specific Plan Area
- d. Take Appropriate Actions to Add Wastewater Services to the Active Powers of WWD #18

6. California Department of Public Health

The following actions of the California Department of Public Health will be required for the proposed wastewater disposal and water treatment for the Project:

- a. Approve Engineering Report for the Water Treatment Plant
- b. Issue Report of Wastewater Reclamation

7. County Service Area 44

The following actions of CSA 44 may be required to facilitate the proposed wastewater, water supply, and lighting services for the Project:

- a. Appropriate Action To Effectuate Transfer of Friant Community Wastewater Service, and to the Extent Necessary, Wastewater Infrastructure to WWD #18
- b. Appropriate Action to Provide Lighting Service to the Friant Ranch Specific Plan Area

8. California Department of Fish and Game

The following actions of the California Department of Fish and Game (CDFG) will be required for the proposed development at the Project site:

- a. Fish and Game Code Section 1602 Streambed Alteration Permit
- b. California Endangered Species Act Incidental Take Permit(s) (or Federal Incidental Take Coverage Sufficiency Finding Under Fish and Game Code Section 2080.1)
- c. Incidental take coverage pursuant to Fish and Game Code 2080 or 2080.1 may be required for take of *Pseudobahia bahiifolia*. In addition, the California Tiger Salamander was recently classified as a candidate species; an incidental take permit will be required unless the petition is rejected.
- d. Agreement for the Use of Existing Infrastructure Facilities at Friant Dam

9. San Joaquin Valley Air Pollution Control District

The following actions of the San Joaquin Valley Air Pollution Control District may be required for the proposed development at the Project site:

- a. Process Air Permit Application for Wastewater Treatment Plant
- b. Process Air Impact Assessment
- c. Issuance of Dust Control Permit
- d. Appropriate Action to Ensure Rule 9510 Compliance for Friant Ranch Specific Plan Development

2.4.3 RELATED FEDERAL ACTIONS

The development proposed within the Specific Plan will also require federal actions, subject to environmental review under the National Environmental Policy Act, historic and cultural resource analysis under the National Historic Preservation Act, and consultation with the United States Fish and Wildlife Service (USFWS) and, potentially, the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration (NMFS) under the Fish and Wildlife Coordination Act and Section 7 of the Endangered Species Act. USFWS and,

potentially, NMFS will consider issuance of incidental take coverage for any take of listed species through the Section 7 process.

These federal actions are integrally connected with actions of state and local agencies (i.e., actions of WWD #18, LTRID, RWQCB, and CDFG) that are subject to CEQA. Pursuant to CEQA, the County will consult with the federal action agencies to ensure appropriate coordination of the state and federal review processes. The federal actions include:

1. *United States Department of the Interior, Bureau of Reclamation*

The Friant Division of the Central Valley Project (CVP) was constructed and is operated by the U.S. Department of the Interior Bureau of Reclamation (BOR). The Central Valley Project Friant Division transports surplus water from the San Joaquin River through Friant Dam, the Friant-Kern Canal, and the Madera Canal. The BOR has authority over water transfers between CVP contractors within the Friant Division. Service of the proposed water supply from WWD #18 to the Friant Ranch Specific Plan Area requires the following approvals from the BOR:

- a. Approval for Water Transfer Between LTRID and WWD #18
- b. WWD #18 Service Area Change Approval
- c. Permission for construction of infrastructure improvements to abandoned pipeline(s)
- d. Authorization of WWD #18 Use of Existing Infrastructure Agreement for the Use of Existing Infrastructure Facilities at Friant Dam

2. *United States Army Corps of Engineers*

The United States Army Corps of Engineers (Corps) is comprised of military and civilian engineers, scientists, and other specialists who provide engineering services to the United States. One of the major responsibilities of the Corps is administering the wetlands permitting program under Section 404 of the Federal Water Pollution Control Act of 1972 (Clean Water Act). The Friant area includes various hydrologic features including wetland channels, non-wetland channels, seasonal wetland swales, and vernal pools. Some of these features likely fall under the jurisdiction of the Corps, in which excavating, grading, or filling requires permits per the Clean Water Act. The Corps provided a final jurisdictional determination and wetland delineation for the Specific Plan site (October 2008). The proposed development of the Project site described in the Specific Plan requires the following approvals from the Corps:

- a. Approval of Clean Water Act Section 404 Permit

3. *United States Environmental Protection Agency*

The United States Environmental Protection Agency (EPA) has authority under the federal Clean Water Act to review and comment on the Section 404 permit application for Friant Ranch and generally enforces Section 404 of the Clean Water Act. The Project infrastructure

applies the drainage principles set forth in EPA's Low Impact Drainage Design and Biofiltration guidelines.

2.5 Project Objectives

A statement of the Project's objectives is required by CEQA Guidelines Section 15124(b). The Project's objectives are as follows:

Friant Community Plan Update

- To update the 1983 Friant Community Plan, as required by law, to implement the goals and policies articulated in the 2000 Fresno County General Plan Update.
- To guide development within the Friant Community Plan area through a set of guiding principles embodying the community's values, as developed through community meetings and consultation with various County departments.
- To expand the boundaries of the Friant Community Plan Area to include developable acreage immediately adjacent to the existing Friant Community.

Friant Redevelopment Plan

- To extend the duration of the Friant Redevelopment Plan by twenty (20) years in order to maximize potential redevelopment funds generated by new commercial and residential uses for needed infrastructure improvements within the Friant Community Plan Area.
- To eliminate the commercial development standards set forth in the 1992 Friant Redevelopment Plan.

Friant Ranch Specific Plan

- To create an environmentally-sensitive master planned community adjacent to the existing community of Friant where public facilities and infrastructure are available or can be provided.
- To provide on-site open space preservation in the form of undisturbed open space, parks and recreation areas, and landscaped slopes.
- To provide diverse housing types that accommodate varying lifestyles and income levels including: active adult single family residential units, active adult multi-family residential units, non-age restricted multi-family dwelling units, and mixed-use residential units.
- To develop an economically feasible Active Adult (55+) Lifestyle community on approximately 950 acres adjacent to an existing unincorporated community aimed at providing diverse housing types that accommodate varying lifestyles and income levels that will blend with the existing natural resources.

- To provide a comprehensive onsite trail system accessible to the public that showcases the open space preserve and provides linkage to the community of Friant and Lost Lake Park.
- To contribute to the community of Friant's infrastructure by constructing a new tertiary wastewater treatment plant with the treatment capacity to serve the Friant Ranch Specific Plan development, Millerton Village Mobile Home Park, and full build-out of the Proposed Friant Community Plan Area, allowing for the future connection of a collector system, as constructed by others, for areas outside of the Friant Ranch Specific Plan Area and Millerton Village Mobile Home Park.
- To obtain a reliable water supply sufficient to serve the Friant Ranch Specific Plan development.
- To develop a Village Center with a mix of retail, office, residential, medical, and social gathering opportunities that responds to the needs and services of the Friant area.
- To develop a wide range of recreational amenities including a Community lodge and fitness center as well as a series of smaller neighborhood-serving parks and pocket parks throughout the Specific Plan development.
- To develop a roadway network that accommodates both traditional and alternative modes of transportation, such as Neighborhood Electric Vehicles (NEV's).

2.6 *Intended Uses of the EIR*

This Program/Project EIR serves two primary purposes. First, it evaluates potential impacts of implementing the Community Plan Update and Specific Plan and proposes mitigation measures that reduce impacts to a less than significant level where possible.

Second, this EIR is intended to streamline the environmental review of new development projects in conformance with Sections 15152 and 15168 of the CEQA Guidelines. Subsequent, related projects will be evaluated for their consistency with this EIR. Where projects are consistent, further environmental review may be eliminated or streamlined. Projects found inconsistent may require additional environmental review. Some subsequent, related projects may have impacts not considered in this EIR or impacts not addressed at a level of detail to allow adequate analysis. The most common types of subsequent, related projects for which this EIR will be used include development applications such as use permits, subdivision (tentative) maps, parcel maps, variances, rezoning, and/or public infrastructure or service improvements or programs.

Public agencies other than the County, including Responsible and Trustee Agencies (as defined under CEQA) may use this EIR during their review of the Community Plan Update and Specific Plan and projects which implement them. Although the County has primary approval authority for the Project, Responsible Agencies may also have some discretionary approval authority over portions of the Project and/or over projects proposed by public agencies or private interests that implement the Community Plan Update and Specific Plan. The discretionary approval authority

may include permit approvals, consultation requirements or other required actions. The following is a list of potential agencies that may use this EIR for such purposes.

- Fresno County
- Fresno County Fire Protection District
- Fresno County Water Works District No. 18
- Lower Tule River Irrigation District
- County Service Area 44
- Fresno Local Agency Formation Commission
- San Joaquin Valley Air Pollution Control District
- California Department of Transportation
- California Department of Fish and Game
- California Department of Public Health
- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- United States Department of the Interior, Bureau of Reclamation
- United States Environmental Protection Agency
- Central Valley Regional Water Quality Control Board
- State Water Resources Control Board

If Fresno County approves the proposed Project, subsequent actions, permits, and approvals will be necessary for project implementation. Upon certification, this EIR may be used for evaluation of actions including, but not necessarily limited to, those identified within Chapter 4 of this EIR.

2.7 Mitigation Monitoring Program

INTRODUCTION

State and local agencies are required by *Section 21081.6* of the *California Public Resources Code* to establish a monitoring and reporting program for all projects which are approved and which require CEQA processing.

Local agencies are given broad latitude in developing programs to meet the requirements of *Public Resources Code Section 21081.6*. The mitigation monitoring program outlined in this document is based upon guidance issued by the Governor's Office of Planning and Research.

The mitigation monitoring and reporting program for the proposed Project corresponds to mitigation measures outlined in the DEIR. The Program summarizes the environmental issues identified in the EIR, the mitigation measures required to reduce each potentially significant impact to less than significant, the person or agency responsible for implementing the measures, and the agency or agencies responsible for monitoring and reporting on the implementation of the mitigation measures.

THE PROGRAM

The County will adopt this mitigation and monitoring program at the time of adoption of the Specific Plan and Community Plan broad planning-level actions. Moreover, the Specific Plan and Community Plan documents will incorporate a requirement to comply with this mitigation and monitoring program. Such compliance will be enforced through subsequent conditions of approval for future discretionary actions related to these broad entitlements, such as a conditional use permit for the wastewater treatment plant and tentative maps for the proposed subdivision of the Specific Plan Area. As such, mitigation measures contained herein shall be included as conditions of approval for the Project, to the extent permitted by law. Fresno County shall ensure that all construction plans and project operations conform to the conditions of the mitigated project. Table 2-3 shall be attached to future discretionary approvals, such as a conditional use permit or tentative map, as a condition of approval. As explained in Mitigation Measure S-1, as a condition of approval and/or by and through the proposed Development Agreement for the Specific Plan project, the applicant shall enter into an agreement with Fresno County to compensate the County's time for mitigation monitoring and overseeing compliance of mitigation monitoring. Such agreement will provide for ongoing review of the applicant's compliance with the mitigation measures.

Compliance with local land use regulations is enforced by the Fresno County. Upon evidence of, or receipt of complaints of, noncompliance, the Code Compliance Officer and Building Inspector of Fresno County conducts inspections for such noncompliance, the remedies for which are citations, fines, permit modifications, permit revocation, and even criminal charges.

Chapter Three of the DEIR should be consulted for the full text of impacts and mitigation measures.

This Draft EIR has analyzed cumulative impacts and found that there shall be significant cumulative impacts on aesthetics, air quality, and traffic and transportation resources regardless of implementation of feasible mitigation measures.

Table 2-3
Mitigation Monitoring Program

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #S.1 – Mitigation Monitoring Agreement	#S.1: The Applicant shall enter into an agreement with Fresno County to compensate the County’s time for mitigation monitoring and overseeing compliance of mitigation monitoring. At the County’s discretion, the County may hire an independent consultant to conduct on-going mitigation monitoring and compliance on behalf of the County.	Applicant	Fresno County	On going
Impact #3.1.3 – Introduction of New Sources of Light and Glare and Increased Lighting on the Night Sky as a Result of the Project	Mitigation Measure #3.1.3a: Prior to issuance of any discretionary permit necessary for development within the Project Area, a lighting plan shall be prepared and submitted to Fresno County for approval in conjunction with the permit applications related to such development. The County shall ensure that the lighting plan incorporates the requirements set forth in mitigation measures 3.1.3b through 3.1.3f below.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3b: All lighting in the Project Area shall be shielded, directed downward and away from adjoining properties and rights-of-way. Light shields or equivalent shall be installed and maintained consistent with manufacturer’s specifications, and shall reduce the spillage of light onto adjacent properties to less than a one-foot-candle standard, as measured at the adjacent property line.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3c: Development within the Project Area shall incorporate lighting fixtures designed to produce the minimum amount of light necessary for safety purposes. All parking lot pole lights and street lights shall be fully hooded and back shielded to prevent light spillage and glare.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.1.3d: The design of any development proposed within the Project Area shall include the use of glare reducing materials, including non-reflective paints and building materials, to reduce the amount of glare created by the structures.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3e: Landscaping within the Project Area shall include vegetation designed to shield adjacent properties from Project-generated light and glare.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3f: Night lighting within the Project Area shall be limited to that necessary for security, safety, and identification. Night lighting shall also be screened from adjacent residential areas and not be directed in an upward manner or beyond the boundaries of the parcel on which the buildings are located.	Applicant	Fresno County	Prior to construction
Impact #3.1.4 – Degradation of the Existing Visual Character or Quality of the Project Area and its Surroundings Resulting from Utilities and Roadway Construction	Mitigation Measure #3.1.4a: Those portions of the Project Area containing natural vegetation or landscape material that are disturbed during utility line and or roadway construction shall be revegetated upon completion of work utilizing plant materials similar to those disturbed. Revegetated areas within the Friant Ranch Specific Plan Area shall be actively maintained by the developer until fully established, in accordance with the landscape design guidelines contained in the Friant Ranch Specific Plan.	Applicant	Fresno County	Upon completion of construction
	Mitigation Measure #3.1.4b: All permanent utility buildings within the Friant Ranch Specific Plan Area extending above ground shall be screened where feasible using a combination of berms, mounds, landscape material, decorative fencing/walls, or other screening feature approved in the Friant Ranch Specific Plan. In addition, any proposed roadway and utility pump station lighting within the Project Area shall be directed	Applicant	Fresno County	Upon completion of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	downward using cut-off fixtures to minimize lighting effects on adjacent areas and the night sky.			
Impact #3.3.1 – Construction Impacts for the development of the Friant Ranch Specific Plan (5 phases) and Community Plan Update Carbon Monoxide (CO), Reactive Organic Gases (ROG), Nitrogen Oxide (NOx), Particulate Matter (PM₁₀), & Fine Particulate Matter (PM_{2.5})	Mitigation Measures #3.3.1a: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 1: 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.) 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB. 5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use. 6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards. 7. Use of alternative fueled or catalyst equipped diesel construction equipment. 8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	minimum number of hours practicable each day. 9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set). 10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways. 11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts). 12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph. 13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site. 15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas. 16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph. 17. During construction activity, areas subject to excavation, grading, and other construction activity			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	shall be limited at any one time.			
	Mitigation Measures #3.3.1b: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 2: 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.) 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB. 5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use. 6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards. 7. Use of alternative fueled or catalyst equipped diesel construction equipment. 8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set). 10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways. 11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts). 12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph. 13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site. 15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas. 16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph. 17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measures #3.3.1c: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 3. 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.) 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB. 5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use. 6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards. 7. Use of alternative fueled or catalyst equipped diesel construction equipment. 8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day. 9. To the extent practicable fossil-fueled construction	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set). 10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways. 11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts). 12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph. 13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site. 15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas. 16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph. 17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.3.1d: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 4. 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.) 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB. 5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use. 6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards. 7. Use of alternative fueled or catalyst equipped diesel construction equipment. 8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day. 9. To the extent practicable fossil-fueled construction	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set). 10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways. 11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts). 12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph. 13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site. 15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas. 16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph. 17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measures #3.3.1e: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 5: 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.) 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB. 5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use. 6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards. 7. Use of alternative fueled or catalyst equipped diesel construction equipment. 8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day. 9. To the extent practicable fossil-fueled construction	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set). 10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways. 11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts). 12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph. 13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site. 15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas. 16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph. 17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.3.2 – Violation of Air Quality Standards by Area and Operational Emissions	Mitigation Measure #3.3.2: Implementation of the following mitigation measures shall substantially reduce air quality impacts related to human activity within the entire Project area, but not to a level that is less than significant: The following guidelines shall be used by the County during review of future project- specific submittals for non-residential development within the Specific Plan area and within the Community Plan boundary in order to reduce generation of air pollutants with intent that specified measures be required where feasible and appropriate: ▪ <i>Trees shall be carefully selected and located to protect building(s) from energy consuming environmental conditions, and to shade paved areas. Trees selected to shade paved areas should be varieties that shall shade 25% of the paved area within 20 years.</i> ▪ <i>Equip HVAC units with a PremAir or similar catalyst system, if reasonably available and economically feasible at the time building permits are issued. Catalyst systems are considered feasible if the additional cost is less than 10% of the base HVAC unit cost;</i> ▪ <i>Install two 110/208 volt power outlets for every two loading docks.</i> Implement the following, or equivalent measures, as determined by the County in consultation with the APCD: The following measures shall be used singularly or in combination to accomplish an overall reduction of 10 to 20% in residential energy consumption relative to the	Applicant	Fresno County/SJVAPCD	Ongoing

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	requirements of the 2008 State of California Title 24; ▪ <i>Use of air conditioning systems that that are more efficient than the 2008 Title 24 requirements;</i> ▪ <i>Use of high-efficiency heating and other appliances, such as water heaters, cooking equipment, refrigerators, and furnaces;</i> ▪ <i>Establishment of tree-planting guidelines that require residents to plant trees to shade buildings primarily on the west and south sides of the buildings. Use of deciduous trees (to allow solar gain during the winter) and direct shading of air conditioning systems shall be included in the guidelines; and</i> ▪ <i>Establish paving guidelines that encourage businesses, if feasible, to pave all privately owned parking areas with a substance with reflective attributes (albedo = 0.30 or better) similar to Portland cement concrete. The use of a paving substance with reflective attributes similar to Portland cement concrete is considered feasible under this measure if the additional cost is less than 10% of the cost of applying a standard asphalt product.</i> Bicycle usage shall be promoted by requiring the following: ▪ <i>All non-residential projects shall provide bicycle lockers and/or racks; and</i> ▪ <i>All apartment complexes or condominiums without garages shall provide at least two Class I bicycle storage spaces per unit.</i>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Transportation related mitigation measures (Extended Conditions of approval): ▪ <i>Commute options: to inform Specific Plan area occupants of the alternative travel amenities provided, including ridesharing and public transit availability/schedules;</i> ▪ <i>Maps showing the Community Plan's pedestrian, bicycle, and equestrian paths to community centers, shopping areas, employment areas, schools, parks, and recreation areas; and</i> ▪ <i>Information regarding SJVAPCD programs to reduce county-wide emissions.</i> The County and SJVAPCD may substitute different air pollution control measures for individual projects, that are equally effective or superior to those proposed herein, as new technology and/or other feasible measures become available in the course of build-out within the Friant Community Plan boundary.			
Impact #3.4.1 - Impacts to candidate, sensitive, or special status species within the Friant Ranch Specific Plan Area				
Impact #3.4.1a – Impacts to succulent owls clover:	Mitigation Measure #3.4.1a: To ensure that indirect impacts to succulent owls clover will be less than significant; the following mitigation measures will be implemented: 1. The wetlands on the Friant Ranch Specific Plan Site that contain succulent owls clover shall be maintained as undisturbed open space, as required in mitigation measure 3.4.1c(4).	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	2. Prior to issuance of a grading permit that would result in activities affecting the succulent owls clover, a Land Management Plan shall be prepared for the open space that exists on the Specific Plan Site. That Land Management Plan shall include continued management by cattle grazing and shall: ▪ be developed in cooperation with the California Department of Fish and Game and the United States Fish and Wildlife Service, ▪ describe management goals and objectives, ▪ include provisions for monitoring existing populations of protected biological resources (including succulent owls clover), ▪ include the use of adaptive management to ensure that results of the monitoring efforts are incorporated into management actions, and follow the management goals and objectives, and ▪ identify remedial actions and alternatives for protection (which may include off-site compensation) if management fails to protect on-site resources to the level established for each resource.			
	Mitigation Measure # 3.4.1a(1): The Specific Plan applicant will pay the market rate for 0.5 acres of succulent owl's clover creation/restoration credits from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Area.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.1b – Impacts to Hartweg’s golden sunburst	Mitigation Measure #3.4.1b: The following measures shall be implemented to reduce the level of impacts to Hartweg’s golden sunburst to a level that is less than significant. - Prior to the issuance of a grading permit that would result in activities affecting the Hartweg’s golden sunburst populations, the on-site open space which contains the species will be protected in perpetuity through a conservation easement to be held by a non-profit land trust. - The designated open space will be managed to preserve in perpetuity the populations of Hartweg’s golden sunburst. Prior to issuance of a grading permit that would result in activities affecting the Hartweg’s golden sunburst, a Land Management Plan will be prepared (see mitigation measure #3.4-1a2) that will include the protection of the golden sunburst population from human foot traffic and off road vehicles by restricting access to open space through fencing and signage. - Prior to issuance of an occupancy permit, an informational brochure will be prepared that educates Friant Ranch Community members about the sensitivity of this species to human trampling, discouraging trespass into conserved open space. - Where avoidance is not possible, the project applicant will have a qualified biologist develop a Restoration Plan to salvage populations of Hartweg’s golden sunburst located in proposed development areas that would be destroyed during construction activities. A draft of this plan will be submitted to the California Department of Fish and Game and the U.S. Fish and Wildlife Service for review, comment, and approval. The plan will be	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	finalized and implemented by the project applicant prior to issuance of a grading permit for the areas inhabited by Hartweg's golden sunburst. Elements of the Restoration Plan shall include the collection of mature seed prior to natural dispersal (late April or early May), the storage of the seed in a cool dry location until the fall, and the dispersal of the seed onto proposed open space areas of the Site where suitable Rocklin soils are known to be present. The selected planting areas would be mapped using GIS, fenced to reduce grazing pressure, and monitored after planting for a minimum of four years during a 7 year monitoring period. An annual monitoring report will be prepared and submitted to CDFG and the USFWS. The salvage and relocation of this species will be considered successful when a self-sustaining population of Hartweg's golden sunburst has been established on approximately 0.06 acres of the designated open space (representing a 3:1 ratio). 5. The Restoration Plan described in number 5 above shall include alternatives or contingencies for ensuring that appropriate compensation for the loss of Hartweg's golden sunburst is met (at a ratio of 3:1) should the initial relocation of the Hartweg's golden sunburst populations not meet established success criteria. These alternatives shall be approved by the CDFG and USFWS.			
Impact #3.4.1c – Impacts to vernal pool fairy shrimp	Mitigation Measure #3.4.1c: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are less than significant. 1. The Project shall avoid vernal pool fairy shrimp to the maximum extent feasible. The Friant Ranch Specific Plan has been designed to avoid the majority of vernal pools on the site. Of the 14.38 acres of vernal pool habitat identified on the project	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	site, 12.09 acres of vernal pools shall be protected within approximately 233 acres of designated undisturbed open space that shall be placed under a conservation easement. The area of vernal pool fairy shrimp habitat to be protected within designated on-site open space shall be at a ratio of 5 acres of protected vernal pool habitat for each acre of such habitat directly or permanently disturbed by grading and construction associated with the development of the project. 2. Prior to the issuance of a grading permit the project applicant shall compensate for the loss of vernal pool habitat through the creation/restoration of additional vernal pool habitat at a ratio of one acre of creation/restoration for each acre of such habitat directly and permanently disturbed by grading and construction associated with the project development. Creation/restoration of vernal pool habitat shall be accomplished by one or a combination of the following three mitigation alternatives: a. Off-Site Creation/Restoration. The project applicant shall conserve through acquisition or conservation easement off-site lands suitable for vernal pool creation/restoration in Fresno, Madera, or Merced County. Such lands shall consist of the following characteristics: natural undisturbed native wetlands and habitat suitable for threatened and endangered plant and animal species shall be absent (i.e., these lands shall have been previously disturbed by farming, or some other intensive use); vernal pools once occurred on these lands naturally; the underlying hardpan layer is still intact; and the natural topography has not been eliminated through land leveling. Topographic			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	depressions shall be created/restored on these lands according to a “mitigation and monitoring plan” prepared by a qualified biologist. The depressions shall hold water for approximately three months of every year. When full, the depth of the filled pools shall vary from 6 to 18 inches. The depressions shall be revegetated with vernal pool species native to the area; soil collected from existing pools in the region shall be distributed on the bottoms of the constructed pools in order to enhance the prospects for establishing vernal pool fairy shrimp populations. Efforts to establish fairy shrimp populations in the constructed pools shall only occur after receiving formal authorization to do so from the USFWS, as required by law. The components of this mitigation and monitoring plan shall be consistent with standard USACE guidelines. b. Purchase of Vernal Pool Creation/Restoration Credits from a Conservation Bank. The project applicant shall pay the market rate for Vernal Pool Creation/Restoration Credits at the stipulated 1:1 ratio from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Area. c. Payment into the Vernal Pool Fund. Should a conservation bank having vernal pool creation credits for sale not exist in Fresno, Madera or Merced Counties, the project applicant shall pay the going rate per acre into the Vernal Pool Fund managed by the Center for Natural Lands Management. These funds may only be used for the purchase of vernal pool creation credits in a local conservation bank.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	3. The designated open space proposed for the project site shall provide buffers of 75 feet or greater between developed areas of the project site and vernal pools, to reduce encroachment into pools by foot and off-road vehicle traffic. 4. Prior to issuance of a grading permit for the project site, a Drainage Plan shall be prepared for the undisturbed open space of the site. Elements of this plan shall include: a. Design plans to ensure that winter stormwater runoff into open space areas of the project site shall mimic to the maximum extent feasible pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved vernal pools shall be roughly equivalent to pre-project conditions, b. All runoff originating in developed areas of the site shall pass through retention basins, bio-filtration swales, or both, which shall act together as stormwater filters such that water quality shall not be significantly reduced from pre-project conditions, c. Irrigation runoff from landscaped areas shall be routed away from vernal pool habitats during the summer and fall to ensure that the hydrology of these habitats mimics pre-project conditions, d. A grazing management plan shall be developed and implemented to control the proliferation of non-native annuals in grassland and vernal pool habitats of the on-site open space areas, and to control the build-up of flammable thatch,			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	e. Access to the open space areas shall be controlled in order to minimize impact to vernal pools and other habitats, and to ensure that cattle are confined to the open space areas when grazing is permitted. This plan shall be submitted to the USFWS for review and approval.			
Impact #3.4.1d – Impacts to the California tiger salamander	Mitigation Measure #3.4.1d: The following measures shall be implemented to ensure that impacts to the California tiger salamander are at levels that are <i>less than significant</i>. The Project shall be designed to avoid elimination of breeding and aestivation habitat to the maximum extent possible. The project applicant has designed the project to avoid a substantial amount of on-site habitats suitable for CTS. Of the 14.38 acres of on-site vernal pool habitat potentially used as breeding habitat by the CTS, 12.09 acres of vernal pools shall be protected in designated undisturbed open space (Table 3.4-2). The area of California tiger salamander breeding habitat to be protected within designated open space shall be at a ratio of 5 acres of protected vernal pool habitat for each acre of such habitat directly and permanently disturbed by grading and construction associated with project development. Of the 927.82 acres of potential aestivation habitat now present in the Specific Plan Area, approximately 233 acres of undisturbed aestivation habitat shall be preserved within the proposed open space. An additional 30 acres of the site that are contiguous with undisturbed open space and that are to be temporarily disturbed by site grading shall be restored to native vegetation and managed as part of the proposed open space area. Open space areas with vernal pool complexes of the completed project, totaling 275.4 acres, shall be	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	linked to one another to facilitate the movements of CTS from one preserved habitat area to another, and linked to significant breeding and aestivation habitats on lands to the south of the Site. 2. Management of the undisturbed open space, as required in mitigation for vernal pool fairy shrimp set forth in mitigation measure 3.4.1c, shall ensure that vernal pools protected in open space areas of the Site shall continue to provide breeding habitat for CTS and that grasslands shall continue to provide habitat for burrowing rodents, which create aestivation habitat for CTS. 3. Prior to issuance of a grading permit for all or any portion of the project site, the project applicant shall preserve grassland habitats suitable for CTS aestivation under conservation easement at a minimum ratio of two acres of habitat preservation for every acre of such habitat directly or permanently disturbed by project grading and construction. Such preservation shall include on-site (i.e., open space areas) and off-site habitat in Fresno, Madera and/or Merced Counties . Should the project be constructed in phases, preservation can be phased concurrent with development phases as long as the 2:1 ratio is met for the acreage subject to the grading permit. At full buildout the project shall eliminate approximately 694.5 acres of suitable on-site aestivation habitat. Under this mitigation measure, the applicant shall preserve two times that amount of known and created CTS aestivation habitat on-site and off-site in suitable habitat located on other parcels within Fresno, Madera and Merced Counties.. Parcels that could meet the requirements of this mitigation measure and are available for			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	mitigation purposes have been identified in Tables 3.4-2 and 3.4-3 and are further illustrated in Figure 3.4-7. These representative parcels provide up to 31.21 acres of breeding habitat in the form of vernal pools and 1,282.19 acres of aestivation habitat in the form of grasslands and other habitats supporting populations of burrowing animals such as California ground squirrels and pocket gophers. To meet the 2:1 preservation requirement set forth in the above mitigation measure the project applicant may identify additional or alternative parcels similar to those identified in Tables 3.4-2 and 3.4-3.			
Impact #3.4.1e – Impacts to the Western Spadefoot	Mitigation Measure #3.4.1e: To reduce impacts to western spadefoots to a level that is less than significant, the following measures shall be implemented: 1. The western spadefoot utilizes the same habitats as the California tiger salamander for breeding and aestivation (i.e., the western spadefoot breeds in vernal pools and aestivates in rodent burrows of surrounding grasslands). Therefore, implementation of mitigation measures for the California tiger salamander (Mitigation Measures 3.4.1d) would reduce the impact to the western spadefoot to a less than significant level.	Applicant	Fresno County	Prior to construction
Impact #3.4.1g – Impacts to Burrowing Owls	Mitigation Measure #3.4.1g: The following measures shall be implemented to ensure that impacts to the burrowing owl are less than significant: 1. A pre-construction survey shall be conducted on the Specific Plan Site and on the Depot Parcel for ground nesting raptors, including burrowing owls, within 14 to 30 days prior to initiation of site grading activities. If the grading activities are	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	implemented in phases, then so shall the surveys be conducted in phases. If more than 30 days lapse between the time of the preconstruction survey (s) and the start of ground-disturbing activities, another preconstruction survey must be completed. This process should be repeated until the habitat is converted (e.g., graded and developed). The survey shall be completed in accordance with the survey requirements detailed in the CDFG's October 17, 1995 <i>Staff Report on Burrowing Owl Mitigation</i>. 2. If burrowing owls are identified onsite or within the area of influence of the project site (within 250 feet of the project site), during surveys required in mitigation measure 3.4.1g (1) above, an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the required mitigation site shall be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be $2 \times 6.5 = 13$ acres provided that no more than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the preconstruction survey, then the mitigation requirement shall be $3 \times 6.5 = 19.5$ acres). Two natural or artificial nest burrows shall be provided on the mitigation site for each burrow in the project area that shall be rendered biologically unstable.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	3. If burrowing owls are present on the site and require relocation, an upland mitigation site for burrowing owls shall be designated as provided for in item 2 above. This site may be located within the on-site open space area or it may be located off site. The mitigation site must consist of grassland habitat, contain small mammals (or other prey), and ground squirrel burrows. Habitat protected for the CTS (see mitigation measure #3.4.1e) may be sufficiently suitable. The mitigation site must be approved by the California Department of Fish and Game. The area shall be preserved in perpetuity as wildlife habitat through a conservation easement that designates the California Department of Fish and Game, or any other qualified conservation organization as the Grantee of the easement. The mitigation area need not be identified prior to finding burrowing owls on the Site, however advance planning would reduce the potential for construction delays. 4. If a Conservation Easement is established for burrowing owl mitigation onsite, the project applicant shall provide the Grantee of the easement with an endowment to cover the management of the Conservation Easement within six months of breaking ground on the project site. The endowment amount necessary for the conservation easement shall be established after negotiations between the applicant, easement holder/land trust, and the regulatory agencies. The management fund shall be provided by the project applicant to the Grantee of the Conservation Easement within six months of breaking ground on the project site. 5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	be engaged in nesting behavior, a fenced 250 foot buffer would be required between the nest site(s) (i.e., the active burrow(s)) and any earth-moving activity or other disturbance on the project site. This 250 foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a 160 foot buffer area will be established. If construction activities require the removal of an active den, the occupying burrowing owls must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity shall be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring shall be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as required in item 6 below. 6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring shall be conducted by a qualified biologist provided by the project applicant. Monitoring may be suspended or discontinued if, in the opinion of the qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading. Monthly reports of			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	monitoring activities shall be submitted by the biologist to the project applicant, the County of Fresno, and the California Department of Fish and Game. A final report of all monitoring application shall be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.			
Impact #3.4.1h – Impacts to the American Badger	Mitigation Measure #3.4.1h: The following measures shall be implemented to ensure that impacts to American badgers are <i>less than significant</i>: 1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground disturbing activities) are phased, then so shall the pre-construction surveys be phased. 2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy. All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den. 3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s). 4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunset to sunrise) should be prohibited. 5. Off-road construction traffic outside of designated construction areas shall be prohibited. 6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor. 7. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice. 8. American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped. 9. During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site. 10. No firearms shall be allowed on the project site during construction activities.			
Impact #3.4.1i –Impacts to nesting raptors	Mitigation Measure #3.4.1i: To protect breeding raptors, the following measures shall be implemented: 1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys shall be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a 300 foot area of influence surrounding the Site. Suitable nesting sites in the Specific Plan area are extremely limited; surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	biologist. If construction begins between September 2 to February 28, nest surveys shall not be required since this is outside the typical breeding period for raptors. 2. If nesting raptors are identified during the surveys on the project site or within the 300 foot areas of influence, a 300-foot radius buffer around the nest tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer. 3. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers shall no longer be needed and can be removed, and			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	monitoring can be terminated.			
Impact #3.4.1j – Impacts to common and special status nesting birds	Mitigation Measure #3.4.1j: To protect common and special status nesting birds, the following measures shall be implemented: 1. A nesting bird survey shall be conducted prior to commencing with construction work (including site grading and vegetation removal) if that work would commence between March 15th and August 31st. The nesting bird survey shall be conducted no greater than 30 days prior to commencement of work, nor sooner than 14 days prior to commencement of work. If the construction activities are conducted in phases, then so shall the survey be conducted in phases. 2. If special status birds are identified nesting on the construction area or within a 250 foot area of influence, a 150-foot non-disturbance radius around the nest must be fenced using orange plastic construction fencing or rope and stake fencing as previously described (this fencing requirement shall not replace or be constructed in lieu of fencing discussed above for impacts to nesting raptors). No construction or earth-moving activity shall occur within the 150-foot buffer until it is determined by a qualified biologist that the nest is no longer occupied and young have fledged (that is, left the nest and attained sufficient flight skills to avoid project construction activities). This typically occurs by July 1st, but the date may vary, and would need to be confirmed by a qualified biologist. Similarly, the qualified biologist could modify the size of the buffer based upon site conditions and the bird's apparent acclimation to human activities. 3. If non-special status birds are identified nesting in	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	any tree or shrub proposed for removal, tree removal would have to be postponed until it is determined by a qualified biologist that the young have fledged and have attained sufficient flight skills to leave the project site. Typically, most passerine birds can be expected to complete flight by July 1st, with young attaining sufficient flight skills by this date that are sufficient for young to avoid project construction zones. Unless otherwise prescribed for special status bird species, upon completion of nesting no further protection or mitigation measures would be warranted for nesting birds. The mitigation measure shall be implemented by the project applicant and the construction contractor. 4. Results of the surveys and monitoring shall be provided in monthly monitoring reports submitted to the project applicant, County of Fresno, and the California Department of Fish and Game.			
Impact #3.4.2 – Impact of Friant Ranch Specific Plan development (including wastewater treatment plant and disposal) to riparian habitat or other sensitive natural communities	Mitigation Measure #3.4-2: The following measure shall be implemented to reduce impacts to the northern hardpan vernal pool sensitive natural community to a level that is <i>less than significant</i>: 1. Implementation of mitigation for federally protected wetlands and jurisdictional Waters (Mitigation Measure #3.4.3) shall ensure the long-term conservation of northern hardpan vernal pools in the region. That measure provides for the acquisition, preservation, and management of large patches of vernal pool and grassland habitats in the project region.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.3 – Impact of Friant Ranch Specific Plan development (including wastewater treatment plant and disposal) to federally protected wetlands and other waters	Mitigation Measure #3.4.3a: The following measures shall be implemented to reduce impacts to wetlands and other waters to a level that is <i>less than significant</i>: 1. Mitigation measures for vernal pool fairy shrimp and California tiger salamanders (mitigation measures 3.4.1c and 3.4.1d) are designed to ensure the long-term conservation of wetlands and other waters in the region. Implementation of these measures shall result in the preservation under conservation easement of wetlands and other waters. For example, mitigation parcels currently under evaluation to meet mitigation measures for vernal pool fairy shrimp and CTS would result in preservation of 22.67 acres of wetlands on-site and up to 60.30 acres off-site (Tables 3.4-5 and 3.4-6), for a combined total of 82.97 acres. As can be seen in these tables (Tables 3.4-5 and 3.4-6), the preservation under conservation easement of wetlands and other waters pursuant to mitigation measures for vernal pool and CTS could achieve preservation ratios of: ▪ Wetland Channels: 1 acre of disturbed habitat to every 11.1 acres of preserved habitat; ▪ Vernal Swales: 1 acre of disturbed habitat to every 3.7 acres of preserved habitat; ▪ Vernal Pools: 1 acre of disturbed habitat to every 13.6 acres of preserved habitat; 2. Prior to the issuance of a grading permit, the project applicant shall create/restore wetlands to compensate for any wetlands and other water bodies subject to the jurisdiction of the USACE that are directly and permanently disturbed by grading and construction associated with the project. The creation/restoration of such wetlands and other	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	waters shall be at a ratio of one acre of created/restored wetlands and other jurisdictional waters for each acre of jurisdictional wetlands and other waters directly and permanently disturbed by grading and construction associated with the project development. Mitigation measure for vernal pool fairy shrimp (mitigation measure 3.4.1c) provides specifically for the creation/restoration of vernal pool habitat. This mitigation measure provides for the creation/restoration of wetlands and other waters such as wetland and non-wetland channels and vernal swales. Creation/restoration of wetland habitat and other water bodies shall be accomplished by one or a combination of the following two mitigation alternatives: a. Off-Site Creation/Restoration. The Project applicant shall conserve through acquisition or conservation easement, off-site lands suitable for the creation/restoration of wetlands and other water bodies in Fresno, Madera, or Merced County. Such lands shall have the following characteristics: natural undisturbed native wetlands and habitat suitable for threatened and endangered plant and animal species shall be absent (i.e., these lands shall have been previously disturbed by farming, or some other intensive human use); native wetlands and/or other water bodies once occurred on these lands naturally; the soils and hydrology of these lands are suitable for the creation of naturally occurring wetlands and other water bodies; and the natural topography has not been eliminated through land leveling. Topographic depressions, swales and naturalistic drainage channels shall be created/restored on these lands according to a “mitigation and monitoring plan” prepared by a			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	qualified biologist. These engineered features must be inundated and/or experience soil saturation for a duration sufficient to naturally support hydrophytic vegetation native to wetlands of the region. All engineered wetlands and other water bodies shall be revegetated with native hydrophytic species. The wetland creation/restoration plan prepared by the biologist shall provide for long-term management of the mitigation site, mitigation objectives by which the success of the mitigation can be measured, and a monitoring plan for determining the success of the mitigation. The components of this mitigation and monitoring plan shall be consistent with standard USACE guidelines. b. Purchase of Wetland Creation Credits from a Conservation Bank. The Project applicant shall pay the market rate for Wetland Creation Credits at a 1:1 ratio from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Site.			
Impact #3.4.3b – Impacts to water quality in seasonal creeks, reservoirs, and other downstream waters	Mitigation Measure #3.4.3b: To ensure protection of water quality in seasonal creeks, reservoirs, and other downstream waters, the following measures shall be implemented: 1. Prior to the onset of construction, an erosion control plan shall be prepared by a qualified engineer consistent with the requirements of a Fresno County grading permit and a General Construction Permit (an NPDES permit issued by the Regional Water Quality Control Board for projects in which one or more acres of land are graded). Typically, specified erosion control measures must be implemented prior to the onset of the rainy season. The project	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	site must then be monitored periodically throughout the rainy season to ensure that the erosion control measures are successfully preventing on-site erosion and the associated deposition of sediment off the project site. Elements of this plan would address both the potential for soil erosion and non-point source pollution. At a minimum, elements of an erosion control plan typically include: - Protection of exposed graded slopes from sheet, rill and gully erosion. Such protection could be in the form of erosion control fabric, hydromulch containing the seed of native soil-binding plants, straw mechanically imbedded in exposed soils, or some combination of the three. - Protection of natural drainage channels from sedimentation. Hay bale check dams should be installed below graded areas so that any sediment carried by surface runoff is intercepted and retained behind the check dams before it can enter the creek. - Use of best management practices (BMPs) to control soil erosion and non-point source pollution. BMPs may include measures in a and b above, but they may include any number of additional measures appropriate for this particular project site and this particular project, including grease traps in parking lots, landscape management practices to reduce the use of pesticides and herbicides, the discharge of stormwater runoff from “hardscapes” into grassy swales, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	2. Where possible, project construction should be confined to the dry season, when the chance for significant rainfall and stormwater runoff is very low. Construction during the spring, summer, and fall shall not eliminate the need to implement erosion control measures described in mitigation measures above, but shall ensure that the threat of soil erosion has been minimized to the maximum extent possible. 3. All post-construction runoff shall be routed through a system of grease traps, stormwater retention/detention basins, and bio-filtration swales to ensure that water quality of on-site and off-site wetlands, creeks and rivers are maintained at roughly pre-project levels.			
Impact #3.4.5 – Consistency of the Friant Ranch Specific Plan with local policies or ordinances protecting biological resources	Mitigation Measure #3.4.5: Mitigation Measures #3.4.1c and #3.4.1d shall be implemented to preserve pools as breeding habitat and open space for aestivation habitat for tiger salamanders and western spadefoots, through a combination of on-site and off-site conservation easements. These measures shall also serve to maintain buffer zones around wetland features, preserve vernal pool vegetation, maintain habitat functions and values and control siltation and pollutant entry into these habitats. Implementation of Mitigation Measure 3.4.3a would create/restore wetland habitats to preserve the “no net loss” policy of the ACOE, and mitigate for the loss of wildlife habitat. Implementation of Mitigation Measure 3.4.3b establishes best management practices for preventing impacts to waters via pollutants, siltation, etc. Along with mitigation measures prescribed in Chapter 3.8 of this EIR, “Hydrology and Water Quality”, the mitigation measures just described shall ensure consistency with local ordinances and policies, including the County	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	General Plan Policies. Moreover a considerable amount of additional wildlife habitats and wetlands would be preserved off-site incidental to the mitigation measures required for project impacts to California tiger salamanders.			
Impact #3.4.7 - Potential biological impacts resulting from the transport and treatment of water	Mitigation Measure #3.4.7: Because the treatment facility is located immediately adjacent to the Friant Ranch Specific Plan Area, and potential impacts associated with its expansion are treated at a project level, all potential impacts and mitigation measures which would apply to construction associated with increasing treatment capacity would be covered by impact and mitigation measures #'s 3.4.1 to 3.4.6 of this DEIR. Similarly, potential impacts to biological resources resulting from construction of on-site conveyance systems, which would be needed to transport the treated water to end users, are covered by impacts and mitigation #'s 3.4.1 through 3.4.6 (for areas within the Friant Ranch Specific plan Site) and #'s 3.4.9 through 3.4.14 (for areas within the Friant Community Plan Area). No additional mitigation measures are warranted.	Applicant	Fresno County	Prior to construction
Impact #3.4.9 – Impacts of the Friant Community Plan to Candidate, Sensitive, or Special status Species				
Impact #3.4.9a - Vernal Pools and swales in the Friant Community Plan Area potentially contain spiny-seeped button celery. Projects within the Area have the potential to eliminate	Mitigation Measure # 3.4.9a: To ensure that there is no take of spiny-seeped button celery, the following measures shall be implemented. 1. Prior to the issuance of a grading permit within the Existing Friant Community Plan Area, a biological survey shall be conducted on the project site during the appropriate phenological period for spiny-	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
this species through grading and construction activities.	sepaled button celery. This period generally occurs between April 1 and May 31, but this species persists and is identifiable through July of most years. Surveys need only be conducted within vernal pools and swales capable of supporting this species. 2. If spiny-sepaled button celery is not present, no further action is warranted. If spiny-sepaled button-celery is found to occur on a project site, then the following actions shall be taken. a. Any population of spiny-sepaled button celery shall be completely avoided by grading and construction activities and there shall be no modifications to existing land management practices, or b. If any population of spiny-sepaled button celery cannot be avoided, then the project proponent must: Compensate for the loss of spiny-sepaled button celery at a ratio of 3 acres for each 1 acre of take, either through implementation of a conservation agreement or through purchase of conservation credits in an approved mitigation bank.			
Impact #3.4.9b – Impacts to vernal pool fairy shrimp	Mitigation Measure #3.4.9b: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are less than significant. 1. Prior to issuance of a grading permit, the project proponent must ensure that a qualified biologist conduct a survey for ephemeral pools which potentially support vernal pool fairy shrimp. That survey must be conducted during the wet season	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	(October through April), and immediately after a substantial rainfall event (of 0.5 inches of rainfall or more). If ephemeral pool habitat is found on the project site that is suitable for supporting vernal pool fairy shrimp, then the project applicant must ensure that a qualified biologist implement a standard vernal pool fairy shrimp protocol survey. Alternatively, the project applicant could assume presence of the vernal pool fairy shrimp and implement the provisions listed in a-d below. If vernal pool fairy shrimp or other sensitive vernal pool invertebrates are not found during protocol surveys, then no other actions are warranted. If vernal pool fairy shrimp are found, then the following measures shall be implemented: a. The Project shall avoid vernal pool fairy shrimp to the maximum extent feasible. b. Prior to the issuance of a grading permit the project applicant shall compensate for the loss of occupied ephemeral pool habitat through the conservation of vernal pool habitat at a ratio of two acres of conservation for each acre of such habitat directly and permanently disturbed by grading. Conservation of occupied ephemeral pool habitat shall be accomplished by placing a conservation easement on existing pools, either on-site or off-site, or by purchasing credits in an approved conservation bank that has the Existing Friant Community Plan Area within its service boundaries. c. A Section 10(a) 1b permit for take must be acquired from the United States Fish and Wildlife Service, or a Section 7 consultation must be conducted, whichever is appropriate.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	d. Prior to issuance of a grading permit for a project site, a Drainage Plan shall be prepared for the site. Elements of this plan shall include: ▪ Design plans to ensure that winter stormwater runoff into open space areas of the project site shall mimic to the maximum extent possible pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved ephemeral pools shall be roughly equivalent to pre-project conditions. ▪ All runoff originating in developed areas of the site shall pass through retention basins, bio-filtration swales, or both, which shall act together as stormwater filters such that water quality shall not be significantly reduced from pre-project conditions, and ▪ Irrigation runoff from landscaped areas shall be routed away from ephemeral pool habitats during the summer and fall to ensure that the hydrology of these habitats mimics pre-project conditions.			
Impact #3.4.9c - Impacts to the Valley elderberry longhorn beetle	Mitigation Measure #3.4.9c: The following measures shall be implemented to ensure that impacts to the Valley elderberry longhorn beetle are at levels that are less than significant. 1. Prior to issuance of a grading permit, the project proponent must ensure that a qualified biologist conduct a survey for elderberry bushes. If elderberry bushes with stem diameters of 1 inch or greater are found on or within 100 feet of the project site, then standard stem counts and searches for sign (e.g., exit holes) of the Valley elderberry	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	beetles must be conducted. 2. If elderberry bushes do not occur on or within 100 feet of the project site, then no further actions are warranted. 3. If elderberry bushes are found on or within 100 feet of the project site, then the following measures shall be implemented: a. For those bushes in which the beetle does not occur, construction within the 100 foot buffer area shall be allowed, provided that: ▪ A letter of concurrence shall be obtained from the United States Fish and Wildlife Service authorizing construction within the buffer area. ▪ A biologist is present on-site during construction within the 100 foot buffer area to monitor construction activities and ensure that there are no impacts to the elderberry bushes. ▪ Restoration of habitat within the 100 foot buffer area occurs once construction is complete, except in those instances where permanent facilities are constructed. The applicant must provide a written description to the USFWS of how the buffer areas are to be restored, protected, and maintained after construction is completed. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment). ▪ All areas to be avoided during construction activities shall be fenced and flagged. In areas where encroachment on the 100-foot buffer has been approved by the Service, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant. ▪ Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction. ▪ A qualified biologist shall conduct a training program for all construction contractors that shall be working on the project to inform workers of the need to avoid damaging elderberry plants and the possible penalties for not complying with these requirements. The training program must include information on the status of the beetle and the need to protect its elderberry host plant. ▪ No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant. ▪ Other protection measures and replacement of elderberry bushes, when applicable, are implemented as outlined in <i>Conservation Guidelines for the Valley Elderberry Longhorn Beetle</i> (USFWS 1999, Appendix H), b. For each bush in which the Valley elderberry longhorn beetle is found, the 100 foot buffer area shall be observed during the activity period of the Valley elderberry longhorn beetle (from April to July). Construction activities may occur within the 100 foot buffer area during other periods provided the mitigation measures outlined above are implemented and restoration within the buffer area is completed by beetle emergence (April). c. If elderberry bushes that contain elderberry longhorn beetles cannot be avoided and must be removed, then: ▪ Compensation for the loss of elderberry beetles must be accomplished through replanting of elderberries and other native plant species at ratios provided in <i>Conservation Guidelines for the Valley Elderberry Longhorn Beetle</i> (USFWS 1999, Appendix H), and ▪ A Section 10(a) 1B permit for take must be acquired from the United States Fish and Wildlife Service or a Section 7 consultation must be conducted.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	If the elderberry longhorn beetle is de-listed by the United States Fish and Wildlife Service prior to implementation of the Project, then these measures need not apply.			
Impact #3.4.9d – Impacts to the California tiger salamander	Mitigation Measure #3.4.9d: The following measures shall be implemented to ensure that impacts to the California tiger salamander are at levels that are <i>less than significant</i>: 1. Prior to issuance of a grading permit, the Applicant shall provide sufficient documentation that determines whether the site contains wetlands that could potentially support breeding California tiger salamanders. If so, the project proponent must ensure that a qualified biologist conduct a survey for wetlands which potentially support breeding California tiger salamanders. That survey must be conducted during the wet season (October through April), and immediately after a substantial rainfall event (of 0.5 inches of rainfall or more). 2. If wetlands are found on a project site that are suitable for supporting breeding California tiger salamanders, then the project applicant must either presume presence in all wetlands onsite and mitigate as prescribed in section 3(a) through (d) below as if breeding California tiger salamanders were found or ensure that a qualified biologist implement a standard California tiger salamander protocol survey (see Appendix I, California Tiger Salamander Protocol Survey). 3. If pools containing breeding California tiger salamanders are found, then the following measures shall be implemented:	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	a. The Project shall avoid California tiger salamanders to the maximum extent feasible. b. Prior to the issuance of a grading permit the project applicant shall compensate for the loss of occupied ephemeral pool habitat through the conservation of suitable ephemeral pool habitat at a ratio of two acres of conservation for each acre of such habitat directly and permanently disturbed by grading. Conservation of suitable ephemeral pool habitat shall be accomplished by placing a conservation easement on existing pools, either on-site or off-site, or by purchasing credits in an approved conservation bank that has the Friant Community Plan Area within its service boundaries. c. A Section 10(a) 1b permit for take must be acquired from the United States Fish and Wildlife Service, or a Section 7 consultation must be conducted. A 2080 or 2081 Management Agreement with the California Department of Fish and Game may also be needed if the California tiger salamander is listed as a State threatened or endangered species prior to development. d. Prior to issuance of a grading permit for the project site, a Drainage Plan shall be prepared for the site. Elements of this plan shall include: ▪ Design plans to ensure that winter stormwater runoff into open space areas of the project site shall mimic to the maximum extent possible pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved vernal pools shall be roughly			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	equivalent to pre-project conditions, ▪ All runoff originating in developed areas of the site shall pass through retention basins, bio-filtration swales, or both, which shall act together as stormwater filters such that water quality shall not be significantly reduced from pre-project conditions, and ▪ Irrigation runoff from landscaped areas shall be routed away from vernal pool habitats during the summer and fall to ensure that the hydrology of these habitats mimics pre-project conditions, 4. If grassland habitat is present on a project site that is capable of supporting aestivating California tiger salamanders (as determined by a qualified biologist), then compensation for the loss of aestivation habitat shall occur prior to issuance of a grading permit. Compensation shall be provided at a ratio of 0.5 acres for each 1 acre removed. Compensation shall be provided by establishing a permanent conservation easement on on-site or off-site grassland habitat that supports aestivating California tiger salamanders or by purchasing credits in an established California tiger salamander Conservation Bank that includes the Friant Community plan within its service area.			
Impact #3.4.9e – Impacts to the Western spadefoot	Mitigation Measure #3.4.9e: To reduce impacts to western spadefoots to a level that is less than significant, the following measures shall be implemented: 1. The western spadefoot utilizes the same habitats as the California tiger salamander for breeding and aestivation (ie, the western spadefoot breeds in			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	vernal pools and aestivates in rodent burrows of surrounding grasslands). Therefore, implementation of mitigation measures for the California tiger salamander (Mitigation Measures 3.4.9d) would reduce the impact to the western spadefoot to a less than significant level.			
Impact #3.4.9f - Impacts to the western pond turtle	Mitigation Measure #3.4.9f: The following measures shall be implemented to ensure that impacts to the western pond turtle are at levels that are less than significant: 1. Projects within the Existing Friant Community Plan Area shall maintain a 100 foot construction setback area from the Ordinary High Water Mark of the San Joaquin River (including any backwaters) and from the Ordinary High Water Mark of Lost Lake to protect potential basking sites and upland aestivation sites for the western pond turtle. 2. Projects exceeding one acre in size within the Existing Friant Community Plan Area shall be required to implement a stormwater pollution prevention plan and implement other protective measures as required in mitigation measure 3.4.11b for the protection of downstream water quality.	Applicant	Fresno County	Prior to construction
Impact #3.4.9g- Impacts to Swainson's hawks	Mitigation Measure #3.4.9g: The following measures shall be implemented to ensure that impacts to breeding and foraging Swainson's hawks are less than significant: 1. Prior to the issuance of any grading permits exceeding 5 acres in the southern half of the Existing Friant Community Plan Area (exclusive of the Friant Specific Plan Area, Depot Parcel, Beck Property, and Water Treatment Plant and associated pumping facilities), a qualified biologist shall	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	survey the site for Swainson's hawks. The survey area shall encompass all trees within 0.5 mile of the individual project site. Several projects proposed for construction within a single nesting period may use the results from a single survey, provided the surveyed is conducted within 0.5 mile or more from all individual project boundaries. The survey shall consist of: a. All trees within the survey area suitable for nesting by hawks shall be inspected by a qualified biologist b. Survey periods and survey lengths shall be: ▪ Period I. January-March 20. All trees shall be inspected at least once during this period to locate potential nests. The survey(s) may be conducted throughout daylight hours. ▪ Period II. March 20 to April 5. Survey sunrise to 10:00 a.m. and 4:00 p.m. to sunset. Three complete surveys are recommended within this period to locate hawks preparing to nest. ▪ Period III. April 5 to April 20. Survey sunrise to 12:00 p.m. and 4:30 p.m. to Sunset. Three surveys within this period recommended within this period to locate hawks preparing to nest. ▪ Period IV. April 21 to June 10. Monitor known nest sites only. ▪ Period V. June 10 to July 30 (post-fledging). Survey sunrise to 12:00 p.m.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	and 14:00 p.m. to sunset. 2. If Swainson's hawks are not found to nest within the survey area, then no further action is warranted. 3. If Swainson's hawks are found to nest within the survey area then the following measures shall be implemented: a. Foraging habitat shall be replaced at a ratio of 1 acre of grassland habitat known to provide foraging habitat for Swainson's hawk for each 1 acre of grassland habitat subject to grading and construction within the Community Plan Area. b. If construction is to occur within the breeding period for Swainson's hawk (15 February to 15 September), then a 2,500 foot radius no construction area is to be installed around each active Swainson's hawk nesting site. If a construction area falls within this nesting site, construction must be delayed until the young have fledged (left the nest). The 2,500 foot radius no construction zone may be reduced in size. A qualified biologist must conduct construction monitoring on a daily basis, inspect the nest on a daily basis, and ensure that construction activities do not disrupt breeding behaviors. In no case shall the no construction zone be reduced to less than 500 feet. c. Take of active or inactive Swainson's hawk nests shall be prohibited within the Existing Community Plan Area.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.9h –Impacts to burrowing owls	Mitigation Measure #3.4.9h – The following measures shall be implemented to ensure that impacts to the burrowing owl are less than significant: 1. A pre-construction survey shall be conducted for ground nesting raptors, including burrowing owls, within 14 to 30 days prior to initiation of site grading activities. If the grading activities are implemented in phases, then so shall the surveys be conducted in phases. If more than 30 days lapse between the time of the preconstruction survey (s) and the start of ground-disturbing activities, another preconstruction survey must be completed. This process should be repeated until the habitat is converted (e.g., graded and developed). The survey shall be completed in accordance with the survey requirements detailed in the CDFG's October 17, 1995 <i>Staff Report on Burrowing Owl Mitigation</i>. 2. If burrowing owls are identified onsite or within the area of influence of the project site (within 250 feet of the project site), an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the required mitigation site shall be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be $2 \times 6.5 = 13$ acres provided that no more than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	preconstruction survey, then the mitigation requirement shall be 3 x 6.5 = 19.5 acres). Two natural or artificial nest burrows shall be provided on the mitigation site for each burrow in the project area that shall be rendered biologically unstable. 3. If burrowing owls are present on the site and require relocation, an upland mitigation site for burrowing owls shall be designated as provided for in item 2 above. This site may be located within the on-site open space area or it may be located off site. The mitigation site must consist of grassland habitat, contain small mammals (or other prey), and ground squirrel burrows. The mitigation site must be approved by the California Department of Fish and Game. The area shall be preserved in perpetuity as wildlife habitat through a conservation easement that designates the California Department of Fish and Game, or any other qualified conservation organization as the Grantee of the easement. The mitigation area need not be identified prior to finding burrowing owls on the site, however advance planning would reduce the potential for construction delays. 4. If a Conservation Easement is established for burrowing owl mitigation, an endowment to cover the management of the area must be provided. The management fund shall be provided by the project applicant to the Grantee of the Conservation Easement within six months of breaking ground on the project site. 5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to be engaged in nesting behavior, a fenced 250 foot buffer would be required between the nest site(s)			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	(i.e., the active burrow(s)) and any earth-moving activity or other disturbance on the project site. This 250 foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a 160 foot buffer area will be established. If construction activities require the removal of an active den, the occupying burrowing owls must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity shall be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring shall be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as required in item 6 below. 6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring shall be conducted by a qualified biologist provided by the project applicant. Monitoring may be suspended or discontinued if, in the opinion of a qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading. Monthly reports of monitoring activities shall be submitted by the biologist to the project applicant, the County of			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Fresno, and the California Department of Fish and Game. A final report of all monitoring application shall be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.			
Impact #3.4.9i –Impacts to other nesting raptors	Mitigation Measure #3.4.9i: To protect breeding raptors, the following measures shall be implemented: The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys shall be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a 1,000 foot area of influence surrounding the Site. If construction begins between September 2 to February 28, nest surveys shall not be required since this is outside the typical breeding period for raptors. 1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys will be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a 300 foot area of influence surrounding the Site. If construction begins between September 2 to February 28, nest surveys will not be required since this is outside the typical breeding period for raptors. Surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified biologist. 2. If nesting raptors are identified during the surveys on the project site or within the 300 foot areas of influence, a 300-foot radius buffer around the nest	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer. 3. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can be terminated.			
Impact #3.4.9j – Impacts to common and special status nesting birds	Mitigation Measure #3.4.9j: To protect common and special status nesting birds, the following measures shall be implemented: 1. A nesting bird survey shall be conducted prior to commencing construction work (including site	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	grading and vegetation removal) if that work would commence between March 15th and August 31st. The nesting bird survey shall be conducted no greater than 30 days prior to commencement of work, nor sooner than 14 days prior to commencement of work. If the construction activities are conducted in phases, then so shall the survey be conducted in phases. 2. If special status birds are identified nesting on the construction area or within a 250 foot area of influence, a 150-foot non-disturbance radius around the nest must be fenced using orange plastic construction fencing or rope and stake fencing as previously described (this fencing requirement shall not replace or be constructed in lieu of fencing discussed above for impacts to nesting raptors). No construction or earth-moving activity shall occur within the 150-foot buffer until it is determined by a qualified biologist that the nest is no longer occupied and young have fledged (that is, left the nest and attained sufficient flight skills to avoid project construction activities). This typically occurs by July 1st, but the date may vary, and would need to be confirmed by a qualified biologist. Similarly, the qualified biologist could modify the size of the buffer based upon site conditions and the bird's apparent acclimation to human activities. 3. If non-special status birds are identified nesting in any tree or shrub proposed for removal, tree removal would have to be postponed until it is determined by a qualified biologist that the young have fledged and have attained sufficient flight skills to leave the project site. Typically, most passerine birds can be expected to complete nesting by July 1st, with young attaining sufficient flight skills by this date that are sufficient for young to			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	avoid project construction zones. Unless otherwise prescribed for special status bird species, upon completion of nesting no further protection or mitigation measures would be warranted for nesting birds. The mitigation measure shall be implemented by the project applicant and the construction contractor. 4. Results of the surveys and monitoring shall be provided in monthly monitoring reports submitted to the project applicant, County of Fresno, and the California Department of Fish and Game.			
Impact #3.4.9k. – Impacts to the American Badger	Mitigation Measure #3.4.9k: The following measures shall be implemented to ensure that impacts to American badgers are <i>less than significant</i>: 1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground disturbing activities) are phased, then so shall the pre-construction surveys be phased. 2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy. All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s). 4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunrise to sunset) should be prohibited. 5. Off-road construction traffic outside of designated construction areas shall be prohibited. 6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor. 7. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	8. American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped. 9. During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site. 10. No firearms shall be allowed on the project site during construction activities.			
Impact #3.4.9I – Impacts to the pallid bat and western mastiff bat	Mitigation Measure # 3.4.9I: Implementation of the following measures shall reduce impacts to the pallid bat and the western mastiff bat to levels that are less than significant: 1. Prior to the removal of trees or the demolition of buildings, a qualified biologist shall conduct a pre-construction survey between 14 and 30 days prior to activities, to inspect buildings and trees for the presence of bats. If pallid bats or western mastiff bats are identified to be roosting in the trees or	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	structures, those trees or structures shall not be removed until: - Permanent, elevated bat houses have been installed outside of, but near the construction area. Placement and height shall be determined by a qualified biologist, but the height of bat house shall be at least 15 feet. Bat houses shall be multi-chambered and be purchased or constructed to the specifications provided in Appendix J (bat house design). The number of bat houses required shall be dependant upon the size and number of colonies present, but at least 1 bat house shall be installed for each pair of bats (if occurring individually) or each colony of bats found. - Bats have been passively relocated from the tree or structure by progressively boarding up any entrances at night while bats are foraging away from the tree or structure. Relocation of bats may not be performed during the breeding season (March 1 to September 15).			
Impact #3.4.10 – Impacts to riparian habitat or other sensitive natural communities within the Existing Friant Community Plan Area	Mitigation Measure #3.4.10: The following measure shall be implemented to reduce impacts to riparian habitats and other sensitive natural communities to a level that is <i>less than significant</i>: The distribution of riparian habitats and other sensitive natural communities within the Existing Friant Community Plan Area shall be mapped prior to issuance of any grading permit. All mapping shall be accomplished using high resolution aerial photographs (1 meter accuracy or better) and be verified by ground inspections using sub-meter GPS. The final map of the distribution of these habitat types shall be rendered using GIS at sub-	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	meter accuracy. All riparian areas and other sensitive natural communities shall be avoided by construction activities, including grading, unless the following measures are implemented prior to site grading: a. The following measures shall be conducted prior to removal of riparian habitat or other sensitive natural community: ▪ A Stream Alteration Agreement (SAA) must be obtained prior to removal of riparian habitat, unless it is determined by the California Department of Fish and Game that SAA is not necessary. ▪ For each 1 acre of riparian habitat or other sensitive natural community removed, a total of 3 acres of in-kind habitat shall be acquired by fee title, placed into a permanent conservation easement, and a management endowment provided. Any riparian habitat acquired must be located along the San Joaquin River in Fresno or Madera Counties. ▪ Temporary disturbance to riparian habitat may be mitigated by restoration. A restoration plan must be prepared in cooperation with the California Department of Fish and Game and a SAA must be obtained if required by the California Department of Fish and Game.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.11 – Impacts to federally protected wetlands and other waters within the Existing Friant Community Plan Area	Mitigation Measure #3.4.11a: The following measures shall be implemented to reduce impacts to wetlands and other waters to a level that is <i>less than significant</i>: - Prior to issuing a grading permit for a project within the Existing Friant Community Plan Area, a survey for potential wetlands shall be conducted. If potential wetlands are present, a wetland delineation to ACOE standards shall be conducted for the project site. Either a single wetland delineation can be prepared for the entire Existing Community Plan Area, or individual delineations can be prepared for each project. Regardless, the USACE must verify the delineation(s) and, if necessary, appropriate Clean Water Act 401 and 404 permits be obtained. - Prior to the issuance of a grading permit in areas containing jurisdictional wetlands the project applicant shall acquire, or purchase and donate a conservation easement on, suitable off-site lands in Fresno and/or Madera County for the creation/restoration of wetlands and other waters to compensate for any wetlands and other water bodies subject to the jurisdiction of the USACE that are directly and permanently disturbed by grading and construction associated with the project. The creation/restoration of such wetlands and other waters shall be at a ratio of one acre of created/restored wetlands and other jurisdictional waters for each acre of jurisdictional wetlands and other waters directly and permanently disturbed by grading and construction associated with the project development. Creation/restoration of wetland habitat and other water bodies shall be accomplished by one or a combination of the following two mitigation alternatives: - Off-Site Creation/Restoration. The Project	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	applicant shall conserve through acquisition or conservation easement, off-site lands suitable for the creation/restoration of wetlands and other water bodies in Fresno, Madera, or Merced County. Such lands shall have the following characteristics: natural undisturbed native wetlands and habitat suitable for threatened and endangered plant and animal species shall be absent (i.e., these lands shall have been previously disturbed by farming, or some other intensive human use); native wetlands and/or other water bodies once occurred on these lands naturally; the soils and hydrology of these lands are suitable for the creation of naturally occurring wetlands and other water bodies; and the natural topography has not been eliminated through land leveling. Topographic depressions, swales and naturalistic drainage channels shall be created/restored on these lands according to a “mitigation and monitoring plan” prepared by a qualified biologist. These engineered features must be inundated and/or experience soil saturation for a duration sufficient to naturally support hydrophytic vegetation native to wetlands of the region. All engineered wetlands and other water bodies shall be revegetated with native hydrophytic species. The wetland creation/restoration plan prepared by the biologist shall provide for long-term management of the mitigation site, mitigation objectives by which the success of the mitigation can be measured, and a monitoring plan for determining the success of the mitigation. The components of this mitigation and monitoring plan shall be consistent with standard USACE guidelines.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	b. Purchase of Wetland Creation Credits from a Conservation Bank. The Project applicant shall pay the market rate for Wetland Creation Credits at a 1:1 ratio from a Conservation Bank whose service area includes the Friant Community Plan Area.			
Impact #3.4.11b - Impacts to water quality in seasonal creeks, reservoirs, and other downstream waters	Mitigation Measure #3.4.11b: To ensure protection of water quality in the San Joaquin River and other downstream waters, the following measures shall be implemented: 1. Prior to the onset of construction which would disturb one acre or more, an erosion control plan shall be prepared by a qualified engineer consistent with the requirements of a Fresno County grading permit and a General Construction Permit (an NPDES permit issued by the Regional Water Quality Control Board for projects in which one or more acres of land are graded). Typically, specified erosion control measures must be implemented prior to the onset of the rainy season. Each project site must then be monitored periodically throughout the rainy season to ensure that the erosion control measures are successfully preventing on-site erosion and the associated deposition of sediment off the project site. Elements of this plan would address both the potential for soil erosion and non-point source pollution. At a minimum, elements of an erosion control plan typically include: a. Protection of exposed graded slopes from sheet, rill and gully erosion. Such protection could be in the form of erosion control fabric, hydromulch containing the seed of native soil-binding plants, straw mechanically imbedded in exposed soils, or some combination of the three.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	b. Protection of natural drainage channels from sedimentation. c. Use of best management practices (BMPs) to control soil erosion and non-point source pollution. BMPs may include measures in 1 and 2 above, but they may include any number of additional measures appropriate for this particular project site and this particular project, including grease traps in parking lots, landscape management practices to reduce the use of pesticides and herbicides, the discharge of stormwater runoff from “hardscapes” into grassy swales, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc. 2. Where possible, project construction should be confined to the dry season, when the chance for significant rainfall and stormwater runoff is very low. Construction during the spring, summer, and fall shall not eliminate the need to implement erosion control measures described in mitigation measures above, but shall ensure that the threat of soil erosion has been minimized to the maximum extent possible. 3. All post-construction runoff shall be routed through a system of grease traps, stormwater retention/detention basins, and bio-filtration swales to ensure that water quality of on-site and off-site wetlands, creeks and rivers are maintained at roughly pre-project levels.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.12 – Impacts to Fish or Wildlife Movement Corridors within the Existing Friant Community Plan Area	Mitigation Measure #3.4.12: Implementation of mitigation measures 3.4.10, 3.4.11a and 3.4.11b shall ensure that the riparian zone around the San Joaquin River and water quality in the San Joaquin River are maintained at level that are appropriate for fish and wildlife migratory movements. No other mitigation measures are warranted.	Applicant	Fresno County	Prior to construction
Impact #3.4.13 – Consistency with local policies or ordinances protecting biological resources within the Friant Community Plan Area	Mitigation Measure #3.4.13a: Mitigation Measures to Ensure Consistency with Local Policies or Ordinances Protecting Biological Resources: Implementation of mitigation measures 3.4.9a through 3.4.9l shall compensate for potential loss of foraging and/or breeding habitat for special status plant and wildlife species. Mitigation Measures #3.4.10, #3.4.11a and #3.4.11b provide for protection and compensation of riparian and wetland habitats potentially affected by projects within the Existing Friant Community Plan Area, and mitigation for potential impacts to water quality downstream of projects. These measures shall also serve to maintain habitat functions and values in riparian and wetland areas and control siltation and pollutant entry into these habitats. Along with mitigation measures prescribed in Chapter 3.8 of this EIR, “Hydrology and Water Quality”, the mitigation measures just described shall ensure consistency with local ordinances and policies, including the County General Plan Policies.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.4.13a: Implementation of the various mitigation measures described in the preceding paragraph required for projects within the Existing Friant Community Plan Area shall ensure compliance with County General Plan Policies.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.4.13b: To ensure compliance with State and local ordinances protecting oak trees and oak woodland habitat, the following measure shall be implemented: Replanting of individual oak trees removed: To compensate for individual oak trees removed by project construction, oaks will be replanted at a ratio of 1:2 for every oak removed, or compensation will be in the form of contribution of funds to the Oak Woodlands Conservation Fund.(Section 1363 of the Fish and Game Code), or some combination of these.	Applicant	Fresno County	Prior to construction
Impact #3.5.1 – Substantial Adverse Changes in the Significance of Historical and/ or Archaeological Resources and Destruction of Unique Paleontological Resources	Mitigation Measure #3.5.1a: Given that excavation is ultimately destructive and avoidance is generally the preferred alternative and consistent with Fresno County General Plan policy, the preferred mitigation is that the significant cultural resource site (CA-FRE-2653) be placed within a development exclusion zone, thus avoiding impacts to the significant cultural resource site (CA-FRE-2653). Subsurface testing suggests that the cultural deposit is contained within a limited area, which roughly coincides with the identified midden deposit and the area of bedrock milling features. Prior to issuance of a grading permit affecting the area surrounding the significant cultural resource site (CA-FRE-2653), the developer shall do one of the following: 3.5.1a(1): Retain a qualified archaeologist to identify and mark the boundaries of the cultural deposit so that it is avoided during construction. The significant cultural resource site (CA-FRE-2653) shall be included within a designed open space within the Friant Ranch Specific Plan Area, which may include interpretive information regarding the archaeological site; or 3.5.1a(2): If avoidance of the significant cultural resource site (CA-FRE-2653) through design, during	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	construction activities, and long-term protection are not feasible, then treatment of significant effects on the site(s) shall be accomplished through a program of controlled data recovery. A qualified archaeologist shall meet at the site and review the development plans vis-à-vis the significant cultural resource site (CA-FRE-2653) area and put together a data recovery plan (Phase III) to recover the information that would be lost as a result of Project development. The archaeologist shall excavate the significant cultural resource site (CA-FRE-2653) and recover the materials that would otherwise be destroyed. The bedrock milling features shall be thoroughly documented; therefore any adverse impacts as a result of disturbance to these features would be mitigated. Such work is designed to compensate for the impacts of the Project by collecting a representative sample of the cultural remains and other data that would otherwise be destroyed.			
	Mitigation Measure #3.5.1b: A qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by the developer to monitor construction activities around the significant cultural resource site (CA-FRE-2653) to ensure that there is no impact to any significant cultural resource. Prior to construction, the developer shall consult with a designated representative of the Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.5.1c: Cultural resource sites protected pursuant to mitigation measure 3.5.1a(1) shall be protected after development from vandalism, illicit excavation or artifact collection. The County shall discuss measures for long-term protection with the Dumna Wo-Wah Tribal Government, and an appropriate	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	plan for permanent protection of the resource shall be instituted by the developer prior to issuance of building permits for the Friant Ranch Specific Plan. The final plan could include any or all of the following: permanent fencing; funding for permanent maintenance of the fencing; annual or semi-annual monitoring by archaeologists and/or by the Dumna Wo-Wah Tribal Government with reports filed with the County and other agencies; acquisition of the site by a group such as the Archaeological Conservancy.			
	Mitigation Measure #3.5.1d: During construction within the Friant Ranch Specific Plan Area, protected cultural resource sites (including CA-FRE-2651, -2652, -2653) shall be protected from vandalism, illicit excavation or artifact collection, or inadvertent direct impact. This may be accomplished in part through the installation of orange protective fencing prior to initiation of any construction activities within 200 feet of the site area.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.5.1e: If unknown cultural resources are discovered during Project construction, all work in the area of the find shall cease, and a qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall	Applicant	Fresno County	During construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.			
	Mitigation Measure #3.5.1f: Construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the Project Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any construction within the Project area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.5.1g: If unknown cultural resources are discovered during future development in the existing Friant Community Plan Area, including the Depot parcel, all work in the area of the find shall cease, and a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50	Applicant	Fresno County	Prior to and during construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.			
	Mitigation Measure #3.5.1h: Future construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the existing Friant Community Plan Area (other than Friant Depot Parcel and Friant Ranch Specific Plan Area), and shall be instructed in the identification of artifacts, bone and other potential resources. For any future construction within the existing Friant Community Plan Area (other than Friant Depot Parcel and Friant Ranch Specific Plan Area), all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.5.2 – Disturbance of Human Remains	Mitigation Measure #3.5.2: If human remains are encountered during Project construction, all work shall cease within 50 feet of the find and the Fresno County Coroner's Office shall be contacted and procedures implemented pursuant to California Public Resources Code Section 5097 et seq. and California Health and Safety Code Sections 7050.5, 7051, and 7054 with respect to treatment and removal, Native American involvement, burial treatment, and re-burial, if necessary.	Applicant	Fresno County	Prior to and during construction
Impact #3.7.6 – Emergency Preparedness	Mitigation Measure #3.7.6a: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a Community Facilities District shall be formed to provide funding for additional fire protection services in the Project Area sufficient to satisfy the standards set forth in the Fresno County Health and Safety Element.	Applicant	Fresno County	Prior to issuance of a building permit
	Mitigation Measure #3.7.6b: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD shall be established to provide the funding necessary to maintain adequate law enforcement staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.	Applicant	Fresno County	Prior to issuance of a building permit
Impact #3.8.3 – Alteration of the Existing Drainage Pattern and Stormwater Drainage Capacity	Mitigation Measure #3.8.3a: Storm drain design for the Friant Ranch Specific Plan portion of the Project shall be in accordance with approved LID management practices, as recommended in the Friant Ranch IMP and its appendices. The suggested management practices include but are not limited to the following:	Applicant	Fresno County	Prior to issuance of building permit

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	1. LID IMPs: a) Bioretention (Rain Gardens) – A practice using landscaped areas on individual lots to hold and infiltrate stormwater. b) Dry Well – Small excavated trenches backfilled with stone, designed to hold and slowly release rooftop runoff. c) Filter/Buffer Strip – Bands of close-growing vegetation, usually grass, planted between pollutant source areas and a downstream receiving water body. d) Swales – Two types of swales may be used. Grass swales provide both quantity (volume) and quality control by facilitating stormwater infiltration. Wet swales use residence time and natural growth to reduce peak discharge and provide water quality treatment before discharge to a downstream location. e) Infiltration Trench – An excavated trench that has been backfilled with stone to form a subsurface basin. Stormwater runoff is diverted into the trench and is stored until it can be infiltrated into the soil. f) Pervious Concrete – A special structural concrete without fine aggregates. This creates 15 to 30 percent voids, allowing water to pass through to a gravel layer and the native soil underneath while maintaining the structural strength of standard concrete pavement. Pervious concrete also provides demonstrable water quality treatment to the waters passing			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	through its structure. 2. Inlet and Outlet Structures: Inlet and Outlet Structures shall be a type and configuration rated to accept the SDMP design flow at the inlet and outlet locations shown on the SDMP. 3. Pipelines: Storm drain pipeline design shall conform to the Storm Drain Master Plan (SDMP). Pipeline soffits shall be designed a minimum of one (1) foot below the hydraulic grade line (HGL) or to the soffit control elevation shown in the hydraulic calculations. The design of the storm drain pipeline below the HGL insures full pipe flow and reduces the chance of water seal breaks in the pipe and other hydraulic inefficiencies during pipeline use. Design of pipeline below the soffit control elevation insures proper pipeline performance in sections of the pipe where flow is in the open channel condition due to steep grade construction. 4. Culverts and Open Channels: Culverts and open channels shall be designed to the standards of the Federal Highway Administration Hydraulic Design of Highway Culverts (HDS-5, September 2001 or current) and the Fresno County Design Standards. The culverts and channels shall be designed to convey the critical storm event for the Friant Ranch project. 5. Detention & Retention Basins: Detention and Retention basin design calculations			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	and minimum basin geometries are provided in Appendix A of the IMP (see Appendix N). The basin geometry for each watershed differs depending on many factors, including the contributing drainage area and the design flow volume. Retention basins are designed to maintain the predevelopment runoff volume by storing the peak storm runoff above a base flow; retention basins in this case have also been sized to provide the storage volume necessary to give the detention time required for water quality control. Detention basin storage is designed to maintain the predevelopment peak runoff rate while capturing all runoff above that amount. Conceptual basin locations are shown in the SDMP. These locations have been selected to work with the existing ground topography and the overall master-planned drainage concept. Exact basin locations shall be determined by the developer, after precise site layouts are determined. The basins shall be permitted to shift, so long as the function provided for in the SDMP is maintained, or appropriate modifications are made to the SDMP as discussed above. Prior to issuance of a grading permit for the Friant Ranch Specific Plan, the Fresno County Engineering Department shall review the project detention and retention basin designs for conformance with the basin calculations and conformance with the basin design guidelines provided in the Friant Ranch IMP.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.10.1 – Exposure to Excessive Noise Levels or Vibration	Mitigation Measure #3.10.1a: 1. Prior to issuance of any grading permit for new public and private development proposals within the Friant Community Plan Area, the County shall review the proposal to determine conformance with the policies of the Fresno County General Plan and the Friant Community Plan. 2. Where the development of any future project within the Friant Community Plan Area (other than the Friant Ranch Specific Plan Area and Depot Parcel) may result in noise sensitive land uses being exposed to existing or projected future noise levels exceeding the levels specified by the policies of the General Plan and Community Plan, the County shall require that an acoustical analysis be submitted as part of the entitlement application that designates that adequate noise mitigation is included in the project design to comply with County standards. 3. Prior to issuance of a grading permit for proposed development within the Friant Community Plan Area (other than the Friant Ranch Specific Plan Area and Depot Parcel), site-specific acoustical analyses shall be conducted to determine setbacks and any other feasible mitigation measures (e.g. berms, site design, location of structures, noise walls/barriers) required to reduce traffic noise to levels that meet County design standards and comply with the Fresno County Noise Ordinance.	Applicant	Fresno County	Prior to and during construction
Impact #3.10.2 – Construction Noise	Mitigation Measure #3.10.2a: Construction projects and any other noise generators shall be regulated by the standards identified in Chapter 8.40 of the Fresno County Ordinance Code.	Applicant	Fresno County	On going

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.10.2b: Effective mufflers shall be fitted to gas- and diesel-powered equipment to reduce noise levels as much as practicable.	Applicant	Fresno County	On going
	Mitigation Measure #3.10.2c: All construction activities shall be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 7:00 a.m. to 5:00 p.m., Saturday and Sunday.	Applicant	Fresno County	On going
Impact #3.12.1 – Increased Demand for Fire Protection Services and Personnel	Mitigation Measure #3.12.1: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD shall be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-H.2, PF-H.5 and PF-H.8. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.	Applicant	Fresno County	Prior to issuance of building permit
Impact #3.12.2 – Increased Demand for Law Enforcement Services	Mitigation Measure #3.12.2: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD shall be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.	Applicant	Fresno County	Prior to issuance of building permit
Impact #3.13-1 (TR-20): The Project will cause the level of service to fall below the minimum acceptable level of service	Mitigation Measure #3.13-1 (TR-20): The Project shall construct traffic signals at the intersection of Friant Road and the Site Access intersection north of Lost Lake Road prior to construction of the 201 st residential unit and prior to the construction of any commercial/office	Applicant	Fresno County	The applicant shall post the funds required for the signal prior to construction of the 201 st residential unit and prior to the construction of any

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
at the intersection of Friant Road and the Site Access north of Lost Lake Road.	aspects of the Project if an engineering study indicates that the signals are warranted at that time. The applicant shall utilize the services of a traffic engineer to determine if traffic signals are warranted based on CMUTCD traffic signal warrants. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director.			commercial/office aspects of the Project if an engineering study indicates that the signals are warranted at that time. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director.
Impact #3.13-2 (TR-6): The Project will cause the level of service to fall below the minimum acceptable level of service at the intersection of Friant Road and Lost Lake Road.	Mitigation Measure #3.13-2 (TR-6): The Project shall construct traffic signals at the intersection of Friant Road and Lost Lake Road prior to construction of the 201 st residential unit and prior to the construction of any commercial/office aspects of the Project if an engineering study indicates that signals are warranted at that time. The applicant shall utilize the services of a traffic engineer to determine if traffic signals are warranted based on CMUTCD traffic signal warrants. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director.	Applicant	Fresno County	The applicant shall post the funds required for the signal prior to construction of the 201 st residential unit and prior to the construction of any commercial/office aspects of the Project if an engineering study indicates that the signals are warranted at that time. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
				install traffic signals at the intersection when they are warranted at the discretion of the Director.
Impact #3.13-3: The Project will contribute to the following deficiencies to Caltrans intersections:	Mitigation Measure #3.13-3: Prior to issuance of a building permit, the applicant shall contribute to its pro rata share of the cost of future off-site traffic improvements to Caltrans intersections through payment of a per trip fee to Caltrans. If Caltrans has not established a per trip fee prior to issuance of a building permit, the applicant shall contribute a fair share fee to the County for the identified improvements based on the then-current estimated traffic volume attributable to the Project. If the Measure C Regional Transportation Mitigation Fee program establishes a fair share fee for an intersection(s) identified above, the applicant may satisfy this mitigation requirement through payment of said fee. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The traffic improvements and current Caltrans fees or estimated percentage of the 2030 cumulative traffic volume are as follows:			
Impact #3.13-3a (TR-1): The Project will exacerbate anticipated delays and a cumulative LOS that will fall below the minimum acceptable LOS in the 2030 condition without the Project at the intersection of SR 41 and Road 145 under the 2030 cumulative condition	Mitigation Measure #3.13-3a (TR-1): The intersection of SR 41 and Road 145 should be converted to an interchange by the year 2030. Caltrans has not established a set fee for this intersection at this time. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	shown in Table 3.13-22) is 3.2%.			
Impact #3.13-3b (TR-2): The Project will exacerbate existing delays and an existing LOS already below the minimum acceptable LOS at the intersection of SR 41 and Avenue 12, and is expected to exacerbate a cumulative LOS that will fall below the acceptable LOS in the anticipated 2030 cumulative condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-3b (TR-2): The intersection of SR 41 and Avenue 12 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small total peak hour traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 0.5%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-3c (TR-3): The Project will exacerbate an existing LOS already below the minimum acceptable LOS at the intersection of SR 41 and Avenue 15, and is expected to exacerbate a cumulative LOS that will fall below the acceptable	Mitigation Measure #3.13-3c (TR-3): The intersection of SR 41 and Avenue 15 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
LOS in the anticipated 2030 cumulative condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 0.8 %.			
Impact #3.13-3d (TR-11): The Project will exacerbate a cumulative LOS anticipated to fall below the minimum acceptable LOS in the 2030 cumulative condition without the Project at the intersection of Friant Road and the SR 41 northbound off ramp. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-3d (TR-11): The intersection of Friant Road and the State Route 41 northbound offramp is expected to operate at LOS C with the addition of a fifth westbound through lane. It is contemplated that a future Measure C Regional Transportation Mitigation Fee program may include mitigation for this intersection. Caltrans typically collects per-trip fees for this interchange as follows: - Widen Friant Road under SR 41 with four additional lanes, \$900 per trip; - SR 41 northbound on ramp from eastbound Friant Road: additional ramp lane and auxiliary lane, \$757 per trip; and - SR 41 northbound on ramp from westbound Friant Road: additional ramp lane and auxiliary lane, \$1,300 per trip.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-3e (TR-12): The Project will exacerbate anticipated delays and unacceptable LOS in the cumulative 2030 No Project condition at the intersection of Friant Road and SR 41	Mitigation Measure #3.13-3e (TR-12): The intersection of Friant Road and the State Route 41 southbound offramp is expected to operate at LOS C with the addition of a second southbound left-turn lane and a second southbound right-turn lane. It is contemplated that a future Measure C Regional Transportation Mitigation Fee program may include mitigation for this intersection. Caltrans typically	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
southbound off ramp. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. The Project shall have an individually and cumulatively significant impact on this intersection.	collects per-trip fees for this interchange as follows: ▪ Widen Friant Road under SR 41 with four additional lanes, \$900 per trip; ▪ SR 41 southbound on ramp from westbound Friant Road: additional ramp lane and auxiliary lane, \$1,200 per trip; ▪ SR 41 southbound on ramp from eastbound Friant Road: additional ramp lane and auxiliary lane, \$1,200 per trip; and ▪ SR 41 southbound off ramp to Friant Road: additional ramp lane and auxiliary lane, \$834 per trip.			
Impact #3.13-4: The Project will contribute to the following deficiencies to Madera County intersections and roadways:	Mitigation Measure #3.13-4: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements necessary to accommodate the 2030 cumulative condition through payment of a fair share fee to Fresno County and/or Madera County as appropriate. The traffic improvements and, where an improvement is identified, the estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22 and 3.13-23) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-4a (TR-4): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition at the intersection of Road 145 and Road 206. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-4a (TR-4): The intersection of Road 145 and Road 206 will require signalization with two northbound left-turn lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 7.2 %.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13.4b (TR-34): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition on the Madera County segment of Road 206, including the bridge, west of Friant Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13.4b (TR-34): The Madera County segment of Road 206, including the bridge, west of Friant Road should be widened to four lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5: The Project will contribute to the following deficiencies to Fresno County* intersections and roadways:	Mitigation Measure #3.13-5: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and, where an improvement is identified, the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22 and 3.13-23) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5a (TR-5): The Project will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Friant Road and North Fork Road (Road 206) under the 2030 no Project condition. The Project's	Mitigation Measure #3.13-5a (TR-5): The intersection of Friant Road and North Fork Road (Road 206) should be signalized to achieve an acceptable level of service (LOS C). The ultimate lane configurations required are as follows: Northbound: two left-turn lanes and two through lanes with a shared right turn Southbound: one left-turn lane, two through lanes, and one right-turn lane Eastbound: two left-turn lanes, one through lane, and two right-turn lanes Westbound: one left-turn lane and one shared	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
contribution to the anticipated cumulative condition is cumulatively considerable.	through/right-turn lane The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 17.2%. This signalization shall also provide an opportunity to satisfy the Friant Community Plan Policy 1.6 which states, “<i>Identify key locations for safe pedestrian access across Friant Road and install crosswalks, signage, lighting, traffic signals, and/or pedestrian signals, as warranted.</i>”			
Impact #3.13-5b (TR-6): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Friant Road and Lost Lake Road under the 2030 no Project condition. The Project’s contribution to the anticipated cumulative condition is cumulatively considerable. However, mitigation measure 3.13-1a requires the applicant to construct the requisite improvement.	Mitigation Measure #3.13-5b (TR-6): No additional mitigation required. See Mitigation Measure 3.13-1.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Construction of the intersection will achieve a LOS B with the cumulative condition plus Project and thus reduce the Project's contribution to less than cumulatively considerable.				
Impact #3.13-5c (TR-7): The Project will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Friant Road and Willow Avenue under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5c (TR-7): Signalization of the intersection of Friant Road and Willow Avenue to achieve an acceptable level of service (LOS B). The ultimate lane configurations required are as follows: Northbound: one left-turn lane (protected), two through lanes, and one right-turn lane Southbound: two left-turn lanes (protected), two through lanes with a shared right turn Eastbound: one shared lane (permissive) Westbound: one shared left-turn/through lane (permissive) and one right-turn lane The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 29.6%.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-5d (TR-13): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Winchell Cove Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5d (TR-13): Signalization of Millerton Road and Winchell Cove Road and widening of Millerton Road to four lanes at this intersection is needed to achieve appropriate levels of service to accommodate the 2030 cumulative condition plus the Project. Mitigation Measure 3.13-5n requires payment of a fair share fee for the widening of Millerton Road between North Fork Road (Road 206) and Sky Harbour Road. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 3.3%. The Measure C Tier 2 Rural project plans to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road. However, the Tier 2 projects are not yet funded.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5e (TR-14): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Brighton Crest Drive under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5e (TR-14): The intersection of Millerton Road and Brighton Crest Drive should be signalized and Millerton Road should be widened to four lanes to accommodate the 2030 cumulative condition plus Project. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 3.7%. The Measure C Tier 2 Rural project plans to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road. However, the Tier 2 projects are not yet funded.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5f (TR-15): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Sky	Mitigation Measure #3.13-5f (TR-15): The intersection of Millerton Road and Sky Harbour Road should be signalized and Millerton Road should be widened to four lanes to provide an acceptable level of service (LOS A) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Harbour Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	3.13-22) is 2.9%. The Measure C Tier 2 Rural project plans to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road. However, the Tier 2 projects are not yet funded.			
Impact #3.13-5g (TR-16): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Table Mountain Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5g (TR-16): The intersection of Millerton Road and Table Mountain Road should be signalized and Millerton Road should be widened to four lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 2.1%.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5h (TR-17): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Auberry Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5h (TR-17): The intersection of Millerton Road and Auberry Road should be signalized. The intersection will likely require either two northbound left turn lanes on Millerton Road or an extended single left-turn lane to accommodate queues up to approximately 600 feet in length in the ultimate condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 1.8%.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-5i (TR-18): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Copper Avenue and Auberry Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5i (TR-18): The intersection of Copper Avenue and Auberry Road should be signalized to provide an acceptable level of service (LOS B) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22 is 0.7%. The ultimate lane configurations required are as follows: Southbound: one left-turn lane and one right-turn lane Eastbound: two left-turn lanes and two through lanes Westbound: two through lanes with a shared right turn.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5j (TR-21): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Willow and Copper Avenues under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5j (TR-21): The intersection of Willow and Copper Avenues should be signalized to provide an acceptable level of service (LOS D) under the 2030 condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 10.6%. The additional lanes on Willow Avenue are included in the Measure C Tier 1 Urban project to widen Willow Avenue to six lanes between Copper Avenue and Barstow Avenue.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5k (TR-27): The Project will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that will fall below the minimum acceptable	Mitigation Measure #3.13-5k (TR-27): None feasible. Friant Road between North Fork Road (Road 206) and Lost Lake Road requires six lanes to achieve an acceptable LOS (LOS C or better). Widening this segment of Friant Road to six lanes is not feasible due to the physical constraints of the adjacent land uses and the Fresno County General Plan policy that prohibits six lane rural roadways. Although the Measure C Tier 1	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
LOS under the 2030 no Project condition at the following County of Fresno segments of Friant Road: - Between North Fork Road (Road 206) and Parker Avenue; - Between Parker and Granite Avenues; - Between Granite and Root Avenues; and - Between Root Avenue and Lost Lake Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Rural project widening Friant Road to four lanes between Copper Avenue and Millerton will partially mitigate this impact, the impact will remain significant and unavoidable.			
Impact #3.13-5I (TR-30): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition on Willow Avenue between Friant Road and Silaxo Avenue. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5I (TR-30): Willow Avenue should be widened to four lanes between Friant Road and Silaxo Avenue to provide an acceptable level of service (LOS B) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 18.9%.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-5m (TR-31): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition on Willow Avenue between Silaxo Avenue and Copper Avenue. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5m (TR-31): Willow Avenue should be widened to four lanes between Silaxo Avenue and Copper Avenue to provide an acceptable level of service (LOS B or better) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 18.9%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5n (TR-33): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition on Millerton Road at the following locations: ▪ Between North Fork Road (Road 206) and Winchell Cove Road; ▪ Between Winchell Cove Road and Brighton Crest Drive; ▪ Between Brighton Crest Drive and Sky Harbour Road; ▪ Between Sky Harbour Road and Table Mountain Road; ▪ Between Table	Mitigation Measure #3.13-5n (TR-33): Millerton Road should be widened to four lanes between Road 206 and Sky Harbour Road to provide LOS C or better. The Measure C Tier 2 Rural project to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road would mitigate a portion of the impact. However, the Tier 2 projects are not yet funded. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Road 206 to Winchell Cove is 4.8%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Winchell Cove to Brighton Crest is 4.0%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Brighton Crest to Sky Harbour is 3.2%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Sky Harbour to Table Mountain is 2.4%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Mountain Road and Auberry Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	from Table Mountain to Auberry is 2.0%.			
Impact #3.13-5o (TR-34): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition on the Fresno County segment of Road 206, including the bridge, west of Friant Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5o (TR-34): Road 206, including the bridge, west of Friant Road for the Fresno County segment should be widened to four lanes to provide an acceptable level of service (LOS C or better) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5p (TR-35): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable level of service in the anticipated 2030 No Project condition at the intersection of Friant Road and Parker Avenue. However, traffic signal warrants on Parker Avenue are not satisfied at this unsignalized intersection.	Mitigation Measure #3.13-5p (TR-35): None feasible. Peak-hour traffic signal warrants for Parker Avenue are not expected to be satisfied at the intersection. The County may consider constructing a median to prevent left turns from Parker Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants on Parker Avenue are not satisfied and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact will remain adverse but not significant .	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. As such, the Project’s contribution to the anticipated cumulative condition is adverse but not significant .				
Impact #3.13-5q (TR-36): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable level of service in the anticipated 2030 No Project condition at the intersection of Friant Road and Granite Avenue. However, traffic signal warrants on Granite Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic	Mitigation Measure #3.13-5q (TR-36): None feasible. Peak-hour traffic signal warrants are not expected to be satisfied at the intersection on Granite Avenue. The County may consider constructing a median to prevent left turns from Granite Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants are not satisfied on Granite Avenue and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact will remain adverse but not significant .	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
volume does not satisfy traffic signal warrants. As such, the Project's contribution to the anticipated cumulative condition is adverse but not significant .				
Impact #3.13-5r (TR-37): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable level of service in the anticipated 2030 No Project condition at the intersection of Friant Road and Root Avenue. However, traffic signal warrants on Root Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. As such, the Project’s contribution to the anticipated cumulative condition is adverse but not significant.	Mitigation Measure #3.13-5r (TR-37): None feasible. Peak-hour traffic signal warrants on Root Avenue are not expected to be satisfied at the intersection. The County may consider constructing a median to prevent left turns from Root Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants on Root Avenue are not satisfied and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact will remain adverse but not significant	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
*Fresno County roadways and intersections that also fall within the jurisdictions of City of Fresno and City of Clovis are addressed in Impact # 3.13-6 and 3.13-7.				
Impact #3.13-6: The Project will contribute to the following deficiencies to City of Fresno* roadways and intersections:	Mitigation Measure #3.13-6: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22 and 3.13-23) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-6a (TR-9): The Project will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition at the intersection of Friant Road and Shepherd Avenue. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-6a (TR-9): The intersection of Friant Road and Shepherd Avenue should be provided with a second northbound right-turn lane in addition to the funded third westbound left-turn lane and third southbound through lane to achieve an acceptable level of service (LOS C). The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22) is 6.3%.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-6b (TR-9): The Project will exacerbate existing delays and an existing LOS already below the minimum acceptable LOS at the intersection of Friant Road and Audobon Drive, and is expected to exacerbate anticipated delays and a cumulative LOS that will fall below the acceptable LOS even without the Project under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-6b (TR-9): None feasible. The intersection of Friant Road and Audubon Drive is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is significant and unavoidable .	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-6c (TR-10): The Project will exacerbate delays and a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition at the intersection of Friant Road and Fresno Street. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-6c (TR-10): None feasible. The intersection of Friant Road and Fresno Street is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is significant and unavoidable .	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-6d (TR-19): The Project will exacerbate an existing LOS already below the minimum acceptable LOS at the intersection of Audobon Drive and Nees Avenue, and is expected to exacerbate delays and a cumulative LOS that will fall below the acceptable LOS even without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-6d (TR-19): The intersection of Nees Avenue and Audubon Drive should be signalized with two eastbound left-turn lanes to provide an acceptable level of service (LOS D) under the existing and the 2030 cumulative condition. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for improvements at this intersection, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct this major improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 2.0%. The intersection is funded by the City of Fresno Traffic Signal Mitigation Impact Fee.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-6e (TR-28): The Project will contribute to an unacceptable LOS on the City of Fresno segment of Friant Road between Champlain Avenue and Ft. Washington Road under the 2030 cumulative condition (2030 with Project). The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-6e (TR-28): Friant Road between Champlain Avenue and Ft. Washington Road will require six lanes to provide an acceptable level of service (LOS D or better) under the 2030 cumulative condition. The City of Fresno has planned for this improvement in its capital improvement program and its current citywide traffic fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 14.7%.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-6f (TR-29): The Project will contribute to an existing and cumulative LOS already below the minimum acceptable LOS on the following City of Fresno segments of Friant Road: - Between Shepherd Avenue and Audubon Drive. - Between Audubon Drive and Fresno Street; and - Between Fresno Street and SR 41.	Mitigation Measure #3.13-6f (TR-29): None feasible. The City of Fresno General Plan identifies the need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue to accommodate the anticipated cumulative conditions due to regional growth and accepts LOS F with six lanes since additional widening is not feasible due to physical constraints associated with the adjacent land uses. This condition, as already contemplated and accepted in the City of Fresno General Plan, is significant and unavoidable .	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7: The Project will contribute to the following deficiencies to intersections and roadways within the shared jurisdiction of City of Clovis and City of Fresno:	Mitigation Measure #3.13-7: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and, where an improvement is identified, the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22 and 3.13-23) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7a (TR-22): The Project will exacerbate existing and anticipated future delays and will contribute to a cumulative level of service below the minimum acceptable level of service at the intersection of Willow Avenue and Nees Avenue in the 2030 plus	Mitigation Measure #3.13-7a (TR-22): None feasible. The intersection of Willow Avenue and Nees Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. This impact is significant and unavoidable .	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
project condition. The Project's contribution to the anticipated 2030 cumulative condition is cumulatively considerable.				
Impact #3.13-7b (TR-23): The Project will exacerbate anticipated delays and contribute to a cumulative level of service that will fall below the minimum acceptable level of service at the intersection of Willow Avenue and Herndon Avenue in the 2030 plus project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-7b (TR-23): None feasible. The intersection of Willow Avenue and Herndon Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Herndon Avenue and accepts LOS F with six lanes since additional widening is not feasible. This impact is significant and unavoidable .	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7c (TR-24): The Project will exacerbate anticipated delays and a cumulative level of service that will fall below the minimum acceptable level of service at the intersection of Willow Avenue and Sierra Avenue in the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-7c (TR-24): None feasible. The intersection of Willow Avenue and Sierra Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. Therefore, this impact is significant and unavoidable .	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
considerable.				
Impact #3.13-7d (TR-25): The Project will exacerbate existing delays, and will exacerbate anticipated delays and a cumulative level of service below the minimum acceptable level of service at the intersection of Willow Avenue and Bullard Avenue under the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-7d (TR-25): None feasible. The intersection of Willow Avenue and Bullard Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. Therefore, this impact is <i>significant and unavoidable.</i>	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7e (TR-26): The Project will exacerbate existing delays at the intersection of Willow Avenue and Barstow Avenue. The Project will also exacerbate anticipated delays and a cumulative level of service that will fall below the minimum acceptable level of service at the intersection of Willow Avenue and Barstow Avenue under the 2030 condition without the Project. The Project's contribution to the	Mitigation Measure #3.13-7e (TR-26): The intersection of Willow Avenue and Barstow Avenue should be widened to the following lane configurations to provide an acceptable level of service (LOS D) in the 2030 cumulative condition. - Northbound: two left-turn lanes, three through lanes, one right-turn lane - Southbound: two left-turn lanes, three through lanes, one right-turn lane - Eastbound: one left-turn lane, two through lanes, and two right-turn lanes - Westbound: one left-turn lane and two through lanes with a shared right turn. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
anticipated cumulative condition is cumulatively considerable.	3.13-22) is 1.0%.			
Impact #3.13-7f (TR-32): The Project will exacerbate a cumulative LOS that falls below the minimum acceptable level of service under the 2030 condition without the Project on Willow Avenue at the following locations: - Between Alluvial and Herndon Avenues; - Between Herndon and Sierra Avenues; - Between Sierra and Bullard Avenues; and - Between Bullard and Barstow Avenues. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-7f (TR-32): None feasible. The City of Fresno General Plan identifies the ultimate need for six lanes on Willow Avenue between Alluvial and Barstow Avenues and accepts LOS E. The City of Clovis requires LOS D. A width of six lanes is typically considered the maximum width for roadways in Fresno even when additional lanes are warranted (for example, Herndon Avenue and Friant Avenue are limited to six lanes even where the ultimate mitigation requires more lanes). The proposed Project does not create the need for additional lanes. The Project's share of this cumulative impact is considered to be <i>significant and unavoidable</i>.	Applicant	Fresno County	As determined by Fresno County
Impact #3.14.1 –Water Supply	Mitigation Measure #3.14.1: Prior to recordation of any final subdivision map within the Friant Community Plan area, inclusive of the Friant Ranch Specific Plan, a water transfer agreement to serve the proposed development shall be approved by the USBR, WWD 18 and/or the LTRID as appropriate. Approval and execution of the water transfer agreement for the full project water amount shall be required prior to approval	Applicant	Fresno County	Prior to recordation of a final subdivision map

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	of any land use entitlements.			
Impact #3.14.3 – Inadequate Wastewater Treatment Capacity and Facilities	Mitigation Measure #3.14.3a: All new development in the Friant Community Plan area, inclusive of the Friant Ranch Specific Plan, shall comply with Fresno County General Plan policy PF-D.2, which requires that any new community sewer and wastewater treatment facilities serving residential subdivisions be owned and maintained by a County Service Area or other public entity approved by the County, such as Waterworks District No. 18.	Applicant	Fresno County	Prior to development
	Mitigation Measure #3.14.3b: Adequately sized on-site collection facilities, including lift stations, shall be installed for each subdivision in the Specific Plan area concurrent with road construction for individual subdivisions. A “backbone” conveyance system sufficient to serve each subdivision shall be installed prior to issuance of building permits for that subdivision.	Applicant	Fresno County	Prior to issuance of building permits
	Mitigation Measure #3.14.3c: Wastewater collection, treatment and disposal of the Friant Ranch Specific Plan Area shall adhere to Section VI of the Friant Ranch Infrastructure Master Plan. The applicant and/or WWD 18 must demonstrate adherence to Section VI of the Friant Ranch Infrastructure Master Plan prior to issuance of an occupancy permit for development within the Friant Ranch Specific Plan Area.	Applicant	Fresno County	Prior to issuance of occupancy permit
	Mitigation Measure #3.14.3d: Commitments from the wastewater treatment provider to receive anticipated flows from the Friant Ranch Specific Plan Area and Millerton Lake Village Mobile Home Park at the WWTP shall be secured by Fresno County prior to County approval of improvement plans for wastewater collection and transmission infrastructure.	Applicant	Fresno County	Prior to approval of improvement plans

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.14.3e: Prior to issuance of building permits for each increment of new development within the Project Area, the County shall confirm that all necessary permits (e.g., NPDES) are in place for the WWTP to discharge additional treated effluent in the amounts associated with new development. This shall include a determination that development timing shall not impede other development for which entitlements have been issued.	Applicant	Fresno County	Prior to issuance of building permits
	Mitigation Measure #3.14.3f: Prior to approval of improvement plants and wastewater collection and infrastructure, the applicant must demonstrate to the County that on- and off-site sewer pipelines shall have watertight joints and be in accordance with design standards adopted by Fresno County in order to minimize the potential for accidental discharge.	Applicant	Fresno County	Prior to approval of improvement plans
	Mitigation Measure #3.14.3g: The design plans for the WWTP shall incorporate appropriate and cost-effective odor and noise reduction measures as described in the Infrastructure Master Plan, to the satisfaction of the Fresno County Public Works and Planning Department prior to issuance of the conditional use permit for the WWTP.	Applicant	Fresno County	Prior to issuance of CUP for the WWTP
Impact #3.14.6 – Compliance with Federal, State, and Local Solid Waste Regulations	Mitigation Measure #3.14.6a: Contractors shall be required to provide on-site separation of construction debris to assure a minimum 50% diversion of this material from the landfill.	Applicant	Fresno County	On going
	Mitigation Measure #3.14.6b: A source-separated green waste program shall be implemented within the project area, subject to review and approval by the Fresno County Department of Public Works and Planning, Resources and Parks Division.	Applicant	Fresno County	On going

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.14.7 – Development of the Community Plan area shall increase the demand for electricity and natural gas and shall result in the need to construct new infrastructure to serve the Community Plan area	Mitigation Measure #3.14.7a: The Specific Plan applicants and subsequent developers within the Community Plan area shall work closely with PG&E or other utility provider to ensure that development of electrical and natural or propane gas infrastructure with the capacity to service the proposed development is located and provided concurrently with roadway construction and in accordance with PUC regulations. The applicant(s) shall grant all necessary easements for installation of electrical and natural/propane gas facilities, including utility easements along existing and future on-site arterial roads. Coordination with PG&E and/or alternative providers shall occur, and any required agreements shall be established prior to recordation of a final subdivision map.	Applicant	Fresno County	On going
	Mitigation Measure #3.14.7b: Implement Mitigation Measure 3.3.2 as set forth in Section 3.3 of this Draft EIR.	Applicant	Fresno County	See mitigation for specific time span
Impact #3.15.1 – Development of the Project could potentially result in a cumulatively considerable incremental contribution to the significant cumulative impact of global climate change	Mitigation Measure #3.15.1a: The applicant shall select and locate trees carefully to protect buildings from energy consuming environmental conditions, and to shade paved areas. Trees selected to shade paved areas should be species that shall shade 25% of the paved area within 20 years.	Applicant	Fresno County	Prior to development
	Mitigation Measure #3.15.1b: The applicant shall distribute a tree planting informational packet to help project area residents understand their options for planting trees that can absorb carbon dioxide.	Applicant	Fresno County	Prior to resident occupancy

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.15.1c: Prioritized parking within commercial and retail areas shall be given to electric vehicles, hybrid vehicles, and alternative fuel vehicles.	Applicant	Fresno County	Prior to resident occupancy
	Mitigation Measure #3.15.1d: The County shall utilize the following guidelines during review of future project-specific submittals for non-residential development within the Specific Plan area and the Community Plan boundary: ▪ Equip HVAC units with a PremAir or similar catalyst system, if reasonably available and economically feasible at the time building permits are issued. Catalyst systems are considered feasible if the additional cost is less than 10% of the base HVAC unit cost; and ▪ Install two 110/208 volt power outlets for every two loading docks.	Applicant	Fresno County	Prior to resident occupancy
	Mitigation Measure #3.15.1e: Develop walking trails throughout the Friant Ranch Specific Plan Area in accordance with the plan	Applicant	Fresno County	Prior to resident occupancy
	Mitigation Measure #3.15.1f: Implement the following measures as determined appropriate by the County in consultation with the SJVAPCD: ▪ Establish paving guidelines that encourage businesses, if feasible, to pave all privately-owned parking areas with a substance with reflective attributes (albedo = 0.30 or better) similar to Portland cement concrete. The use of a paving substance with reflective attributes similar to Portland Cement concrete is considered feasible under this measure if the additional cost is less than 10% of the cost of applying a standard asphalt	Applicant	Fresno County/SJVAPCD	Prior to development

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	product.			
	Mitigation Measure #3.15.1g: The following measures shall be used singularly or in combination to accomplish an overall reduction of 10 to 20% in residential energy consumption relative to the requirements of the 2008 State of California Title 24: ▪ Prior to issuance of an occupancy permit, the applicant shall demonstrate the use of air conditioning systems that are more efficient than Title 24 requirements; ▪ In marketing materials associated with any project within the Friant Community Plan Area, the applicant shall encourage the use of high-efficiency heating and other appliances, such as water heaters, cooking equipment, refrigerators, and furnaces; ▪ Encourage photovoltaic rooftop energy systems in community buildings and larger commercial buildings. ▪ Prior to issuance of an occupancy permit, the applicant shall establish tree-planting guidelines that require residents to plant trees to shade buildings primarily on the west and south sides of the buildings. Use of deciduous trees (to allow solar gain during the winter) and direct shading of air conditioning systems shall be included in the guidelines. ▪ As required by the Friant Specific Plan, prohibit any wood-burning fireplaces, woodstoves, or similar wood-burning devices. This prohibition shall be included in any CC&Rs that are established.	Applicant	Fresno County	Prior to issuance of occupancy permit

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.15.1h: The following measures shall be used to demonstrate sustainable building practices and lessen the impact on Greenhouse Gases.: ▪ Provide parks and open space throughout the residential developments as required by the Friant Ranch Specific Plan; ▪ Prior to issuance of an occupancy permit, all non-residential projects within the Community Plan Area shall demonstrate that bicycle racks shall be provided. ▪ Prior to issuance of an occupancy permit, all apartment complexes or condominiums without garages within the Community Plan Area shall demonstrate that at least two Class I bicycle storage spaces per unit shall be provided; ▪ As required by the Friant Community Plan Update and Friant Ranch Specific Plan, residential neighborhoods shall be interconnected, with easy access to commercial and recreational land uses. ▪ Prior to issuance of an occupancy permit within the Friant Ranch Specific Plan area, the applicant shall create informational materials informing occupants of: - o The alternative travel amenities provided, including ridesharing and public transit availability schedules. - o The Community Plan’s pedestrian, bicycle, and equestrian paths to community centers, shopping areas, employment areas, schools, parks, and recreation areas; - o The SJVAPCD programs to reduce county-wide emissions.	Applicant	Fresno County/SJVAPCD	Prior to issuance of occupancy permit

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	▪ Any new park areas within the Community Plan Area shall include: - o Bicycle racks at all appropriate locations; and - o A community notice board and information kiosk with information about community events, ride sharing, and commute alternatives. ▪ Provide a community notice board and information kiosk with information about community events, ride-sharing, and commute alternatives.			

SECTION THREE
COMMENTS AND RESPONSES

SECTION THREE – COMMENTS AND RESPONSES

Section 3.1 below, provides a list of all agencies, organizations and individuals that submitted comments on the accuracy and sufficiency of the Draft EIR (DEIR). The comment letters, and responses to environmental issues raised in those letters, are presented in Sections 3.2 and 3.3, respectively. Section 3.4 provides a summary of the DEIR public hearing/participation meeting held December 9, 2009. This Final EIR (FEIR) includes responses to all comments received.

3.1 *List of Commenters*

The following agencies, organizations and individuals provided oral and written comments on the DEIR:

- | | |
|---|--|
| 1. Scott Morgan
Acting Director | Governor's Office of Planning & Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814 |
| 2. Robin Tani
Planning & Resource Analyst | County of Fresno
Site Plan Review
2220 Tulare Street, 6 th floor
Fresno, CA 93721 |
| 3. Richard Perkins | County of Fresno
Zoning
2220 Tulare Street, 6 th floor
Fresno, CA 93721 |
| 4. Paula Graham
Employment Services Representative | County of Fresno
Employment Services Employment Development
3302 N Blackstone Ave Ste 155
Fresno, CA 93726 |
| 5. Jane Smith | SMITHJ@slc.ca.gov |
| 6. Joe Prado
Principal Staff Analyst | County of Fresno
Public Works & Planning, Resources Division
2220 Tulare Street, 6 th Floor
Fresno, CA 93721 |
| 7. Robert Mansfield, REA
Planner III | Madera County Resource Management Agency
Planning Department
2037 W. Cleveland Avenue
Madera, CA 93637 |

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| 8. Glenn Allen, REHS, M.S.
Supervising Environmental Health
Specialist | County of Fresno
Environmental Health Division
1221 Fulton Mall, Third Floor
Fresno CA 93775-1867 |
| 9. Michael Navarro | California Department of Transportation
Office of Transportation Planning – District 06
1352 West Olive Avenue
Fresno, CA 93778-2616 |
| 10. David Warner,
Director of Permit Services

Matthew Cegielski for
Arnaud Marjollet
Permit Services Manager | San Joaquin Valley Air Pollution Control District
Central Region
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244 |
| 11. Jeffrey R. Single, Ph.D.
Regional Manager | California Department of Fish and Game
Central Region
1234 East Shaw Avenue
Fresno, CA 93710 |
| 12. Mark Amorino
Field Supervisor | Consolidated Mosquito Abatement District
2425 Floral Avenue
Selma, CA 93662 |
| 13. Scott Harmstead
Planner III | Madera County Resource Management Agency
Planning Department
2037 W. Cleveland Avenue
Madera, CA 93637 |
| 14. Lucinda Roth
Plan Development Supervisor | San Joaquin Valley Air Pollution Control District
Central Region
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244 |
| 15. Robert Ledger, Chairperson

Jim Redmoon, Cultural Resources
Manager | Dumna Wo-Wah Tribal Government
P.O. Box 467
Fresno, CA 93709 |
| 16. Sharon Weaver
Deputy Director | San Joaquin River Parkway and Conservation and
Trust, Inc.
11605 Old Friant Road
Fresno, CA 93730-9701 |

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| 17. Steve Ward
Associate Superintendent | Clovis Unified School District
Administrative Services
1450 Herndon Avenue
Clovis, CA 93611-0599 |
| 18. Dan Otis
Williamson Act Program Manager | Department of Conservation
Division of Land Resource Protection
801 K Street MS 18-01
Sacramento, CA 95814 |
| 19. Andrew T. Souza
City Manager | City of Fresno
2600 Fresno Street
Fresno, CA 93721-3601 |
| 20. Margaret Mims
Sheriff

Lt. Mike Lancaster
Area 2 Commander | County of Fresno Sheriff's Office
2200 Fresno Street
Fresno, CA 93717 |
| 21. Charles M. Ashley | wattsvalleypreservation@gmail.com |
| 22. Melinda S. Marks
Executive Officer | San Joaquin River Conservancy
5469 E. Olive Avenue
Fresno, CA 93727 |
| 23. William R. Stretch, P.E.
Chief Engineer | Fresno Irrigation District
2907 S. Maple Avenue
Fresno, CA 93725-2218 |
| 24. Irina Greener
Geologist | County of Fresno
Public Works & Planning Department
Development Services Division
Water, Geology & Natural Resources
2220 Tulare Street, 6 th Floor
Fresno, CA 93721 |
| 25. Debra Bates
WRC Engineer | California Regional Water Quality Control Board
Central Valley Region
1685 E Street
Fresno, CA 93706 |
| 26. William D. Ross
Attorney | Law Offices of William D. Ross
520 South Grand Avenue, Suite 300
Los Angeles, CA 90071-2610 |

27. Dennis Bacopulos Operating Manager	Friant Ranch L.P. 1322 East Shaw Avenue, Suite 340 Fresno, CA 93710
28. Kathy Millison City Manager	City of Clovis 1033 Fifth Street Clovis, CA 93612
29. William D. Ross Attorney	Law Offices of William D. Ross 520 South Grand Avenue, Suite 300 Los Angeles, CA 90071-2610
30. Novice Tavaréz	Mrs. Novice Tavaréz P.O. Box 512 Friant, CA 93626
31. S. McKeeman	S. McKeeman P.O. Box 506 Friant, CA 93626
32. Chris Acree Executive Director	Revive the San Joaquin 5132 N. Palm Avenue, PMB 121 Fresno, CA 93704

3.2 Written Comment Letters

Letters received during the public review period and during the hearing on the DEIR are included as [Appendix P](#) to this document.

3.3 Responses to Comments

This section restates each of the comments received on the DEIR during the public review period. Following each comment is a response intended to either supplement, clarify, or amend information provided in the DEIR, or refer the commenter to the appropriate place in the DEIR and FEIR where the requested information is found. Each letter and corresponding response is numbered for reference. Comments not directed to significant environmental issues are included in this section; responses thereto indicate that the comment has been “noted” and will be forwarded to the County decision making body for review and consideration during the public review process for the Project.

Comment Letter #1

Governor's Office of Planning & Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

Comment 1.1: *The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 15, 2009, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.*

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916)445-0613 if you have any questions regarding the environmental review process.

Response 1.1: Comment noted. The comment letters forwarded by the State Clearinghouse are addressed in the responses to Comment Letters 9, 11 and 18.

Comment Letter #2

County of Fresno
Site Plan Review
2220 Tulare Street, 6th floor
Fresno, CA 93721

Comment 2.1: *Since a specific commercial or multi-family development is not proposed at this time the Site Plan Review Section has no comments.*

Response 2.1: Comment noted. No response warranted.

Comment Letter #3

County of Fresno
Zoning
2220 Tulare Street, 6th floor
Fresno, CA 93721

Comment 3.1: *No DEIR comments from Zoning.*

Response 3.1: Comment noted. No response warranted.

Comment Letter #4

County of Fresno
Employment Services Employment Development
3302 N Blackstone Ave Ste 155
Fresno, CA 93726

Comment 4.1: *I was pleased to be able to speak with you this morning. I am an Employment Services Representative with the Employment Development Department. It is good to see the progress being made for the development and restoration of the Friant Community. I have reviewed the project descriptions and am optimistic regarding the changes to come. I would like to offer the services of the Employment Development Department to assist the companies that are involved in this project. We will be glad to utilize our experience and resources to meet the hiring needs to help make this project a success. We have access to a diverse workforce which also includes our many skilled Veterans and other groups. This will help to facilitate your employment diversity needs. Please share my information with the employers involved so they will be able to contact me for assistance.*

Response 4.1: The County appreciates the Employment Development Department's offer to assist the companies involved in the Project with their hiring needs. Should they request assistance, the County would be pleased to provide them with your contact information.

Comment Letter #5

Jane Smith
SMITHJ@slc.ca.gov

Comment 5.1: *My main concern is whether there is any development proposed west of Friant Road, immediately adjacent to the River.*

Response 5.1: Friant Road is the western boundary for the Friant Ranch Specific Plan Area; however, the existing Friant Community Plan boundary is east of Friant Road and remains unchanged in the proposed Friant Community Plan Update. As noted on page 2-1 of the DEIR, the Friant Community Plan Update will expand the Friant Community Plan boundary to include

all of the Friant Specific Plan Area within the Community Plan Area. The development proposed by the Friant Ranch Specific Plan is entirely east of Friant Road. The Friant Depot Parcel is also entirely east of Friant Road. In a November 4, 2009 email, the County offered to send the commenter a CD of the project document upon receipt of her address.

Comment 5.2: *Briza, would you be kind enough to confirm that this EIR is related to the proposed incorporation of an additional 920 acres (Friant Ranch Specific Plan) into the Friant Community Plan and that all of the proposed development will be east of Friant Road?*

Response 5.2: The Project Area analyzed in the EIR includes 1,804 acres, including 942 acres comprising the Friant Ranch Specific Plan Area. The development proposed by the Friant Ranch Specific Plan is entirely east of Friant Road which serves as the western boundary of the Friant Ranch Specific Plan Area. The western boundary of the Existing Friant Community Plan Area and allowable development outside of the Friant Ranch Specific Plan Area and the Friant Depot Parcel (which is east of Friant Road) remain unchanged by the proposed Friant Community Plan Update. See Section 2.4 for the DEIR for a complete Project description.

Comment Letter #6

County of Fresno
Public Works & Planning, Resources Division
2220 Tulare Street, 6th floor
Fresno, CA 93721

Comment 6.1: *Street lighting for Friant Ranch will not be provided by a CSA. As discussed with Alan Weaver, WWD 18 will pursue LAFCO approval to be responsible for the street lighting for Friant Ranch. The applicant prefers that WWD 18 be responsible for street lighting, However, HOA responsibility for the street lighting remains a viable option that has been and will continue to be considered.*

Response 6.1: Comment noted. No response warranted.

Comment 6.2: *The LAFCO reference is on page 7 of the 2007 Notice of Preparation. It seems the HOA would already have some responsibilities and thus street lighting should be expanded in the HOA's scope. Now that I look at it closer it seems its labeled under LAFCO but it may not have been them recommending it. Please advise how this will move forward and if street lighting would be required to be provided by a CSA.*

It seems LAFCO has made a recommendation that lighting services be provided under CSA 44. I don't concur with this recommendation. A more efficient proposal would be that the HOA provide the service. I believe that's the comments I made when we first commented on the project. Water and wastewater are being provided by WWD #18 so no issues there. Is there a proposed HOA in the plan?

Response 6.2: The homeowners' association and/or Water Works District No. 18 will be responsible for street lighting within the Friant Ranch Specific Plan Area.

Comment Letter #7

Madera County Resource Management Agency
Planning Department
2037 W. Cleveland Avenue
Madera, CA 93637

Comment 7.1: *Page 1-12, Mitigation Measure #3.1.4, Time Span is listed as "Prior to Construction" whereas the wording in the mitigation measure would lead the reader to believe that mitigations will occur after completion of construction.*

Response 7.1: The commenter is correct. Mitigation Measures #3.1.4a and #3.1.4b require actions to be initiated once construction is complete. The text of the DEIR, page 1-12, will be revised as follows:

Mitigation Measure #3.1.4a, Time Span ~~Prior to construction~~ Upon completion of construction

Mitigation Measure #3.1.4b, Time Span ~~Prior to construction~~ Upon completion of construction

Comment 7.2: *Page 1-73 Mitigation Measure #2.5.12 implies that there is the potential of discovery of resources during construction while the Time Span indicates prior to construction. Revise.*

Response 7.2: Chapter One does not include a Mitigation Measure #2.5.12; however, Table 1-1 of the DEIR includes Mitigation Measures #3.5.1d and #3.5.1e. Because the Time Span for Mitigation Measure #3.5.1d is appropriate, we have assumed that the commenter intended that the Time Span for Mitigation Measure #3.5.1e be addressed. The Time Span for Mitigation Measure #3.5.1e, will be revised as follows:

Mitigation Measure #3.5.1e, Time Span ~~Prior to construction~~ During construction

Comment 7.3: *Page 1-80 Mitigation #3.10.2c indicates hours of construction that would be acceptable. However, in previous mitigations, it would seem as if construction would be permitted outside these hours. Please clarify.*

Response 7.3: Previous noise Mitigation Measures (#3.10.2a and #3.10.2b) provide noise mitigation in addition to the limited hours of construction as shown in Mitigation Measure #3.10.2c. Construction activity is limited to the hours specified in Mitigation #3.10.2c.

Comment 7.4: *Same page and mitigation, it is suggested that the hours of construction for Saturday be changed to a later start time and earlier end time, especially if construction were to occur in areas where there are residential units already occupied. Along the same logic, it is suggested that the Sunday hours be eliminated.*

Response 7.4: Limited hours of construction activity as shown in Mitigation Measure #3.10.2c are determined by the Fresno County Noise Ordinance. These are standard County-wide regulations.

Comment 7.5: *Page 3-12, "Interior lighting..." This paragraph discusses how interior residential lighting has the potential of spilling out onto neighboring development and the road system. The way the paragraph is written would make the reader assume that light spillage from residences was a significant issue requiring some form of shielding or other measures to reduce the impact. Granted, one could potentially see residential interior lighting depending on the orientation of structures and point of view of the observer, interior lighting should not be much of an impact to cause a problem. One could make the point that it falls under the consideration of "light pollution" in terms of aesthetics, but overall should not require any special consideration. More consideration should be given to those lights outside of the residential structures (i.e. street lights) that could potentially be more of an impact if not shielded/hooded or directed downwards.*

Response 7.5: The paragraph is intended to include interior lighting as a source of potential light pollution that should be addressed. This section also addresses other potential light pollution impacts. As noted on DEIR page 3-11, "Common sources of light and glare are advertising signs, streetlights, and light or reflective surfaces of buildings...Light pollution is a potential impact from the operation of any light source at night." The analysis and mitigation contained in this section is applicable to all sources of light and glare.

Comment 7.6: *Pages 3-12 to 3-13, mitigation measures for lighting. The section included discussion of light spillage from interior residences and buildings; however there are no mitigations readily apparent to address that issue. It is suggested to either remove the discussion of interior lighting being an impact, or include mitigations appropriate to the impact.*

Response 7.6: See Response 7.5 above.

Comment 7.7: *Page 3-16, in the discussion of the Williamson Act, the information provided is incorrect. The way it is written in this document it is implied that the initial ten year term must first expire before additional years are added baring submission of a notice of non-renewal. However, this is incorrect. Per the process, each year, unless otherwise provided for in the contract, the contract adds a year until such time as a notice of non-renewal is submitted.*

Response 7.7: Although the DEIR correctly states that contracts are renewed automatically, the language could cause confusion. The DEIR, page 3-16, will be revised as follows:

Williamson Act

The California Land Conservation Act (Williamson Act) was established in 1965 to protect agricultural lands from conversion to non-agricultural use. Owners of land placed under Williamson Act contract ~~receive~~ pay lower property tax rates; ~~but must keep in exchange for keeping the land in agricultural production or related use, during 10-year contracts that are~~ Contracts are automatically renewed annually, and are in effect for an on-going each subsequent year (after the initial 10-year period) unless a notice of non-renewal is filed.

Comment 7.8: *Page 3-16. Fresno County Zoning, missing a close parenthesis after "12,000); and A-c should probable read A-C.*

Response 7.8: The text of the DEIR, page 3-16, will be revised as follows:

Fresno County Zoning

The existing zoning designations for the Friant Community Plan Area include (reference Figure 3.2-4): TP (Trailer Park); R-E (Recreational District); R-A (Single-Family Residential Agricultural District); R-2 and R-2-A (Low Density Multifamily Residential); R-1 and R-1-B (Single-Family Residential, 12,000); C-R (Commercial Recreation); C-6 (General Commercial); AL-20 (Limited Agriculture); and A-~~C~~C (Agricultural Commercial Center).

Comment 7.9: *Page 3-94, top of page, "...The occurrence of elderberry bushes would be, especially likely..." no need for the comma in this sentence.*

Response 7.9: The text of the DEIR, page 3-94, will be revised as follows:

The occurrence of elderberry bushes would be, especially likely in the Great Valley Mixed Riparian Forest located along the San Joaquin River.

Comment 7.10: *Page 3-94, Kern brook lamprey paragraph. In the first sentence, lamprey is capitalized, while in the second sentence, it is not. Choose style and maintain it throughout.*

Response 7.10: The text of the DEIR, page 3-94, will be revised as follows:

Kern brook lamprey

There are no records in the CNDDDB for the Kern brook ~~L~~lamprey on the Friant Ranch Specific Plan Site (Figure 3.4-6).

Comment 7.11: *Page 3-107, Mitigation #3.4.1d, number 3 discusses off-site locations for preservation of the California Tiger Salamander (CTS), which includes portions of Madera County. This provision does not discuss how and where in Madera County these off-site habitats will be provided for. Further discussion into this matter should be included in the EIR as it would appear to not be fully analyzed,*

Response 7.11: The DEIR identifies three off-site preserves that could be preserved and managed in perpetuity under conservation easement. See Table 3.4-3 (DEIR at page 3-108) and related discussion. One off-site preserve, the Friant Ranch preserve, is located in Fresno County immediately east of the Friant-Kern Canal, just east of the Project site. A second off-site preserve, the Norhnberg parcel, is located north of Highway 145 and northeast of Bonadelle Ranchos. A third off-site preserve, the Klein-Morgan parcel, is located north of Highway 145 and approximately 0.5 miles east of the Norhnberg parcel. These parcels have now been acquired by the Specific Plan applicant and are feasible off-site mitigation parcels to be preserved in perpetuity under conservation easement. The Specific Plan applicant has purchased and now owns all three of the off-site mitigation parcels identified in the DEIR Table 3.4-3 and will grant conservation easements in each of the three off-site preserves to a credible non-profit conservation trust, like the Sierra Foothill Conservancy, to ensure preservation in perpetuity as required by Mitigation Measures #3.4.1d, #3.4.1e, #3.4.3a(1), #3.4.3a(2)(a) and #3.4.5. The Specific Plan applicant will provide financial assurances to the designated conservation trust to ensure sufficient funds to maintain and monitor the conservation values of each of these preserves. The identified off-site preserves consist of grasslands, vernal swales, and vernal pools, and are known to provide habitat for vernal pool fairy shrimp and California tiger salamander, as well as other special status plant and animal species.

The text of the DEIR (pages 3-107 & 3-108) has been amended as follows to include a reference to a new figure, Figure 3.4-7, which illustrates the locations of the three “Proposed Off-site Habitat Preserves:”

At full buildout the project will eliminate approximately 694.5 acres of suitable on-site aestivation habitat. Under this mitigation measure, the applicant will preserve two times that amount of known and created CTS aestivation habitat on-site and off-site in suitable habitat located on other parcels within Fresno, Madera and Merced Counties. Parcels that could meet the requirements of this mitigation measure and are available for mitigation purposes have been identified in Tables 3.4-2 and 3.4-3 and are further illustrated in Figure 3.4-7. These representative parcels provide up to 31.21 acres of breeding habitat in the form of vernal pools and 1,282.19 acres of aestivation habitat in the form of grasslands and other habitats supporting populations of burrowing animals such as California ground squirrels and pocket gophers. To meet the 2:1 preservation requirement set forth in the above mitigation measure the project applicant may identify additional or alternative parcels similar to those identified in Tables 3.4-2 and 3.4-3.

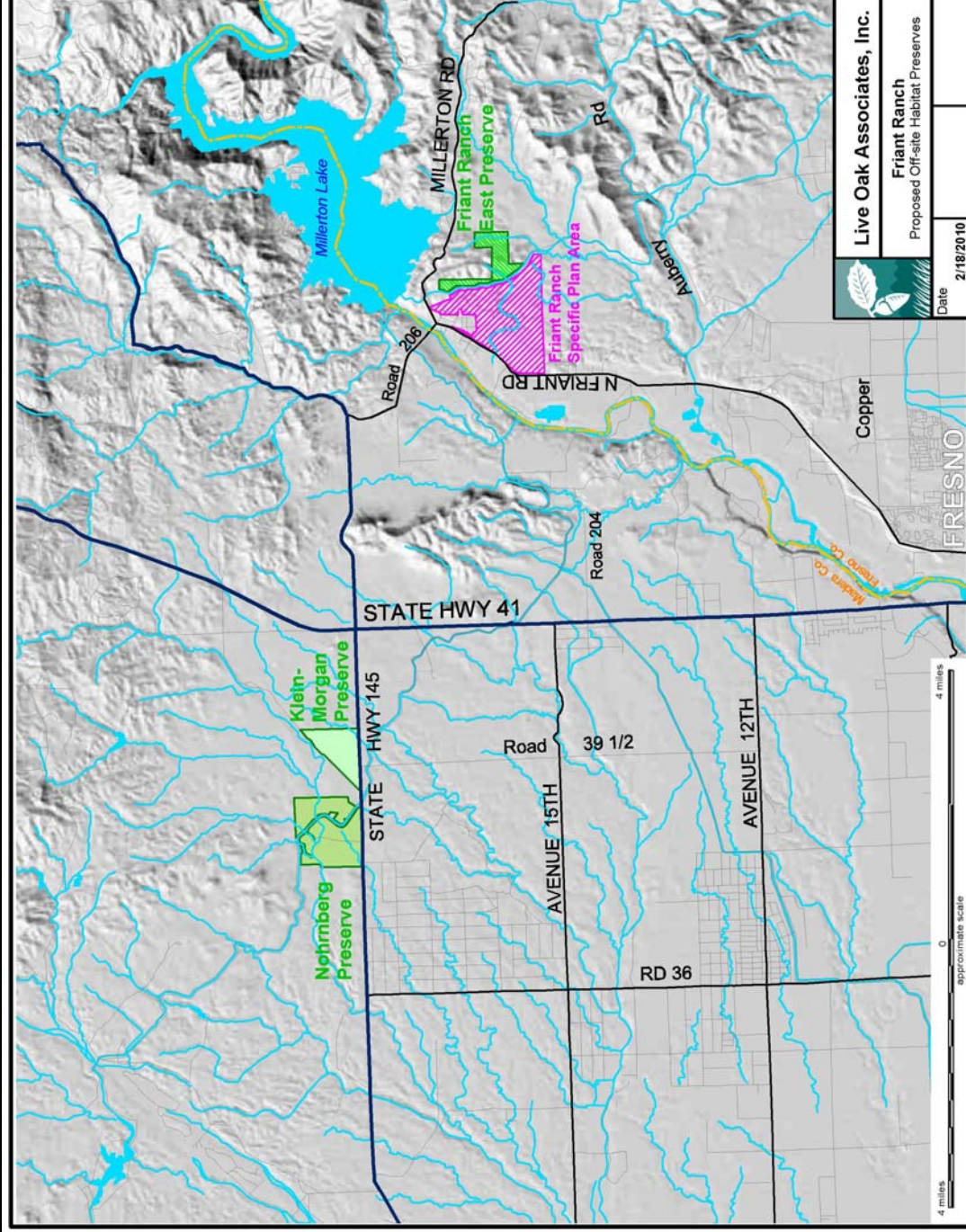


Figure
3.4-7

PROPOSED OFF-SITE HABITAT PRESERVES



Comment 7.12: *Page 3-109, Mitigation #3.4.1e has the same issue regarding habitat establishment within Madera County. No discussion or analysis has been made as to how this will be accomplished. Some analysis needs to be done.*

Response 7.12: See Response 7.11 above. The off-site preserve requirements set forth in Mitigation Measures #3.4.1e, #3.10.2e, #3.4.3a(1), #3.4.3a(2)(a) and #3.4.5 are also satisfied by the permanent preservation (through conservation easement) of the parcels identified in Table 3-4.3.

Comment 7.13: *Page 1-80 Mitigation #3.10.2c indicates hours of construction that would be acceptable, however on page 3-112, Mitigation #4.1.4h(4) would imply night time construction is permissible. Please clarify.*

Response 7.13: The EIR does not contain a Mitigation Measure #4.1.4h(4). However, Mitigation Measure #3.4.1h(4) on page 3-112 applies standard mitigation language applicable to protecting American Badger and does not describe specific construction hours. The general language within Mitigation Measure #3.4.1h(4) does not override the specific construction hours mandated by Mitigation Measure #3.10.2c.

Comment 7.14: *Page 3-117. Mitigation #3.4.3a(1) is similar to Mitigation Measure #3.4.1d and e, and thus the same issue is raised in how and where the off-site habitats will be established in Madera County. Please provide analysis accordingly.*

Response 7.14: See Response 7.11 above. The off-site preserve requirements set forth in Mitigation Measures #3.4.1d, #3.4.1e, #3.4.3a(1), #3.4.3a(2)(a) and #3.4.5 are also satisfied by the permanent preservation (through conservation easement) of the parcels identified in Table 3-4.3.

Comment 7.15: *Page 3-118, Mitigation #3.4.3a(2)(a) is similar to Mitigation Measure #3.4.1d and e, and thus the same issue is raised in how and where the off-site habitats will be established in Madera County. Please provide analysis accordingly.*

Response 7.15: See Response 7.11 above. The off-site preserve requirements set forth in Mitigation Measures #3.4.1e, #3.10.2e, #3.4.3a(1), #3.4.3a(2)(a) and #3.4.5 are also satisfied by the permanent preservation (through conservation easement) of the parcels identified in Table 3-4.3.

Comment 7.16: *Page 3-122, Mitigation #3.4.5 is similar to Mitigation Measure #3.4.1d and e, and thus the same issue is raised in how and where the off-site habitats will be established in Madera County. Please provide analysis accordingly.*

Response 7.16: See Response 7.11 above. The off-site preserve requirements set forth in Mitigation Measures #3.4.1e, #3.10.2e, #3.4.3a(1), #3.4.3a(2)(a) and #3.4.5 are also satisfied by the permanent preservation (through conservation easement) of the parcels identified in Table 3-4.3.

Comment 7.17: *Page 3-349, solid waste: there is no discussion if Phase I (the unlined cell of the landfill) is still in use or has been closed for acceptance of solid waste. Please include a discussion.*

Response 7.17: The County of Fresno, Resource Division was contacted for an update on the status of the American Avenue Landfill. The County has continued the expansion project for the landfill since 2005. The text of the DEIR (page 3-349) will be revised as follows:

The existing Friant Community's solid waste is transferred to the County owned and operated American Avenue Landfill. The 440-acre waste management facility is located approximately 40 miles southwest of Friant near the City of Kerman. The facility consists of an unlined waste management unit covering 30 acres (Phase I) and a 160-acre composite-lined waste management unit (Phase II). Phase I has reached capacity, and no additional materials are being accepted. There is a proposal to remove all contents of Phase I and line this unit, and to expand the waste management facility by constructing Phase III (250 acres). As of March 2010, Phase II is operational and has capacity, and three of twelve cells of Phase III have been completed. ~~upon completion of Phase II.~~ This expansion is necessary to provide service to Fresno County's expanding population base. The landfill is expected to have capacity through the year 2045.

Comment 7.18: *Page 3-349, solid waste, second paragraph, there appears to be an extra period embedded within the paragraph.*

Response 7.18: The text of the DEIR, page 3-349, Solid Waste, second paragraph will be revised as follows:

The County has a franchise agreement with Ponderosa Solid Waste providing an exclusive right for solid waste disposal services in the unincorporated area of Fresno County near Friant. Ponderosa Solid Waste provides once-per-week curbside collection service to all homes and a range of commercial pick-up services to businesses. —To enhance Fresno County's waste diversion performance under the mandates of AB 939, solid waste customers are provided with the individual containers required to conduct source-separated recycling.

Comment 7.19: *Page 3-351, Table 3.14-7, column marked "Total Demand (GPD)" total amount is off by 600 gallons (323,262).*

Response 7.19: Table 3.14-7 of the DEIR (page 3-351) will be revised as shown below to reflect that the total of the Total Demand for each of the four land uses shown in the table adds up to 323,262 gpd. The Total Demand figure for each of the four land uses in this table remains unchanged. It is further noted that this mathematical error is also reflected in the total shown on page 24 of the water supply assessment (DEIR, Appendix B).

Table 3.14-7
Projected Friant Ranch Specific Plan Average Daily Demand (ADD) for Water
By Land Use at Build-Out – Non-Residential

Land Use	ADD (Gpd/ac)	Acres	Total Demand (gpd)	Total Demand (AF/Day)	Total Demand (AF/yr)
Neighborhood Shopping Center	1,965	23.8	46,767	0.14	52
Active-Adult Community Center (CC)	1,965	16.7	32,815	0.10	37
Park (P)	2,500	25.0	62,900	0.19	70
Manufactured Slopes	1,965	92.0	180,780	0.55	201
Total		157.5	322,862 323,262	0.98	360

Comment 7.20: *The section that discusses greenhouse gases does not include a discussion on how landfill methane production could potentially impact that production of greenhouse gases. Please include a discussion on that and include mitigation measures (i.e. methane collection for energy production that could then be incorporated into the utilities discussion and lessen those impacts).*

Response 7.20: The DEIR concludes that the Project will have a significant and unavoidable impact on greenhouse gas emissions. The DEIR finds that primary source of such impact will be from CO₂ emissions; however, the DEIR acknowledges that 1 lb of methane has an equivalent global warming potential of 21 lbs of CO₂ and that methane emissions result from landfill operations (DEIR pages 3- 381 and 3-384). As explained in Chapter 3.14 of the DEIR, solid waste within the unincorporated communities of the County, including the Project Area, is required to be disposed of at the American Avenue landfill. Though the DEIR limits the amount of material sent to the landfill during construction (e.g., Mitigation Measure #3.14.6a), the mitigation suggested by the commenter is beyond the scope of the Specific Plan or Community Plan or the anticipated impacts thereof. Installation of methane capture/energy production technology at the regional landfill serving all of the unincorporated area within the County must be considered at the time of any landfill expansion or placement of a new landfill. The proposed mitigation is not feasible or appropriate to mitigate Project impacts related to greenhouse gas emissions.

Comment 7.21: *Page 4-22, Table 4-3, acres column, the total is wrong. The total should be 1301.5.*

Response 7.21: The total acreage of 942.2 acres is correct as stated in Table 4-3. The row labeled “Med High Density Res” contains two lines for “Specific Land Use Description.” There are seven rows beneath the land use description “Residential,” the first four of which relate to active adult units, the fifth of which comprises an “Active Adult Total” that adds up the preceding four rows. The last two rows under the land use description “Residential” pertain to non-active adult units. It appears that commenter has been confused by the inclusion of the Active Adult Total in the middle of this table. Once this subtotal is subtracted from the commenter’s total of 1,301.5 acres, the actual total is 942.2 acres.

Comment 7.22: *Page 4-22, Table 4-3, total dwelling units column, the total is wrong. The total should be 3,970.*

Response 7.22: The total dwelling units (2,100) is correct as stated in Table 4-3 for the same reason as Response 7.21. There are seven rows beneath the land use description “Residential,” the first four of which relate to active adult units, the fifth of which comprises an “Active Adult Total” that adds up the preceding four rows. The last two rows under the land use description “Residential” pertain to non-active adult units. It appears that commenter has been confused by the inclusion of the Active Adult Total in the middle of this table. Once this subtotal is subtracted from the commenter’s total of 3,970 dwelling units, the actual total is 2,100 dwelling units.

Comment 7.23: *Page 4-27, Table 4-4, acres column, the total is wrong. The total should be 1,287.3.*

Response 7.23: As with Response 7.21, the total acreage of 942.2 acres is correct as stated in Table 4-4. There are seven rows beneath the land use description “Residential,” the first four of which relate to active adult units, the fifth of which comprises an “Active Adult Total” that adds up the preceding four rows. The last two rows under the land use description “Residential” pertain to non-active adult units. It appears that commenter has been confused by the inclusion of the Active Adult Total in the middle of this table. Once this subtotal is subtracted from the commenter’s total of 1,287.3 acres, the actual total is 942.2 acres.

Comment 7.24: *Page 4-27, Table 4-4, total dwelling units column, the total is wrong. The total should be 4,770.*

Response 7.24: As with Response 7.22, the total dwelling units (2,500) is correct as stated in Table 4-4. There are seven rows beneath the land use description “Residential,” the first four of which relate to active adult units, the fifth of which comprises an “Active Adult Total” that adds up the preceding four rows. The last two rows under the land use description “Residential” pertain to non-active adult units. It appears that commenter has been confused by the inclusion of the Active Adult Total in the middle of this table. Once this subtotal is subtracted from the commenter’s total of 4,770 dwelling units, the actual total is 2,500 dwelling units.

Comment 7.25: *Page 6-1, no discussions on landfill production of methane gas as it contributes to greenhouse gas production nor its' mitigations.*

Response 7.25: See Response 7.20.

Comment 7.26: *Beginning on page 3-270, transportation and circulation, there is little to no discussion on the impacts of traffic on Madera County roadways. The tables in the section do show some information, but there does not seem to be very much narrative wise.*

Response 7.26: The discussion of Impacts #3.13-3a, #3.13-3b, #3.13-3c, and #3.13-4 involves roadways within Madera County. Additional technical analysis is provided within tables provided in the traffic section of the EIR (Section 3.13) and within the Traffic Impact Study

(Appendix D to the DEIR). If there is a specific question related to Project related impacts to roadways within Madera County, these can be provided in writing to Fresno County.

Comment 7.27: *Transportation section beginning on page 3-270 refers to "Road 145" and SR 41, check validity as there is no Road 145 in Madera County, there is a Highway 145.*

Response 7.27: Road 145 refers to the section east of SR 41 and Highway 145 refers to the section west of SR 41.

Comment Letter #8

County of Fresno
Environmental Health Division
1221 Fulton Mall, Third Floor
Fresno CA 93775-1867

Comment 8.1: *I have completed our review of the Program/Project Draft Environmental Impact Report for the Friant Community Plan Update & Friant Ranch Specific Plan and have no further comments to add at this time. Please feel free to give me a call if you have any questions or comments.*

Response 8.1: Comment noted. No response warranted.

Comment Letter #9

California Department of Transportation
Office of Transportation Planning – District 06
1352 West Olive Avenue
Fresno, CA 93778-2616

Comment 9.1: *We have completed our review of the draft Environmental Impact Report (EIR) for the proposed Friant Ranch Development. The project consists of 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot sit down restaurant, 5,000 square-foot fast-food restaurant, 10,000 square-foot medical/dental office, and 100,000 square feet of general office space. The site is located along the east side of Friant Road, south of Road 206, approximately five miles east of the intersection of State Route (SR) 41 and SR 145 and 12 miles north of the SR 41 interchange at Friant Road. Caltrans has the following comments:*

It does not appear that our previous comments have been adequately addressed in the draft EIR. Therefore, our previous comments dated November 1, 2007, April 11, 2008 and September 24, 2009 continue to apply. Copies of these letters are enclosed and should be addressed as part of the environmental document.

Response 9.1: See Responses 9.2 through 9.39 below.

Comment 9.2: *We have completed our review of the proposal that would expand the Friant Community Plan from 920 acres to 1,505 acres. The proposal would also result in 2,996 dwelling units and 250,000 square feet of retail and office space. Caltrans has the following comments:*

A project of this magnitude has the potential to generate in excess of 30,000 daily vehicle trips. This many trips have the potential to significantly impact State facilities. It is anticipated that trips from this project would impact multiple interchanges along the State Route (SR) 41 corridor, SR 168 interchanges, as well as State facilities in Madera County.

Response 9.2: See Response 19.92 regarding Caltrans preliminary rough estimate of expected trips. The identified interchanges were analyzed in the TIS, except that detailed analysis was not prepared for SR 168 because preliminary scoping concluded that SR 168 does not serve the Project in any measurable way. SR 168 is some distance from Friant Ranch and is situated in directions that are not convenient for the Project. Detailed analysis of SR 168 was not performed because the Project represents a minimal percentage of the total traffic on SR 168, and would not result in an individually or cumulatively significant impact.

Comment 9.3: *A Traffic Impact Study (TIS) is needed to assess the project-related impacts to the State Highway system and appropriate mitigation measures. Please have the preparer of the traffic study reference the Caltrans Guide for the Preparation of Traffic Impact Studies, dated December 2002, and send the scope of the TIS to Caltrans before the traffic study is conducted. Caltrans Guide, while advisory, contains Best Practices and gives insight into Caltrans' expectations when reviewing a traffic study. If the traffic consultant has any issues or concerns regarding the use of the Guide or its interpretation, please contact us so resolution can be reached.*

Response 9.3: As explained at page 3-280 of the DEIR, the “analyses in the TIS were performed in general conformance with the Caltrans Guide for the Preparation of Traffic Impact Studies dated December 2002.”

Comment 9.4: *It is recommended that a trip generation estimate and trip distribution be provided so that a scope of work for the TIS can be determined. Without this information, it would be very difficult to determine where trips for a project of this size would be dispersed onto the circulation system.*

Response 9.4: Project trip generation and trip distribution are provided in Sections 9.1 and 9.2 of the TIS report (Appendix D to the DEIR) and have been used in the EIR to inform the impact analysis for Existing Plus Project Conditions and Cumulative (2030) Plus Project Conditions.

Comment 9.5: *Caltrans recommends that the lead agency incorporate the guiding principles of the "San Joaquin Valley Regional Blueprint; Vision for the Valley." The Blueprint represents a collaborative planning process, with the eight San Joaquin Valley counties working together to prepare a guide for growth within the Central Valley. The Blueprint will develop a valley-wide "vision" that will include the integration of transportation, housing, land use, economic*

development and environmental protection that will serve as a significant contribution to improving the Valley's quality of life.

Response 9.5: Comment noted. No response warranted.

Comment 9.6: *We have completed our review of the TIS scope of work for a proposal to develop 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot medical/dental office, and 100,000 square feet for general office use. Caltrans has the following comments.*

Prior to using the proposed trip generation, the Fehr & Peers Technical Memorandum dated April 6, 2007 should be submitted to Caltrans for review. The mixed use of senior housing and typical residential uses could possibly be accepted with reasonable justification. A clear description of any and all legal constraints placed on the buyers or how the OCR's define special conditions is need to warrant any consideration of a trip reduction. Merely being a 55 and older development does not necessarily qualify for trip reductions in that unretired, individuals in this demographic would generate trips similar to that of a typical residential development.

The applicant and/or consultant must supply sufficient support data before Caltrans can accept such a trip reduction. The consultant's opinion or reports from outside this area may not necessarily be considered to be reasonable justification for trip reductions. Caltrans will need a clear understanding of the true nature of this "Senior Rousing Development".

Response 9.6: A trip reduction was not applied. Standard ITE 251 and 252 trip generation rates were used. Land uses for ITE 251 and 252 are titled "Senior Adult Housing" but they are described in the ITE Trip Generation Manual as consisting of "age-restricted housing and active adult communities." The record contains the requested supporting information for use of these standard ITE rates, as discussed in Response 9.11.

Comment 9.7: *The following State Routes should be studied:*

Madera County:

- *The State Route (SR) 41 intersections at SR 145, Avenue 15, and Avenue 12.*
- *The future SR 41 interchange at Avenue 12.*
- *The SR 41 segment from SR 145 to Friant.*

Fresno County:

- *The SR 41 interchange at Friant Road.*
- *The SR 41 interchange at Herndon Avenue.*

Response 9.7: The State Route (SR) 41 intersections at SR 145, Avenue 15, and Avenue 12 were included in the study. Mitigation Measures #3.13-3a, #3.13-3b and #3.13-3c require payment of a fair share of the required improvements, including the interchange at Avenue 12. The SR 41 interchanges at Friant Road and at Herndon Avenue were included in the study and

are discussed in additional detail below in Responses 9.26 through 9.37 and Response 19.98. Detailed segment analysis of SR 41 between SR 145 and Friant Road was not performed because the Project will result in minimal traffic on these segments of SR 41, and would not result in an individually or cumulatively significant impact to these roadway segments. The Project traffic volume is presented in the table below.

SR 41 Project Traffic Volumes

Segment	A.M. Peak Hour	P.M. Peak Hour
Bullard to Herndon	160	206
Herndon to Friant	172	220
Friant to Childrens	37	43
Childrens to Ave 12	49	58
Ave 12 to Ave 15	61	73
Ave 15 to SR 145	61	73

Comment 9.8: *We have completed our review of the draft Traffic Impact Study (TIS) for the proposed Friant Ranch Development. The project consists of 2,996 residential units, 125,000 square-foot shopping center, 10,000 square-foot sit down restaurant, 5,000 square-foot fast-food restaurant, 10,000 square-foot medical/dental office, and 100,000 square feet of general office space. The site is located along the east side of Friant Road, south of Road 206, approximately five miles east of the intersection of State Route (SR) 41 and SR 145 and 12 miles north of the SR 41 interchange at Friant Road. Caltrans has the following comments:*

On Page 3-253 of the draft EIR, the following data should be discussed in greater detail:

- *The population of the age 55 and older to be consistent with the proposed project. This section of the document discusses the age 65 and older population.*

Response 9.8: Population data for individuals age 65 and older is provided as part of the current population. As noted on the same page, population ages 55-64 will increase by 27% and population ages 65-74 will increase by 58% between 2010 and 2020. See Responses 9.9 and 9.10 below.

Comment 9.9:

- *The number of working individuals making up the age 55 and older population.*

Response 9.9: See Responses 19.93, 28.1, and 28.2 for clarifying discussion pertaining to working individuals within the general 55+ population.

Comment 9.10:

- *The amount of current senior housing available compared to the future needs of the County of Fresno.*

Response 9.10: As noted on page 3-254 of the DEIR, the population growth projections for the population ages 55+ between 2010 and 2020 are considerable. Growth projections for the 55-64 age group in Fresno County predict an increase of 27% through 2020, an increase of 24,000 people, and for the 65-74 age group in Fresno County an increase of 58% through 2020, an increase of 29,000 people. (Source: *Harvard University, State of the Nation Housing 2007*.) At this time, Fresno County does not have any active adult master planned communities to serve this population.

Comment 9.11: *Caltrans disagrees with the use of ITE #251 and #252 (Senior Housing Detached/Attached) for estimating the trip generation used in the draft TIS. The use of these trip generation rates should only be used once accompanied with and confirmed by an analysis and supporting data.*

Response 9.11: Section 9.0 and Appendix E of the TIS and pages 2-9 and 2-11 of the DEIR contain a significant discussion in support of the applicability of ITE Codes 251 and 252. Additional clarification has been provided herein. The residential ITE data utilized in the study best matches the description of the active-adult residential portion of the proposed Project. In fact, ITE Codes 251 and 252 describe applicable projects as “Active Adult Communities.” “Active Adult Communities” is a common term used to refer to 55+ communities such as the proposed projects.

As explained in more detail in Chapter Two of the EIR, approximately 2,800 units within the Friant Ranch Specific Plan Area (approximately 92%) will be subject to binding age restrictions (55+) pursuant to the Fair Housing Amendments Act of 1988, and the Housing for Older Persons Act of 1995: Final Rule (Department of Housing and Urban Development: 24 CFR Part 100) and California Government Code section 65008(a)(1)(B). The age restrictions are enforceable as covenants and deed restrictions that run with the land. As such, the traffic generation associated with the age-restricted units would be less than expected from the typical multi-generational, single-family residences. This is because active adult (55+) communities have, on average, a lower number of residents per unit than non-restricted communities. The 2001 American Housing Survey by the US Census Bureau and the Department of Housing and Urban Development states that the combined demographic for the 55-64 and 65-74 age categories averages 1.9 persons per dwelling unit. Additionally, active adults (55+) have unique lifestyles that differentiate their habits from residents of multi-generational communities.

A number of studies were gathered in preparing this EIR to research trip generation rates for active adult communities established under the above-described laws. These sources include publication databases and research from the Institute of Transportation (ITE), trip generation research from the Delaware Department of Transportation (DelDOT), and studies performed by Fehr & Peers (Final Report – Active Adult Residential Developments Trip Generation Study, Fehr & Peers, August 2004). These studies indicate that all active adult communities generate less than half the trips of that for a single-family residential community. Three major factors that appear to have significant influence on travel behavior outside the active adult (55+) community’s boundary include: the presence of on-site facilities, the size of the community, and the inclusion of a multi-modal transportation network.

The characteristics of the proposed active adult community within the Friant Ranch Specific Plan Area were considered in establishing a trip generation rate for this analysis. There are approximately 2,800 55+ age-restricted units and 180 non-age restricted units proposed for the site. The Specific Plan includes a 20-acre Village Center with retail, commercial, office and high density residential uses neighboring a potential transit station. Additionally, the Specific Plan places a large emphasis on providing bicycle and NEV lanes on all primary and collector roadways. The Specific Plan will also offer an extensive multi-use trail for both pedestrians and bicyclists. In addition to outdoor recreation facilities, approximately 30 acres will be devoted to a community and fitness center.

Based on an analysis of characteristics for similar active adult communities, the active adult units of the Friant Ranch Specific Plan likely will have comparable trip generation rates to those of the Sun City Roseville project. Both communities include large indoor and outdoor recreational facilities, contain a comparable number of dwelling units, and have an extensive multi-modal system that promotes non-automobile travel within the community. Since the data collected at Sun City Roseville comprises a single data point, this analysis instead uses the ITE trip generation rates for Senior Adult Housing – Detached (ITE LU Code 251) (Trip Generation, 7th ed., Institute of Transportation Engineers (2003)). ITE formulated the trip generation rates for Senior Adult Housing based on a greater number of surveyed sites. Since the active adult community proposed within the Friant Ranch Specific Plan incorporates unique elements (similar to those found in the Sun City Roseville community but beyond the typical characteristics reflected in the ITE rates) that will reduce trip generation rates from the site, the EIR's use of the ITE Senior Adult Housing trip generation rates provides a conservative estimate for trip generation from the active adult community proposed in Friant Ranch Specific Plan

Regarding the following comment: *"The use of these trip generation rates should only be used once accompanied with and confirmed by an analysis and supporting data."* The application of the appropriate ITE trip generation code does not require additional analyses. The only supporting data required is that the project description be similar to the ITE land use description. Nevertheless, a supplemental study was performed to analyze actual trip generation from several existing active adult communities. The supplemental study was included in Appendix E of the TIS. The supplemental study prepared by Fehr & Peers on August 22, 2007 determined that the nearest similar facility (Sun City community in Roseville, CA) generated significantly fewer trips than predicted by the ITE rates. Therefore, the more conservative ITE Code 251 and 252 values were utilized. See also Response to Comment 28.1.

Comment 9.12: *Page 3-313 of the document states "...If the identified improvements are provided for in any alternative funding program or if.... The project applicant may request recalculation of the estimated percentages and improvement costs in conjunction with the review of a tentative tract map or site plan review application, ...". These statements should be removed. Recalculation of the Project's mitigation should not be allowed once determined. Is the project willing to allow recalculation of the mitigation if it can be determined that it may result in an increased mitigation responsibility?*

Response 9.12: The DEIR recognizes that the traffic study prepared for this EIR used the best information currently available to estimate the Project's traffic volume as a percentage of the

future cumulative traffic volume at the intersections and roadways. Before adopting the fair share fee for the Project pursuant to Fresno County Ordinance 17.88, the County will comply with its requirements to establish an appropriate nexus and calculate the fee based on a confirmed percentage of the calculated improvement costs attributable to the Project impacts.

Comment 9.13: *Please indicate as to whether the proposed Gunnar Ranch and approved Tesoro Viejo projects were included in the modeling for this project's traffic analysis as they do not appear on the pending projects list (Page 20, Table 5.1).*

Response 9.13: Yes. The Gunner Ranch and Tesoro Viejo projects were included in the Rio Mesa Area Plan assumptions described on Page 20 of the TIS.

Comment 9.14:

SR 41/Avenue 12

- *Based on the Caltrans Project Study Report (PSR) for the construction of the SR 41/Avenue 12 interchange dated June 2008 and the Friant Ranch draft TIS dated 07/09/2009, the mitigation cost estimate per trip is estimated to cost \$5,462.35 per peak hour trip. The Project should contribute its fair share to mitigate the construction for this future interchange.*

Response 9.14: The comment is consistent with Mitigation TR-2 proposed in the TIS and set forth as Mitigation Measure #3.13-3b in the DEIR.

Comment 9.15:

- *It should be noted that the Caltrans' PSR to construct the SR 41/Avenue 12 interchange is not programmed and no funding is available at this time. The PSR includes widening the existing one northbound lane to 2 lanes, constructing a 3-lane parallel bridge on Avenue 11, and constructing a partial cloverleaf interchange at Avenue 12.*

Response 9.15: Comment about funding for the SR 41/Avenue 12 interchange is noted. Mitigation Measure #3.13-3b requires a fair share fee from the applicant for this improvement at SR 41/Avenue 12. However, the DEIR acknowledges that funding is uncertain and that the Project impacts could occur prior to construction of the improvement. As such, as noted on page 3-315 of the DEIR, the impact may be significant and unavoidable until such time as complete funding is obtained and the necessary improvement is constructed. It should be noted, however, that on November 11, 2009, Madera County adopted a Road Impact Fee Program that includes funding and a priority ranking for completing the Caltrans improvements to SR 41/Avenue 12 interchange prior to 2030.

Comment 9.16:

- *Based on the Synchro analysis, there are queuing problems at both the northbound left-turn and through lane approaches during the P.M. peak travel hour for the 'existing*

traffic' condition. However, Page 3-278 of the DEIR and Page 18 of the draft TIS states that the queuing occurred only in the northbound left-turn approach. The intersection is currently experiencing queuing problems in the northbound approach.

Response 9.16: The queue analyses were performed specifically for turn lanes to determine if the calculated queue length exceeds the storage capacity of the lane. Long queues in through lanes will occur at locations operating below the minimum acceptable LOS. The analyses presented in the TIS identify that the intersection of State Route 41 and Avenue 12 is currently operating below the minimum acceptable LOS. Therefore, the analyses presented in the TIS remain applicable and the existing conditions are appropriately disclosed.

Comment 9.17:

- *The intersection of SR 41/Avenue 12 is not shown in the Figures 17 and 32. Please provide this information.*

Response 9.17: Figures 17 and 32 of the TIS have been revised to present the requested data and are included in Section Four – Errata of this Final EIR.

Comment 9.18:

SR 41/Avenue 15:

- *It is recommended in the study that this intersection should be converted to an interchange by year 2030. However, the current intersection may remain in place and the new interchange will be on a new freeway 41 alignment, which is east of the existing SR 41 alignment.*

Response 9.18: It is recognized that these conditions may occur, but the potential alternative placement of the improvement does not change the Project obligation to pay a fair share fee for the Caltrans improvement to this interchange.

Comment 9.19:

- *An interim improvement may be constructed at the current location before a new interchange on the ultimate location is constructed. The improvements include constructing two through lanes on the northbound and southbound approaches with separate right-turn lanes on SR 41, a northbound left-turn lane, a separate eastbound left-turn and right-turn lane on Avenue 15, and installing a traffic signal.*

Response 9.19: Comment noted. See Response 9.18 above.

Comment 9.20:

- *This intersection may be converted to a 4-legged intersection in the future when the Tesoro Viejo Project constructs the fourth leg to serve as their access.*

Response 9.20: Comment noted.

Comment 9.21:

- *The intersection of SR 41 and Avenue 15 is not shown in Figures 17 and 32. Please provide this information.*

Response 9.21: Figures 17 and 32 of the TIS have been revised to present the requested data and are included in Section Four – Errata of this Final EIR.

Comment 9.22:

SR 41/SR 145:

- *Page 3-312 of the DEIR recommends that the intersection of SR 41 and SR 145 should be converted to an interchange by 2030. This intersection is planned for a future interchange. However, there is no funding available for this improvement and it may not be feasible at this time.*

Response 9.22: Comment noted. Also, see Response 9.23.

Comment 9.23:

- *An interim improvement may be constructed before the new interchange. Based on the 2030 with Project traffic volumes in Figure 32 of the draft TIS, the improvements would include extending the four-lane section on SR 41 from SR 145 to Road 209, exclusive dual northbound right-turn lanes, dual southbound left-turn lanes and a separate southbound right-turn lane, dual westbound left-turn lanes with extending the southbound receiving lanes, a separate westbound right-turn lane, and a signal modification. The mitigation cost estimate for these improvements will need to be calculated.*

Response 9.23: Comment noted. An errata to the DEIR has been included to reflect that the fair share fee required by Mitigation Measure #3.13.3a will be for a fair share of the cost of the improvements to the intersection identified in this Comment 9.23. Participation in the Madera County Road Impact Fee Program would also satisfy this mitigation measure.

Comment 9.24:

- *In reference to Page 85 of the draft TIS and the Synchro analysis, the Caltrans' project to construct eastbound and westbound left-turn lanes with protected left-turn phasing (EB: 1 left, 1 through, and 1 right, and WB: 1 left, and 1 shared through/right) has been completed. The Caltrans project also widened the northbound and southbound through lane approaches to 2 lanes with a shared through/right-turn lane on the outside lanes.*

Response 9.24: Comment noted. The improvements identified will increase capacity in relation to the available capacity analyzed in the TIS and DEIR and would not significantly change the analysis.

Comment 9.25:

- *The Project may be required to construct a portion of the intersection improvement that is impacted by the Project trips after opening day. Traffic monitoring of the intersection should be conducted after the Project opening day. The 2030 with Project traffic scenario in Figure 32 of the draft TIS shows extremely high traffic volumes at the westbound left-turn on Road 145 and the northbound right-turn on SR 41. Does the modeling show other developments along Road 145 between SR 41 and the proposed Project site?*

Response 9.25: Mitigation Measure #3-13-3a of the DEIR requires that the Project contribute a fair share of future improvements to the intersection of SR 41 and SR 145 to mitigate the Project's contribution to the significant cumulative impact. As identified in the TIS, the project contributes but does not trigger the need for the improvement and as such should not be required to construct the intersection improvement Opening Day.

A majority of the additional westbound left turns and northbound right turns expected to occur over the next 20 years at the intersection of SR 41 and Road 145 are a result of partial buildout of the Rio Mesa Area Plan, including the North Shore at Millerton project.

Comment 9.26:

SR 41/Friant Road Interchange:

- *In reference to the summary of the mitigation fair share of the SR 41 interchange at Friant Road on Page 23 of the draft TIS and Pages 3-309 and 3-312 of the Draft EIR, Friant Road under SR 41 may be widened to 8 lanes, 4 lanes in each direction with the construction of a retaining wall at the bridge abutment. Friant Road at this location is currently a 6-lane roadway. In the westbound direction, there is currently one through lane, one shared through/right-turn to the southbound loop on-ramp, and one exclusive right-turn lane to southbound loop on-ramp. An additional through lane is needed in the future due to the traffic volumes going to the on-ramp and at the westbound through lane. In the eastbound direction, there are currently 2 through lanes, and one shared through/right-turn to the northbound loop on-ramp. When the northbound loop on-ramp is widened to two lanes, there would be a need for an additional exclusive eastbound right-turn lane to the northbound loop on-ramp.*

Response 9.26: As explained in the discussion of Impacts #3.13-3d and #3.13-3e of the DEIR and related mitigation measures, the Project contributes traffic to the westbound and eastbound through lanes and northbound on ramp and shall be responsible for a fair share of the required future westbound through lane and eastbound right-turn lane to the northbound loop on-ramp. The per trip fee identified on page 3-310 of the DEIR includes additional through lanes adjacent to the SR 41 ramps at Friant Road and additional ramp lane and auxiliary lane for the northbound

loop ramp. Mitigation Measures #3.13.3d and #3.13.3e of the DEIR require that the Project contribute a fair share by payment of the per trip fees for these improvements.

Comment 9.27:

- *The southbound loop on-ramp is currently two-lanes and metered. An additional lane at the on-ramp may not be feasible. However, a southbound auxiliary lane from the loop on-ramp would need to be constructed in the future.*

Response 9.27: Mitigation Measure #3.13-3e of the DEIR requires payment of a fair share fee for necessary improvements. The improvements funded by said fair share fee include auxiliary lanes adjacent to the SR 41 ramps at Friant Road.

Comment 9.28:

- *In the Synchro analysis for the 'Mitigated 2030 with Project', the direct on-ramps should be included in the analysis. The eastbound and westbound approaches to the off ramp intersections should have 2 through lanes, 1 shared through/right-turn to the direct on-ramps (2-lane entrance ramps), and one exclusive right-turn lane to the direct on-ramps. Triple left-turn and right-turn lanes at the southbound off-ramp would be needed. The queuing analysis is not attached for this scenario.*

Response 9.28: The Synchro model and associated assumed improvements were based on the planned improvements as identified in the Caltrans interchange improvement program and associated fair share funding mechanism. Commenter here identifies a potential variation to the interchange improvement program, which has no identified funding and has not been identified in the official Caltrans interchange improvement program. As such, this potential variation was not considered as a potential improvement in the TIS or DEIR.

Comment 9.29:

- *Please indicate as to whether the traffic signals in the study were analyzed as coordinated at the Friant Road intersections at the southbound and northbound off-ramps, Fresno Street, and Blackstone Avenue. These 4 signals would need to be coordinated in the future.*

Response 9.29: The analyses presented in the TIS/DEIR include coordination of signals along the Friant Road corridor. The City of Fresno required the Fresno 40 project to install Intelligent Transportation System (ITS) facilities (conduit, fiber optic cable and equipment, and cameras) to allow coordination of all the intersections along Friant Road from Blackstone to Shepherd Avenues. As such, the DEIR assumed that the signals at the Friant Road intersections at the southbound and northbound off-ramps, Fresno Street, and Blackstone Avenue were coordinated.

Comment 9.30:

- *The direct on-ramp traffic numbers should be provided for the '2030 with Project' in Figure 32 of the draft TIS.*

Response 9.30: Figure 32 of the TIS has been revised to present the requested data and is included in Section Four – Errata of this Final EIR.

Comment 9.31:

- *In the mitigation summary on Page 118 and Figure 17 (Project Trip Distribution) of the DTIS, the Project should mitigate the southbound auxiliary lane from the loop on-ramp instead of the southbound off-ramp widening.*

Response 9.31: Mitigation Measure #3.13-3e requires payment of a fair share fee to fund improvements to SR 41/Friant Road, including auxiliary lanes adjacent to the SR 41 ramps at Friant Road.

Comment 9.32:

SR 41/Herndon Avenue:

- *The mitigation for the improvements at this interchange should be included in the DEIR and draft TIS. The Synchro study should include the analysis for the 'Mitigated 2030 with Project' scenario.*

Response 9.32: The DEIR did not identify any individually or cumulatively significant impacts to SR 41/Herndon Avenue resulting from the Project. The Project only contributes a minimal number of trips to the interchange and its impact is not cumulatively considerable. The Project can pay for its fair share of the required future improvements with payment of the established Caltrans per-trip fee for each of its 2 peak hour trips expected on this on/off ramp.

Comment 9.33:

- *The following mitigation cost estimates for the SR 41/Herndon Avenue interchange has been calculated as follows:*
 - *NB off-ramp widening and an auxiliary lane \$998/trip*
 - *SB off-ramp widening and auxiliary lane \$1,712/trip*

Response 9.33: The DEIR did not identify any individually or cumulatively significant impacts to SR 41/Herndon Avenue resulting from the Project. The Project only contributes a minimal number of trips to the interchange and its impact is not cumulatively considerable. Since the SR 41/Herndon Avenue northbound off/on ramps are expected to require future improvements to address expected deficiencies in the 2030 No Project cumulative condition, the Project can pay

for its fair share of the required future improvements with payment of the established Caltrans per trip fee for each of its 2 peak hour trips expected on this on/off ramp.

Comment 9.34:

- *Other improvements include installing ramp meters at the northbound on-ramps. When the ramp meters are installed, the northbound direct on-ramp would need to have one HOV and 2 mixed-flow lanes, and the northbound loop on-ramp would need to have 2 mixed-flow lanes. The cost estimates for these improvements have not been calculated.*

Response 9.34: Comment noted. No response warranted.

Comment 9.35:

- *The direct on-ramp traffic volumes should be included in the figures.*

Response 9.35: Figures 17 and 32 of the TIS have been revised to present the requested data and are included in Section Four – Errata of this Final EIR.

Comment 9.36:

- *Did the study analyze the intersection of Herndon Avenue and Fresno Street? If not, this intersection should be included in the analysis.*

Response 9.36: The intersection of Herndon Avenue and Fresno Street was preliminarily analyzed and determined to not warrant inclusion in the study. It is estimated that the Project will generate on the order of 10 trips during the p.m. peak hour at the intersection; the Project does not create enough trips at the intersection to warrant analyses. The increase of 10 trips to this intersection would not result in an individually or cumulatively significant impact to the intersection of Herndon Avenue and Fresno Street.

Comment 9.37:

- *Please indicate whether the traffic signals were coordinated at the Herndon Avenue intersections in the Synchro analysis?*

Response 9.37: The intersections in the Herndon Avenue/SR 41 interchange were analyzed as coordinated.

Comment 9.38: *SR 41 is planned for a 6-lane freeway on an 8-lane ultimate right-of-way between the Fresno County line to SR 145 on an adopted new freeway alignment, east of the existing SR 41. The new freeway alignment east of the existing SR 41 would start from Avenue 12 and transition back to the existing intersection with SR 145. The existing SR 41 would need to be widened to a minimum 6-lane freeway between Avenue 10 and Avenue 12 and 4-lane roadway between Avenue 12 to SR 145 as an interim improvement. The existing SR 41 alignment would be converted to a frontage road in the future when the new freeway alignment is constructed. The*

segment of SR 41 between Avenue 12 and Friant Road, and Friant Road and Herndon Avenue should be studied and analyzed.

Response 9.38: Comment noted. See Response 9.7 regarding SR 41 segment analysis.

Comment 9.39: *Please confirm that Tables 3.13.19 and 3.13.20 are the correct tables being referred to in the fourth Paragraph on Page 3-313 of the DEIR.*

Response 9.39: The text of the DEIR (page 3-313, fourth paragraph) is amended as follows to confirm that the correct table reference should be to Table 3.13-22:

Mitigation Measure #3.13-3b (TR-2): The intersection of SR 41 and Avenue 12 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small total peak hour traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. Caltrans has not established a set fee for this intersection at this time. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~19~~22) is 0.5%.

In addition, the text of the DEIR (page 3-313, third and fifth paragraphs) is amended as follows to correct the table reference from Table 3.13-19 to Table 3.13-22:

Mitigation Measure #3.13-3a (TR-1): The intersection of SR 41 and Road 145 should be converted to an interchange by the year 2030. Caltrans has not established a set fee for this intersection at this time. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~19~~22) is 3.2%.

Mitigation Measure #3.13-3c (TR-3): The intersection of SR 41 and Avenue 15 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. Caltrans has not established a set fee for this intersection at this time. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~19~~22) is 0.8 %. Caltrans has not established a set fee for this intersection at this time.

Comment Letter #10

San Joaquin Valley Air Pollution Control District
Central Region
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244

Comment 10.1: *The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above consisting of expanding the existing Friant Community Plan Area boundaries to 1,804 acres to include the Friant Ranch Specific Plan, located at Township 11S, Range 21E, Sections 8, 17, and 18, in the unincorporated community of Friant, CA. The District offers the following comments:*

1. *Expanding the existing Friant Community Plan Area boundaries to 1,804 acres itself will not have an impact on air quality. However; future development within the area will contribute to the overall decline in air quality due to increased traffic and ongoing operational emissions. New development may require further environmental review and mitigation. The District makes the following recommendations regarding future development:*
 - A. *Accurate quantification of health risks and operational emissions requires detailed site specific information, e.g. type of emission source, proximity of the source to sensitive receptors, and trip generation information. The required level of detail is typically not available until project specific approvals are being granted. Thus, the District recommends that potential health risks be further reviewed when approving future projects, including those that would be exempt from CEQA requirements. Specific consideration should be given when approving projects that could expose sensitive receptors to toxic air contaminants (TACs). If the analysis indicates that TACs are a concern, the District recommends that a Health Risk Assessment (HRA) be performed. If an HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. If there are questions regarding health risk assessments, please contact Mr. Leland Villalvazo, Supervising Air Quality Specialist, at hramodeler@valleyair.org. Additional information on TACs can be found online by visiting the District's website at http://www.valleyairorg/busind/pto/Tox_Resources/AirQualityMonitoring.htm.*

Response 10.1: As inferred from the comment, Health Risk Assessments are typically prepared for inclusion in development specific project EIR's when certain types of development commonly known to have the potential to result in a human health risk are being proposed (automobile fueling stations and certain types of manufacturing facilities for example). Although such land uses could ultimately occur under the land use designations proposed by the Friant Ranch Specific Plan and Community Plan Update, it is not possible to conduct a human health risk assessment based on factors such as the types of potential toxic emissions, distance to nearest sensitive receptors, etc. However, when considering future discretionary approvals for specific development consistent with the Friant Ranch Specific Plan and Community Plan Update destinations, the County will assess potential health risks.

Comment 10.2:

B. Construction Emissions – The DEIR concludes that some of the phases’ construction emissions will have a potentially significant impact on air quality but with mitigation these impacts from construction exhaust would be reduced to a less than significant impact. In order to conclude that the construction exhaust emissions would be less than significant, mitigation measures reducing construction exhaust emissions must be fully enforceable through permit conditions, agreements, or other legally binding instruments (CEQA Guidelines §15126A, subd.(a)(2)). Feasible mitigation of construction exhaust emission includes use of construction equipment powered by engines meeting, at a minimum, Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. The District recommends incorporating, as a condition of project approval, a requirement that off-road construction equipment used on site achieve fleet average emissions equal to or less than the Tier II emissions standard of 4.8 NOx g/hp-hr. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards.

Response 10.2: Sections 2449, 2449.1, 2449.2 and 2449.3 of Title 13, Article 4.8, Chapter 9, of the California Air Resources Boards (CARB) regulations within the California Code of Regulations (CCR) regulate In-Use Off-Road Diesel Vehicles. The mandatory construction emissions standards contained therein will be enforced by the state and therefore do not need to be included as a mitigation measure for the Project. Moreover, appropriate equipment standards are already incorporated within mitigation required of the Project. For example, Mitigation Measure #3.3.1a requires the “use of diesel oxidation catalysts capable of a 15%-40% reduction in NOx emissions on all diesel equipment.” At the time of subsequent Project approvals (i.e., tentative maps), the County will consider these measures as conditions of approval for the Project. As such, the mitigation measures requiring adherence to the equipment standards will be enforced as conditions of approval and the applicant is already required to comply with all applicable laws and regulations, including the CARB regulations.

Comment 10.3: *In the DEIR it was stated (pg. 3-51):*

The SJVAPCD does not have a threshold for PM₁₀ but instead requires a series of rules known as Regulation VIII as seen in the tables listed below.

The SJVAPCD has an applicable threshold of significance of 15 tons per year for PM₁₀; therefore those project phases that have emissions greater than 15 tons per year for PM₁₀ will have a significant impact on air quality.

Response 10.3: Page 3-40 of the DEIR is amended as follows to explain the applicable SJVAPCD PM₁₀ standard and SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts* construction-related fugitive dust impacts guidance:

- Projects that emit PM₁₀ air pollutants in excess of 15 tons/year (no standard for PM_{2.5});

The third paragraph of DEIR page 3-51 is amended as follows to correct the statement that the SJVAPCD does not have a threshold for PM₁₀:

The SJVAPCD has an applicable threshold of significance of 15 tons per year for PM₁₀ ~~does not have a threshold for PM₁₀ but instead as well as~~ requires a series of rules known as Regulation VIII as ~~seen set forth in the tables listed below Table 3.3-9.~~ The purpose of Regulation VIII (Table 3.3-9) is to reduce the amount of PM₁₀ entrained into the atmosphere as a result of emissions generated from anthropogenic fugitive dust sources. To date, SJVAPCD has not adopted a method for evaluating impacts associated with emissions of PM_{2.5}. However, because project-generated construction-related emissions of PM_{2.5}, by definition, would be a subset of PM₁₀ emissions, SJVAPCD-recommended methodologies and mitigation measures for PM₁₀ are also relevant to PM_{2.5} emissions. As explained in the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts*, Regulation VIII specifically addresses fugitive dust generated by construction related activities. Compliance with Regulation VIII ~~does not constitute mitigation because it is already~~ is required by law and for that reason it is not necessary to require compliance as a mitigation measure herein. Tables 3.3-10 and 3.3-11 contains the SJVAPCD's Enhanced and Additional Control Measures that will provide a greater degree of PM₁₀ particulate matter reduction than will compliance with Regulation VIII. The SJVAPCD significance threshold for construction dust impacts is based on the effectiveness of construction dust (i.e., PM_{2.5} and PM₁₀ controls). In accordance with the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts*, compliance with Regulation VIII and implementation of the appropriate Enhanced and Additional Control Measures (Tables 3.3-10 and 3.3-11) constitute significant mitigation to reduce particulate matter impacts to a level considered less-than-significant. Notably, however, the URBEMIS model does not provide a method by which to quantify dust reductions resulting from these measures. As such, the mitigated conditions emissions estimates provided in Tables 3.3-3 through 3.3-7 do not reflect the anticipated reductions described in the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts* and relied on herein.

Comment 10.4:

C. *In the DEIR it was stated (pg. 3-29)*

This new rule applies to new developments that are over a certain threshold size. Any of the following projects require an application to be submitted unless the projects have mitigated emissions of less than two tons per year each of NO_x and PM₁₀. Projects that are at least:

- 50 residential units;
- 2,000 square feet of commercial space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;

- 20,000 square feet of medical or recreational space;
- 25,000 square feet of light industrial space;
- 39,000 square feet of general office space;
- 100,000 square feet of heavy industrial space; and
- Or, 9,000 square feet of any land use not identified above.

The two tons limit is not an exemption from submitting an application but an exemption from the Rule 9510 fees. The determination that a project may be less than two tons per year each of NO_x and PM₁₀ will be made by the District based on information provided on the application.

District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payments of applicable off-site mitigation fees. Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building permit. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees before issuance of the first building permit, be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at: <http://www.valleyair.org/ISR/ISRHome.htm>.

Response 10.4: The fourth paragraph of DEIR page 3-29 is amended as follows to correct the statement that projects having less than two tons per year of mitigated emissions for NO_x and PM₁₀ are exempt from submitting an application in accordance with Indirect Source Review (ISR) requirements.:

This new rule applies to new developments that are over a certain threshold size. Any of the following projects require an application to be submitted ~~unless the projects have mitigated emissions of less than two tons per year each of NO_x and PM₁₀~~. Projects that are at least:

- 50 residential units;
- 2,000 square feet of commercial space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of medical or recreational space;
- 25,000 square feet of light industrial space;
- 39,000 square feet of general office space;
- 100,000 square feet of heavy industrial space; and
- Or, 9,000 square feet of any land use not identified above.

The San Joaquin Valley Air Pollution Control District is a responsible agency with regulatory authority over this Project. For example, page 2-27 of the DEIR lists various Project-related approvals over which the District has jurisdiction, including “Appropriate Action to Ensure Rule

9510 Compliance for Friant Ranch Specific Plan Development.” The Friant Ranch Specific Plan is subject to San Joaquin Valley Air Pollution Control District Rule 9510 authority. During the tentative map processing for any development within the Friant Ranch Specific Plan Area, the applicant is required by State regulation to consult with the San Joaquin Valley Air Pollution Control District and comply with Rule 9510. As such, it is not necessary to impose compliance with applicable law or regulation (i.e., Rule 9510) as a condition of approval.

Comment 10.5:

D. Individual development projects may also be subject to the following District rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

Response 10.5: Comment noted. No response warranted.

Comment 10.6:

E. The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

Response 10.6: Comment noted. No response warranted.

Comment 10.7:

2. *The General Plan is the blueprint for future growth and provides guidance for the community's development. The District is currently designated as extreme non-attainment of the federal national ambient air quality standard for ozone and non-attainment for PM2.5. Given the size of the project, it is reasonable to conclude that mobile source emissions resulting from growth and development would have significant impacts on air quality. To reduce the project related impacts on air quality the General Plan should include design standards that reduce vehicle miles traveled (VMT). VMT can be reduced through encouragement of mixed-use development, walkable communities, etc. Recommended design elements can be found on the District's website at <http://www.valleyair.org/ISR/ISROnSiteMeasures.htm>.*

Response 10.7: Comment noted. No response warranted.

Comment 10.8:

3. *AB 170 (Reyes) requires cities and counties in the San Joaquin Valley to include an air quality element or air quality implementation strategies in their general plans. The*

District prepared the Air Quality Guidelines for. General Plans (AQGGP) to assist in addressing this new requirement. The city is required to forward the air quality element or its equivalent to the District for review. The AQGGP can be found online at <http://www.valleyair.org/transportation/Entire-AQGGP.pdf>.

Response 10.8: Comment noted. No response warranted.

Comment 10.9:

4. *Referral documents for new development projects should include a project summary detailing, at a minimum, the land use designation, project size, and proximity to sensitive receptors and existing emission sources.*

Response 10.9: Comment noted. No response warranted.

Comment 10.10:

5. *The District recommends that a copy of the District's comments be provided to the project proponent.*

Response 10.10: Comment noted. No response warranted.

Comment Letter #11

California Department of Fish and Game
Central Region
1234 East Shaw Avenue
Fresno, CA 93710

Comment 11.1: *The Department of Fish and Game has reviewed the DEIR submitted by Fresno County (County) for the above Project. The Project includes the Friant Community Plan Update and the Friant Ranch Specific Plan. The Friant Community Plan is Fresno County's adopted statement of policy for the growth and improvement of the unincorporated community of Friant. The Friant Ranch Specific Plan involves the development of a mixed use community including residential and commercial development on approximately 942 acres on the east side of Friant Road in the community of Friant.*

The Department agrees with the assessment in the DEIR that Alternative 3 of the Specific Plan is the environmentally superior development alternative. However, the proposed mitigation measures for the Specific Plan are not fully developed. The measures should include a requirement that the applicant consult with the Department regarding "take" of State-listed species and the need for an Incidental Take Permit as well as the need to consult with Department prior to impacts to on-site drainages and waterways.

Response 11.1: The commenter's agreement with the identification of Alternative 3 as the environmentally superior alternative is noted. The Specific Plan applicant has consulted and continues to consult extensively with the California Department of Fish and Game (CDFG), U.S. Army Corps of Engineers (USACE), and U.S. Fish and Wildlife Service (USFWS), and has applied for the necessary state and federal permits related to endangered species and onsite drainages and waterways, including those identified by the commenter. In fact, the project description in the DEIR includes the CDFG permit/approval for incidental take of endangered species and the streambed alteration agreement related to the onsite drainages and waterways of the Specific Plan Area. (See DEIR at page 2-27.) The proposed Infrastructure Master Plan, included in DEIR as Appendix N, which is an attachment to and incorporated in the proposed Specific Plan, also requires the attainment of a CDFG streambed alteration agreement before modifying the drainages within the Specific Plan Area. (See DEIR Appendix N at page 32.) The DEIR further notes that one of the intended uses of the DEIR is for CDFG's (a responsible agency) consideration of the incidental take permit/approval and the streambed alteration agreement. (See DEIR at page 2-29.) It is not necessary or helpful to identify as a mitigation measure the attainment of CDFG approvals that are required as a matter of state law and also included as part of the Project analyzed in the EIR.

Comment 11.2: *Additionally, the Mitigation Monitoring Program incorrectly assigns California Environmental Quality Act (CEQA) Lead Agency responsibilities to the Department. Our specific comments follow.*

Response 11.2: See Response 11.11 below.

Comment 11.3: Trustee Agency Authority: *The Department is a Trustee Agency with the responsibility under CEQA for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities, as those terms are used under CEQA.*

Response 11.3: Comment pertaining to CDFG's general trustee agency authority noted.

Comment 11.4: Responsible Agency Authority: *The Department has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, pursuant to Fish and Game Code Section 2081. If the Project could result in the "take" of any species listed as threatened or endangered under the California Endangered Species Act (CESA), the Department may need to issue an Incidental Take Permit for the Project.*

Response 11.4: Comment noted. The DEIR Project Description specifically includes the anticipated need for CDFG incidental take coverage for impacts to state listed species. (See DEIR at page 2-27.)

Comment 11.5: *CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (Sections 21001(c), 21083, Guidelines Sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports a Statement of Overriding Consideration (SOC). The CEQA Lead Agency's SOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code Section 2080.*

Response 11.5: Comment pertaining to general California Environmental Quality Act (CEQA) requirements and Fish and Game Code Section 2080 compliance is noted and will be forwarded to the applicant and to the County decision makers for consideration during the EIR certification and Project approval process. See Responses 11.7, 11.8 and 11.9 below with respect to Fish and Game Code Section 2080 compliance through adherence to incidental take requirements.

Comment 11.6: *The Department also has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource, pursuant to Fish and Game Code Sections 1600 et seq. The Department is required to comply with the CEQA in the issuance or the renewal of a Stream Alteration Agreement, Therefore, for efficiency in environmental compliance, we recommend that the stream disturbance be described, and mitigation for the disturbance be developed as part of the environmental review process. This will reduce the need for the Department to require extensive additional environmental review for a Stream Alteration Agreement for this Project in the future, For additional information on notification requirements, please contact our staff for the Stream Alteration Program at (559) 243-4593.*

Response 11.6: See Response 11.1 above. The commenter is directed to page 3-117 of the DEIR where impacts to channels are identified (2.01 acres). Channels of the site arguably meet the CDFG definition of a stream. Disturbance to these channels would therefore be subject to the provisions of Section 1602 of the California Fish and Game Code and the Specific Plan applicant would be obligated to enter into a streambed alteration agreement with the Department. The mitigation for this disturbance can be found on pages 3-117 and 3-120 of the DEIR. As described under the heading *Mitigation Measure #3.4.3a*, the mitigation for the loss of 2.01 acres of channel includes the following: 1) the preservation of 22.36 acres of channel habitat on one on-site and three off-site preserves totaling more than 1,300 acres; 2) the creation/restoration of such waters at a 1:1 ratio on suitable lands (as described in *Mitigation Measure #3.4.3a*). Moreover, *Mitigation Measure #3.4.3b* ensures the protection of water quality in seasonal creeks and other waters by requiring an erosion control plan with monitoring, and requiring that all post-construction runoff be treated through grease traps, stormwater retention/detention basins, and bio-filtration swales. (DEIR, page 3-120.) The DEIR does, therefore, address the nature and amount of stream disturbance, and describes in some detail the proposed mitigation measures.

Comment 11.7: *Potential Impacts and Recommendations*

The mitigation measures for Specific Plan-related impacts to State- and Federally listed species do not include the requirement that the applicant consult with and obtain a permit from either the Department or the United States Fish and Wildlife Service (USFWS). The mitigation measures for the Community Plan Update include such a requirement but the requirement is not included in the Specific Plan measures. The Department recommends that the mitigation

measures for each species whose presence is documented, assumed or likely to occur within the Project area include the requirement that consultation between the applicant and the Department occur and that a permit be obtained should "take" of the species occur.

Response 11.7: See Response 11.1 above. The Project Description in the DEIR also discusses the need for the Specific Plan applicant to consult with the USFWS and CDFG to obtain incidental take coverage for any anticipated take of listed species related to the Specific Plan. (See DEIR at page 2-27.) In fact, the Specific Plan applicant has engaged in an ongoing consultation with the USFWS since as early as 2004. The USACE provided a biological assessment and request for section 7 consultation to the USFWS in March 2009, which addressed the Specific Plan disturbance. The Specific Plan applicant has participated in the federal Endangered Species Act (ESA) section 7 consultations between the USACE and the USFWS. The USFWS issued the biological opinion resulting from that consultation (which includes incidental take coverage for the Specific Plan Area) on April 7, 2010. Upon receipt of the biological opinion, the applicant formally requested a Fish and Game Code 2080.1 consistency determination for appropriate state incidental take coverage. As such, including a requirement that the Specific Plan applicant consult with and obtain the required permit from CDFG and the USFWS would not provide any meaningful mitigation, especially since the requisite federal take approval and associated requirements have been provided. Copies of the biological opinion are available at the County.

Comment 11.8: *California Tiger Salamander (CTS):* *In addition to being Federally threatened, this species is a candidate for State listing under CESA. This means the Department currently has jurisdiction over this species under CESA and depending on the outcome of the final listing status ruling (likely in February 2010), the Department could have jurisdiction over this species prior to Project development. Therefore, the Department should be consulted regarding potential impacts to this species and for permitting requirements well in advance of any potential Project-related impacts.*

Response 11.8: See Responses 11.1 and 11.7 above. The DEIR Project Description specifically includes the anticipated need for CDFG incidental take coverage for the California tiger salamander. (See DEIR at page 2-27.)

Comment 11.9: *Mitigation Measure #3.4.1d(3) includes compensatory mitigation ratios and proposes off-site lands to be used to partially mitigate for impacts to the species. If a State Incidental Take Permit is needed for this species, the permit and associated mitigation would need to meet the Department's "fully mitigate" standard and the amount of compensatory mitigation required would be determined during consultation with the Department. The inclusion of ratios and acreage values is premature without a permit from the Department being issued.*

Response 11.9: The compensatory mitigation ratios in Mitigation Measure #3.4.1d(3) reflect what in the professional judgment of the DEIR preparers is adequate mitigation to reduce the Specific Plan's impacts to the California tiger salamander to a less than significant level. The DEIR also notes on the top of page 3-107 that the Specific Plan applicant is obligated to comply with provisions of the federal and state endangered species acts with respect to the impact to California tiger salamander. This statement acknowledges that whatever the mitigation measures

of the DEIR, the Specific Plan applicant will comply, as required by law, with any CDFG incidental take requirements.

Comment 11.10: Succulent Owl's Clover (*Castilleja campestris* ssp. *succulenta*): *The DEIR states that direct "take" will be avoided but indirect "take" from water quality degradation in occupied wetlands could occur. The DEIR proposes the use of wetland buffers varying in size from 100 to 450 feet to reduce impacts to this species. Without further information including the size of the buffers proposed around occupied wetlands and the topographic relation of the wetlands to the developed area the Department is unable to determine that these buffers will be effective in eliminating "take" of succulent owl's clover. The applicant should consult with the Department regarding the potential for "take" of this species and the need for an Incidental Take Permit.*

Response 11.10: The biologists preparing the DEIR biological section do not anticipate that the pools harboring succulent owl's-clover populations will be adversely affected by their proximity to the Specific Plan development. The Low Impact Development (LID) storm water management program proposed by the Specific Plan applicant will be designed to the greatest extent practical to mimic existing conditions and preserve the quantity and quality of water entering the drainage supporting those pools, such that the hydrologic conditions making the pools suitable for this species will not substantially change as a result of the Project. At the same time the LID program will be designed to ensure that summer irrigation water that may run off from landscaped areas will not enter the pools. Moreover, the wetland buffers incorporated in the Specific Plan design and the requirements of Mitigation Measure #3.4.1a will further ensure no significant adverse effect to the succulent owl's clover population.

Nonetheless, the text of the DEIR (page 3-102) has been amended as follows to include an additional mitigation measure requiring the applicant to purchase creation/restoration credits from a USFWS-approved Conservation Bank to ensure that any harm to succulent owl's clover, though not anticipated, will be mitigated.

Mitigation Measure # 3.4.1a(1): The Specific Plan applicant will pay the market rate for 0.5 acres of succulent owl's clover creation/restoration credits from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Area.

Effectiveness of Mitigation: Implementation of Mitigation Measure #3.4.1a(1) will further ensure that the level of impacts to succulent owls clover will be ***less than significant***.

The Specific Plan applicant is in the process of purchasing 0.5 acres of vernal pool/succulent owl's-clover credits from the proposed Knapp Ranch Conservation Bank in Madera County. This conservation bank is creating and/or restoring vernal pools on lands suitable for vernal pool creation, and is establishing new succulent owl's-clover populations in the created or restored pools. Thus, the Specific Plan applicant is paying to have new populations established such that the Project will not result in the net loss of habitat occupied by this species. These credits will cover the creation of new habitat for this species and new populations that had not previously

existed. Therefore, the Specific Plan development would not result in a net loss of this species and may result in a net benefit if, as predicted by the biologists preparing the DEIR biological section, no adverse effects to the species occur from the Specific Plan development. The creation of new habitat and new populations of succulent owl's clover will further ensure that no significant impact to succulent owl's clover would result from the Specific Plan development.

Commenter's suggestion that the Specific Plan applicant could potentially require an incidental take permit from CDFG for any "take" of succulent owl's clover is noted. The DEIR Project Description includes the attainment of incidental take coverage from CDFG and all associated impacts are analyzed in the DEIR. (See DEIR at pages 2-27, 3-101 and 3-102.) However, since the Project design avoids all pools containing succulent owl clover, the Specific Plan development will not result in any "take" of succulent owl's clover necessitating incidental take coverage. Further, even in the off chance that indirect impacts to the pools occurred, any resulting harm to succulent owl's clover would at most constitute "indirect take," for which CDFG does not have authority over under the California Endangered Species Act. (78 Ops. Cal.Atty.Gen. 137 (1995).)

Comment 11.11: Mitigation Monitoring Program (MMP): *The MMP (Section 1.6; Table 1.1) includes the Department and the USFWS as responsible for "monitoring and reporting on the implementation of the mitigation measures" for biological resources. Under CEQA, monitoring and enforcement of mitigation measures required as a condition of Project approval and included in the CEQA document are the responsibility of the Lead Agency. The Department and USFWS are not responsible for monitoring and enforcement of CEQA mitigation. In the event that the Department issues a permit under CESA, mitigation enforcement for CESA compliance would be the responsibility of the Department. The mitigation measures in the DEIR are conditions of County approval and as such should be monitored by the County. The Department requests to be removed from the MMP as having monitoring responsibility for biological resource mitigation. As always, we are happy to advise and assist the County with biological issues as staffing resources allow.*

Response 11.11: Table 1-1, Mitigation Monitoring Program (MMP) of the DEIR is amended as shown below to remove the California Department of Fish and Game and the US Fish and Wildlife Service from monitoring responsibilities and replaced with Fresno County. The MMP table amendment occurs on DEIR pages 1-23 through 1-76 (Impacts #3.4-1 through #3.4-13).

Monitoring
California Dept. of Fish & Game and U.S.
Fish & Wildlife <u>Fresno County</u>

Comment 11.12: Proposed Effluent Site: *The Specific Plan proposes to use the Beck Property, a former pit mine site, for disposal of treated effluent. It is unclear if the use of the former mine as a disposal site for effluent is consistent with the approved mine reclamation plan and the proposed end-use of that pit within that reclamation plan should present any potential inconsistencies with the proposed use of the mining pit and the reclamation plan.*

Response 11.12: The reclamation plan comprised within the Fresno County and California Department of Conservation documents pertaining to mining on the Beck Property calls for ultimate rehabilitation of the Beck Property to a combination of ponds and agricultural land. Storage of effluent within the former excavation area is consistent with pond rehabilitation. Reclaimed water stored on the Beck Property will be used to irrigate the balance of the site, which will be maintained in agricultural production. The proposed use of the Beck Property carries out the intent of the reclamation plan.

Comment Letter #12

Consolidated Mosquito Abatement District
2425 Floral Avenue
Selma, CA 93662

Comment 12.1: *The Consolidated Mosquito Abatement District (District) is a local government agency charged by the California Health and Safety Code to protect the public, in our jurisdiction, from nuisance and disease caused by mosquitoes. The above referenced project is in the District's jurisdiction, and we are concerned with the potential for the stormwater management design to produce mosquitoes, which are vectors of public health significance. The stormwater management policies and practices delineated in the EIR do not address the important public health issue which is to prevent the production of habitat for mosquitoes and other vectors.*

Stormwater management systems are primarily designed to manage runoff from rainfall events. Springtime rains provide the water necessary for mosquito production at the same time of the year that mosquitoes are becoming active. Other sources of runoff that frequently occur throughout the summer come from the overwatering, and overspray of landscape, both public and privately owned. As a result of the continual flow of water through stormwater systems, many of the facilities designed to reduce sediment and other pollutant loads in runoff frequently hold water for more than three days, creating potential mosquito breeding habitats. This in turn leads to the potential for vector-borne diseases such as West Nile virus.

To prevent the proposed stormwater management facilities from providing vectors with breeding habitats and to protect residents from the potentially significant adverse impacts caused by mosquitoes and vector-borne diseases, we recommend the following:

- 1. The Applicant and Fresno Co. Planning Dept. Staff, or appropriate representatives meet with District staff for the purpose of developing and defining mosquito control mitigation measures specific to each stormwater management practice.*

Response 12.1: See Response to Comment 19.64. The County welcomes any additional input to the commenter may have pertaining to implementation of the stormwater management practices described in the Infrastructure Master Plan for the Project.

Comment 12.2:

2. *Implementation of District-approved mosquito control mitigation measures as a condition of approval for the project.*

Response 12.2: See Response 12.1 above.

Comment 12.3:

3. *The Applicant make resources available for the ongoing operation and maintenance of stormwater facilities including clearing excessive vegetation and other debris in order to minimize standing water build-up and facilitate mosquito control.*

Response 12.3: See Responses 12.1 and 19.64.

Comment 12.4: *Additionally, the District will require access to all stormwater management facilities, public and private, to survey for the presence of mosquitoes and vector-borne diseases.*

Response 12.4: See Responses 12.1 and 19.64.

Comment Letter #13

Madera County Resource Management Agency
Planning Department
2037 W. Cleveland Avenue
Madera, CA 93637

Comment 13.1: *We have received the Notice of Availability on the Program/Project Draft Environmental Impact Report regarding the Friant Community Plan Update and Friant Ranch Specific Plan. We have thoroughly reviewed the Draft EIR and the supporting documents. In regards to Madera County, both the Draft EIR and the traffic impact study indicated many significant impacts to Madera County's circulation system to the west of the project area. Already heavily impacted road segments and intersections will experience a dramatic increase in volume as a result of the project.*

Fortunately, Madera County has recently finished a detailed road impact study based off of County policy. The study concluded with the recent adoption of an impact fee to be assessed to all new development in the "South 41" area, which includes the greater Rio Mesa planning area. The table attached shows the fees adopted for South 41, which is shown as "SR 41 South 145" in the table. The attached map shows impact fee areas adopted. In reviewing the environmental documents, we have noticed that the proposed project will involve impacts to the same road system analyzed in the SR 41 South 145 area, including Highway 41 from Fresno County north to Highway 145, Highway 145 from Highway 41 to Road 206, and Road 206. Due to the significant impacts spread out over the same area, the studied and adopted impact fee should be further assessed to Friant Ranch to alleviate all significant impacts. We appreciate the

opportunity to respond to the Notice of Availability and await your favorable response. If you have any questions, please contact me (559-675-7821).

Response 13.1: The Madera County road impact fee of \$950 per daily residential trip (\$588 for Caltrans SR41 projects and \$362 for other Madera County Projects) and \$295 per daily office and commercial trip (\$182 for Caltrans SR41 projects and \$112 for other Madera County Projects) may be applied to the daily trips entering and exiting Madera County that are generated by the Project. The fee could be applied to the Project through an agreement between Madera County and the applicant.

The following text of the DEIR (pages 3-315 through 3-317) modifies Mitigation Measures #3.13-4, #3.13-4a and #3.13.4b to reflect the possibility of such an agreement in lieu of payment of a separate fair-share fee for the specific improvements identified in the DEIR.

Mitigation Measure #3.13-4: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements necessary to accommodate the 2030 cumulative condition through payment of a fair share fee to Fresno County and/or Madera County as appropriate. The traffic improvements and, where an improvement is identified, the estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~1922~~ and 3.13-~~2023~~) are as follows:

Mitigation Measure #3.13.4a (TR-4): The intersection of Road 145 and Road 206 will require signalization with two northbound left-turn lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 7.2%.

Mitigation Measure #3.13.4b (TR-34): The Madera County segment of Road 206, including the bridge, west of Friant Road should be widened to four lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.

The Board of Supervisors, pursuant to Ordinance Code Section 17.88, shall approve, by resolution or as part of the development agreement, a fair share fee for the Project applicant based on then-current calculations of the pro-rata share and costs for these improvements, with an inflation adjuster based on the Engineering News Record (ENR) 20 Cities Construction Cost Index. The Project applicant shall pay the fair share fee for each unit prior to issuance of a building permit for such unit. Alternatively, the Project's fair share fee amount for each unit may be imposed through an agreement between the applicant and Madera County.

The traffic impact study prepared for this EIR used the best information currently available to estimate the Project's traffic volume as a percentage of the future cumulative traffic volume at the intersections and roadways, as shown in Tables ~~3.13-1922~~ and ~~3.13-2023~~. If the identified improvements are subsequently

constructed, provided for in any alternative funding program or required to be constructed as mitigation for another approved project, or if any other intensive land use projects are subsequently approved that will measurably affect the intersection operation, it is possible that the Project's fair share percentage would differ from the estimated percentage of the cumulative traffic volume shown in Tables 3.13-1922 and 3.13-2023 and/or that certain fair share fee payments required in this EIR upon issuance of any future building permits within the Specific Plan Area may not be appropriate or necessary in light of completed construction, alternative funding program(s), or obligations of another project to construct the identified improvement. As such, the Project applicant may request recalculation of the estimated percentages and improvement costs and/or review of the appropriateness or necessity of fair share requirements in conjunction with the review of a final map, tentative tract map, site plan review, or building permit application. The applicant shall be responsible for funding all costs associated with recalculating said percentages and improvement costs or reviewing the appropriateness or necessity of fair share requirements, including preparation of any necessary updated traffic analysis.

If fair share fees for improvements within Madera County are imposed by County ordinance, in lieu of an agreement between the applicant and Madera County, The County shall release the fair share funds paid by the applicant to Madera County in full or in part, as appropriate, upon receipt of construction invoices for the improvements to these roadways within ten years of collection of fair share payments from the applicant for such improvement, the County shall release the fair share funds paid by the applicant to Madera County in full or in part, as appropriate.

Effectiveness of Mitigation: This mitigation measure provides funding for improvements that will mitigate the impacts to roadways and intersections within Madera County. Upon completion of the identified improvements, the impact would be reduced to less than significant by attaining acceptable levels of service for the roadways and intersections within Madera County.

The improvements described within this mitigation measure are outside the jurisdiction of Fresno County and within the responsibility of Madera County. During the environmental review for this Project, the County solicited the assistance and interest of Madera County in formulating the mitigation measure for impacts to the roadways within Madera County. This mitigation measure provides for continued interaction with Madera County. The County will collect the applicant's fair share fee for the improvements, and provide the funds to Madera County upon timely receipt of construction invoices for the identified improvements. Alternatively, the applicant and Madera County may enter into an agreement providing for the applicant's payment of fair share fees for improvements within Madera County. In either event, Hhowever, since Madera County is responsible for the timing and nature of improvements, the County cannot ensure that the improvements will be fully funded sufficient to facilitate

construction prior to the Project's contribution to the impact, if at all, despite the County's best efforts. If a proposed improvement is not fully funded and constructed prior to completion of the Project, there may be significant impacts to the intersection or roadway, in the form of unacceptable levels of service, until such time as the identified improvements are in place. Therefore, the impact is significant and unavoidable.

In addition, Mitigation Measures #3.13-3a, #3.13-3b, and #3.13-3c of the DEIR (page 3-313) are amended as follows:

Mitigation Measure #3.13-3a (TR-1): The intersection of SR 41 and Road 145 should be converted to an interchange by the year 2030. Caltrans has not established a set fee for this intersection at this time. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-1922) is 3.2%.

Mitigation Measure #3.13-3b (TR-2): The intersection of SR 41 and Avenue 12 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. Caltrans has not established a set fee for this intersection at this time. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-1922) is 0.5%.

Mitigation Measure #3.13-3c (TR-3): The intersection of SR 41 and Avenue 15 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. ~~Caltrans has not established a set fee for this intersection at this time.~~ For those improvements to Caltrans roadways that fall within Madera County, which are covered by the

Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-1922) is 0.8 %. ~~Caltrans has not established a set fee for this intersection at this time.~~

The Madera County Road Impact Fee Program Update dated November 10, 2009 addresses improvements at the following locations in Madera County that were also within the Friant Ranch Project study area:

- SR 41 between the Fresno County line and Road 426/Road 222;
- Road 145 between SR 41 and Road 206;
- Road 206 between Road 145 and the Fresno County line (including half the cost of widening the bridge over the San Joaquin River).

Per the request of the County of Madera, payment of the fee would accomplish both Caltrans Mitigation Measures #3.13-3a, #3.13-3b, #3.13-3c and Madera County Mitigation Measures #3.13-4a and #3.13-4b (including half of the bridge but excluding the Road 206 road segment between the bridge and Friant Road, which would still require a fair share contribution).

Comment Letter #14

San Joaquin Valley Air Pollution Control District
Central Region
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244

Comment 14.1: *The conclusion paragraph on page 3-57 states that “there are no known additional feasible mitigation measures which will reduce the impact to a less than significant level. These projects will create a **significant** impact in regards to the area and operational emission content. While the following mitigation measures won't reduce the impact to a less than significant level, they are included to reduce air quality impacts as a result of the proposed project.”*

The District encourages you to work with Fresno COG to minimize the project's impact on air quality and the potential to cause an exceedance of the transportation emissions budgets for Fresno County. For more information on the Conformity Budgets, please look in the SJVAPCD 2007 Ozone Plan.

Response 14.1: Comment noted. No response warranted.

Comment Letter #15

Dumna Wo-Wah Tribal Government
P.O. Box 467
Fresno, CA 93709

Comment 15.1: Mitigation Measure #3.5.1b: *A qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by the developer to monitor construction activities around the significant cultural resource site (CA-FRE-2653) to ensure that there is no impact to any significant cultural resource. Prior to construction, the developer shall consult with a designated representative of the Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.*

Mitigation Measure #3.5.1c: *Cultural resource sites protected pursuant to mitigation measure 3.5.1a(1) shall be protected after development from vandalism, illicit excavation or artifact collection. The County shall discuss measures for long-term protection with the Dumna Wo-Wah Tribal Government, and an appropriate plan for permanent protection of the resource shall be instituted by the developer prior to issuance of building permits for the Friant Ranch Specific Plan. The final plan could include any or all of the following: permanent fencing; funding for permanent maintenance of the fencing; annual or semi-annual monitoring by archaeologists and/or by the Dumna Wo-Wah Tribal Government, with reports filed with the County and other agencies.*

Mitigation Measure #3.5.1d: *During construction within the Friant Ranch Specific Plan Area, protected cultural resource sites (including CA-FRE-2651, -2652, -2653) shall be protected from vandalism, illicit excavation or artifact collection, or inadvertent direct impact. This may be accomplished in part through the installation of orange protective fencing prior to initiation of any construction activities within 200 feet of the site area.*

Mitigation Measure #3.5.1e: *If unknown cultural resources are discovered during Project construction, all work in the area of the find shall cease, and a qualified archaeologist and a member of the Dumna Wo-wah Tribal Government shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 100 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.*

Mitigation Measure #3.5.1f: Construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the Project Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any construction within the Project area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Mitigation Measure #3.5.1g: If unknown cultural resources are discovered during future development in the existing Friant Community Plan Area, including the Depot parcel, all work in the area of the find shall cease, and a qualified archaeologist and Dumna Wo-Wah Tribal Government Monitor shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 100 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.

Mitigation Measure #3.5.1h: Future construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the existing Friant Community Plan Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any future construction within the existing Friant Community Plan Area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Effectiveness of Mitigation: Implementation of the mitigation measures above will reduce the potential impacts to cultural resources to a **less than significant level**.

Response 15.1: The mitigation measures shown on pages 3-162 through 3-164 of the DEIR shall be modified as follows:

Mitigation Measure #3.5.1b: A qualified archaeologist and a member of the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government shall be retained by the developer to monitor construction activities around the significant cultural resource site (CA-FRE-2653) to ensure that there is no impact to any significant

cultural resource. Prior to construction, the developer shall consult with a designated representative of the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.

Mitigation Measure #3.5.1c: Cultural resource sites protected pursuant to mitigation measure 3.5.1a(1) shall be protected after development from vandalism, illicit excavation or artifact collection. The County shall discuss measures for long-term protection with the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government, and an appropriate plan for permanent protection of the resource shall be instituted by the developer prior to issuance of building permits for the Friant Ranch Specific Plan. The final plan could include any or all of the following: permanent fencing; funding for permanent maintenance of the fencing; annual or semi-annual monitoring by archaeologists and/or by the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government with reports filed with the County and other agencies; acquisition of the site by a group such as the Archaeological Conservancy.

Mitigation Measure #3.5.1e: If unknown cultural resources are discovered during Project construction, all work in the area of the find shall cease, and a qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.

Mitigation Measure #3.5.1f: Construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the Project Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any construction within the Project area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove

the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Mitigation Measure #3.5.1g: If unknown cultural resources are discovered during future development in the existing Friant Community Plan Area, including the Depot parcel, all work in the area of the find shall cease, and a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.

Mitigation Measure #3.5.1h: Future construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the existing Friant Community Plan Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any future construction within the existing Friant Community Plan Area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Comment 15.2: Impact #3.5.2 – Disturbance of Human Remains [Evaluation Criteria (d)]

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 et seq. of the California Public Resources Code and Sections 7050.5, 7051, and 7054 of the California Health and Safety Code. Disturbing human remains could violate these provisions, as well as destroy the resource.

Human remains may be present at the significant cultural resource site (CA-FRe-2653), and it is possible that historic period or prehistoric period interments are present elsewhere in the Project Area. If the significant cultural resource site (CA-FRE-2653) is protected as described in the mitigation measures above, then there should be no impact to human remains. If human remains are found outside of the significant cultural resource site (CA-FRE-2653), potential significant impacts related to the inadvertent discovery may result unless mitigated. Mitigation

Measure 3.5.1b, set forth above, provides for consultation with the Dumna Wo-Wah Tribal Government to ensure that appropriate steps are taken in the event human remains are inadvertently discovered during construction activities.

Conclusion: *Construction activities under the Project could result in the disturbance of human remains. This impact is **potentially significant** and the following mitigation measure is required to address the impact.*

Mitigation Measure #3.5.2: *If human remains are encountered during Project construction, all work shall cease within 100 feet of the find and the Fresno County Coroner's Office shall be contacted and procedures implemented pursuant to California Public Resources Code Section 5097 et seq. and California Health and Safety Code Sections 7050.5, 7051, and 7054 with Respect to treatment and removal, Native American involvement, burial treatment, and re-burial, if necessary.*

Effectiveness of Mitigation: *Implementation of the mitigation measure above will reduce the potential impact to a **less than significant** level.*

Response 15.2: *The text of the DEIR on page 3-164 shall be modified as follows:*

Mitigation Measure 3.5.1b, set forth above, provides for consultation with the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government to ensure that appropriate steps are taken in the event human remains are inadvertently discovered during construction activities.

Comment 15.3: *We have spoken to Bob Pennell of the Table Mountain Rancheria, and he will be recommending to The TMR Council:*

We (The Dumna Wo-Wah Tribal Government) “contract to be the on site monitors and that TMR be allowed to visit the site periodically and be kept apprised as to any findings, including final reports and mitigation planning”.

We are in agreement with this and see no problem in the sharing of information.

Response 15.3: *Comment noted. No response warranted.*

Comment 15.4: *The above changes are mainly in the responsible Contact and Monitoring parties as well as distance from resources, should there be inadvertent discoveries.*

Response 15.4: *Comment noted. No response warranted.*

Comment 15.5: *We would strongly recommend that a regional study on impacts to Cultural Resources be implemented by the County, and that study be made available to the Native American Tribes who have so much at stake by the Regional Impacts.*

Response 15.5: Comment noted. The County strives to protect and preserve its cultural resources and has noted the request for a regional Cultural Resource study.

Comment 15.6: *We would like to be consulted, prior to any projects within the Friant Development Plan, as well as projects within Fresno County.*

Response 15.6: The County will provide notification to the Dumna Wo-Wah Tribal Government prior to development activity within the Friant Ranch development area.

Comment 15.7: *Just a reminder; the release of confidential information, Archaeological Reports, is against the SB18 requirements as well as the Statement by the SHPO and the Attorney General. All Lead agencies will be held accountable should this happen again.*

There was an obvious oversight by Fresno County when in late 2009 an entire Archaeological report was released to members of the community and posted on the Fresno County website. In the near future we would like to discuss the necessity of a MOU between our Government and the Fresno County Government regarding these issues.

Response 15.7: Comment noted. The County shall ensure that applicable confidential cultural/archaeological information remains confidential pursuant to SB18 requirements.

Comment Letter #16

San Joaquin River Parkway and Conservation and Trust, Inc.
11605 Old Friant Road
Fresno, CA 93730-9701

Comment 16.1: *Friant Ranch, like many other proposed developments in the area, will benefit from the close proximity of Lost Lake Park and other San Joaquin River Parkway facilities. Increased use generated by the project will impact these resources. We suggest that the County work with the project proponents to set up a community facilities district that will pay a fair share portion of operations and maintenance costs of the San Joaquin River Parkway.*

Response 16.1: The Friant Ranch Specific Plan project includes approximately 245 acres of undisturbed open space in addition to an extensive trail system and approximately 21 acres for two active adult recreation centers. The project is consistent with Policy OS-H.8, which encourages private recreation facilities to reduce demand on public agencies. The County recognizes the importance of the Lost Lake State Recreation Area and San Joaquin River Parkway facilities and natural resources, and understands the importance of maintaining the natural communities and habitats within these areas. Page 3-69 of the DEIR states, “Most of the grassland habitats in the Existing Friant Community Plan Area, including those within the Lost Lake State Recreation Area, are degraded from past and present disturbances associated with urban development and aggregate mining. Restoration of the San Joaquin River and the establishment of the San Joaquin River Parkway are of regional importance.” The goals of the San Joaquin River Parkway are outlined on page 3-226 of the DEIR. The Project is consistent

with the San Joaquin River Parkway Master Plan and related policy documents. In processing any future discretionary approvals for the Specific Plan project, the County of Fresno will work with the applicant to determine appropriate steps that allow future residents to have access to the San Joaquin River Parkway, while adhering to the Parkway Master Plan and other policies intended to maintain the Parkway. See Response 19.43a.

Comment 16.2: *The Friant Ranch project site contains significant vernal pool habitat and vernal pool dependent species. Vernal pool creation has not proven to be an effective method of replacing the disturbed or destroyed vernal pool wetlands. We therefore recommend avoidance of all 14.38 acres of vernal pool habitat on the project site.*

Response 16.2: It is the applicant's intention to avoid areas, such as the vernal pools, that are environmentally sensitive whenever possible. Page 3-236 of the DEIR states, "Friant Ranch will be designed around environmentally sensitive areas such as vernal pools and other wetland areas. Specific Plan policies are devoted to the preservation of these biological resources in perpetuity for future generations and to safeguard biodiversity in the region. Habitat management will ensure the quality, enhancement and preservation of sensitive habitat within the dedicated open space. Consultation and coordination with regional, State and federal agencies to minimize impacts to wildlife and botanical resources in the Specific Plan Area is crucial to proper biological resource management and maintaining habitat connectivity with off-site resources." And, "The Specific Plan includes guidelines to provide open space buffers to minimize potential impacts to vernal pools and natural resources." Potential impacts to 2.2 acres of vernal pool habitat are unavoidable, and therefore mitigation to protect, create, or restore vernal pool habitat is included.

Comment 16.3: *In the mitigation monitoring program, all of the mitigation measures relating to Impact #3.4.1 - Impacts to candidate, sensitive, or special status species should include a measure stating: A qualified biologist shall conduct a training program for all construction contractors that shall be working on the project to inform workers of the need to avoid [insert name of candidate, sensitive, or special status species] and the possible penalties for not complying with these requirements. The training program must include information on the [insert name of candidate, sensitive, or special status species] such that a person unfamiliar with the species will be able to recognize it if encountered on the project site.*

Response 16.3: As is noted in the DEIR, page 3-102, under Mitigation Measure #3.4.1a, a Land Management Plan will be developed in cooperation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service, to be prepared prior to issuance of a grading permit. This Plan will include monitoring, remedial actions, and alternatives for protection. Mitigation Measures to be completed prior to issuance of a grading permit when possible are included for other species as well, such as pre-construction surveys, protection through conservation easements, habitat avoidance and habitat preservation, and management of undisturbed open space.

It is highly unusual to enact a training program directed at each and every candidate, sensitive, or special status species discussed in the EIR. Such a measure is not necessary to ensure that the Project does not result in significant impacts to said candidate, sensitive, or special status

species. Many of these species and their habitat occur in the onsite open space preserves, which will be fenced off during construction so as to avoid any interaction between the construction workers and the habitat. Furthermore, to the extent candidate, sensitive, or special status species are anticipated to occur within the construction area, the EIR provides extensive mitigation sufficient to ensure that Project impacts will be reduced to less than significant. As such, the suggested training program for all candidate, sensitive, or special status species is not appropriate or necessary to mitigate Project impacts.

The commenter proposes species training for the following species:

- Succulent Owl's-clover
- Hartweg's golden sunburst
- Vernal pool fairy shrimp
- California tiger salamander
- Western spadefoot
- Swainson's hawk
- Burrowing Owls
- American badger
- Nesting raptors
- Other nesting birds

Contractor training for such species would not be useful for the following reasons:

1. Two annual plants, the succulent owl's-clover and the Hartweg's golden sunburst germinate during the late fall or winter, bloom in late March or April, set seed in mid-May and die. These two plants are easily discernible to botanists just prior to blooming and when they are blooming. Highly trained botanists may be able to detect these species for one or two months after blooming, although most identifying characteristics (leaves, seed heads, etc.) have disintegrated just after blooming. From late May until the following spring, these species would not likely be discernible even to trained botanists. Therefore, even with training, contractors and their employees would not be able to detect these species.

Furthermore, there would be no need for them to be able to do so, because highly trained botanists have already surveyed the entire site for these species and all detected populations were mapped. All but one population will be preserved in dedicated open space. The dedicated open space will be fenced with construction fencing to ensure that no construction work inadvertently occurs in the open space. The one population located within the development footprint will be relocated to a suitable area within the dedicated open space such that that location can be graded and developed. The only thing that contractors and their employees need to know is that all construction work must be within the footprint of approved development as marked by orange construction fencing. Any additional training would be superfluous.

2. The vernal pool fairy shrimp is a crustacean occurring in vernal pools during the winter and spring. Most of the year, this species could not be detected in the field by trained biologists, because it occurs as a microscopic egg in the accumulated soil in the bottoms of vernal pools.

During the winter and spring adults occurring in vernal pools are a quarter to a half inch in length and are not readily distinguished from other vernal pool fairy shrimp species that are not listed as threatened or endangered, or listed as candidates, sensitive, or species of special concern. It is not realistic to think that contractors and their staff can be trained to recognize either adult shrimp, or their eggs.

Furthermore, training contractors and their staff to recognize vernal pool fairy shrimp would in no way protect this species from impact. Some vernal pools are located within the development footprint, they will be impacted by the project, and the project applicant has already received “take” authorization for vernal pool fairy shrimp that may occur in these pools. Take authorization has not been provided for vernal pools within the dedicated open space, but as previously noted, the dedicated open space will be fenced such that contractors and their staff could not enter without knowing that they are outside of the development footprint. The only thing contractors and their staff need to know to protect the vernal pool fairy shrimp is that all construction activities must be confined to the area within the development footprint as delineated by construction fencing. They do not need to be able to recognize vernal pool fairy shrimp to do this.

3. The California tiger salamander (CTS) and western spadefoot are both likely to use at least some vernal pools of the site for breeding. These species could aestivate (oversummer) in rodent burrows throughout the site. The applicant has received “take” authorization for CTS that may occur within the development footprint through the biological opinion issued by the USFWS. The USFWS has issued this authorization recognizing that some CTS may aestivate within the development footprint, and that some of these individuals may be dug up during construction activities. Uninjured individuals must be relocated to suitable habitat in the designated open space by the biologist, but construction crews may encounter these individuals first. Therefore, the USFWS is also requiring that a qualified biologist conduct training for construction contractors and their staff in order to ensure that they recognize adult tiger salamanders should any be dug up, and in order that they know to inform the biological monitor should such occur.
4. The EIR requires that the project applicant have a qualified biologist conduct pre-construction surveys for nesting Swainson's hawks, burrowing owls, other raptors (hawks and owls), and other passerines (perching birds) protected by California Fish and Game Code and the federal Migratory Bird Treaty Act. It is useful to note that there is little habitat within the development footprint that is suitable for tree-nesting birds to nest. Therefore, pre-construction surveys will be more for ground-nesting birds. The important point here is that qualified biologists will perform such surveys, and there will be no need for contractors and their employees to recognize such species in order to avoid their nests.
5. Although American badgers have been listed as California species of special concern, the Department of Fish and Game lists the badger is a furbearing animal, and has established a season when badgers may be trapped. Because this project sets aside under conservation easement approximately 1,500 acres of grassland habitat suitable for badgers, project impacts to badgers will be fully mitigated, even if the project results in the incidental take

of a small number of badgers during project construction. It will therefore not be necessary for contractors and their employees to recognize badgers in the field.

Comment 16.4: *The water supply assessment provided to meet the requirements of SB 610 leaves significant unanswered questions about the sufficiency of the water supply to meet projected water demands. The proposed water supplier, Wastewater District 18, currently has a contract for 150 acre feet of Friant Division water, and provides water to 219 residential and 19 commercial/industrial customers. The Friant Ranch project at full buildout will require delivery of approximately 2000 acre feet per year to more than 2000 customers. It is unknown whether WWD 18 has the technical and managerial capacity to handle such a significant increase in services.*

Response 16.4: Certainly the WWD 18 as it exists today does not have adequate staff or capital reserves to serve a fully built out community of nearly 3,000 homes. However, the District will have the opportunity to grow with the development and will be positioned to provide an appropriate level of service to its customers all along the way. In coordination with the Specific Plan applicant, the District has prepared a Strategic Plan for growth that anticipates the buildout of the Friant Ranch project. This strategic plan has been shared with the Fresno County Public Works staff, and has been enhanced at their request to include more detailed consideration of utility rates, cash flow and staffing needs. The Strategic Plan relies on the Specific Plan applicant to construct and provide capital for the water and sewer facilities necessary. The District recognizes that additional, more highly trained technical staff will be needed, and the Strategic Plan anticipates the District may retain contract services to provide these skilled personnel as the District grows.

Comment 16.5: *The water supply that is relied upon for the project is based on a letter of intent with the Lower Tule River Irrigation District that refers to a formal water supply agreement which will contain definitive terms covering the water supply and terms..." Until the formal water supply agreement is drafted and executed, the water supply for the project appears somewhat uncertain, and therefore does not meet the intent of SB 610.*

Response 16.5: SB 610 requires WWD 18 to assess available water supplies to serve the Project. The Water Supply Assessment and Letter of Intent attached thereto identify the proposed water supply, including vendor, quantity, cost and proposed terms. This is appropriate for the level of entitlement here sought (i.e., Specific Plan). Consistent with SB 610, the Water Supply Assessment summarizes the potential uncertainties associated with finalization of the water transfer agreement and explains the processes required to approve the agreement. One of these processes is the completion of environmental review for the water transfer agreement. Though terms have been negotiated, the agreement has not yet been approved because potential impacts of the water transfer, which is a component of the Specific Plan project, are being analyzed within this EIR. Upon certification of the EIR, WWD 18 and LTRID will consider approval of the water transfer agreement after consideration of the pertinent information in this EIR. SB 221, a sister statute to SB 610, requires formal verification of the water supply prior to approval of tentative maps for large subdivisions. Similarly, Mitigation Measure #3.14.1 requires approval of the agreement by LTRID and WWD 18 prior to the approval of any

tentative maps for the Specific Plan Area, effectively preventing any development within the Specific Plan Area prior to WWD 18 and LTRID approval of the final water transfer agreement.

Comment 16.6: *We strongly object to the alternative location of the wastewater treatment plant on the Beck property, west of Friant Road. Although the alternative location places the treatment plant slightly farther away from the San Joaquin River when measured in feet, the alternative location provides a significantly greater risk of contamination in the case of an accidental release of untreated sewage. Friant Road provides a significant constructed barrier between the WWTP and the San Joaquin River, including Lost Lake Park. Although the treatment plant will provide tertiary sewage treatment and the opportunity for beneficial use of treated wastewater, raw sewage will have to be pumped under Friant Road, into the river bottom adjacent to Lost Lake Park. While this may not pose a problem under normal operations, in the event of a pipe breakdown or other catastrophic failure of the system, untreated sewage would be introduced into the riverbottom adjacent to one of the largest parks along the San Joaquin River Parkway.*

Response 16.6: Though it may not be clear from the Figure 2-6 provided in the DEIR (a rough schematic showing the alignment of pipelines from the Specific Plan Area to the Beck Property), alignment of the sewer main to the Beck Property location will run along the east side of Friant Road, within the Friant Ranch Specific Plan Area, to the south edge of the property boundary, then crossing Friant Road directly into the Beck Property. As such, raw sewage will not be pumped “into the riverbottom adjacent to Lost Lake Park” as described by the commenter. Further, because the Beck Property is at an elevation lower than the Project, it is anticipated that the sewer main would flow by gravity, and would not be a pressurized pipe. The actual crossing itself will be either in a steel casing or in a seamless pipe. Once onto the Beck Property, the pipe will be near the wastewater treatment plant itself and a considerable distance from the river. The possibility of a gravity sewer pipe breaking in a manner that would cause spillage into the riverbottom is too speculative and not based on evidence of any reasonably foreseeable events.

Comment 16.7: *The hazardous materials analysis in the discussion of the alternate WWTP location states that mitigation measures 3.7.6a-b address emergency preparedness related to hazardous materials release by the WWTP. The cited mitigation measures speak to fire and police response, and do not appear to have any relationship to spills of hazardous materials. We suggest that any project approvals be contingent upon the use of the original Wastewater Treatment Plant location as analyzed in Appendix G of the DEIR.*

Response 16.7: Section 3.7 explains, within the discussion for Impact #3.7.2 – Hazardous Materials Accidents, that “activities within the Project Area must be carried out in compliance with established federally- and State-mandated guidelines for the handling of hazardous materials, the risk associated with the potential for accidental release of hazardous materials into the environment or potential explosion would be less than significant.” As stated on page 4-41 of the DEIR, activities related to the construction and operation of a WWTP at the Alternative WWTP Location would also be carried out in compliance with said guidelines.

Comment Letter #17

Clovis Unified School District
Administrative Services
1450 Herndon Avenue
Clovis, CA 93611-0599

Comment 17.1: *In order to provide the most up-to-date and accurate information for the Draft EIR, the relevant portions of the document should be revised to reflect the following information:*

School Capacity and Enrollment

The Draft EIR should be revised to reflect the following information regarding school capacity and enrollment for District schools serving the project area:

<i>School</i>	<i>Enrollment (CBEDS 2009-10 Data)</i>	<i>Capacity</i>
<i>Liberty Elementary School</i>	<i>530</i>	<i>648</i>
<i>Kastner Intermediate School</i>	<i>1,156</i>	<i>1,331</i>
<i>Clovis West High School</i>	<i>2,442</i>	<i>2,769</i>

Response 17.1: Thank you for the information on recent enrollment. Table 3.12-1, on page 3-263 of the DEIR will be revised as follows:

**Table 3.12-1
School Enrollment & Percentage Change
Liberty, Kastner & Clovis West, 01-02 & 06-07**

	2001-02 Enrollment	2008-09 Enrollment	% Change	2009-10 Enrollment	% Change	Capacity
Liberty Elementary	570	540	-5%	<u>530</u>	<u>-2%</u>	<u>648</u>
Kastner Intermediate	1,527	1,205	-21%	<u>1,156</u>	<u>-4%</u>	<u>1,331</u>
Clovis West High	2,877	2,546	-12%	<u>2,442</u>	<u>-4%</u>	<u>2,769</u>

Source: Education Data Partnership, www.ed-data.k12.ca.us and Clovis Unified School District (2002-2010 Data)

Comment 17.2:

Student Generation

As discussed in the Draft EIR, student generation from the proposed project will result from 230 multiple family residential, units (without age restrictions) within the Friant Specific Plan Area. Additional residential development could also occur within the approximately 18 acres of Low Density, five acres of Medium Density, and eight acres of Medium High Density of vacant and available land located in the Friant Community Plan Area. The low and medium density units (totaling 46 units) were classified as single family and the medium high density units (totaling 116 units) were classified as multiple family units.

Based on the District's current ancient generation rates (see table below), the proposed project would generate 72 grade K-6 students; 20 grade 7-8 students; and 30 grade 9-12 students.

*Clovis Unified School District
Student Generation Rates*

<i>Grade Level</i>	<i>Single Family Units</i>	<i>Multiple Family Units</i>
<i>Elementary (K-6)</i>	<i>.3785</i>	<i>.1547</i>
<i>Intermediate School (7-8)</i>	<i>.0922</i>	<i>.0473</i>
<i>High School (9-12)</i>	<i>.1725</i>	<i>.0645</i>
<i>Total (K-12)</i>	<i>.6432</i>	<i>.2665</i>

Response 17.2: Page 3-267 of the DEIR estimated an additional 107 students could be added to the School District upon build-out of the project. The estimates provided by the District are somewhat higher, with an estimated total of 122 students. The last paragraph on page 3-267 (continuing on page 3-268) of the DEIR will be revised as follows:

The number of students to be generated from a proposed project is determined by the number of proposed residential units multiplied by student generation rates of the local school district. Since most of the Friant community is built out and approximately 2,766 of the proposed 2,996 total units within the Friant Ranch Specific Plan are for active adults (age 55+), the proposed Project will not generate many new students. There are approximately 18 acres of Low Density, five acres of Medium Density, and eight acres of Medium High Density designated land in the Friant Community Plan Area that is vacant and available for development. The total number of units (.80 net density to account for right of way) which could be built is approximately 17 Low Density units, 29 Medium Density units and 116 Medium High Density units. Using a ~~student~~ generation rates provided by the District in March of 2010 that vary by school location and housing type (single-family or multiple-family units), ~~of 0.661 students/household~~, this could equate to 407 72 grade K-6 students, 20 grade 7 and 8 students, and 30 grade 9 through 12 students ~~additional students~~ in the Friant Community Plan Area.

Comment 17.3: *Although Government Code section 65995.1 limits school fees assessed against age restricted 55+ developments to the maximum rate allowable for commercial/industrial buildings, the District exempts this type of housing from the payment of school facilities fees. However, in order to be exempt from fees, the property owner must enter into a Secured Agreement with the District, provide evidence of the conditional use permit or other entitlements required for senior housing, and a statement of the restrictions on occupancy applicable in the development. If the units are later converted to non age restricted housing, developer fees would be collected at the rate in effect at the time of conversion prior to the release of the lien.*

Response 17.3: Because the District will exempt school fees assessed against age restricted (55+ years) residential developments under some circumstances, the DEIR (page 3-268) will be amended as follows to reflect the conditions of the exemption:

The project is within the Clovis Unified School District (CUSD) and their current fees are \$0.47/sq. ft. for commercial/industrial buildings and \$3.26/sq. ft. for residential buildings. ~~However, Government Code 65995.1 limits school fees assessed against age restricted 55+ developments to the maximum rate allowable for commercial/industrial buildings, which is currently \$0.47/sq.ft. pursuant to government Code section 65995(b) and (c). Development within the Project Area will be subject to CUSD school fees in accordance with Government Code 65995.1. The Clovis Unified School District exempts school fees assessed against age restricted 55+ developments when the property owner enters into a Secured Agreement with the District, provides evidence of the entitlements required for senior housing, and a statement of the restrictions on occupancy applicable in the development. Should a residence be later converted to non-age restricted housing, developer fees for the School District would be assessed at the rate in effect at the time of conversion, prior to release of the lien.~~

Comment 17.4: *It is stated on page 3-268 that the school facilities fee charged for residential development is \$3.26 per square foot. The fee charged as of July 1, 2009 is \$3.23 per square foot.*

Response 17.4: Page 3-268 of the DEIR will be amended as follows:

The project is within the Clovis Unified School District (CUSD) and their current fees are \$0.47/sq. ft. for commercial/industrial buildings and ~~\$3.26~~\$3.23/sq. ft. for residential buildings.

Comment Letter #18

Department of Conservation
Division of Land Resource Protection
801 K Street MS 18-01
Sacramento, CA 95814

Comment 18.1: *The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Draft EIR for the Friant Community Plan update & Friant Ranch Specific Plan. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.*

Project Description

The project is located on land adjacent to the unincorporated community of Friant in north-central Fresno County. The Friant Community Plan Update proposes expansion of the Friant Community Plan Area boundaries to encompass approximately 1,804 acres, which will include the proposed 942.2 acre Friant Ranch Specific Plan Area.

The proposal also includes development of a master planned community adjacent to the existing community of Friant. The master planned community includes 2,683 single-family units, 263 multiple-family units, and 250,000 square feet of commercial within a Village Core that also provides an additional 50 residential units.

The majority of the Friant Ranch Specific Plan Area is designated Agriculture in the Fresno County General Plan. The Project will result in the conversion of an existing agricultural use (grazing land) to residential, commercial, recreation, open space and public uses. This conversion to non agricultural uses would result in the loss of approximately 670 acres currently used as grazing land within the Friant Ranch Specific Plan Area.

Response 18.1: The project description provided by the commenter is accurate.

Comment 18.2:

Agricultural Description of the Project Site

The Physical Setting under the Agricultural Resources section (page 3-22) describes the property as follows:

"According to the California Department of Conservation, there are three types of farmland categories in the Project Area boundary: Grazing Lands throughout the Friant Ranch Specific Plan Area, Prime Farmland and Farmland of Local Importance within the Friant Community Plan Area to the southwest of Friant Ranch, and a small piece of land designated as Farmland of Statewide Importance within the Friant Community Plan Area to the southwest of Friant Ranch, which is not utilized for agriculture. In fact, this Prime Farmland within the Friant Community Plan Area to the southwest of Friant Ranch, including the small piece of land designated as Farmland of Statewide Importance, is subject to sand and gravel excavation which will effectively negate The Prime and Statewide Important Farmland designations."

The Division does not agree with this assessment. Sand and gravel mining operations are a very common permitted use on agricultural land throughout the State and are at times done simultaneously with agricultural operations. They are considered temporary in nature and once completed, agricultural lands can be returned back to their original use. Therefore the Prime and Statewide Important Farmland designations are still considered viable.

Response 18.2: The first paragraph of Section 3.2.2 PHYSICAL SETTING on page 3-22 of the DEIR is amended as follows to clarify the relationship between the existing sand and gravel operation and the prime and statewide important farmland designations found proximate to the sand and gravel operation:

3.2.2 PHYSICAL SETTING

Fresno County produces many different crops and is considered one of the most diverse and productive farming areas in the world. Though there is some agricultural land in the Friant Community Plan area, it provides very little

economic base for the Friant community. According to the California Department of Conservation, there are three types of farmland categories in the Project Area boundary (see Figure 3.2-2): Grazing Lands throughout the Friant Ranch Specific Plan Area, Prime Farmland and Farmland of Local Importance within the Friant Community Plan Area to the southwest of Friant Ranch, and a small piece of land designated as Farmland of Statewide Importance within the Friant Community Plan Area to the southwest of Friant Ranch, ~~which is not utilized for agriculture. In fact, this Prime Farmland within the Friant Community Plan Area to the southwest of Friant Ranch, including the small piece of land designated as Farmland of Statewide Importance, is subject to sand and gravel excavation which will effectively negate the Prime and Statewide Important Farmland designations.~~ Farmland of Local Importance is located just south of the Friant Community Plan Area along Friant Road.

Comment 18.3: *Under Impact #3.2.1 the conclusion states, “The conversion of non-prime and non-important agricultural land does not result in a significant impact to agricultural resources.”*

The Division does not agree with this assessment. Grazing land is still considered an agricultural resource and non-prime farmland is still farmland (Unique, Statewide, or Local). If property is being used for agricultural purposes (grazing), then it still has agricultural value. Therefore, we suggest that mitigation measures be applied for the conversion and loss of agricultural land.

Response 18.3: Section 3.2.3 on page 3-23 of the DEIR sets forth the following three criteria "based on Appendix G of the 2008 CEQA Guidelines" for use in identifying significant adverse impacts associated with agricultural resources:

- a) Converts Prime Farmland, Unique Farmland, Farmland of Local Importance, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses.*
- b) Conflicts with existing zoning for agricultural use, or a Williamson Act contract.*
- c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance), to non-agricultural use.*

Page 3-23 of DEIR applied criteria (a) set forth in section 3.2.3 of the DEIR to conclude that the conversion of "non-prime and non-important agricultural land" resulted in no significant impact to agricultural resources. This determination was appropriately based on the fact that “none of the land designated Prime Farmland or Farmland of Statewide Importance within the Project Area will be converted to non-agricultural use, and there are no lands designated as Unique Farmland within the Project Area.” The DEIR significance criteria (a) in section 3.2.3 and Appendix G of the CEQA Guidelines apply the definition of “agricultural land” set forth in

Public Resources Code section 21060.1, which defines agricultural land as “prime farmland, farmland of statewide importance, or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California.” The DEIR identifies the classifications of farmland set forth in Public Resources Code section 21060.1, in accordance with the United States Department of Agriculture definitions. (DEIR, section 3.2.1, page 3-15.)

This threshold of significance is also supported by the Fresno County General Plan goals and policies. The County General Plan Goal LU-A is “[t]o promote the long-term conservation of productive and potentially productive agricultural lands....” Page 2-2 of the Fresno County General Plan defines “Productive (Prime) Agricultural Land” as “[s]oils which are suitable for the production of most climactically adapted irrigated crops”, including land “which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one (1) animal unit per acre as defined by the USDA.” With its current topography and soil structure, the Friant Ranch Specific Plan Area is not and never has been irrigated. The lands are not suitable for irrigation of crops or irrigated pasture. Unirrigated, foothill grazing land such as that within the Friant Ranch Specific Plan Area does not meet the County's definition of Productive (Prime) Agricultural Land. The rolling hills, sandy loam soils, and lack of reliable onsite water supplies make such lands unsuitable for the production of irrigated crops. Moreover, in order to maintain a livestock carrying capacity of at least one (1) animal unit per acre in the San Joaquin Valley of California, as set forth in said definition, irrigation is required. The grazing lands within the Friant Ranch Specific Plan Area are not conducive to irrigated pasture. The County General Plan definition of Productive (Prime) Agricultural Land also references the same Class I or II soil classifications of the Natural Resource Conservation Service as referenced in the DEIR's section 3.2.3(a) threshold. See page 3-15 of the DEIR for discussion of the Natural Resource Conservation Service classifications. The General Plan defines “Potentially Productive Agricultural Land” as soils that can be altered to “make them more productive for essential food crops such as grain and vegetables.” The subject property does not meet this definition. As explained above, the rolling hills, sandy loam soils, and lack of reliable onsite water supplies make such lands unsuitable for the production of irrigated crops.

Criterion (b) of section 3.2.3 acknowledges impacts based on conflicts with existing agricultural zoning. The DEIR analyzed that the proposed use of approximately 606 acres within the Friant Ranch Specific Plan Area and Depot Parcel for commercial and residential uses will conflict with the existing agricultural zoning. Page 3-24 of the DEIR concludes that these conflicts with existing agricultural zoning will result in a significant impact under criteria (b) set forth in section 3.2.3 of the DEIR. The DEIR concludes that there is no feasible mitigation to mitigate the redesignation of these lands from the existing agricultural zoning.

However, page 3-24 of the DEIR explains that Mitigation Measures #3.4.lb and #3.4.lc require the applicant to prepare a grazing management plan for the 275 acres of revegetated and undisturbed open space within the Friant Ranch Specific Plan. Further, Mitigation Measures #3.4.ld, #3.4.le, #3.4.3a(l), #3.4.3a(2)(a) and #3.4.5 require the applicant to preserve the onsite undisturbed and revegetated open space and additional offsite grazing lands in perpetuity through a conservation easement. As such, the commenter's request for requiring a conservation easement

on grazing land of at least equal size as compensation for loss of farmland is already required by mitigation in this EIR mandating preservation of over 1,000 acres of grazing lands. See also Response 7.11 for additional information about the offsite grazing lands to be preserved under conservation easement.

Furthermore, Chapter 4 of the DEIR analyzes a No Project alternative and three reduced Project alternatives, each of which reduce the amount of grazing land proposed for uses that would conflict with the existing agricultural zone.

For example, the DEIR discusses (at page 4-29) the reduced impact of the environmentally superior alternative (Alternative 3) on agricultural resources. Alternative 3 proposes to convert approximately 443 acres of agriculturally zoned lands to land uses that conflict with the existing agricultural zoning, as compared to approximately 600 acres of agriculturally zoned lands under the Project scenario. Moreover, Alternative 3 further proposes to place 460 acres of undisturbed grazing lands and an additional 22.4 acres of revegetated slopes into permanent open space managed through grazing. This is a significant increase in onsite preservation of grazing lands from the approximately 275 acres of proposed open space under the Project scenario. In addition, the offsite preservation requirements set forth in Mitigation Measures #3.4.1d, #3.4.1e, #3.10.2e, #3.4.3a(1), #3.4.3a(2)(a) and #3.4.5 still apply to the alternative development scenarios and will ensure the preservation of similarly situated grazing lands through conservation easements.

Comment 18.4: *The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. As such, the Department recommends the use of permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land. If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with California Environmental Quality Act (CEQA) Guideline §15370. The Department highlights this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that for wildlife habitat mitigation.*

Response 18.4: Please see Response 18.3 above.

Comment 18.5: *Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands can be conducted regionally or statewide, and need not be limited strictly to lands within the project's surrounding area.*

Response 18.5: Comment noted. See Response 18.3.

Comment 18.6: *The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website:*

<http://www.conservation.ca.gov/dlrp/index.htm>

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

Response 18.6: Comment noted. See Response 18.3.

Comment 18.7: *Thank you for giving us the opportunity to comment on this Draft EIR for the Friant Community Plan Update & Friant Ranch Specific Plan. Please provide this Department with the date of any hearings for this particular action, and any staff reports pertaining to it.*

Response 18.7: Comment noted. No response warranted.

Comment Letter #19

City of Fresno
2600 Fresno Street
Fresno, CA 93721-3601

Comment 19.1: *This letter contains the City of Fresno's (City) comments on the Draft Environmental Impact Report (EIR) for the Friant Community Plan Update (Community Plan) and the Friant Ranch Specific Plan (Specific Plan) prepared by the County of Fresno (County).*

The City strongly objects to the Project, which involves a huge expansion of urban growth within the County in an area currently zoned for agricultural use without available public services. The Project violates fundamental principles of the County and City General Plans and the Memorandums of Understanding (MOU) between the County and cities. These documents direct urban development to existing cities and urbanized areas which have available service capacity to accommodate such development. They focus on preserving agricultural land and environmental resources. The Project completely contradicts these principles, not to mention the purpose and intent of SB 375, which requires local agencies to develop regional targets and plans to reduce greenhouse gas emissions from land use and transportation. The Project expands the Community Plan area over 1800 acres and rezones over 900 acres of agricultural land to residential and commercial use. It significantly expands urban development outside the existing Friant community. It will increase the population in the area from 519 to 6,000 and housing units from 236 to almost 3,000. There is no available service capacity in the area for this very large development, so the Project requires building a new wastewater treatment facility, expanding the existing water treatment facility, and importing water from another county/ watershed.

Response 19.1: See Response 19.74 (regarding MOUs). Commenter misstates the origin of the proposed water supply, which is water stored behind Friant Dam just north of the Project Area (the same origin of the water supply currently used to serve the existing development within the Project Area). Though the proposed water supply is currently exported to Lower Tule River Irrigation District in Tulare County, the proposed water supply originates in Fresno County.

Comment 19.2: *Given the extent of development proposed and its location, it should come as no surprise that the EIR identifies a massive amount of environmental impacts from the Project. The EIR identifies significant impacts in almost all areas (including many significant and unavoidable impacts) and contains numerous mitigation measures. Despite this, the EIR fails to adequately disclose and address all significant environmental impacts and includes many mitigation measures, which will not result in reducing these impacts to less than significant. These impacts will adversely affect City and County residents and impede the City's plans for future development.*

Response 19.2: The commenter does not provide specific references to impact areas that are purportedly inadequate. Therefore a specific response is not possible. Please refer to the remaining responses to comments made by commenter.

Comment 19.3: *The City respectfully requests that the County reconsider moving forward with this Project. If the County decides to continue to go forward with this Project, the Draft EIR needs to be substantially revised and recirculated because, as explained below, it substantially understates the significant impacts of the Project, contains inadequate mitigation measures, and, overall, fails to meet the requirements of the California Environmental Quality Act (CEQA).*

Response 19.3: Comment noted. The commenter does not provide specific references to impact areas that are purportedly inadequate or allegedly require recirculation. Therefore, a specific response is not possible.

Comment 19.4: General Comments:

The level of detail and amount of information provided in the EIR on Project components do not support project-level review for the Specific Plan. Although the EIR states that it contains project-level review for the Specific Plan, the analysis does not meet the CEQA standard. This is of particular concern because the EIR states that it will be relied on for the CEQA environmental review for the implementation of the Specific Plan project with no further analysis required (esp. given the state law exemption for residential projects that are part of a specific plan with a certified EIR). As currently drafted, the EIR cannot be relied upon for implementation of the Project, including the Specific Plan, and further CEQA environmental review will be required.

Response 19.4: Comment noted. The DEIR was prepared pursuant to CEQA Guidelines and contains adequate review of project-level components. The commenter does not provide a specific comment and therefore a specific response is not possible. See discussion of Project-level analysis and appropriate supplemental environmental review at pages 1-2 and 1-3 of DEIR.

Comment 19.5: *As an example, one Project component for which the EIR purports to provide detailed project level review is "a land use designation and zone change" for the Depot Parcel. However, full extent of the Project's proposal for the Depot Parcel is not clear, since the Air Quality chapter of the EIR states that "[t]he Depot Parcel consists of: 73,508 [square feet] of shopping center use ..." The EIR is entirely inadequate as a project level evaluation of development of a 70,000+ square foot shopping center project on the Depot Parcel site. The EIR provides absolutely no information about the physical configuration of, or anchor tenants for a shopping center proposal for the Depot Parcel site. Therefore, the EIR cannot possibly provide project level analysis of the environmental impacts of such a specific development proposal.*

Response 19.5: The Depot parcel was analyzed for traffic, air quality, and other impact areas at a project specific level. No tenants have yet been identified, but would be required to fit into the Highway Commercial designation. If identification of a specific tenant and/or land use within the Highway Commercial designation prior to future discretionary approvals triggers supplemental environmental analysis pursuant to CEQA Guidelines section 15162, then additional environmental analysis pertaining to such new information will be conducted. At this time, however, analysis or impacts of a specific tenant or specific end use would be based on pure speculation.

Comment 19.6: *The EIR contains no information on the Development Agreement. Therefore, the approval of the Development Agreement cannot rely on the EIR for its environmental review to the extent its impacts are not analyzed in the document.*

Response 19.6: The Development Agreement is discussed under "Proposed State and Local Entitlements and Approvals" on page 2-12 of the DEIR. The Development Agreement can therefore rely on the EIR for its environmental review. Pursuant to Public Resources Code 21166, if the Development Agreement includes actions outside the scope of the EIR, then supplemental CEQA documentation may be required.

Comment 19.7: *The Project Objectives are too narrow and basically recite the elements of the Project. It is a violation of CEQA to tailor Project Objectives to the specific project being proposed which constrains the proper consideration of alternatives. The improper Project Objectives allow the County to reject consideration of certain alternatives as "not meeting the Project Objectives."*

Response 19.7: Consistent with CEQA Guidelines section 15124(b), the EIR provides a statement of objectives sought by the proposed project and describes the underlying purpose of the project. As such, it is not unreasonable for project objectives to reference key goals of the proposed project. The stated project objectives found on page 2-29 and 2-30 of the DEIR are necessarily designed to relate to the proposed project and to facilitate development of the reasonable range of project alternatives analyzed in Chapter Four of the DEIR.

Comment 19.8: *The EIR must analyze whether the approval of the Specific Plan will contribute to further blight or urban decay within the Friant Redevelopment Project Boundary by concentrating new development outside the Redevelopment Project Plan Area. The EIR contains no analysis of this potential significant impact.*

Response 19.8: As stated in CEQA Guidelines Section 15064(e) economic changes resulting from a project shall not be treated as significant effects on the environment. Section 15064 (d)(3) further states that indirect physical change (such as blight or urban decay) is to be considered only if that change is a reasonably foreseeable impact that may be caused by the project. The nature and magnitude of future commercial enterprise within both the Friant Redevelopment Project Boundary and the Friant Specific Plan Boundary is unknown at this time and, absent such detailed information, an assessment of urban blight effects of the proposed Specific Plan on the Friant Redevelopment Project Area is not viable and the possibility of such impact is not, therefore, reasonably foreseeable. Moreover, a significant portion of the commercial development proposed within the Friant Ranch Specific Plan Area is located within the Friant Redevelopment Plan Area and, as such, is anticipated to generate additional revenues to support redevelopment.

Comment 19.9: *It also does not provide the text of the Friant Redevelopment Plan commercial development standards that are proposed to be repealed and analyze the effect of the repeal on the redevelopment goals and policies.*

Response 19.9: Comment noted. This comment does not address environmental issues. The Friant Redevelopment Plan commercial development standards proposed for repeal can be found online at Fresno County's website dedicated to information about this Project (<http://www.co.fresno.ca.us/departmentspage.aspx?id=4238>) at pages 47 through 51 of the 1992 Friant Redevelopment Plan. The standards were enacted in 1992 and no longer reflect common commercial standards currently used by land use planning agencies. The development standards set forth in the proposed Friant Community Plan Update, the Friant Ranch Specific Plan, Fresno County design standards, and the Fresno County Zoning Ordinance (including revisions thereto proposed by the Project) will take the place of the standards set forth in the 1992 Redevelopment Plan.

Comment 19.10: *The analysis of growth inducing impacts is cursory and completely inadequate. The Project will have significant growth-inducing impacts due to the expansion of public services available in this unincorporated area, especially wastewater treatment and water services. For instance, according to the Municipal Service Review prepared by LAFCO, dated July 2007, Waterworks District 18, the district that will provide water service for this project, currently, encompasses 444 acres and services 234 customers. As such, this project will increase the number of the district's customers in excess of tenfold. These new services and related infrastructure will induce new growth in the entire Community Plan area and beyond. The impacts of this future growth should be analyzed in the EIR.*

Response 19.10: The DEIR discussion of Impact #3.11.1 (DEIR, pages 3-255-3-256) explains that the Project will induce substantial population and housing growth by facilitating the development of up to 2,996 new households within the Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area, and will considerably accelerate projected population growth within the Friant Community Plan Area.

As explained in the Growth Inducing section of the DEIR at page 6-5, "induced growth is any growth that exceeds planned growth and results from new development that would not have

taken place in the absence of the proposed project.” As explained at DEIR page 6-6, the public facilities improvements proposed for the unincorporated community of Friant by the Project (e.g., new tertiary treated wastewater treatment plant and expanded water treatment plant) are designed with sufficient capacity to meet only the needs of planned development in the area. The wastewater treatment plant capacity is limited to what is needed to support the existing and planned future uses within the Project Area, but the Project only includes connections to hookup the existing Millerton Lake Village Mobile Home Park and the Friant Ranch Specific Plan Area to the new plant (see DEIR pages 3-362 through 3-364). The water treatment plant expansion is designed with sufficient treatment capacity for the existing and planned future uses within the Project Area. (DEIR page 3-359.) As such, contrary to commenter's suggestion, the new public services and related infrastructure will not have sufficient capacity to provide for new growth “beyond” the planned buildout of the Existing Community Plan Area and the Friant Ranch Specific Plan Area.

Comment 19.11: *There is no discussion in the EIR of preliminary consultation by the County with the DWR, RWCB, or the Department of the Interior to investigate the adequacy of the Project’s water supply plan or its wastewater discharge plan.*

Response 19.11: The California Department of Water Resources and the Central Valley Regional Water Quality Control Board have no jurisdiction over project water supply. The proposed water purveyor, WWD 18, prepared and adopted the State-required Water Supply Assessment, and has found that the proposed water supply is adequate to meet project demands in normal, dry and multiple dry years. The Specific Plan applicant has been consulting with the Bureau of Reclamation (within the Department of the Interior) to accomplish the federal approvals needed for the Bureau to approve the proposed LTRID-WWD 18 agreement. These approvals are described at pages 2-27 through 2-28 of the DEIR.

DWR and the Department of the Interior have no direct regulatory jurisdiction over municipal wastewater treatment. The Central Valley Regional Water Quality Control Board is charged with review of the wastewater treatment plant and will issue waste discharge requirements subsequent to certification of the CEQA document. In addition, the Board, together with the California Department of Public Health, will review the project’s report of water reclamation and Board will issue the appropriate permit, after certification of this EIR. The project applicant has been consulting with the Central Valley Regional Water Quality Control Board concerning these requisite approvals. These approval processes are described at pages 2-25 and 2-26 of the DEIR. The DEIR acknowledges the Board as a responsible agency at page 2-30 and 2-31 of the DEIR.

Comment 19.12: *Furthermore, the EIR fails to provide any performance history of Waterworks District 18, or provide evidence of its ability to meet regulatory standards.*

Response 19.12: WWD 18 has a consistent history of achieving its water quality objectives. Consumer Confidence Reports are prepared annually by the District, are distributed to all customers of the District and are available to the public at the District office. These reports provide a comprehensive record of the District’s performance since 2000. See also Response 16.4.

Comment 19.13: *The EIR also needs to describe any impacts to the existing aged water distribution system as a result of the proposed new development and infrastructure.*

Response 19.13: The existing water system serving the relatively limited development in the vicinity of the Friant Ranch Project will be upgraded/replaced as necessary pursuant to implementation of the Friant Ranch Infrastructure Master Plan found as Appendix N to the DEIR.

Comment 19.14: Chapter 3.1 Aesthetics

County General Plan Policy OS-L.3 requires that development proposals of more than four lots be designed to "blend in" to the natural landscape and minimize scarring of vegetation and terrain. The EIR claims that the Friant Ranch Project will "preserve the integrity of the existing terrain and natural vegetation in visually sensitive areas." Yet it is impossible to judge the accuracy of this claim, since the EIR provides illustrations only of pre-Project conditions, without any illustration showing the effect of the Project on existing scenic vistas and visually sensitive areas. The EIR should be revised to provide this information in visual, illustrative form.

Response 19.14: At this early stage of project entitlement, it is impossible to simulate the precise layout of the Friant Ranch Specific Plan development as against existing conditions. However, among other things, the visual simulations provided in the Friant Ranch Specific Plan (available online at Fresno County's website dedicated to information about this Project, <http://www.co.fresno.ca.us/DepartmentPage.aspx?id=41096>) support the DEIR's determinations about the Project's aesthetic impacts and General Plan consistency. The proposed Friant Ranch Specific Plan document contains a visual simulation of the main entrance of the Friant Ranch project from Friant Road (Specific Plan cover page) and of the proposed Village Center (Specific Plan section 2.3.2).

Comment 19.15: Chapter 3.2 Agricultural Resources

The EIR must include and analyze mitigation measures to address the significant impact from the rezoning of over 900 acres of Agricultural land to urban uses. The EIR does not contain any mitigation measures to address this significant impact because it states that no mitigation measures are "available". Therefore, the EIR identifies the impact as significant and unavoidable. CEQA requires that all feasible mitigation measures be adopted for any significant and unavoidable impact. So, the EIR must analyze any available feasible mitigation measures to reduce agricultural impacts. Examples of feasible mitigation measures to address the loss of agricultural land include, but are not limited to, protecting existing agricultural land from conversion through imposing easements or Williamson Act contracts, and adopting a fee mitigation program to fund permanent preservation of agricultural land. The EIR should evaluate these mitigation measures and the County should adopt any feasible mitigation measures. In addition, since the impact is significant and unavoidable, the EIR should evaluate alternatives that could reduce this impact, such as significantly reducing or eliminating the conversion of agricultural land included as part of the Project.

Response 19.15: See Response 18.3.

Comment 19.16: *The EIR incorrectly concludes that the Project's conversion of agricultural land is consistent with the County General Plan. However, this agricultural land conversion violates central goals and policies of the General Plan to protect agricultural land, including Goal LU-A (promote long term conservation of productive and potentially productive agricultural land) and Policy LU-A.1 (County shall maintain agriculturally designated land for agricultural use and direct urban growth away from this land). The inconsistency with these policies is a significant environmental impact which requires mitigation.*

Response 19.16: See Response 18.3 regarding consistency with Fresno County General Plan LU-A. Page 2-10 of the Fresno County General Plan explains the County's goal to “minimiz[e] the conversion of productive agricultural land” and to “not preclude intensive development but to direct it to minimize loss of valuable open space.” As discussed in Response 18.3, the Friant Ranch Specific Plan Area does not meet the General Plan definitions of “productive (prime) agricultural land” or “potentially productive agricultural land.” As such, the reference to “valuable agricultural lands” in Policy LU-A.1 implies productive or potentially productive agricultural lands, which are not implicated by the proposed development within the Friant Ranch Specific Plan Area. Consistent with Policy LU-A.1, the Friant Ranch Specific Plan proposes growth immediately adjacent to the unincorporated community of Friant where public facilities and infrastructure are available. In fact, some of the lands within the Friant Ranch Specific Plan Area are already zoned and designated for commercial and residential uses, as well as included in the Friant Redevelopment Area. This location of the Project will facilitate the Friant Redevelopment Plan goal of reviving this unincorporated area, and will also improve the public facilities and infrastructure available to the existing community. The Project is consistent with Fresno County General Plan Goal LU-A and Policy LU-A.1.

Comment 19.17: *The EIR should evaluate the significance of impacts on agricultural land by using soils evaluation criteria (such as use of the Storie index) rather than solely relying on Statewide farmland maps. The lack of designation on the Statewide maps or historic use of the land for grazing does not conclusively determine its viability for agriculture.*

Response 19.17: The use of statewide farmland maps is a common and accepted method for evaluating agricultural land impacts in EIRs. Also see Response 18.3. Further, even if the County applied alternative thresholds, such as use of the Storie index, the soils of the subject property are not of sufficient quality to warrant special consideration. The Storie index Soil Rating is a method of soil rating based on soil characteristics that govern the land's potential utilization and productive capacity independent of other physical or economic factors. Hilly terrain and sandy soils receive low scores under the Storie index. As described at page 3-67 of the DEIR, the Friant Ranch Specific Plan Area “consists of gently rolling to increasingly hilly terrain that ranges from approximately 330 feet in the southwest corner to 694 feet near the northern portion of the site” and “soils on the site are primarily Pollasky-Montpellier Complex, Rocklin Sandy Loam, and Friant Fine Sandy Loam....” As such, the soil and topography of the Friant Ranch Specific Plan Area provide further support for the County's characterization of the site as unproductive agricultural land.

Comment 19.18: *The EIR needs to provide further evidence to support its conclusion that the transfer of water from the Lower Tule River Irrigation District (LTRID) that currently serves*

agricultural users will not have a significant impact on agricultural. The statement that LTRID will use "supplemental" sources to replace water divert from these users is insufficient, especially given the significant uncertainties surrounding water available for agricultural users in the Central Valley (see comments on water supply analysis below).

Response 19.18: See Responses 19.134 and 19.136.

Comment 19.19: *The EIR improperly ignores grazing land as a category of farmland worthy of conservation and fails to analyze or mitigate potential adverse impacts to grazing. Grazing is important to Central Valley agriculture. The 2008 Fresno County Crop & Livestock Report showed Countywide \$7.84 million revenue from beef calf production, \$31.55 million from feeder beef stock, and \$131.39 million from beef cattle slaughter stock. Due to parcelization on the Valley floor and concomitant loss of winter pasture, beef cattle raising is a threatened industry in the County.*

Response 19.19: Comment noted. This comment does not address environmental issues. See also Response 18.3.

Comment 19.20: *The EIR contains no data or analysis on the importance of the Project's valley land for the annual rotation of stock from high country (summer) pastures to winter pastures (winter pasture is needed due to snowfall in high country).*

Response 19.20: Comment noted. This comment does not address environmental issues. See also Response 18.3.

Comment 19.21: *The EIR does not provide any information on how this proposal could adversely affect supply of grazing land, particularly winter grazing land, in Fresno County. Current conditions are that the Friant Ranch is available for grazing and customarily leased for this purpose. Loss of grazing land from the Project cannot be dismissed as an impact simply because current zoning could allow 40-acre home sites, since grazing and livestock activities occurs on virtually all 40 acre grassland parcels in Fresno County.*

Response 19.21: Chapter 3.2 of the DEIR analyzed the significant impacts associated with the conflict between the proposed commercial and residential uses and the existing zoning allowing for grazing within the Specific Plan Area and the Depot Parcel. Section 5.2.2 of the DEIR discussed cumulative impacts associated with conversion of grazing lands. See also Response 18.3.

Comment 19.22: Chapter 3.3 Air Quality

The EIR purports to evaluate, as a standard of significance for air quality impacts, whether Project related air pollution would result in exposure of sensitive receptors to substantial pollutant concentrations. Yet, in fact, while the EIR discusses the Project's construction and operational emissions, it does not provide any discussion of, or conclusions about, Project-related effects on air pollutant concentrations.

Response 19.22: Comment noted. The text of the DEIR is amended at page 3-41 (Impact #3.3.1) to address construction related air pollution concentrations/sensitive receptors as follows:

Impact #3.3.1 – Construction Impacts for the development of the Friant Ranch Specific Plan (5 phases) and Community Plan Update Carbon Monoxide (CO), Reactive Organic Gases (ROG), Nitrogen Oxide (NOx), Particulate Matter (PM₁₀), & Fine Particulate Matter (PM_{2.5}))
[Evaluation Criteria (a), (b), (c), (d)]

Although the impacts from construction related air pollutant emissions are temporary in duration, such emissions can become a significant air quality impact. Construction activities such as grading, excavation, building construction, and paving can generate substantial amounts of air pollution. Emissions from construction equipment engines also contribute to elevated concentrations of PM₁₀, PM_{2.5}, and CO, as well as ROG and NOx.

Sensitive construction related emission receptors in the vicinity of the project site are minimal at present and consist primarily of single family residential properties. Construction related emission concentrations that could affect these residences would primarily be mobile sources of toxic air contaminants which are not subject to the regulations of the SJVAPCD.

In 1998, the California Air Resources Board (CARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines. The greatest diesel particulate risks from construction activities are generally associated with locations where diesel engines are allowed to idle for extended periods of time.

The potential impacts to sensitive receptors from the idling of diesel powered trucks and equipment would be less than significant because the majority of these trucks are subject to State of California – Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

The purpose of the airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This regulation applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are, or must be, licensed for operation on highways. The regulation applies to vehicles based inside and outside of the State of California. Effective February 1, 2005, all applicable diesel powered vehicle operators must not idle the vehicle's primary diesel engine for greater than five minutes at any location. The potential for sensitive receptors to be impacted by substantial diesel truck generated pollutant concentrations near construction sites is less than significant due to compliance

with State of California – Title 13, Section 2485- Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

In addition to trucks, sSeveral pieces of diesel-powered heavy equipment will operate during the construction of the Friant Ranch Specific Plan. Site preparation activity emissions have been estimated based on the maximum fleet recommended by the SJVAPCD. Exhaust and fugitive dust emissions will be generated by construction activities in the Specific Plan area, such as excavation and grading, construction vehicle traffic, wind blowing over exposed earth,

The DEIR is further amended at page 3-49 to address construction related air pollution concentrations/sensitive receptors as follows:

Emission Receptors: Construction related sensitive receptors.

Sensitive construction related emission receptors in the vicinity of the project site are minimal at present and consist primarily of single-family residential structures. Future development in accordance with the proposed Community Plan Update and Friant Specific Plan would result in a gradual emergence of new sensitive construction related sensitive receptors. Construction related emission concentrations that could affect these future receptors would primarily be mobile sources of toxic air contaminants that are not subject to the regulations of the SJVAPCD.

Conclusion: The potential impacts to sensitive receptors from the idling of diesel powered trucks and equipment would be *less than significant* because the majority of the trucks are subject to State of California – Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

Mitigation Measures: No mitigation measures are required.

Impact #3.3.2 of the DEIR is further amended at page 3-51 to address operational related air pollution concentrations/sensitive receptors as follows:

Impact #3.3.2 – Violation of Air Quality Standards by Area and Operational Emissions
[Impact Evaluation Criteria (a), (b), (c), (d)]

Adoption of the proposed Community Plan Update and Friant Ranch Specific Plan will result in additional development and urbanization in the Friant Community, which would in turn increase criteria air pollutants in an area that is currently designated as a severe non-attainment area.

The URBEMIS software was used to estimate area and operational emissions for the proposed Friant Ranch Specific Plan and the future build-out of the proposed Community (see Appendix C).

Operational and Area emissions at build-out under the proposed Community Plan are estimated to be approximately 107 tons per year for ROG, 786 tons per year for CO, 1.56 tons per year for SO₂, 99 tons per year for NO_x, and 114 tons per year for PM₁₀.

Nearly all development projects in the San Joaquin Valley, from general plans to individual site plans, have the potential to generate pollutants that will reduce air quality or make it more difficult for state and national air quality standards to be attained. The SJVAPCD has prepared the Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) and Air Quality Element Guidelines as advisory documents that provide Lead Agencies with uniform procedures for addressing air quality in environmental documents.

Sensitive area and operational emission receptors in the vicinity of the project site are minimal at present and consist primarily of single family residential structures. Future development in accordance with the proposed Community Plan Update and Friant Specific Plan would include a variety of commercial uses and there is some uncertainty as to what pollutants will be introduced to the area that could affect sensitive receptors that may emerge in the future.

The proposed project would result in two new sources of toxic air contaminants, one mobile and one stationary. Mobile sources of toxic air contaminants are not subject to the regulations of the SJVAPCD, while stationary sources are subject to SJVAPCD regulations and must obtain a permit from the District.

In 1998, the California Air Resources Board (CARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines. The greatest diesel particulate risks from new development are generally associated with stationary diesel engines and locations where diesel engines are allowed to idle for extended periods of time. Where air districts have developed guidelines for diesel risk assessments for CEQA documents, the identified situations requiring analysis are locations with extended truck idling (truck stops, warehouse/distribution centers, transit centers), and train idling.

The potential impacts to sensitive receptors from the idling of diesel powered trucks would be less than significant because the majority of these trucks are subject to State of California – Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

The purpose of the airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This regulation applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are, or must be, licensed for operation on highways. The regulation applies to vehicles based inside and outside of the State of California. Effective February 1, 2005, all applicable diesel powered vehicle operators must not idle the vehicle's primary diesel engine for greater than five minutes at any location. The regulations do include exceptions, however typical diesel powered trucks used for delivery of goods to retail locations would not be exempted from the regulations.

The potential for sensitive receptors to be impacted by substantial pollutant concentrations is **less than significant** due to compliance with State of California – Title 13, Section 2485- Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

STATIONARY SOURCE TOXIC AIR CONTAMINANTS FROM GASOLINE FUELING STATIONS

Future development in accordance with the proposed Community Plan Update and Friant Specific Plan may include one, or more, gasoline fueling stations. The exact location of the facilities is unknown, but would most likely be within areas designated for future commercial uses. Gasoline stations are a source of gasoline vapors that would include Toxic Air Contaminants (TACs) such as benzene. Gasoline vapors are released during the filling of both the stationary underground storage tanks and the transfer from those underground tanks to individual vehicles. Small amounts of gasoline vapor (a reactive organic gas) escape to the atmosphere at filling stations due to loading loss, breathing loss, refueling loss and spillage. The rate of allowable emission, for stations with CARB Phase I and Phase II emission controls and vent valves (as required by SJVAPCD permit requirements) is 1.269 pounds per thousand gallons.¹

The SJVAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline dispensing facilities that require all new facilities to install and maintain CARB Certified Vapor Recovery Systems. Primary applicable SJVAPCD regulations are Rule 3:3, "Gasoline Loading, Transfer and Dispensing" and Rule 2:1, New Source Review". As a source of TACs, a gasoline fuelling station is subject to the SJVAPCD's toxic risk screening and risk management procedures.

The DEIR is further amended at page 3-57 (conclusion statement to operational related impact analysis) to address operational related air pollution concentrations/sensitive receptors as follows:

¹ California Air Pollution Control Officers Association (CAPCOA), *Gasoline Service Station Industry-wide Risk Assessment Guidelines*, December 1997.

Conclusion: The Friant Ranch Specific Plan and Community Plan Update propose to add land for residential, public facilities, commercial uses, public and open space and park uses. The primary source of emissions is from vehicular traffic. Sensitive area and operational emission receptors in the vicinity of the project site are minimal at present and consist primarily of single family residential structures. Future development in accordance with the proposed Community Plan Update and Friant Specific Plan would include a variety of commercial uses and there is some uncertainty as to what pollutants will be introduced to the area that could affect sensitive receptors that may emerge in the future. The proposed project would result in two new sources of toxic air contaminants, one mobile and one stationary. Mobile sources of toxic air contaminants are not subject to the regulations of the SJVAPCD, while stationary sources are subject to SJVAPCD regulations and must obtain a permit from the District.

The impact will be lessened by policies of the proposed Specific Plan and Community Plan, as mentioned above, which will promote the use of alternative transportation, air quality mitigation for new developments, and strategies to minimize the number and length of vehicle trips. However, there are no known additional feasible mitigation measures which will reduce the impact to a less than significant level. These projects will create a **significant** impact in regards to the area and operational emission content. While the following mitigation measures won't reduce the impact to a less than significant level, they are included to reduce air quality impacts as a result of the proposed project.

Comment 19.23: *Neither does the EIR identify any potentially affected sensitive receptors, nor does it conclude whether sensitive receptors would be exposed to substantial concentration levels. The County must revise the EIR to address this subject, and recirculate the document if any significant air pollutant concentration impacts are identified.*

Response 19.23: As inferred in Response 19.22 above, identification of potentially affected future sensitive receptors or drawing a conclusion as to whether such receptors would be exposed to substantial concentration levels of pollutants is speculative and can not be determined at this time. As also stated in Response 19.22, existing development in the vicinity of the proposed Community Plan Update and Friant Ranch Specific Plan is minimal and is not comprised of sensitive air emissions receptor uses such as schools, hospitals, employment centers, and the like.

Comment 19.24: *The EIR also includes, among its standards of significance for air quality impacts, the potential for the Project to expose sensitive receptors or the general public to substantial levels of toxic air contaminants. Yet the EIR does not discuss or determine the significance of the Project's toxic air contaminant impacts. For instance, the bulk of the Project's traffic congestion would be occurring on roadways outside the project area, such as Friant Road, yet there is no CALINE 4 or diesel exhaust analysis on these congested segments and intersections to indicate what the health effects would be to Fresno residents and schoolchildren near Friant Road.*

Response 19.24: Existing CALINE 4 information at intersections most severely impacted by anticipated Project traffic were available and sufficient so as not to require a separate CALINE 4 analysis for this Project. The SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts* recommends that lead agencies rely on previous CALINE4 CO modeling that took into account the project and relevant intersections impacted by a project. In addition, according to the Caltrans Guidance document “Transportation Project-Level Carbon Monoxide Protocol”, if a project’s most severely impacted intersection is determined to have a less than significant CO concentration, then a CALINE4 analysis is not required for other less-severely impacted intersections. In this case, the Air Quality Impact Analysis Report prepared by Michael Brandman and Associates on September 17, 2008 contains CO modeling was done for the City of Fresno’s “Fresno 40” Project EIR (SCH# 2001021030, November 20, 2008), and included the intersections most severely impacted by the Project and accounted for anticipated traffic counts from the Project in the cumulative condition.

Therefore, the CALINE4 model that was run for the Fresno 40 project provides sufficient information for the Project CO concentration analysis. The following table provides the results from the CALINE analysis for the Fresno 40 project, which included traffic counts associated with buildout of the Friant Ranch project:

**Fresno 40 Project
CO Concentrations**

Intersection	1 Hour Estimated CO Concentration (ppm)*		8 Hour Estimated CO Concentration (ppm)**		Significant Impact?***
	2010	2030	2010	2030	
N. Friant Road/E. Shepherd Avenue	6.8	4.4	4.8	3.1	No
N. Friant Road/E. Audubon Drive	7.1	7.1	5.0	2.9	No
N. Friant Road/N. Fresno Street	6.9	4.5	4.8	3.1	No
N. Herndon Avenue/SR-41 NB off-ramp	6.9	4.2	4.8	2.9	No
N. Friant Road/SR-41 NB off-ramp	6.6	4.4	4.6	3.1	No
N. Blackstone Avenue/N. Van Ness Avenue	6.1	4.2	4.3	2.9	No
N. Fresno Street/N. Van Ness Avenue	5.6	4.2	3.9	2.9	No

Notes:

* Caline4 output (see Appendix B for model output) plus the 1-hour background concentration of 3.30 ppm (CARB 2008).

* The 8-hour project increment was calculated by multiplying the 1-hour Caline4 output by 0.7 (persistence factor), then adding the 8 hour background concentration of 2.3 ppm (CARB 2008).

*** Comparison of the 1-hour concentration to the state standard of 20 ppm and the 8-hour concentration to the state/national standard of 9 ppm.

Source: Michael Brandman Associates, 2008.

The Project produces the greatest impact (in terms of AM and PM Peak Hour traffic) at the intersection of Friant Road and Audubon Drive (see traffic counts shown in Appendix D of DEIR). According to the table above, the CO concentration at this intersection is not projected to be significant under the regional cumulative condition including Friant Ranch traffic). Consistent with the Caltrans guidance referenced above, since CO concentrations at the most severely impacted intersection do not create significant impacts or exceed applicable concentration limits, it is not necessary to conduct additional analyses for intersections less

impacted by traffic anticipated in the Project's cumulative condition. Therefore, there is no significant impact regarding CO concentrations from the Friant Ranch project and no further analysis is required.

Comment 19.25: *Furthermore, under CEQA, the EIR must disclose the human health related effects of the Project's air pollution impacts. (CEQA Guidelines section 15126.2(a).) The EIR fails completely in this area. The EIR should be revised to disclose and determine the significance of TAC impacts, and of human health risks due to exposure to Project-related air emissions.*

Response 19.25: Health Risk Assessments are typically prepared for inclusion in development specific project EIRs when certain types of development commonly known to have the potential to result in a human health risk are being proposed (automobile fueling stations and certain types of manufacturing facilities for example). Due to the broad nature of the planning approvals analyzed in this EIR, it is not possible to conduct a human health risk assessment based on specific proposed uses at specific locations within the boundaries of the Project Area because such specific information has not been determined. However, the DEIR does provide a general discussion of adverse health effects associated with certain development related pollutants such as ozone (DEIR page 3-35 fourth paragraph), particulate matter (DEIR page 3-36 fourth paragraph), carbon monoxide (page 3-37 fourth paragraph), nitrogen dioxide (DEIR page 3-37 sixth paragraph) and sulfur dioxide (DEIR page 3-38 second paragraph).

Comment 19.26: *An EIR is required to evaluate all foreseeable project activities and impacts, including both direct and indirect environmental effects of a Project. The EIR identifies the Project as having a growth-inducing impact, particularly on the area covered by the existing Friant Community Plan. In fact, a key objective of the Project is the "revitalization" of the existing Friant Community. Yet the EIR categorically excludes any evaluation of air quality impacts which will occur. In the Community Plan area outside the Friant Ranch Specific Plan Area and the Depot Parcel. (See DEIR page 3-40.) This refusal to evaluate the foreseeable air quality impacts of the Project's "revitalization" of the existing Friant Community is a failure to evaluate a foreseeable environmental impact of the Project, and is fatal to the EIR.*

Response 19.26: The Friant Community Plan Update does not propose any changes to land use designations for lands other than those within the Friant Ranch Specific Plan area and the Depot Parcel. The Community Plan area outside of the Friant Ranch Specific Plan Area, with exception of the Depot Parcel project, was analyzed at a programmatic level because no development is presently proposed for those parcels and there exists uncertainty about the timing of construction of future projects. Future development within the Community Plan will be subject to additional air quality analysis at the time individual projects are proposed.

Comment 19.27: *Impact area 3.3-1 purports to identify construction impacts related to a number of criteria pollutants, as well as particulate matter (PM₁₀) and Fine Particulate Matter (PM_{2.5}.) Yet, in fact, the Air Quality chapter contains no disclosure, discussion, or significance determinations related to Project-related PM_{2.5}. The EIR must be revised to provide analysis of PM_{2.5} impacts.*

Response 19.27: Tables 3.3-3 through 3.3-8 of the DEIR are amended as follows to add a column summarizing the anticipated PM_{2.5} emissions resulting from Project construction as set forth in Appendix C of the DEIR. Table 3.3-12 of the DEIR is amended as shown in Response 19.37 to add a column summarizing the anticipated PM_{2.5} emissions resulting from Project operations as set forth in Appendix C of the DEIR. The SJVAPCD has not established a significance threshold for PM_{2.5} or a method for evaluating impacts associated with emissions of PM_{2.5}. However, because project-generated construction and operation related emissions of PM_{2.5}, by definition, would be a subset of PM₁₀ emissions, SJVAPCD-recommended methodologies and mitigation measures for PM₁₀ would also be relevant to emissions of PM_{2.5}. As discussed in Response 10.3 above, according to the SJVAPCD, construction related impacts from fugitive dust are assumed to be less than significant when compliance with Regulation VIII and SJVAPCD Enhanced and Additional Control Measures are implemented as appropriate. A discussion regarding PM_{2.5} and its relation to PM₁₀ is included in the DEIR page 3-36. As explained therein, the types of impacts, particularly human health impacts, related to PM_{2.5} are the same as those expected to occur with PM₁₀ emissions. Although, as noted at page 3-36, PM_{2.5} poses an increased health risk because the particles can deposit deep in the lungs and contain substances that are particularly harmful to human health. As stated at page 3-57 of the DEIR, the anticipated Project-generated, operational emissions of ROG, NO_x, and Particulate Matter emissions will result in a ***significant and unavoidable impact*** to air quality.

**Table 3.3-3
Construction Equipment Exhaust Emissions (Tons/Year): Phase 1**

	ROG	NO _x	CO	SO ₂	PM ₁₀	<u>PM_{2.5}</u>
Unmitigated Conditions						
<i>Year 2010</i>	0.86	5.23	8.9	0.01	15.34	<u>3.34</u>
<i>Year 2011</i>	0.85	4.6	10.76	0.01	0.33	<u>.27</u>
<i>Year 2012</i>	6.25	4.57	10.30	0.01	0.33	<u>.27</u>
Total	7.96	14.4	29.96	0.03	16	<u>3.88</u>
Mitigated Conditions (Option 2)						
<i>Year 2010</i>	0.86	3.5	8.9	0.01	15.21	<u>3.14</u>
<i>Year 2011</i>	0.85	3.47	10.76	0.01	0.22	<u>.22</u>
<i>Year 2012</i>	3.82	3.39	10.30	0.01	0.23	<u>.22</u>
Total	5.53	10.36	29.96	0.03	15.66	<u>3.58</u>

Source: URBEMIS v.9.2.4

ROG = Reactive Organic Gases; NO_x = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide

PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns

**Table 3.3-4
Construction Equipment Exhaust Emissions (Tons/Year): Phase 2**

	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated Conditions						
Year 2011	1.23	8.24	12.92	0.01	45.38	<u>9.78</u>
Year 2012	1.02	5.07	16.97	0.02	0.38	<u>.30</u>
Year 2013	0.93	4.63	15.61	0.02	0.35	<u>.27</u>
Year 2014	11.42	4.66	14.79	0.02	0.36	<u>.28</u>
Year 2015	0	0.01	0.05	0	0	<u>0</u>
Total	14.6	22.61	60.34	0.07	46.47	<u>10.64</u>
Mitigated Conditions (Option 2)						
Year 2011	1.23	4.93	12.92	0.01	45.2	<u>9.78</u>
Year 2012	1.02	3.77	16.97	0.02	0.29	<u>.30</u>
Year 2013	0.93	3.41	15.61	0.02	0.27	<u>.27</u>
Year 2014	6.72	3.37	14.79	0.01	0.27	<u>.28</u>
Year 2015	0	0.01	0.05	0	0	<u>0</u>
Total	9.9	15.49	60.34	0.06	46.03	<u>10.64</u>

Source: URBEMIS v.9.2.4

ROG = Reactive Organic Gases; NOx = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide

PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns

**Table 3.3-5
Construction Equipment Exhaust Emissions (Tons/Year): Phase 3**

	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated Conditions						
Year 2013	0.87	5.47	9.23	0.01	23.63	<u>5.15</u>
Year 2014	0.71	3.64	10.54	0.01	0.27	<u>.21</u>
Year 2015	8.35	3.6	10.04	0.01	0.28	<u>.22</u>
Year 2016	0	0.01	0.03	0	0	<u>0</u>
Total	9.93	12.72	29.84	0.03	24.18	<u>5.58</u>
Mitigated below Threshold (Option 12)						
Year 2013	0.87	4.16	9.23	0.01	23.63	<u>5.03</u>
Year 2014	0.71	2.9	10.54	0.01	0.2	<u>.15</u>
Year 2015	8.35	2.86	10.04	0.01	0.2	<u>.15</u>
Year 2016	0	0.01	0.03	0	0	<u>0</u>
Total	9.93	9.93	29.84	0.03	24.03	<u>5.33</u>

ROG = Reactive Organic Gases; NOx = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide

PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns

Source: URBEMIS v.9.2.4

**Table 3.3-6
Construction Equipment Exhaust Emissions (Tons/Year): Phase 4**

	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated						
Conditions						
Year 2015	0.78	4.77	9.18	0.01	28.49	<u>6.13</u>
Year 2016	0.64	3.22	10.67	0.02	0.26	<u>.19</u>
Year 2017	10.19	3.17	10.15	0.02	0.26	<u>.19</u>
Total	11.61	11.16	30	0.05	29.01	<u>6.51</u>
Mitigated below Threshold (Option 42)						
Year 2015	0.78	4.2	9.18	0.01	28.49	<u>6.04</u>
Year 2016	0.64	2.93	10.67	0.02	0.2	<u>.14</u>
Year 2017	8.29	2.85	10.15	0.02	0.2	<u>.14</u>
Total	9.71	9.98	30	0.05	28.89	<u>6.32</u>

ROG = Reactive Organic Gases; NO_x = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide
PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns
Source: URBEMIS v.9.2.4

**Table 3.3-7
Construction Equipment Exhaust Emissions (Tons/Year): Phase 5**

	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated						
Conditions						
Year 2017	0.62	3.79	6.94	0.01	22.81	<u>4.90</u>
Year 2018	0.48	2.45	7.79	0.01	0.2	<u>.15</u>
Year 2019	8.26	2.45	7.55	0.01	0.2	<u>.15</u>
Year 2020	0	0.1	0.03	0	0	<u>0</u>
Total	9.36	8.79	22.31	0.03	23.21	<u>5.20</u>
Mitigated below Threshold (Option 2)						
Year 2017	0.62	2.24	6.94	0.01	22.73	<u>4.83</u>
Year 2018	0.48	1.65	7.79	0.01	0.16	<u>.11</u>
Year 2019	4.77	1.63	7.55	0.01	0.16	<u>.11</u>
Year 2020	0	0.01	0.03	0	0	<u>0</u>
Total	5.87	5.53	22.31	0.03	23.05	<u>5.05</u>

ROG = Reactive Organic Gases; NO_x = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide
PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns
Source: URBEMIS v.9.2.4

Table 3.3-8
Construction Equipment Exhaust Emissions (Tons/Year): Depot Parcel

	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated Conditions						
<i>Year 2020</i>	0.02	0.15	0.13	0	0.21	<u>.05</u>
<i>Year 2021</i>	0.81	0.37	0.52	0	0.08	<u>.03</u>
<i>Year 2022</i>	0.01	0.04	0.05	0	0	<u>0</u>
Total	0.84	0.56	0.7	0	0.29	<u>.08</u>

ROG = Reactive Organic Gases; NOx = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide
PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns

Comment 19.28: *The EIR's discussion of construction and operational air emissions identifies a significant impact as (inter alia) a violation of SJVAPCD emissions standards. The EIR sets out the federal and state ambient (concentration) thresholds for various pollutants in Table 3.3-1, but does not present the emissions thresholds for CO, ROG, NOx, PM₁₀ or PM_{2.5}. The EIR should be revised to provide that information.*

Response 19.28: The SJVAPCD thresholds for ROG and NOx are found at page 3-40 of the DEIR as shown below. Page 3-40 is amended as follows to provide SJVAPCD emission thresholds for CO, PM₁₀, and PM_{2.5}:

The following thresholds of significant are based on the quantitative and qualitative criteria recommended by SJVAPCD. For purposes of this EIR, the Project would have significant adverse air quality impacts if it would do any of the following:

- Projects that emit ozone precursor (ROG and NOx) air pollutants in excess of 10 tons/year;
- Projects that emit CO air pollutants in excess of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for 1 hour;
- Projects that emit PM₁₀ air pollutants in excess of 15 tons/year (no standard for PM_{2.5}) and do not incorporate into project design or implement during project construction all dust (PM₁₀ and PM_{2.5}) control measures in compliance with the requirements of Regulation VIII-Fugitive Dust Prohibition and implementation of all other appropriate SJVAPCD recommended control measures (set forth in Tables 3.3-9, 3.3-10, and 3.3-11 herein);
- Any project with the potential to expose sensitive receptors or the general public to substantial levels of toxic air contaminants; and
- Any odor impacts to local residents and/or complaints from neighbors

Comment 19.29: *The EIR's discussion of construction emissions understates and conceals Project impacts by artificially breaking construction of the Project into five discrete "phases" which are each discussed in a vacuum, without reference to contemporaneous construction emissions from other "phases." For example, by disclosing and evaluating the air emissions associated with "phase 1" (2010 – 2012) separately from "phase 2" (2011 – 2015), the EIR fails to disclose the total construction emissions that will occur during the years when phases 1 and 2 are both occurring (2011 and 2012).*

Response 19.29: The comment regarding phase overlap emissions analysis is noted, but does not affect the DEIR's analysis of the magnitude of impacts of, or the necessary mitigation measures, for construction-related air emissions.

In order to provide a realistic analysis of the likely emissions that will result from construction of the Project over its anticipated 10-year buildout, the air quality analysis summarized in section 3.3 started with an identification of a reasonably foreseeable construction schedule. It is common knowledge that master planned development such as that proposed within the Friant Ranch Specific Plan is constructed over a period of years and that it is not reasonably foreseeable for all of the units to be constructed in a short period of time. As such, to estimate expected emissions at any given time, the air quality analysis applied the phases described in Table 2-2 at page 2-19 of the DEIR to estimate the potential emissions that may result from the Project. Table 2-2 explains the likely "overlap" referred to by commenter by and through the second to last row in the table, entitled "Total". Page 2-19 further explains that: "Phases may occur in any sequence and concurrently with one another...." For example, in year 2, Table 2-2 identifies that the "Total" units to be constructed is 300 units. This number includes the 200 anticipated Phase 1 units and the additional 100 anticipated Phase 2 units to be constructed during Year 2. Notably, the "Total" units to be constructed in any given year never exceeds the total number of units expected for any given phase.

Section 3.3 of the DEIR summarizes the URBEMIS modeling for the Project construction emissions in Tables 3.3-3 through 3.3-8. In order to assess the overall significance of construction impacts associated with ROG, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions, the DEIR broke the data up into the phases identified in Table 2-2. The analysis concluded that the Specific Plan will have significant and unavoidable impacts to air quality because, even with mitigation, the total amount of emissions anticipated for entire phases (expected to occur over a period of years) would exceed the applicable annual significance threshold. For example, in analyzing Phase 2 of the Specific Plan, the DEIR analyzed the combined emissions of anticipated construction for Phase 2 (which would occur during the years 2011 through 2015) and applied the "Total" emissions anticipated during those years as a result of Phase 2 development to determine whether the annual emission thresholds were exceeded. During Phase 2, the annual NO_x standard of 10 tons/year would not be exceeded in any given year, however, the total of Phase 2 emissions exceeds the annual standard. As such, though the DEIR showed the expected annual emissions, the DEIR compared the total emissions from any given phase against the applicable annual emissions standard. This provides a worst-case analysis that assumes the entire phase was built in a single year, which is not contemplated.

Had the analysis contained in the DEIR not conducted such a phased analysis, but rather provided a year-by-year analysis (accounting for projected emissions from any phase in any given year), the resultant impacts would have been determined to be less than significant on a year-by-year basis. For example, isolating year 2015 (which between the anticipated Phase 2, 3 and 4 emissions in that year had the highest total ROG – 9.13 and a high NOx – 7.07), the determination would have been that construction during that year did not exceed any ROG or NOx thresholds and the impact would have been less than significant. However, since the project is not going to be completed in one year, and it is difficult to precisely predict the amount of development in any given year, project activity was divided into phases based on typical construction of large-scale mixed-use developments and assumptions of future market conditions, demand, infrastructure requirements to provide the most likely scenario of future project activity, based on available information.

Moreover, this conservative analysis assumes more units constructed in an individual year than would be expected under the “overlap” condition described by commenter. As noted above, Table 2-2 estimates that Phase 2 would involve the greatest number of units in any phase—781 units--- and (accounting for “overlap”), Year 5 would involve the greatest number of units in any given year—405 units. Accordingly, the DEIR’s application of annual thresholds to the multi-year Phase 2 construction of 781 units analyzes a construction situation that nearly doubles the potential worst-case “overlap” year described by commenter.

For the reasons described above, based on the reasonable assumptions about Project phasing in Table 2-2 and the URBEMIS analysis based on that table, the DEIR air quality analysis thus accounted for likely overlap and the reasonably foreseeable worst-case construction emissions.

In sum, the DEIR found that the Specific Plan development would result in a significant impact from short-term construction-related emissions of criteria air pollutants. Though a less than significance for any given individual phase as analyzed is informative, it does not override the fact that overall, the Project will result in a significant impact due to construction emissions. The DEIR has been revised at page 3-51 to clarify this overall significance determination for the reader.

Conclusion: Project-generated, construction related emissions of criteria air pollutants will result in *significant and unavoidable* impacts on air quality. Even after application of all feasible mitigation measures, construction related emissions of ROG and NOx emissions would exceed SJVAPCD’s significance threshold of 10 tons per year. With respect to construction-related emissions of PM₁₀ and PM_{2.5}, the Project must adhere to the Regulation VIII-Fugitive Dust Prohibition and Mitigation Measures 3.3.1a, 3.3.1b, 3.3.1c, 3.3.1d, and 3.3.1e which require implementation of SJVAPCD-recommended control measures beyond compliance with Regulation VIII-Fugitive Dust Prohibition. As such, the potentially significant impacts from construction-related emissions of PM₁₀ and PM_{2.5} that could occur without the implementation of any dust control measures would be reduced to less than significant.

Comment 19.30: *The same is true for 2013 - 2014 (when phases 2 and 3 will overlap), 2015 (when phases 2, 3 and 4 will overlap) 2016 (when phases 3 and 4 will overlap) 2017 (when*

phases 4 and 5 will overlap) and 2020 (when phase 5 will overlap with construction of shopping center on the Deport Parcel). By segmenting construction of the Project in this manner, the EIR conceals the total level of emissions that will result from Project construction in the years in which phases overlap, and thereby substantially under-reports the Project's significant construction emissions impacts.

Response 19.30: See Response 19.29 above.

Comment 19.31: *This segmentation furthermore calls into question the EIR's determination that construction emissions under phases 3 and 4 will be less than significant, since construction emissions under both of those phases will overlap with significant construction emissions impacts under phase 2. The EIR must be revised to disclose and determine the significance of all contemporaneously occurring Project-related construction emissions.*

Response 19.31: See Response 19.29.

Comment 19.32: *Finally, the EIR must be revised to disclose and determine the significance of the Project's total air emissions, in years when Project construction emissions overlap with Project operational emissions.*

Response 19.32: The Friant Ranch Specific Plan development is estimated to build out over a 10-year period. As explained in the Draft EIR (page 2-19), project phasing is conceptual only; the actual phasing may vary from that identified in DEIR Table 2-2, which sets forth the potential phasing of Project construction. While the DEIR explained that construction phases may occur in any sequence and concurrently with one another, the EIR emissions calculations did not account for the combined emissions that could occur as a result of concurrent construction and operation. This approach is consistent with the San Joaquin Valley Air Pollution Control District's *Guide for Assessing and Mitigating Air Quality Impacts*, which at page 44 (section 5.5) “recommends separating emissions occurring in the construction phase of a project from emissions occurring in the operational phase for analysis purposes. The reason for this separation is that construction produces only temporary impacts while the operational phase will produce emissions indefinitely into the future. Although construction activities can produce substantial emissions and can represent a significant air quality impact, the effect is not permanent.”

It is possible to calculate the hypothetical combined emissions for any given year in which there could be overlap between construction and operations. However, that exercise would not provide meaningful information that would substantially enhance the understanding of the Project's potential air quality effects, nor would these calculations result in information that would change any of the significance determinations in the DEIR, for several reasons. First, it is not possible to accurately predict the emissions that might occur in any given year in which construction and operational activities may overlap, because construction activity varies considerably due to seasonal and other factors and not all uses become fully active at once (i.e., not all homes become occupied, or commercial uses open). Second, the DEIR identified impacts from operational emissions each as significant and unavoidable for all constituents even after implementation of all available mitigation. (See DEIR at p. 3-59.) The DEIR also anticipated

impacts from construction emissions as significant and unavoidable. The levels of mitigated Project emissions from construction are very low compared to the mitigated operational emissions, such that the combined effect of overlapping construction and operation emissions would not result in a new or substantially more severe air quality impacts than those identified in the DEIR, including the assessment of the Project's contribution to cumulative air quality impacts (see DEIR page 5-9).

For example, as shown on DEIR page 3-51, maximum operational emissions are estimated as 110 tons per year for ROG, 810 tons per year for CO, 1.6 tons for SO₂, 102 tons per year for NO_x and 117 tons per year for PM₁₀, and 45 tons per year for PM_{2.5}. By contrast, maximum mitigated construction emissions for the fourth year of project buildout (year 2014 in Phases 2) are 6.72 tons for ROG, 14.79 tons for CO, 0.01 for SO₂, 3.37 tons for NO_x, 0.27 tons for PM₁₀, and 0.28 tons for PM_{2.5}. The increase in total emissions from adding construction and operational effects is minor, especially considered in light of the San Joaquin Valley Air Pollution Control District thresholds of significance for emissions, such as those for ROG and NO_x, which are 10 tons per year for each constituent, and the combined levels would not change the determination about the significance of project emissions (which the DEIR concluded are significant and unavoidable) nor would it result in substantially more severe air quality impact than those identified in the DEIR.

Comment 19.33: *Phase 1 construction emissions are determined to be significant and unavoidable, even after the application of Option 2 (enhanced mitigation) measures. Yet the mitigation described in the EIR for Phase 1 construction impacts requires "[u]se of diesel oxidation catalysts capable of a 15% - 40% reduction in NO_x emissions on all diesel equipment." In light of the significance of this impact, a mitigation measure which allows such a broad range of emission reductions is insufficient. Unless and until the impact is reduced to less than significant, CEQA requires the County to impose all feasible mitigation. This mitigation measure must be revised to require the maximum feasible (40%) reduction. In NO_x (and other significant criteria pollutant) emissions.*

Response 19.33: See Response 19.35 for amended text for Mitigation Measures #3.3.1a, #3.3.1b, #3.3.1c, #3.3.1d, and #3.3.1e, which clarifies that a 40% reduction in NO_x emissions is required for all diesel equipment used in construction (with the exception of cranes and forklifts, which require a 15% reduction).

Comment 19.34: *The EIR must also determine, on the basis of substantial evidence, that no additional feasible mitigation measures would further reduce or avoid the Project's air quality impacts which remain significant after imposition of the EIR's recommended mitigation measures. For example, the EIR must evaluate the feasibility of mitigating significant construction emissions impacts by requiring:*

- 1) all heavy-duty diesel trucks to comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.*
- 2) Idling restrictions (maximum 5 minutes) on construction equipment, when not in use.*

- 3) *Construction equipment to incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.*
- 4) *"Other Construction Equipment Mitigation Measures," as listed in EIR Table 3.3-11. Since SJVAPCD requires the mitigation measures listed in Table 3.3-11 for significant construction-related air quality impacts, the EIR is deficient for not imposing them on significant Project construction emissions impacts.*

Response 19.34: See Response 19.35 for amended text for Mitigation Measures #3.3.1a, #3.3.1b, #3.3.1c, #3.3.1d, and #3.3.1e, clarifying that additional control measures identified in the DEIR shall be implemented to further reduce Project air quality impacts.

Comment 19.35: *EIR Table 3.3-10 additionally lists "Enhanced [PM] Control Measures" which "should be implemented at construction sites when required to mitigate significant PM₁₀ impacts." Yet EIR Table 1-1 does not list any of these "enhanced" control measures as being imposed on Project construction -even for significant PM impacts. These "enhanced" PM control measures must be imposed on Project construction.*

Response 19.35: Mitigation Measures #3.3.1a, #3.3.1b, #3.3.1c, #3.3.1d, and #3.3.1e are amended as follows to clarify that the additional control measures identified in the DEIR shall be implemented as mitigation measures to further reduce the potentially significant impacts from construction-related emissions of PM₁₀ and PM_{2.5} that would occur without the implementation of any dust control measures:

Mitigation Measures #3.3.1a: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 1:

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a ~~15%~~ 40% reduction in NO_x emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.
5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.

6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.
8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.
15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Mitigation Measures #3.3.1b: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 2:

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a ~~15%~~ 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts

- which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
 4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.
 5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
 6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
 7. Use of alternative fueled or catalyst equipped diesel construction equipment.
 8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
 9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
 10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
 11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
 12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
 13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
 14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.
 15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.

16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Mitigation Measures #3.3.1c: To reduce emissions and thus reduce air quality impacts, the following Option ~~1~~2 (enhanced mitigation) measures shall be implemented for Phase 3:

~~Option 1 mitigation measures:~~

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a ~~15%–~~ 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.
5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.
8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.

11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.
15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Effectiveness of Mitigation: Option 42 mitigation measures are presented above and are required to reduce emissions of the construction phase to under the SJVAPCD threshold and will result in a ***less than significant impact with mitigation incorporated***.

Mitigation Measures #3.3.1d: To reduce emissions and thus reduce air quality impacts, the following Option 42 (enhanced mitigation) measures shall be implemented for Phase 4:

Option 1 mitigation measures:

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a ~~15%~~ 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.

5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.
8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.
15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Effectiveness of Mitigation: Option 42 mitigation measures above will reduce construction exhaust emissions below the SJVAPCD thresholds for Phase 4 of the Project and will result in a ***less than significant impact with mitigation incorporated.***

Comment 19.36: *Table 3.3-10 furthermore identifies "Additional [PM] Control Measures," which are "strongly encouraged at construction sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions." The Project construction site is certainly large, and is likely located near sensitive receptors (although, as discussed above, the EIR provides no disclosure about potentially affected sensitive receptors). Yet Table 1-1 does not list any of these "additional" PM control measures as being imposed on Project construction, either. These "additional" PM control measures must also be imposed on the Project.*

Response 19.36: See Response 19.35 related to the additional PM control measures. See also Responses 19.22, 19.23, 19.24, and 19.25 related to sensitive receptors.

Comment 19.37: *Table 3.3-12 divides Project operations emissions into those under the Friant Ranch Specific Plan, and those under the Community Plan "outside the Friant Ranch Specific Plan." It is unclear from this table into which category the EIR places operational emissions from the Depot Parcel. The EIR elsewhere describes development of the Depot Parcel as included within the "project level" analysis which is afforded to the Specific Plan area. Yet 3.3-12 says that the Community Plan Area, outside the Friant Ranch Specific Plan Area, "includes the Depot Parcel." From this, it is unclear whether operational emissions from the Depot Parcel are being given general program level analysis or detailed project level analysis.*

Response 19.37: The Specific Plan and the Depot Parcel were given detailed project level analysis of both the construction emissions and operational/area emissions. The remainder of the Community Plan was not analyzed for construction emissions, but a hypothetical worst-case scenario programmatic level analysis for the operational/area emissions was analyzed. As specified in the DEIR text, when detailed individual projects are proposed within the Community Plan Area (outside of the Specific Plan and Depot Parcel) additional air quality analysis will be required. The following errata clarifies how the air quality emissions for the Specific Plan, Depot Parcel, and Community Plan were analyzed.

The Section 3.3.4 Impact Analysis text (DEIR page 3-40) has been amended as follows to clarify the category and type of emissions analyzed:

The impact analysis is divided up into several sections because portions of the project have proposed development and other portions do not have development proposed at this time. to reflect that this EIR provides a project level analysis for the Friant Ranch Specific Plan and Depot Parcel and a programmatic level for the Community Plan Area outside of the Friant Ranch Specific Plan Area and excluding the Depot Parcel, for which no changes are proposed from the prior Community Plan and for which no specific development has been proposed. The analysis is broken up into two different project areas and then further broken down into between the short-term construction emissions and the long-term, ongoing area/operational phases emissions. The two project areas are The analysis considers construction impacts for the Friant Ranch Specific Plan Area and the Depot Parcel (but not the remainder of the Community Plan Area because there is no specific development presently proposed and no way to estimate anticipated

equipment or timing for any future construction at this stage of the programmatic analysis). The analysis considers operational/area emissions for the entire Project Area and the Community Plan Update area outside of the Friant Ranch SP area.

This section identifies and discusses the environmental impacts resulting from the proposed project and suggests mitigation measures to reduce the level of impacts. The proposed plan will affect air quality during both construction and operational phases. Construction activities will result in criteria pollutant emissions through earthmoving activities, application of architectural coatings, and vehicle and equipment exhaust emissions. The proposed project operations would result in criteria pollutant emissions primarily from vehicular sources; however landscape maintenance equipment, residential heating sources, and other miscellaneous activities would also generate pollutant emissions.

This section will analyze the impacts from a local and regional standpoint. The section ~~will be quantifying~~ quantifies the construction emissions of the Specific Plan Area and Depot Parcel and relates the detailed project level effects to the significance criteria to determine the impact significance. The section also provides a hypothetical build out scenario for the Community Plan Update Area outside of the Friant Ranch and Specific Plan Area conditions and relating the projects through use of a worst-case scenario based on the greatest allowable uses allowed for the respective land use designations, and relates the effects of such scenario to the significance criteria to determine a worst case impact significance for operational/area emissions. Emissions that consist of mobile and stationary sources during construction and eventual operation were estimated using URBEMIS 2007, Version 9.2.4, (Rimpo and Associates, 2007). The Friant Ranch Specific Plan will be broken up into five separate phases, which will be evaluated accordingly. The construction will be evaluated and analyzed for the five different Specific Plan phases, since the project is not being completely built out all at once. The area and operational analysis will include an overall evaluation of the Specific Plan development in full operation. The Community Plan area outside of the Friant Ranch Specific Plan Area, with exception of the Depot Parcel project, is not being evaluated for construction emissions because no development is presently proposed for those parcels and there exists uncertainty about the equipment required for or timing of construction of future projects. A hypothetical build out scenario has been analyzed for the potential operational and area emissions based on the allowable uses under the land use designations at a general program level for the remainder of the Community Plan Area. Notably, the existing Community Plan designations for those parcels are not changing. Future development within the Community Plan Area (outside of the Specific Plan Area and the Depot Parcel) will be subject to additional detailed project level construction and operational/area air quality analysis at the time individual projects are proposed.

For clarification, Impact #3.3.2 (DEIR page 3-51) has been amended as follows:

Impact #3.3.2 – Violation of Air Quality Standards by Area and Operational Emissions

[Impact Evaluation Criteria (a), (b), (c), (d)]

Adoption of the proposed Community Plan Update and Friant Ranch Specific Plan will result in additional development and urbanization in the Friant Community, which would in turn increase criteria air pollutants in an area that is currently designated as a severe non-attainment area.

The URBEMIS software was used to estimate detailed project level area and operational emissions for the proposed Friant Ranch Specific Plan and Depot Parcel and to estimate general program level area and operational emissions for the future build-out of the proposed Community Plan Area (outside of the Specific Plan Area and Depot Parcel) (see Appendix C).

The results of the URBEMIS model for oOperational and Area emissions at build-out under the proposed Community Plan anticipated to result from the Project (reflecting the emissions anticipated for the entire Community Plan Area, including the Specific Plan Area and the Depot Parcel) are shown in Table 3.3-12. The Project emissions are estimated to be approximately 110 107 tons per year for ROG, 810 786 tons per year for CO, 1.6 1.56 tons per year for SO₂, 102 99 tons per year for NO_x, and 117 114 tons per year for PM₁₀, and 45 tons per year for PM_{2.5}.

Nearly all development projects in the San Joaquin Valley, from general plans to individual site plans, have the potential to generate pollutants that will reduce air quality or make it more difficult for state and national air quality standards to be attained. The SJVAPCD has prepared the GAMAQI and Air Quality Element Guidelines as advisory documents that provide Lead Agencies with uniform procedures for addressing air quality in environmental documents.

See the amended Table 3.3-12 on page 3-54 of the DEIR for clarification of the operational/area emissions:

Table 3.3-12
Air Quality Emissions in Tons/Year (Unmitigated)
Friant Ranch Specific Plan, and Friant Community Plan
Remainder (Worst-Case Scenario for Future Build-Out)

	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Friant Ranch Specific Plan						
2020 Conditions						
Area	39.99	9.52	138.6	0.4	20.2	19.45
Operational	17.03	21.37	157.45	0.25	21.62	4.79
Total (A)	57.02	30.89	296.05	0.65	41.82	24.24

	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Community Plan: Area outside Friant Specific Plan (includes Depot Parcel) Future Conditions						
<u>Depot Parcel Only</u>						
<u>Area</u>	0.10	0.13	0.25	0.00	0.00	0.00
<u>Operational</u>	2.18	3.53	24.65	0.04	3.66	0.81
<u>Subtotal (B)</u>	<u>2.28</u>	<u>3.66</u>	<u>24.90</u>	<u>0.04</u>	<u>3.66</u>	<u>0.81</u>
<u>Community Plan Remainder</u>						
<u>Area</u>	9.85	3.65	38.74	0.11	5.47	5.26
<u>Operational</u>	40.37	63.99	450.84	0.80	66.43	14.66
<u>Subtotal (C)</u>	<u>50.22</u>	<u>67.64</u>	<u>489.58</u>	<u>0.91</u>	<u>71.90</u>	<u>19.92</u>
<u>Future Conditions (Depot Parcel + Community Plan Remainder)</u>						
<u>Area</u>	9.95	3.78	38.99	0.11	5.47	5.26
<u>Operational</u>	42.55	67.52	475.49	0.84	70.09	15.47
<u>Total (B+C)</u>	<u>52.50</u>	<u>71.30</u>	<u>514.48</u>	<u>.95</u>	<u>75.56</u>	<u>20.73</u>
<u>Project Total (A+B+C)</u>	<u>190.52</u> <u>109.52</u>	102.19	810.53	1.6	117.38	<u>44.97</u>

Source: URBEMIS 9.2.4

*Note: Represents worst case scenario without any mitigation

Comment 19.38: Furthermore, since the shopping center which is apparently proposed for the Depot Parcel is not described in any detail in the EIR, it is unclear how operational emissions from that shopping center were determined, or even whether the EIR included operation of the shopping center when it estimated the Project's operational emissions.

Response 19.38: The Depot Parcel change of land use is described in Section 2.2 and 2.4 of the DEIR. Text on page 49 of the Traffic Impact Study (see Appendix D) describes how, under the proposed zoning and land use designations, the Depot Parcel could potentially be developed as up to 73,508 square feet of shopping center (assuming a 25-percent floor area ratio land use which is consistent with the Highway Commercial land use designation). Table 9.6 of the TIS then provides the trip generation volumes for use with the traffic and air quality analysis in the DEIR of the Depot Parcel.

Also, see Response 19.37 above for clarification of the operational emissions and errata changes to Table 3.3-12.

Comment 19.39: The EIR identifies a significant and unavoidable impact from Project operational emissions. The EIR imposes mitigation measure 3.3-2, which contains a laundry list of measures. The description of mitigation measure 3.3-2 states an "intent" that some of these measures will be imposed "during review of future project-specific submittals for non-residential development," though only "where feasible and appropriate." Other measures are to be imposed "as determined by the County in consultation with the APCD," although it is unclear when such consultation will occur. Additionally, the mitigation measure provides that "the County and SJVAPCD may substitute different air pollution control measures for individual projects, which are equally effective or superior to" the measures listed in mitigation measure 3.3-2. However, it is entirely unclear how the County and SJVAPCD will determine whether a proposed substitute

measure is equally or more effective, since the effectiveness of the measures listed in mitigation measure 3.2 is not quantified or even qualitatively described. This mitigation measure is entirely inadequate for the Project's significant operational emissions impacts - particularly with regard to the activities purportedly receiving project level analysis in this EIR. Mitigation measure 3.3-2 improperly defers committing to specific mitigation measures, without committing to achieve a definite quantity of impact reduction in the EIR. It is therefore not a valid mitigation measure under CEQA.

Response 19.39: Mitigation Measure #3.3.2 sets forth common control measures designed to reduce operational air quality emissions of the Project. However, the DEIR recognizes that these measures are not sufficient to reduce the operational impact of the Project to less than significant. The mitigation measure further recognizes that as subsequent project-level discretionary approvals are sought for proposed development within the Project Area, applicants will have to consult with the San Joaquin Valley Air Pollution Control District and comply with applicable requirements. For example, during the tentative map processing for any development within the Friant Ranch Specific Plan Area, the applicant will be required by State regulation to consult with the San Joaquin Valley Air Pollution Control District and comply with the District's Rule 9510 Indirect Source Rule. As explained in the San Joaquin Valley Air Pollution Control District's Comment 10.4 on the DEIR, the District's Rule 9510 requires the applicant to mitigate Project impacts through project design elements. As such, Mitigation Measure #3.3.2 does not foreclose the possibility of the San Joaquin Valley Air Pollution Control District imposing conflicting or alternative measures during said process. Mitigation Measure #3.3.2 does not defer analysis of mitigation measures, but rather identifies possible mitigation and discloses that as specific project details become known some of the available measures may need to be modified or changed.

Comment 19.40: *The EIR's analysis of Project odor impacts (Impact 3.3.3), while discussing relatively minor irritants such as barbecues, completely fails to address, or determine the significance of, odor impacts from the proposed wastewater treatment plant. This renders the odor impact analysis useless.*

Response 19.40: The potential odor impacts from the wastewater treatment plant were analyzed and mitigated in Chapter 3.14 of the DEIR. For clarification, Impact #3.3.3 (DEIR page 3-59) is amended as follows:

Impact #3.3.3 – Project could cause objectionable odors and the potential for odor complaints
[Evaluation Criteria (e)]

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or federal air quality regulations, the SJVAPCD has no rules or standards related to odor emissions, other than its nuisance rule. Any actions related to odors are based on citizen complaints to local governments and the SJVAPCD.

Construction activity will require the operation of equipment which may generate exhaust from either gasoline or diesel fuel. Construction of new buildings will also require the application of architectural coatings and the paving of roads which would generate odors from materials such as paints and asphalt. These odors are of a temporary or short-term nature and quickly disperse into the surrounding atmosphere.

Future residential development will also involve minor, odor-generating activities, such as backyard barbeque smoke, garden equipment exhaust, and the application of exterior paint for home improvement activities. These types of odors are typical of most residential communities and are not considered significant generators of odor impacts.

As discussed at page 3-364 of the DEIR, “[i]n accordance with requirements set forth in the Friant Ranch Infrastructure Master Plan, the [proposed wastewater treatment] plant shall incorporate an aerated biological process known as a Membrane Bio-reactor (MBR) design, satisfactory to the Regional Water Quality Control Board and other jurisdictional agencies. That process will be fully enclosed within a building, facilitating odor control and reducing the aesthetic impacts of the treatment facility upon the surrounding developed area.” The MBR treatment plant is a robust wastewater treatment facility with features designed to provide reliable and efficient wastewater treatment and reclamation. Unlike older, less efficient odor producing wastewater treatment plants, the MBR systems have minimal impact because they minimize odor through covered headworks and treatment basins and produce treated wastewater that meets stringent discharge requirements. Further, as discussed at page 3-368 of the DEIR, “The design plans for the WWTP will incorporate appropriate and cost-effective odor and noise reduction measures, to the satisfaction of Fresno County; [t]he WWTP will be located at the northwesterly corner of the Specific Plan area, separated from residential development by both roads and open spaces, to minimize both the aesthetic impacts of the treatment facility and the potential for odor impacts within the Project; and [t]he design of the WWTP will minimize production of odor by enclosing most odor sources and providing careful control of the process to maximize treatment efficiencies and minimize the chances of odor or process upset[; and] [d]etailed designs will be brought forward for review by County and RWQCB staff subsequent to Project entitlement.” Mitigation Measure #3.14.3g of the EIR requires that the design plans for the WWTP incorporate appropriate and cost-effective odor and noise reduction measures, to the satisfaction of the Fresno County Planning and Public Works Departments, prior to issuance of the conditional use permit for the wastewater treatment plant.

The proposed plant will be located in an area that is buffered from planned residential areas. Further, even if the proposed MBR treatment plant is located within the windshed of proposed residences, the technology employed in the design and operation of the proposed on-site MBR treatment plant will result in

minimal odor release into the atmosphere as there will be no odor generating exposed treatment processes at the plant.

Additionally, the proposed wastewater treatment system will be subject to review and permit approval by the Regional Water Quality Control Board (RWQCB). Should the RWQCB find it necessary to require odor scrubbers, the applicant will be required to install them at the facility.

Conclusion: The Project will not cause objectionable odors or related complaints. The majority of the odors resulting from the project area will be temporary or short-term and will not be a permanent nuisance. therefore, the impact is considered ~~less than significant~~. Furthermore, the use of the closed MBR treatment plant and compliance with the requirements of Mitigation Measure #3.14.3g of this EIR as well as any necessary RWQCB requirements pertaining to the reduction of odor will result in a **less than significant** impact.

Mitigation Measure: No mitigation measures are required.

Comment 19.41: Chapter 3.4 Biological Resources

Despite the numerous significant impacts on biological impacts documented in the EIR, it concludes that all impacts can be mitigated to less than significant. This conclusion is not supported for the vast majority of the impacted biological resources. As explained in more detail below, many of the mitigation measures lack detail and definiteness to determine how they will be implemented and their effectiveness. Others constitute deferred mitigation by requiring only the future development of certain “plans” without identifying elements of the plans or standards they must meet.

Response 19.41: Comments 19.41 and 19.42 are introductory in nature and do not refer to specific impacts or mitigation measures such that meaningful responses can be provided. Since more specific comments that appear to relate to Comments 19.41 and 19.42 are made later in his letter, specific responses will be made later in this document. (See Responses 19.43, 19.47, 19.48, 19.50, 19.51 and 19.53)

Comment 19.42: *Also, preservation of existing resources does not mitigate for the loss of resources. Only creation or restoration of resources to replace those lost constitutes mitigation under CEQA. Overall, the Project will result in many significant and unavoidable impacts on biological impacts that were improperly identified as less than significant with mitigation in the EIR.*

Response 19.42: Comments 19.41 and 19.42 are introductory in nature and do not refer to specific impacts or mitigation measures such that meaningful responses can be provided. Since more specific comments that appear to relate to Comments 19.41 and 19.42 are made later in his letter, specific responses will be made later in this document. (See Responses 19.43, 19.47, 19.48, 19.50, 19.51 and 19.53)

Comment 19.43: *For vernal pools and the species they support (vernal pool fairy shrimp), the proposed mitigation is completely inadequate. The EIR does not explain why it is infeasible to design the Project to avoid impacts to all vernal pools. Preservation of existing vernal pools is not mitigation for filling pools. Creation and restoration are the only mitigations under CEQA. The EIR does not contain any standards for creation and restoration. It does not require that any created or restored wetlands have the functional and value equivalency to the destroyed pools. The option for mitigation through use of a conservation bank is similarly standardless because it does not establish criteria that the conservation bank must meet. Similarly, the “mitigation” through payment into a fund does not assure that the money will actually result in the creation of the required amount and quality of pools to mitigate the impact.*

Response 19.43: Since vernal pool fairy shrimp are federally listed species, the USFWS requires mitigation for project impacts to vernal pool fairy shrimp. This mitigation is a condition of the “incidental take” authorization issued by the USFWS for a given project impacting this species’ habitat. The vernal pool fairy shrimp was federally listed as threatened when populations were known from relatively few vernal pools scattered throughout primarily the northern Central Valley. This species is now known to occur in vernal pools of the Rogue Valley of Oregon, in vernal pools and man-made puddles occurring throughout California’s Central Valley, and in vernal pools occurring in scattered locations of California’s Coast Ranges from the San Francisco Bay Area south to San Diego. The range of this species is far greater than what was known at the time this species was listed, and the current known occurrences in seasonal pools/puddles far exceeds the known occurrences when this species was listed in 1994. Because the range and occurrences of this species throughout California is now known to be significantly greater than when it was listed, it is no longer clear that this species is all that rare, but the DEIR nonetheless treats impacts to it as potentially significant, because it is a federally threatened species, and the “take” of this species requires USFWS authorization. (See DEIR at page 3-104.)

Responses to individual comments related to vernal pool fairy shrimp are provided below:

- a. *Comment: EIR fails to explain why it is infeasible to design the Project to avoid impacts to all vernal pools (pages 7 and 8).* The Project is not obligated to avoid all impacts to vernal pools. CEQA does not require that Projects avoid all impact to habitats or species. Avoidance may be the generally preferred mitigation, but where avoidance is not feasible, other mitigation measures, including preservation of existing habitat and creation of compensatory habitat may be considered. The Fresno County General Plan does not require avoidance and contemplates the use of various mitigation measures, including avoidance, minimization and compensation. Furthermore, the federal Clean Water Act does not require that all waters of the U.S. be avoided. The USACE routinely issues permits to fill such waters where such waters cannot be avoided.

In fact, few large projects in the eastern Central Valley and low foothills of the Sierra Nevada can entirely avoid impacts to natural drainages and wetlands. Undeveloped rangeland occurring in and just below the Sierra foothills of Fresno and Madera Counties, like the Specific Plan Area, consists of a mosaic of vernal pools, natural drainages, wetland swales, and non-native grassland. Development of the Specific Plan Area is not possible without

some impact to hydrologic features. The Specific Plan applicant has attempted, however, to minimize impact to vernal pools and vernal swales. Of the 26.75 acres of vernal pool/vernal swale complexes identified within the Specific Plan Area and verified by the USACE, the Project preserves 16.44 acres of such waters, including 12.09 acres of vernal pools and 4.35 acres of vernal swales. The Project preserves approximately 61% of the existing vernal pool and vernal swales within the Specific Plan Area in dedicated open space. This effort to avoid impact to naturally occurring wetlands of the Specific Plan Area is entirely consistent with the requirements of CEQA.

Finally, the DEIR evaluates a no project alternative, as well as three project alternatives that provide for varying degrees of avoidance of vernal pool fairy shrimp habitat (i.e., vernal pool wetlands), other wetland habitats, and other sensitive biological resources. For example, the Environmentally Superior Alternative – Alternative 3 – avoids all but 0.99 acres of vernal pools within the Specific Plan Area. Given the physical limitations described above, Alternative 3 provides the greatest amount of avoidance that is feasible while still providing sufficient area for a viable development area to achieve most of the Project objectives. (See DEIR at pages 4-26 – 4-30.)

- b. *Comment: Preservation of existing vernal pools is not mitigation for filling of pools (page 8).* Preservation of existing vernal pools is mitigation for filling of pools. Preservation of existing habitat in fact offsets habitat losses when preserved habitat can be enhanced and actively managed to maximize habitat values into the future. Managed grazing, cessation of rodent control, weed control, and control of public access are management activities that can significantly enhance existing lands.

Preservation of existing habitat is not, however, the only mitigation required by the DEIR. The DEIR also requires off-site creation/restoration of vernal pool habitat (Mitigation Measure #3.4.1c[3]).

Mitigation Measure #3.4.1c on pages 3-104, 3-105, and 3-106 of the DEIR is consistent with the requirements of the USFWS. The USFWS has determined that the mitigation standard for the loss of vernal pool fairy shrimp and its habitat would be preservation of existing habitat (vernal pools) at a 2:1 ratio (i.e., two acres of preservation for each acre of impact) and creation/restoration of existing habitat (vernal pools) at a 1:1 ratio (i.e., one acre of creation/restoration for each acre of impact). This mitigation standard has been maintained for more than 15 years by USFWS – the only resource agency charged with protecting the vernal pool fairy shrimp from extinction. Moreover, as discussed at DEIR pages 3-121 and 3-122, these mitigation requirements are consistent with the following Fresno County General Plan policies related to wetlands mitigation (emphasis added):

OS-D.1: The County shall support the “no-net-loss” wetlands policies of the US Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.

OS-D.2: The County shall require new development to fully mitigate wetland loss for function and value in regulated wetlands *to achieve “no-net-loss” through any combination of avoidance, minimization or compensation.* The County shall support mitigation banking programs that provide the opportunity to mitigate impacts to rare, threatened and endangered species and/or the habitat which supports these species in wetland and riparian areas.

The biologists preparing the DEIR biological section believe that the mitigation ratios set forth in the DEIR are appropriate to mitigate the impacts to vernal pool fairy shrimp to a less than significant level. The assured preservation and enhancement of 4.58 acres of vernal pool fairy shrimp habitat and the creation/restoration of an additional 2.29 acres of vernal pool fairy shrimp habitat will ensure that the Specific Plan impacts to 2.29 acres will not have a substantial adverse effect on the vernal pool fairy shrimp population.

Moreover, the Specific Plan applicant has consulted with the USFWS about the preservation of one on-site open space preserve and three off-site preserves, and the creation/restoration of vernal pool habitat, as outlined in the DEIR, and has received informal concurrence from the USFWS that this mitigation is sufficient to avoid substantial adverse effects to vernal pool fairy shrimp. The USFWS has informed the applicant that these mitigation requirements will likely be memorialized in a biological opinion to be issued sometime during the late winter/early spring of 2010. The assertion on page 8 of the commenter’s letter that the mitigation in the DEIR is “completely inadequate” is incorrect. The mitigation is consistent with the Fresno County General Plan policies and the requirements of the USFWS, the trustee agency in charge of protecting this species.

- c. *Comment: EIR fails to provide any standards for creation and restoration (page 8).* The DEIR provides explicit standards related to wetland creation on page 3-105 (see Mitigation Measure #3.4.1c[3]). Standards established in the DEIR relate to the type of lands acceptable for vernal pool creation, the required soil types, required topography, how long created pools must hold water, how deep the water should be, and the type of vernal pool plant species that should be present. Furthermore, Mitigation Measure #3.4.1c[3] requires consultation with the USFWS, and consistency of the mitigation and monitoring plan with USACE guidelines, to ensure the successful creation or restoration of vernal pool habitat. The USFWS and USACE guidelines require detailed assessments of soils, hydrology, vegetation, fauna, and land use at both the location of wetland impact and proposed wetland mitigation such that the USACE can fully evaluate the proposed wetland creation plan and then determine if implementation would result in the no-net-loss of wetland acreage, functions, and values.
- d. *Comment: Purchase of credits from a conservation bank and payment into a fund does not ensure that vernal pool habitat will be preserved/created that has the equivalent functions and values of the pools impacted (page 8).* USFWS and USACE have authority over conservation banks and the vernal pool fund. The USFWS and USACE must approve the bank or fund before it can accept payment from project proponents to purchase “mitigation” credit. Purchase of conservation credits from a USFWS-approved conservation bank is an entirely acceptable manner in which to mitigate impacts to vernal pool fairy shrimp habitat. These banks have been set up for projects such as the Specific Plan project. The only credits

available to the Specific Plan project would be those specifically designated for vernal pool fairy shrimp, which means that the USFWS has already agreed that the vernal pools conserved in the bank harbor populations of vernal pool fairy shrimp. Since the DEIR was drafted, the vernal pool fund has been eliminated where projects are being constructed within the service area of a conservation bank having vernal pool fairy shrimp credits to sell. Therefore, the Specific Plan applicant has been negotiating an agreement with a ranch owner to purchase creation/ restoration credits from the proposed Knapp Ranch Conservation Bank in Madera County. The applicant cannot purchase any credits from this ranch owner until the ranch has been formally approved as a conservation bank by the USACE and the USFWS and the sale of credits has been approved by both agencies for the Friant Ranch project. USACE and USFWS have preliminarily indicated that the purchase of these credits will be acceptable.

Further, Fresno County General Plan Policy OS-D.2 (discussed above in this response) requires the County to support mitigation banking programs to mitigate impacts to protected species and wetlands.

Moreover, the use of conservation banks to mitigate project impacts to wetlands and endangered species habitat appears to be an accepted practice of the commenting agency. Copper River Ranch, a project approved by City of Fresno in 2003, mitigated its wetland impacts by purchasing credits at the Kennedy Table Conservation Bank. City of Fresno also approved in 2009 a project for the “Fresno 40” (a parcel located just south of Friant Road and east of Fresno Street), which mitigated its wetland impacts by payment of an in-lieu fee to a vernal pool fund managed by the Center for Natural Lands Management. This in-lieu fee was eventually applied to the purchase of credits at the Kennedy Table Conservation Bank. These Kennedy Table Conservation Bank credits effectively reduced the identified impacts of these projects by sustaining newly restored/created viable pools in the region to replace the habitat lost from the projects. Similarly, the purchase of conservation credits or participation in a vernal pool fund will offset the Specific Plan impacts to vernal pool fairy shrimp and ensure that no substantial adverse effects to the species occur as a result of the Specific Plan development.

Comment 19.44: *The EIR does not analyze indirect impacts of the Project on vernal pools. The EIR must evaluate whether the Project’s effects on the uplands and watersheds that support “reserved” vernal pools will have an adverse impact on these pools.*

Response 19.44: The DEIR acknowledges that indirect impacts to some vernal pools may occur, which could adversely affect vernal pool fairy shrimp (see page 3-104, second paragraph of Impact #3.4.1c). The DEIR states:

Proposed development surrounding designated open space could result in the discharge of polluted water into pools. The hydrology could be altered by changes in drainage patterns, resulting in some vernal pools being de-watered. (DEIR at page 3-104.)

This potential impact applies to less than 10% of the vernal pools proposed for inclusion within the on-site open space preserve. The watersheds of most of the vernal pools within the on-site open space preserve will not be affected by the Project, including by way of alteration of existing drainages or stormwater runoff. However, the DEIR concludes that the possible degradation of habitat in that small portion of designated open space potentially affected would constitute a significant adverse environmental impact of the Project and imposes mitigation measures to ensure that the impact would be reduced to less than significant. (See, for example, Mitigation Measures #3.4.1c(3) and #3.4.1c(4).) See Response 19.47 for discussion of proposed mitigation.

Comment 19.45: *Similarly, the EIR does not analyze whether the Grazing Management Plans and Open Space Access Plan required by mitigations will adversely affect the preserved pools.*

Response 19.45: The Specific Plan Area is currently grazed and as such grazing is part of the environmental baseline for the analysis of Project impacts. However, the conservation easement associated with the open space preserves will require continued grazing because it is now widely recognized, by the USFWS among others, that in the absence of grazing elk, pronghorns, and deer, and in the absence of fire, vernal pool landscapes require moderate cattle grazing to ensure that alien grasses and forbs do not out-compete native grasses and forbs. (See DEIR at page 3-104.) A grazing plan providing for regulated grazing of the open space preserves is required by the DEIR (page 3-106). The grazing plan will regulate when cattle can graze the open space preserves, how many head of cattle per acre will be acceptable, and the minimal residual dry matter that must remain on each preserve throughout the year. Therefore, contrary to the suggestion of the commenter, the grazing plan will result in a beneficial effect on vernal pools, not an adverse effect.

The open space will not be accessible to the public, and will be fenced and posted with signs.

Comment 19.46: *The EIR also does not properly analyze the impacts of storm water runoff on vernal pools. Storm water run-off may result in over-inundation of vernal pools or contamination from urban run-off. All these indirect impacts should be analyzed and mitigated.*

Response 19.46: See Responses 19.44 and 19.47.

Comment 19.47: *The mitigation measures which require the development of Drainage Plan to address the impacts of storm water runoff on resources is inadequate. The mitigation measure does not specify methods that the Drainage Plans must implement or set performance standards. Rather the Drainage Plans set aspirational and amorphous goals, such as "ensuring" that post-project runoff into open space will "mimic to the extent possible" pre-project conditions and runoff to vernal pools will be "roughly equivalent" to pre-project conditions. These measures are inadequate to assure less than significant impacts. Vernal pools are very sensitive resources and impacts to preserved pools can only be avoided if the amount and quality of water needed to support these resources and their species is mandated by strict standards. The absence of these standards violates CEQA.*

Response 19.47: The DEIR and the *Final Biological Evaluation Report and Supplement, Friant Ranch Specific Plan, Fresno County, CA* (Appendix E of the DEIR) both recognize that the

quantity and quality of the water entering some vernal pools (and other natural drainage features, including wetlands) within the Specific Plan Area could be affected, absent effective mitigation measures. See Response 19.44 for discussion of vernal pool impacts associated with stormwater runoff from the Specific Plan development.

The Specific Plan applicant's conceptual drainage plan evaluated by the DEIR provides sufficient detail to permit an evaluation of its merits. The DEIR describes conceptually the stormwater management approach in the Specific Plan and provides mitigation measures to ensure that definable and achievable standards are met in protecting the quality and quantity of water entering drainages down slope of the Specific Plan development. (See, for example, DEIR, pages 3-211, 3-219.) Stormwater collection, treatment, detention and disposal systems proposed by Friant Ranch are discussed in detail in the Infrastructure Master Plan (DEIR Appendix N) and particularly Appendix A to the Infrastructure Master Plan. Implementing the LID stormwater management approach, stormwater runoff quantities would be limited to predevelopment flow rates, in accordance with widespread national practice and statewide regulation.

LID addresses stormwater management through small landscape features located primarily at the lot level. These features are known as integrated management practices. Individual practices will address hardscapes (i.e., impervious surfaces), the retention of runoff on Site using landscape features, the cleansing of runoff (i.e., the routing of flows through vegetated swales and a system of retention basins), and the development and implementation of a community-wide plan to reduce the introduction of pollutants to the environment. The detailed design of the practices will be based on a detailed study of the site's hydrology and topography and the Project's final grading plan, prior to issuance of a grading permit. Preliminary analysis completed for the Infrastructure Master Plan identifies areas of the site subject to sheet flow during winter storms, subsurface lateral transport of water when soils become saturated, and overall soil permeability. As such, stormwater runoff would be filtered through bio-filtration swales and/or retention basins, which would avoid significant impacts to water quality.

The LID stormwater management approach is of sufficient interest to the California State Water Resources Control Board (SWRCB) that its Stormwater Program formally initiated a review of low impact development policies so that mechanisms for removing institutional barriers to the adoption of these policies could be identified (*A Review of Low Impact Development Policies: Removing Institutional Barriers to Adoption* (Gearheart, P.E., 2007)). LID elements that are relevant to protecting the quantity and quality of water entering vernal pools include the following:

- The development and implementation of water conservation measures;
- The minimization of stormwater generation using a variety of techniques including the reduction of impervious surfaces;
- Providing for strategic runoff timing by slowing flows using landscaping features;

- Developing and implementing an array of integrated management practices to reduce and cleanse runoff;
- Developing and implementing a pollution prevention program to reduce the introduction of pollutants to the environment; and
- Developing a system of retention/detention basins that will intercept pretreated storm water and then release that stormwater via weirs or other outlet facilities to mimic pre-development peak runoff rates.

The LID stormwater management approach adopted by the Specific Plan applicant is not discretionary. LID is part of the Project and is memorialized in specific policies of the proposed Community Plan Update and the proposed Specific Plan (see page 3-212 of the DEIR), described in the proposed Infrastructure Master Plan (Appendix N of DEIR) and is required by Mitigation Measure #3.8.3a on page 3-219 of the DEIR. Furthermore, Mitigation Measure #3.4.1c[4a and b] on page 3-105 of the DEIR requires that prior to the issuance of a grading permit for the Specific Plan Area, a drainage plan must be prepared that satisfies the following criteria:

- (1) It must ensure that all stormwater runoff entering existing pools is filtered through bio-filtration swales and/or retention basins;
- (2) There can be no significant reduction in the volume of surface or subsurface water that flows into vernal pools, vernal swales, and other wetland drainages of the site; and
- (3) All irrigation runoff must be routed away from all vernal pools.

Consistent with standard Fresno County procedures, a comprehensive stormwater drainage plan will be drafted and reviewed by the County during the grading permit process. The drainage plan must achieve the above-referenced goals, implement the standards imposed by the LID program, and conform to the adopted stormwater management approach outlined on page 3-211 of the DEIR. At this point in the entitlement process, the Specific Plan stage, it is premature to define the precise parameters of a drainage plan since the grading plan and building envelope locations have not been developed. The Project approvals analyzed in this DEIR do not dictate specific elevations or topography for the development such that the precise drainage plan can be configured at this point in the process. During the grading permit process, Fresno County routinely requires the applicant to submit a detailed drainage plan based on the proposed grading plan. The engineering details of the plan need not be spelled out in the DEIR, but the final drainage plan based upon the then known parameters of the proposed grading, when fully implemented, must achieve these goals. Prior to the issuance of a grading permit, Fresno County engineers can objectively evaluate the engineering details of the drainage plan to ensure accomplishment of the goals and standards established in the EIR.

In addition to the above-described Project features and mitigation measures, DEIR analyzes alternative development scenarios to further reduce the stormwater impacts to vernal pools. The Environmentally Superior Alternative – Alternative 3 – reduces the number of vernal pools

potentially affected by stormwater runoff from the Specific Plan development to approximately 5% of the vernal pools proposed for inclusion within the on-site open space preserve. Alternative 3 also incorporates the Project features and mitigation measures discussed in this response above.

Comment 19.48: *For impacts on the California Tiger Salamander (CTS) and the western spadefoot, the mitigation is inadequate because it relies on preservation of existing potential habitat and does not describe or explain why the preservation areas identified are adequate to support or do support the species. Again, preservation is not proper mitigation. The mitigation should specifically describe sites that have been evaluated for the presence or support of the species and how these sites will be managed to assure that they provide successful habitat for CTS breeding and aestivation and western spadefoot habitat.*

Response 19.48: The USFWS, the federal trustee agency charged with protecting the California tiger salamander, has determined that preservation of existing upland aestivation habitat is appropriate mitigation for California tiger salamander. Since the DEIR was prepared the Specific Plan applicant has formally participated in the process to obtain California tiger salamander “take” authorization from the USFWS via the ESA Section 7 consultation. In doing so, the Specific Plan applicant has formally agreed to the establishment of the one on-site open space preserve and the three off-site preserves identified in the DEIR at Table 3.4-3 and related discussion. The off-site preserves total 1,038 acres that will be managed to maximize habitat value for the California tiger salamander. See also Response 7.11. As noted in the DEIR (Mitigation Measure #3.4.1d[3]), this habitat must be suitable and known habitat for the California tiger salamander. Such is the case for each open space preserve identified in the DEIR. As reported in the DEIR, the on-site open space preserve is known California tiger salamander habitat (see page 3-95, “California tiger salamander”). Consistent with the requirements of Mitigation Measure #3.4.1d(3) each of the three off-site open space preserves provide both breeding and aestivation habitat for the California tiger salamander. The California tiger salamander has been documented on two of the off-site preserves, and has been documented within 0.25 miles of the third. Because the California tiger salamander is known to move up to 1.3 miles from its breeding habitat in search of upland aestivation habitat, the USFWS and the biologists preparing the biological section of the DEIR consider all four preserves to be occupied habitat by the USFWS.

Qualified biologists from Live Oak Associates did not encounter western spadefoot toad during the spring of 2008 surveys of the off-site preserves, likely due to the dry winter and spring. This species has been documented on nearby lands (Millerton New Town, Friant Ranch west of the Friant-Kern Canal, and lands south and north of Highway 145). Western spadefoot toads occupy the same habitats as the California tiger salamander and in fact co-occur with the California tiger salamander. There can be little question that this species occurs on the off-site preserves.

See Response 19.50 related to general management of off-site preserves for benefit of the special status species, including California tiger salamander and western spadefoot toad.

Comment 19.49: *For the succulent owl's clover, it is unclear why the Project will not result in direct impacts to the species since the filling of wetlands and vernal pools (where this species is located) will occur under the proposed Project.*

Response 19.49: The Project avoids the only two vernal pools within the Specific Plan Area in which this species occurs. As noted on page 3-90 of the DEIR under the heading "Succulent Owl's-clover," two rare plant surveys for this species were conducted, one in 1991 and one in 1995. During these surveys, this species was documented in only two vernal pools within the Specific Plan Area. As noted in *Final Biological Evaluation Report and Supplement, Friant Ranch Specific Plan, Fresno County, CA* (Appendix E of DEIR), an additional rare plant survey was conducted in the spring of 2006. No additional populations of succulent owl's-clover were observed within the Specific Plan Area at that time. All the evidence supports the conclusion that the succulent owl's-clover occurs in only two vernal pools within the Specific Plan Area. As noted on page 3-101 of the DEIR the Project avoids these pools.

The DEIR concludes that indirect impact to the pools harboring this species may occur, and that the impact is potentially significant. Since the DEIR was prepared, the applicant has, in consultation with the USFWS, agreed to purchase 0.5 acre of succulent owl's-clover mitigation credits from a conservation bank as additional mitigation for any potential indirect effects on succulent owl's-clover occupying two vernal pools with a combined area of approximately 0.5 acre. See also Response 11.10.

Comment 19.50: *It is also unclear how the mitigation requiring the development of a Land Management Plan, which is described in only very general terms, will mitigate any impacts. Both these issues need to be explained in more detail and the actual Plan needs to be included in the mitigation measure. The Plan should specify mandatory elements and actions, and the remedial actions that will be taken if the Plan fails, rather than just stating these elements will be developed. Also, a Management Plan to protect preserved resources does not mitigate for the loss of plants. The information in the EIR is insufficient to support a less than significant finding.*

Response 19.50: The EIR for the Specific Plan need not include as mitigation a finalized land management plan so long as the required elements of such a plan are identified. The DEIR and the *Final Biological Evaluation Report and Supplement, Friant Ranch Specific Plan, Fresno County, CA* (Appendix E of the DEIR) identify the standards for such a plan to be the conservation of sensitive biological resources of the site (i.e., succulent owl's-clover, Hartweg's golden sunburst, western spadefoot toad, vernal pool fairy shrimp, California tiger salamander, etc.) in perpetuity. The DEIR is prescriptive in how it is to be prepared and what it will address. Requirements of the DEIR include:

- (1) that it be prepared in consultation with USFWS and CDFG (this is necessary, because the applicant must obtain incidental take coverage from both agencies, and a streambed alteration agreement from the CDFG);
- (2) clearly defined management goals and objectives, which must support the goal of preserving biological resources of the site in perpetuity;

- (3) a provision for monitoring sensitive species of the site in order to assess how these resources are doing;
- (4) a provision for grazing to reduce competition from non-native annual grasses and forbs that may eliminate native species and fill vernal pools with thatch;
- (5) a provision for monitoring human access on to open space preserves and that measures be implemented to ensure that uncontrolled access does not occur;
- (6) a provision for adaptive management of the site; and
- (7) that remedial actions and alternatives be conceptually developed so that they can be implemented should initial land management fail to adequately protect sensitive biological resources.

Contrary to the assertion of the commenter that the DEIR should provide the actual land management plan, the DEIR should provide for what the plan would address and how it should be prepared. The DEIR does both. This mitigation, along with the required preservation of potential succulent owl's clover habitat, the creation of succulent owl's clover on a 1:1 basis as discussed in Responses 11.10 and 19.49, the required buffers around the vernal pools, and the LID stormwater program (discussed in detail in Responses 19.47 and 19.62) will ensure that any indirect impact to succulent owl's clover resulting from the Specific Plan development will not have a substantially adverse effect on the succulent owl's clover.

In fact, the commenter's assertion that the land management plan should be included in the DEIR is neither feasible nor desirable. This is so for the following reasons:

- (1) The Specific Plan applicant has been consulting for some time with the state and federal resource agencies on project design and potential mitigation requirements associated with Clean Water Act, ESA, and state law compliance. The preparation of a land management plan is one component of the larger mitigation and monitoring plan effort required by the USFWS and USACE. A mitigation and monitoring plan and long-term land management plan for all open space preserves are being prepared in draft form for USFWS and USACE review. These plans are likely to be modified during the course of these two agencies' review. Memorializing the plan in the DEIR before state and federal resource agencies have completed their review of the proposed plan would potentially result in inconsistent requirements for managing the conservation properties.
- (2) Mitigation and monitoring plans and management plans prepared to comply with federal standards for preservation properties are lengthy documents, typically in excess of 50 pages in length each (the drainage plan the commenter asserts should be included in the DEIR's mitigation measures is likely to be a larger document than the land management plan). Including

detailed plans in the mitigation measures of the DEIR would potentially add hundreds of pages (depending on the number of plans required) to already voluminous EIRs, with no appreciable benefit to the public review process. It is sufficient for the DEIR to provide direction as to how these plans are drafted and what they include, and then tie the completion of these plans to the County's consideration of a grading permit. That is, prior to issuing a grading permit, the County will have the opportunity to review and accept the land management plan, based on the standards set forth in the DEIR.

Comment 19.51: *The similar mitigation for the Hartweg's golden sunburst has these same deficiencies.*

Response 19.51: See generally Response 19.50 immediately above with respect to comment about the inclusion of mitigation and monitoring plan and land management plan as mitigation. An existing Hartweg's golden sunburst population has been preserved for years within a 4-acre parcel by the Friant water tank, within the Specific Plan Area just east of the Millerton Lake Mobile Home Park, with no land management plan, and the species is in fact thriving. All that has been required to protect the species has been fencing to keep people out of the preserve. The DEIR provides for protective measures for a much larger preserve that includes the existing preserve. In fact, the DEIR provides for a management plan that will focus attention on this species and ensure that grazing, human encroachment on the preserve, possible erosion, or other unforeseen issues are addressed promptly, which can only improve the likelihood that this species will continue to thrive within open space of the Specific Plan Area. (See Mitigation Measures #3.4.1b and #3.4.1a[2].)

Comment 19.52: *The removal of 942.2 acres of foraging habitat under the Specific Plan for the burrowing owl and Swainson's hawk should be described as a significant impact and mitigation should be required. The on-site preserve is not proper mitigation. This Project's removal of this large amount of habitat also is a significant cumulative impact which the EIR fails to identify (see discussion of cumulative impacts below).*

Response 19.52: Contrary to statement of commenter, the proposed Specific Plan development evaluated by the DEIR would not remove 942.2 acres of foraging habitat for Swainson's hawks and burrowing owls. The Specific Plan development would permanently remove 666.8 acres of likely foraging habitat and preserve approximately 245 acres of the 942.2 acres as undisturbed open space and approximately 30 additional acres of revegetated slopes that will be included in the open space preserve. The commenter is referred to Page 2-17 of the DEIR (see Table 2-1). As shown in this table, the Specific Plan Area is 942.2 acres in size. Development makes up 666.8 acres, revegetated slopes take up approximately 30 acres, and undisturbed open space makes up the remaining 245.4 acres of the Specific Plan Area.

Impacts #3.4.1f and #3.4.1g (DEIR page 3-109) have been amended as follows to clarify the conserved acreage onsite.

Impact #3.4.1f - Impacts to Swainson's hawks

A Swainson's hawk was observed foraging on the Friant Ranch Specific Plan Site. Nesting Swainson's hawks were not observed on or near the Site. The Project would remove approximately ~~942.2 acres~~ 667 acres of Swainson's hawk foraging habitat.

Conclusion: The loss of foraging habitat would be *less than significant* in a regional context, particularly because Swainson's hawks are not known to nest within 5 miles of the project site and the only potentially available nesting location on the site are several power poles and a Fremont's cottonwood tree. Moreover, the Project conserves ~~460 acres~~ approximately 275 acres of potential foraging habitat onsite in a region where considerable foraging habitat exists.

Mitigation Measures: No mitigation measures are required.

Impact #3.4.1g –Impacts to Burrowing Owls

Burrowing owls are known to forage and may nest on the Friant Ranch Specific Plan Site. The loss of approximately ~~942.2 acres~~ 667 acres of foraging habitat would be a *significant* adverse impact. However, the project will conserve approximately ~~460 acres~~ 275 acres of potential foraging habitat on site and up to an additional 1,016 acres of off-site habitat could be protected as required in mitigation measure 3.4.1d.

Swainson's hawks are rarely observed in this part of the San Joaquin Valley. They more commonly occur (nesting and foraging) in the trough of the Central Valley 30-40 miles to the west and northwest. Where they occur, they commonly forage in non-native grassland, forage crops (grass hay and alfalfa), and pastures. The loss of approximately 667 acres of suitable foraging habitat in the Friant/Millerton area that is rarely used by this species for foraging constitutes a less than significant impact on this species. (See DEIR at page 3-109.) Moreover, the Project would conserve 275 acres within the Specific Plan Area and more than 1,000 acres off-site that would constitute habitat for many species, including the Swainson's hawk. These preserves will be managed to maximize species diversity, which means that ground squirrel populations (and other rodent populations) will be encouraged (i.e., not poisoned). Rodents are the primary prey of Swainson's hawks and other raptors. Therefore, these management practices will encourage many raptor species to forage over these lands.

Burrowing owls may well occur within the Specific Plan Area, but the preservation and management of more than 1,300 acres of rangeland will result in a net increase of high quality habitat for this species. DFG requires that 6.5 acres of foraging habitat be preserved for every burrowing owl pair displaced by development. This Project will dedicate as open space preserve sufficient habitat for project displacement of over 200 burrowing owl pairs. During several years

of surveys of the Specific Plan Area, only one burrowing owl has been observed. As such, the Project is providing mitigation that far exceeds what is required to ensure the potential impact to this species does not result in substantial adverse effects to the species, and if anything, the Project will result in a beneficial impact to burrowing owls.

Comment 19.53: *The erosion control plan should specify measures that will be required under the Plan. As currently drafted, the mitigation does not require any specific measures, but only identifies possible “typical” measures (Mitigation Measure 3.4.3b).*

Response 19.53: A detailed erosion control plan specifying the exact measures that must be implemented is not appropriate at this time. The measures must be tailored to the terrain and soils being affected, the phasing of the grading, the time of year the grading will take place, etc. The details of the proposed development are generally known but not precisely known at this time. It is appropriate to design the detailed erosion control plan prior to issuance of a grading permit because, at that time, the applicant engineers will have designed the proposed grading plan, examined the requisite elevations for the building envelopes, and determined what precise measures are necessary to control erosion. The DEIR appropriately allows some engineering flexibility in designing the erosion control plan prior to project construction. However, the DEIR sets forth standards by which Fresno County can assess the appropriateness of the erosion control plan prior to issuance of the grading permit.

Comment 19.54: *The Project is inconsistent with many policies of the County General Plan to protect biological resources. Therefore, the EIR conclusion that there is no inconsistency with plans and no resulting significant impact is incorrect.*

Response 19.54: See Responses 19.55 through 19.58 below.

Comment 19.55: *County General Plan goals and policies that the Project is inconsistent with include: (1) Goal OS-D and Policies OS-D.2 and OS-D.5 which require no net loss of the “function and value” of wetlands and require avoidance, minimization or compensation for impacts. The mitigation measures do not require the created wetlands provide the same function and value as the impacted wetlands. Preservation of existing wetlands is not allowed for mitigation. The proposed mitigation is inconsistent with these policies;*

Response 19.55: The DEIR explicitly requires that compensatory mitigation be provided for the loss of wetlands. Compensatory mitigation, as described in Mitigation Measures #3.4.1c(2) and #3.4.3a(2) require that wetland habitats be replaced at a minimum of a 1:1 ratio (hence, there will be no net loss of wetland habitat) and provide explicit guidance as to how those wetlands will look and function. As noted in Response 19.43, the DEIR mitigation measures set forth performance standards for what type of land can be used for creation/restoration, what the topography should be, what soils would be required, and what the site hydrology should be. The mitigation measures further stipulate for the created wetlands what the topography should be, what the duration of inundation must be, and what plant species must be established. The requirements of the DEIR are explicit, and if the requirements are met, the created wetlands (i.e., vernal pools, vernal swales, and wetland channels) will have essentially the same functions and values as the wetlands impacted by the Project. These DEIR requirements are consistent with

Fresno County's "no net loss" policy. See also Response 19.43 related to the appropriateness of requiring preservation as mitigation.

Comment 19.56: *(2) Policy OS-D.5 which requires coordination with regulatory agencies at all levels of environmental review. The EIR does not contain any information on the County consulting with regulatory agencies in the evaluation of impacts or development of mitigation measures. In fact, many mitigation measures state that the development of plans and consultation will take place at a later date when agencies consider approval of permits;*

Response 19.56: Policy OS-D.1 (not Policy OS-D.5) requires coordination with the USACE, USFWS, and CDFG. The project is in full compliance with OS-D.1. The applicant has been in consultation with these agencies since the beginning of the planning process. The applicant's consultants completed a delineation of waters of the U.S. and state in 2008. The USACE issued a letter verifying the delineation on October 1, 2008. The Specific Plan applicant applied to the USACE for a Department of the Army permit in June of 2008. (See Appendix E, pages 105-106. The USACE initiated consultation with the USFWS on the proposed development in the spring of 2009. Meetings were held with the CDFG in June of 2008 and again in November of 2009 to discuss first conceptually and later in detail CDFG requirements for anticipated "take" of protected species. The USFWS is expected to issue a biological opinion for development within the Specific Plan Area during the winter/spring of 2010.

Comment 19.57: *(3) Policies OS-E.14 and OS-E.17 which require that wetlands, riparian habitat and rare and endangered species habitat should be preserved "to the maximum extent practicable". The Project's numerous significant impacts on these resources violates these policies; and*

Response 19.57: The Specific Plan is in compliance with Policy OS-E.14 and Policy OS-E.17. Policy OS-E.14 addresses minimum setbacks for wildlife corridors along the San Joaquin and Kings Rivers. The Specific Plan Area does not border either river, so this policy is not relevant to the Specific Plan Area. Nothing in Policies OS-E.13 and OS-E.17 suggests that projects impacting wetlands (or endangered species habitat) would be in violation of the policy. This policy merely requires the County to protect these resources to the maximum extent possible. There are many ways to meet the requirements of these policies. As identified in the DEIR, the Specific Plan does so in the following ways:

- (1) Avoidance of Sensitive Habitats/Species. The Specific Plan has been designed to avoid and protect wetlands and endangered species habitat. The establishment of one on-site preserve and three off-site preserves will protect a minimum of 1,313 acres of existing open space consisting of at least 31 acres of vernal pools and 51.6 acres of vernal swales and wetland channels. Of the nearly 1.5 acres of Hartweg's golden sunburst occurring on the site, the Specific Plan development would impact approximately 0.02 acre, or 1.4% of the on-site area supporting this species. It is also important to note that Project alternatives analyzed in the DEIR reduced impacts to this species through additional avoidance measures.

- (2) Creation/Restoration. The DEIR stipulates that unavoidable impacts to wetlands of various types be mitigated through creation/restoration at a 1:1 ratio, consistent with requirements of the USACE and USFWS. Proposed mitigation also includes the re-establishment of a population of Hartweg's golden sunburst in a suitable location within the Specific Plan Area such that there will be no net loss of this species, and the creation/restoration of 0.5 acres of succulent owl's clover habitat as discussed in Responses 11.10 and 19.49.
- (3) Land Management Plans. The DEIR stipulates that the Specific Plan applicant prepare long-term land management plans that would foster the conservation of sensitive biological resources within on- and off-site open space preserves, and provides specific direction as to how these plans will be prepared and what they will include.

The DEIR stipulates that the Specific Plan applicant go to considerable effort, in full compliance with County General Plan Policies, to minimize impact to wetlands and endangered species habitat.

Comment 19.58: *(4) Policy OS-D.6 which requires preservation of riparian habitat and other sensitive communities unless there are public safety concerns. The Project's impacts on these resources violates this policy because there is no underlying public safety concern, such as flood protection, that justifies the Project's impacts.*

Response 19.58: Fresno County General Plan Policy OS-D.6 states that "The County shall require new private or public developments to preserve and enhance existing native riparian habitat unless public safety concerns require removal of habitat for flood control or other purposes." This policy addresses the preservation of riparian habitat only and contrary to the commenter's statement, does not address "other sensitive communities." This policy is not relevant to the Specific Plan Area because there is no riparian habitat within the Specific Plan Area. (See DEIR at page 3-115 ["The project will have no impact on riparian habitat or other sensitive natural vegetative communities (which do not occur within the Specific Plan Area)"].) Though there is some riparian habitat within the Friant Community Plan Area, such as at Lost Lake Park, the DEIR establishes mitigation measure 3.4.10 to ensure that any disturbance to riparian habitat is consistent with General Plan Policy OS-D.6 and does not result in a significant impact to riparian habitat. (DEIR, page 3-141.) In fact, Mitigation Measure #3.4.10 requires the 3:1 mitigation set forth in General Plan Policy OS-D.6. (DEIR, page 3-141.)

Comment 19.59: *The use of limited reconnaissance surveys to evaluate impacts in the Community Plan area is insufficient for even a program-level EIR. More detail about the existing conditions should be included in the EIR. A program EIR is allowed to evaluate the project in less detail, but it does not allow a less detailed or cursory review of existing conditions.*

Response 19.59: The Community Plan Area was surveyed extensively for biotic habitats during the Friant Road Widening environmental review process, which began in 1998 and continued

through 2004. Considerable additional information was collected in Lost Lake Park during its master planning process in 2008. It is clear that most of the Community Plan Area consists of developed lands that have been highly disturbed. Although Lost Lake Park consists of high quality riparian habitat along the San Joaquin River, most other habitats are highly disturbed from gravel mining. Therefore, the DEIR accurately describes the habitats of the Community Plan area at a level of detail sufficient to understand the biological resources issues associated with it, and it provides programmatic mitigation measures that if implemented will protect sensitive biological resources or compensate for impacts related to future projects within the Community Plan Area. Such mitigation measures require appropriately timed protocol surveys for vernal pool plants, vernal pool fairy shrimp, the valley elderberry longhorn beetle, California tiger salamander, western spadefoot toad, western pond turtle, Swainson's hawks, burrowing owls, other nesting raptors, nesting birds, American badger, special status bat species, riparian habitat and other sensitive communities, and wetlands. Additional mitigation measures are required if such protocol surveys determine that a sensitive natural resource is present on a given site within the Community Plan Area. Providing a more detailed description of the biological resources of the Community Plan Area at this time would not in any conceivable way increase the level of protection to sensitive natural resources of the Community Plan Area from that already provided in the DEIR.

Comment 19.60: *In addition, some of the mitigation measures for the same species impacts are different for the Community Plan than the Specific Plan. The EIR should explain the basis for differences and inconsistencies in mitigation for similar impacts.*

Response 19.60: The Community Plan Area is evaluated at a programmatic level of analysis while the Specific Plan Area is evaluated at a project level of analysis. This requires that additional surveys must occur in the Community Plan Area under certain circumstances and that additional mitigation measures be listed to account for various anticipated conditions. Permitting options and strategies may substantially differ. With these exceptions, concomitant mitigation measures are consistent.

Comment 19.61: Chapter 3.7 Hazards and Hazardous Materials

The EIR notes that hazards due to proximity of the Project to the Friant-Kern Canal and abandoned water wells were raised as an issue of concern during the scoping process for the EIR. Yet the EIR's Hazards and Hazardous Materials chapter does not acknowledge this comment in its cursory treatment of existing hazardous material sites or risks of contamination. The EIR should be revised to address this concern.

Response 19.61: Impact #3.7.8 is added to the DEIR (top of page 3-190) as follows:

Impact #3.7.8 – Exposure to Hazardous Conditions
[Evaluation Criteria (i)]

Proximity of the proposed project to the Friant-Kern Canal and potentially abandoned water wells could pose a hazard to future Friant Community Plan area residents. Public access to the Friant-Kern Canal is precluded by installation of

appropriate barriers and fencing. Abandoned wells will be sealed as legally required.

Conclusion: Installation of appropriate barriers and fencing along the Friant-Kern Canal and compliance with provisions of law pertaining to well abandonment will reduce this potential impact to a **less than significant** level.

Mitigation Measures: No mitigation measures are required.

Comment 19.62: Chapter 3.8 Hydrology and Water Quality

The EIR's conclusion that the impact from storm water runoff will be less than significant due to the implementation of Low Impact Development (LID) measures as part of the Project is unsupported by evidence. The Project policies on LID referenced in the EIR do not specify or mandate these measures. Many of the policies are qualified by the words "where warranted" or "where feasible". The Plan does not provide specific information on pretreatment of storm water before it is discharged to "swales", the San Joaquin River or elements of the Fresno Stream Group. Since there are no specific measures and no final Plan that is required as part of the Project, the EIR cannot rely on these potential LID measures to support a less than significant finding. The EIR should be revised to find the impacts from storm water potentially significant and include a mitigation measure which requires the implementation of specific LID measures that will reduce the impact to less than significant.

Response 19.62: The EIR evaluates the potential effects of implementing the Specific Plan, which includes an Infrastructure Master Plan (DEIR, Appendix N). The LID program set forth in the Infrastructure Master Plan and described in the DEIR is an integral and requisite part of the green and sustainable elements of the project's conservation land planning. As explained in the DEIR, adherence to the LID program will be a condition of Specific Plan approval. (See DEIR pages 3-211 - 3-213.) Moreover, contrary to commenter's characterization of the DEIR, the DEIR concludes that stormwater impacts are potentially significant, and requires adherence to the LID management practices through Mitigation Measure #3.8.3a. (See DEIR at pages 3-219 - 3-220.) In addition, Mitigation Measure #3.4.3b requires all post-construction runoff to be routed through a system of grease traps, stormwater retention/detention basins, and biofiltration swales. (DEIR at page 3-120.) As described in Response 19.47, above, the LID Program sets forth a range of feasible stormwater management measures and performance criteria designed to protect both the quantity and quality of stormwater. At this stage in the project planning process, it is not possible to know with certainty which LID measures will be appropriate in every circumstance of Project development. Because certain practices and facilities will work in specific circumstances better than others, it would not be appropriate at the Specific Plan level to mandate across-the-board use of any particular LID measure. Thus, many elements of the Project are described in terms of design standards and practices, with detailed infrastructure design necessarily occurring after completion of the Specific Plan approval process and prior to issuance of a grading permit. This level of detail is common to large entitlement projects at the Specific Plan stage and represents the best available information about the Project commensurate with the stage of Project approval.

What is known with certainty is that the LID measures described in the Infrastructure Master Plan and required by Mitigation Measure #3.8.3a have been proven to be effective in ensuring that there will not be significant adverse effects on water quality from stormwater runoff, and their effectiveness is widely acknowledged. Caltrans completed a study of the effectiveness of a spectrum of storm drain water quality enhancement measures, including LID, in 2004 (“*BMP Retrofit Pilot Program: Final Report*,” Report ID CTSW-RT-01-050, Caltrans, Division of Environmental Analysis, January 2004). This report, a copy of which is maintained by the County of Fresno as part of the Project record, evaluates the effectiveness of a variety of storm drain water quality devices intended to provide pretreatment of storm water prior to discharge to Waters of the United States, including media filters, extended detention basins, drain inlet inserts, biofiltration (an LID measure), infiltration devices, wet basins, oil-water separators, and continuous deflective separation. The study concluded that biofiltration best management practices (BMPs) (including bioswales and biofiltration strips) are technically feasible and provide one of the lowest life-cycle costs of the various measures examined.

As reported in Section 7.1 of the Caltrans report, bioswales “lend themselves well to being part of a ‘treatment-train’ system of BMPs, especially infiltration basins and trenches.” (See also Section 8.1. of the Caltrans report.) Tables 7-3, 7-4 and 8-4 of the Caltrans report provide numeric data regarding observed reduction in chemical concentrations resulting from these two devices. Results vary by constituent but are generally in the range of 50 to 80 percent removal. Section 16.5 of the report concludes that filter strips and bioswales “were found to be technically feasible at the piloted locations are particularly applicable where sufficient space is available. They were among the least expensive of the devices evaluated in this study and were among the best performers for reducing sediment and heavy metals in runoff.”

If the Specific Plan is approved, then Project engineers and designers will specify detailed Project design criteria to ensure compliance with the Infrastructure Master Plan performance standards as part of the development of subdivision maps and detailed grading plans. The information about the various LID measures, combined with the Infrastructure Master Plan requirement that the Project incorporate appropriate measures that meet performance standards designed to ensure that there will not be adverse effects from the volume or quality of stormwater, provide sufficient information upon which to determine that project will not result in significant impacts related to stormwater. (See DEIR at pages 3-211 – 3-213 and 3-216 – 3-221.)

Comment 19.63: *The EIR does not properly analyze storm water drainage capacity impacts. There is no quantification of pre-project and post-project runoff amounts. There is no discussion of capacity of existing storm drainage system and how well it functions. The reliance on a LID plan to be approved in the future based on "suggested management practices" listed in the mitigation measure is inadequate. The EIR should require compliance with an already developed plan that shows that these measures can be successfully implemented to handle the estimated increased in runoff from the Project, especially in light of the significant conversion of existing undeveloped and unpaved land proposed by the Project. The Plan also should show the capacity of the soils in retention/detention basins to absorb runoff. The mitigation should require that the amount of post-Project runoff does not exceed pre-Project levels for each Project Phase. The analysis and mitigation measure in the EIR are insufficient to support the less than significant conclusion.*

Response 19.63: CEQA does not require the Project to be fully designed at the Specific Plan entitlement phase. However, the Infrastructure Master Plan (attached to the Specific Plan and Appendix N to the DEIR) provides sufficient information about drainage design, including design and performance standards, to evaluate the Project's potential effects. As discussed in Responses 19.47 and 19.62 above, Fresno County requires a detailed drainage plan prior to issuance of a grading permit, but not at the Specific Plan stage. Since no specific development proposal (i.e., building envelopes, tentative map, grading plan) has yet been made, the Project and County engineers do not yet have all the information they need to establish the drainage plan for the Specific Plan. Moreover, the County also makes the predevelopment flow determination as part of their regular grading permit process. The Project engineers will complete a predevelopment flow study prior to submitting a grading permit application, and the County will review and consider the predevelopment flow calculations during the grading permit process, prior to any grading permit approval. The predevelopment flows accepted by the County at that time will become the standard that the post-development drainage design must meet.

Section 6D of the Infrastructure Master Plan (DEIR Appendix N, page 31) discusses the existing cross-project drainages. Section 6H of the Infrastructure Master Plan (DEIR Appendix N, page 38) discusses an existing location near the northwest corner of the Specific Plan Area where the existing pipe is not large enough to carry commonly-occurring storm drainage across Friant Road, causing puddling and flooding adjacent to existing businesses. The Infrastructure Master Plan discusses how the Project will provide additional storage to buffer this flow, mitigating the existing flooding condition.

Both the Specific Plan and the Infrastructure Master Plan require the project to maintain predevelopment flows within the Specific Plan Area. (See Section 6.E.5 of the Infrastructure Master Plan, DEIR, Appendix N, page 34.) Specific information on storm drainage design and design standards is included in Appendix A of the Infrastructure Master Plan. Figure 1-SD (page 5 of Appendix A to the Infrastructure Master Plan) shows the sub-drainage area boundaries established for the project's overall grading plan. Figures 5-SD and 6-SD (pages 17 and 18 of Appendix A to the Infrastructure Master Plan) provide the United States Department of Agriculture, Soil Conservation Service (SCS) curve numbers to be used for pre- and post-development runoff calculations respectively. SCS curve numbers take into account soil type classifications since the porosity or imperviousness of the soil significantly affects the amount of runoff during a rain event. Figure 7-SD (page 20 of Appendix A to the Infrastructure Master Plan) shows master-planned hydraulic control elevations for the master-grading plan. Pages 23 and following of Appendix A to the Infrastructure Master Plan present the hydraulic calculations for one of the micro-drainage basins, as an example of proposed design. Calculation of other micro-drainage areas will be completed once final lot configuration, road section and project grading are known, and prior to the issuance of a grading permit. Specific calculations of other areas are not necessary in order to evaluate the significance of impacts in the DEIR because all drainage areas will be built to the design and performance standards in the Infrastructure Master Plan, and the hydraulic calculations of the sample micro-drainage basin on page 23 of Appendix A to the Infrastructure Master Plan will allow the County to ensure that the stormwater design will achieve the performance criteria.

Further, the DEIR states that the Specific Plan development requires as a component of Project approval the SWRCB's acceptance of the Specific Plan applicant's notice of intent for coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Construction General Permit). (DEIR at page 2-16.) The Construction General Permit contains post-construction standards that will be applicable to ongoing operations of the Specific Plan development. Specifically, the post-construction standards require the Project to replicate the pre-project water balance through the use of non-structural and structural measures. (See Construction General Permit at page 36.) Storm runoff during construction will be regulated under SWRCB 2009-0009-DWQ, and the project will be subject to the revised Storm Water Pollution Prevention Plan (SWPPP) requirements becoming effective July 2010, which include requirements to monitor construction runoff for turbidity and certain other constituents and mandate Best Management Practices to control impacts to Waters of the United States. Compliance with the Construction General Permit, the Infrastructure Master Plan provisions, and SWPPP requirements will ensure that there is no significant adverse effect from stormwater runoff or sedimentation from construction activities.

The information in the DEIR stormwater analysis, at pages 3-211 thru 3-213 and 3-216 thru 3-221, which is supported by the Infrastructure Master Plan design and performance standards as well as State Water Board permit requirements, supports a determination that the Project will not have a significant effect from stormwater runoff.

Comment 19.64: *The EIR does not describe or analyze how effective control of mosquitoes, and mosquito-borne diseases, such as West Nile Virus and dengue fever, will be achieved if the LID concept creates a plethora of small ponding areas in the Project area.*

Response 19.64: The DEIR calls for the LID Integrated Management Practices and Best Management Practices to be designed in accordance with national and state LID standards, which address mosquito control. (See DEIR at pages 3-216, 3-219, and Appendix N at page 35 and Appendix A thereto.) Structural treatment controls and LID practices that include landscaping and depressed areas that temporarily pond water are designed to prevent mosquitoes. So long as these facilities are designed correctly, properly planted, maintained adequately, and infiltrating properly, no breeding of mosquitoes is expected. This subject is addressed in detail in University of California Division of Agriculture and Natural Resources Publication No. 8125, "Managing Mosquitoes in Stormwater Treatment Devices," available at <http://anrcatalog.ucdavis.edu/>.

In bioretention basins, proper infiltration rates are attained through the use of engineered soils with good permeability and proper plant composition. Proper design and routine maintenance will ensure that water is not ponded for more than 72 hours, which is the accepted standard to prevent mosquito breeding since the mosquito gestational cycle is approximately five days.

BMPs that permanently retain water, such as storm water ponds and wetlands, must be designed and maintained based on the standards presented in the current version of the LID National Handbook and/or LID techniques from the SWRCB, as specified in Appendix A of the Infrastructure Master Plan. These standards include rock lining embedded in concrete and steep

slopes along the edge of storm water ponds and wetlands and periodic removal of debris and vegetation. Mosquito fish (*Gambusia* sp.) that eat mosquito larvae can also be introduced to perennial storm water ponds and wetlands to provide an additional method of control.

The potential for impact is reduced to less than significant by following the design guidelines and standards specified in the Infrastructure Master Plan, as required by Mitigation Measure #3.8.3a.

Comment 19.65: *The EIR does not contain sufficient evidence to support its conclusion that the use of treated effluent for landscaping and on the Beck, Lost Lake Park "or similarly situated property" will be less than significant. The EIR addresses this issue in a single conclusory paragraph. More detail is required to demonstrate that the planned application of treated effluent on open lands will not affect water quality or have other impacts.*

Response 19.65: The SWRCB adopted a new Recycled Water Policy (Recycled Water Policy) on February 3, 2009. The Recycled Water Policy primarily addresses the use of recycled water for landscape irrigation and groundwater recharge. The Recycled Water Policy creates a presumption specifically for CEQA purposes that the use of recycled water in accordance with the Recycled Water Policy has a beneficial impact and not a significant impact. Specifically, the SWRCB finding reads:

The State Water Board finds that the use of recycled water in accordance with this Policy, that is, which supports the sustainable use of groundwater and/or surface water, which is sufficiently treated so as not to adversely impact public health or the environment and which ideally substitutes for use of potable water, is *presumed to have a beneficial impact. Other public agencies are encouraged to use this presumption in evaluating the impacts of recycled water projects on the environment as required by the California Environmental Quality Act (CEQA).* (Recycled Water Policy at page 2-3, finding 3, emphasis added.)

Accordingly, public health and safety impacts and water quality impacts for projects are “beneficial” or “not significant” if the recycled water is used consistent with the Policy.

The Project proposes that recycled water be used conjunctively for landscape irrigation to the greatest extent practical, and proposes that the balance of the recycled water be applied to agricultural use at agronomic rates, sufficient land for which is available at the Beck property and potentially at other reasonably-proximate locations, such as Lost Lake Park. The County has no substantial evidence, and none is presented by the commenter, that rebuts the presumption of the State entity charged with regulating the use and disposal of recycled water that use of recycled water for landscaping and agricultural reuse consistent with State requirements will have anything but a beneficial impact.

The DEIR relied upon the Water Quality Assessment (Appendix L of DEIR) and the site investigation and findings of qualified biologists at Live Oak Associates and an engineer at Provost & Pritchard to support the conclusions in the DEIR. (See Live Oak Associates, Inc. 2009 *Beck Property Biological Resources Analysis*, which incorporated as Appendix A thereto

the Provost & Pritchard 2009 *Evaluation of the Beck Property for Effluent Storage and Reclamation*). The Provost & Pritchard and Live Oak Associate memoranda noted above are included as Appendix Q. See also Response 32.8.

Comment 19.66: *The EIR inadequately analyzes impacts from biosolids generated by the wastewater treatment plant. The EIR, Appendix N, and the Project Infrastructure Plan do not present specific information on storage or disposal of biosolids from the proposed tertiary treatment. The EIR only states that disposal of biosolids will conform to regulations and will go to landfill (which would contravene AB 939 solid waste diversion mandates). No impacts from biosolid storage, transport or disposal are analyzed or mitigated, neither within the Project area, nor for transport to and disposal in some other municipality's area.*

Response 19.66: The EIR and supporting documents provide sufficient information to evaluate the potential effects of biosolids storage and disposal. The DEIR and the Specific Plan identify the relevant standards and regulations that will govern storage and disposal of biosolids from the wastewater treatment plant in order to minimize environmental impacts. (See, for example, DEIR Appendix N at page 28; see also DEIR at page 3-210.) Compliance with these regulations will ensure that impacts are less than significant.

As stated in the Infrastructure Master Plan (DEIR Appendix N at page 29), the wastewater treatment process will be housed in an enclosed facility, which will avoid significant visual, odor and noise impacts. (See also, DEIR at page 3-364.) Processing and storage of process sludge (biosolids) will occur within the structure and facilities. Processing will include a mechanical sludge press to accomplish dewatering. The dewatered sludge will be stored in bins within the facility and will be removed by truck on a periodic basis as necessary and appropriate. Biosolids will be removed to a properly permitted landfill facility that has capacity to accept Project biosolids. The Project is not anticipated to generate significant quantities of biosolids such that adequate landfill capacity would not be available to accommodate them. Truck trips associated with sludge removal would be infrequent (not daily or even weekly) and therefore do not materially affect the analysis of Project peak hour traffic impacts. Because no significant impact would occur, no mitigation is required.

The commenter offers no specific evidence to support the legal conclusion that disposal of the biosolids to landfill contravenes the intent of AB 939. It should be noted that the legislative trend in the Central Valley has been to prohibit application of even Class 1 biosolids to agricultural lands, leaving no other viable alternative to landfill disposal. However, processed biosolids can be used as day cover in the landfill, making their contribution to landfill volume a net zero, as they take the place of other inert material that would otherwise be used for that purpose.

Comment 19.67: *The EIR does not analyze the conflicts between the County Land Use policies for River Influence Areas and the proposal to site wastewater plant facilities serving development unrelated to the River within the River Influence Area.*

Response 19.67: The proposed wastewater treatment plant site within the Friant Ranch Specific Plan Area is not within the River Influence Area as depicted on the San Joaquin River Corridor

Overlay map. (Fresno County General Plan, Figure LU-2.) However, the proposed alternative site on the Beck Property (discussed in DEIR at pages 4-36 thru 4-43) is within the River Influence Area.

Policy LU-C.4, taken from Section C, “River Influence Areas of the Agriculture and Land Use Element” of the County General Plan, states the following: “The policies of the Friant Community Plan shall remain applicable in the Friant Community Plan area.” The Beck property is within the existing Friant Community Plan boundary, which defines the land uses allowed within its boundary. The existing Community Plan designates the Beck Property for Agriculture. The proposed Community Plan Update maintains this designation. The Agricultural designation is described as “Land designated for the production of crops and livestock, and for location of necessary agricultural commercial centers, agricultural processing facilities *and certain nonagricultural activities*.” (See Fresno County General Plan at page 2-7, emphasis added.) The Beck Property is zoned AE (Exclusive Agricultural). Section 816.3, Item L of the Fresno County Zoning Ordinance provides for “sewage disposal and treatment plants” as a permitted use subject to issuance of a Conditional Use Permit. As such, the proposed wastewater treatment plant site on the Beck Property does not conflict with the County policies for the River Influence Areas.

Comment 19.68: *The EIR improperly evaluates the required level of protection in the San Joaquin Riverbottom which is now keyed to a 200-year floodplain (not a 100-year floodplain). It also does not analyze the jurisdiction of the Central Valley Flood Protection Board as they now exist, nor as their jurisdiction will be expanded under recent California flood prevention legislation (SB 5, SB 17, SB 85, AB 5, AB 70, AB 156, and AB 162 effective in 2008).*

Response 19.68: The legislation cited by the commenter is summarized in the publication 2007 California Flood Legislation Companion Reference, prepared and published by the Department of Water Resources. The several bills provide comprehensive new regulation of development in “flood hazard areas,” defined as being those within the 200-year flood plain and particularly those protected by levees within the Sacramento-San Joaquin drainages.

The 2007 legislation directs the California Department of Water Resources (DWR) to define the 200-year flood plains. DWR has yet to define the 200-year flood plain and, as such, there is no information available to describe the 200-year flood plain in the Project Area. However, the 200-year flood plain by definition will lie between the 100-year and 500-year flood plains. The entire area to be developed under the Specific Plan lies outside of the 100-year and 500-year flood plains. As noted in the DEIR, the only lands within the Specific Plan Area that fall within a flood plain is the large playa pool shown on Figure 3.8-1 of the DEIR, which is within the proposed open space preserve.

Though portions of the Beck Property are at or near the 500-year flood plain, it is unlikely that the alternative wastewater treatment plant location will fall within the pending 200-year flood plain. According to the available Federal Emergency Management Agency (FEMA) mapping, the 500-year flood plain is about 10 feet above the 100-year flood plain. The 200-year flood plain can be anticipated to be four to five feet at most above the 100-year flood plain. The

alternative wastewater treatment plant will likely have a finish floor elevation several feet above the 200-year flood plain.

Based on the available mapping, and State and County requirements related to floodplains, it is reasonable to conclude that the Project and proposed alternatives will comply with all applicable flood protection requirements.

The Central Valley Flood Protection Board (CVFPB), formerly the Reclamation Board, now is charged with reviewing developments within designated “flood hazard areas,” and with reviewing the planning efforts of the various municipalities within the Sacramento-San Joaquin drainage area to assure compliance with the changes mandated in the laws. So long as the development provides flood protection by incorporating adequate finish floor elevations to be above the flood plain, the CVFPB will not have jurisdiction. Should a levee be proposed to provide flood protection for a part of the development, which is not anticipated, review and approval of the levee by CVFPB would be required.

Comment 19.69: *The EIR does not analyze how Corps of Engineers flood detention structures on the Fresno Stream Group could be affected by development of the Project area, which would greatly increase the extent of impervious surfaces and generate runoff.*

Response 19.69: Fresno Metropolitan Flood Control District’s (FMFCD) 2009 District Services Plan states, “The District's flood control program consists of a system of facilities and operations which control the flows from several low-elevation streams that drain a part of the west slope of the Sierra Nevada between the San Joaquin and Kings rivers. These streams are collectively referred to as the Fresno County Stream Group.”

The proposed development within the Project Area is not within the FMFCD’s service area. Moreover, as noted in Response 19.63 above, the Project will maintain pre-development stormwater runoff levels. As such, the Project will have no effect upon the Army Corps of Engineers or FMFCD’s facilities within that service area.

Comment 19.70: *For possible inundation from Friant Dam and Millerton Lake, the EIR should include a map that shows the area that is subject to inundation and the land uses allowed in that area to support its less than significant conclusion.*

Response 19.70: The DEIR addresses this subject on page 3-221 and refers to Figure 9-8 of the Fresno County General Plan Background Report. A depiction of this inundation area has been added as Figure 3.8-3 to the EIR below. As shown on Figure 3.8-3 and consistent with the discussion on page 3-221 of the DEIR, the Depot Parcel and the entire Specific Plan Area (both situated east of Friant Road) are outside of the inundation area.

The text of the DEIR (page 3-221) has been amended as follows to include a reference to Figure 3.8-3, which shows the “Dam Failure Flood Inundation Areas” depicted in Figure 9-8 of the General Plan Background Report.

Friant Dam and Millerton Lake are located just north of the Project site. An inundation study completed in 1997 by the USBR redefined a worst-case scenario dam break of Friant Dam to include inundation of a significant portion of the City of Fresno and a much larger portion of Fresno County than previously described. In addition, failure of upstream dams on Shaver Lake, Edison, Huntington, Florence, and Mammoth Pool could contribute to flooding conditions on Millerton Lake and subsequently the San Joaquin River if downstream dam capacity is exceeded. According to Figure 9-8 (Figure 3.8-3 of this Draft EIR) of the Fresno County General Plan Background Report, only the portion of the Project Area along the San Joaquin River, west of Friant Road, would be subject to inundation as a result of the failure of Friant Dam. The majority of this land is currently used for recreation purposes and is not proposed for development by the Project.

Comment 19.71: *The EIR identifies 23 pollutants that will exceed regulatory standards in the mixing zone for the wastewater discharge. The EIR should identify this as a significant impact and include mitigation measures to address the impact.*

Response 19.71: Appendix L of the DEIR includes the aquatic assessment prepared by Robertson-Brian Inc. (RBI), a consulting firm specializing in water and power resources. The RBI report identifies 22 pollutants that may exceed regulatory standards on an ephemeral basis in the mixing zone of the river, under worst-case conditions of temperature and flow. RBI analyzed each of these constituents extensively at pages 28 through 64 and concludes without exception that any impacts upon the river, or the vertebrate and invertebrate species therein (including anadromous species) would be less than significant.

State and federal regulations and guidance allow for the use of mixing zones as long as beneficial uses are protected. Federal guidance explains: “It is not always necessary to meet all water quality criteria within the discharge pipe to protect the integrity of the water body as a whole. Sometimes it is appropriate to allow for ambient concentrations above the criteria in small areas near outfalls. These areas are called mixing zones.” (Water Quality Standards Handbook (2nd ed.), EPA 823-B-94-005a, § 5.1 (June 2007).) In short, a mixing zone is a limited area or volume of water where initial dilution of a discharge takes place. The federal guidance further explains that states have discretion as to whether to establish a mixing zone policy.

The state policies that would apply to any mixing zone for the proposed wastewater treatment plant’s discharges of treated effluent are the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) and the Sacramento-San Joaquin Basin Plan. The SIP expressly applies to priority pollutants and authorizes mixing zones and dilution credits. (SIP at pages 3, 15.) Under the SIP, the Central Valley Regional Water Quality Control Board (RWQCB) may establish and determine compliance with effluent limitations for human health or (acute or chronic) aquatic life criteria/objectives or the toxicity objective for aquatic life protection by granting mixing zones and dilution credits to dischargers. (SIP at page 15.) The SIP provides that the “applicable priority pollutant criteria and objectives are to be met throughout a water body except within any mixing zone granted by [the RWQCB].” (SIP, emphasis added.) A mixing zone must be as small as practicable to protect beneficial uses, satisfy the SIP and comply with any other regulatory requirements. (SIP at page 17.)

Consistent with the SIP, the RWQCB defines “mixing zone” as “a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.” (Order No. R5-2009-0095, NPDES No. CA0081558 at page A-3, emphasis added.) Moreover, the Sacramento-San Joaquin Basin Plan states that water quality objectives “may not apply at or in the immediate vicinity of effluent discharges, but at the edge of the mixing zone if areas of dilution or criteria for diffusion or dispersion are defined in the waste discharge specifications.” (Sacramento-San Joaquin Basin Plan at page III-2.00, emphasizes in original.)

The Water Quality Assessment (DEIR Appendix L) for the Project includes a dilution study that establishes mixing zones and estimates the dilution available in the San Joaquin River for the

project's proposed wastewater discharge. (DEIR at page 3-208.) Consistent with applicable law and guidance, the RWQCB may grant the wastewater treatment plant the smallest practicable mixing zone in which applicable water quality objectives may be exceeded. The DEIR relies upon that evidence for its analysis and impact assessment. While the commenter asserts that the impact should be significant, no evidence supporting that conclusion is given, so no further response is required and no additional mitigation measures are necessary.

Comment 19.72: Chapter 3.9 Land Use and Planning

The Project presents fundamental inconsistencies with the land use and planning policies in the County of Fresno General Plan and the General Plans of surrounding cities. The proposed General Plan Amendment to change the Community Plan boundaries and General Plan land use designations cannot "cure" this fundamental inconsistency. The Project will result in a development that is incompatible with many of the central goals and policies that guide land use development in the County. The main inconsistency that results from the Project is the development of intense urban uses on agricultural land in an incorporated area which does not have adequate public services. The policies of directing urban development to incorporated areas with existing services to support development and away from agricultural land are contradicted by the Project. The EIR conclusion that the Project is not inconsistent with planning policies is wrong.

Response 19.72: See Response 19.16.

Comment 19.73: *The inconsistencies with County land use policies include but are not limited to the following: (1) policies that promote the Friant area as a recreational hub since Specific Plan does not focus on recreational uses; (2) policies for preservation of agricultural land (see comments in Agriculture section above). The Right to Farm notices does not mitigate the impacts of urban development next to agricultural land; (3) inconsistencies with the Community Plan which does not contemplate or allow the type of development under the Specific Plan or the large expansion of its Plan area.*

Response 19.73: With respect to alleged inconsistencies with “policies for preservation of agricultural land”, see Response 19.16. With respect to the effect of Right to Farm notices, see General Plan Policy LU.A-15 and DEIR discussion at page 3-24. The Project includes a Community Plan amendment to update the boundaries of the Community Plan. The Fresno County General Plan and the existing Community Plan do not restrict the County’s ability to expand the Community Plan boundaries. In fact, the Fresno County General Plan contemplates potential new growth areas in the Friant-Millerton Area and recognizes that it is an area void of productive agricultural soils. (See General Plan Policy LU.H8.) The commenter has not identified any specific policies promoting the Friant area as a “recreational hub” or otherwise explained the allegation that the Project conflicts with such policy. As such, no further response is possible. Notably, however, the Friant Ranch Specific Plan focuses on the recreational nature of the Project Area. For example, as explained at page 3-231 of the DEIR, the Friant Ranch Specific Plan “emphasizes the design feature of connecting the new growth to the existing community and the area's recreational amenities through trails and pedestrian linkages.” Further,

business that may emerge within the Project Area as a result of the Project may actually enhance the recreational amenities of the Friant area and encourage additional recreational uses.

Comment 19.74: *The EIR does not provide any analysis of the Project inconsistencies with the January, 2003 Amended and Restated MOU between the County and City, and the MOU between the County and the City of Clovis. The Project is inconsistent with the City/County MOU because: (1) The MOU requires the County to consult with the City in the early stages of preparation for projects (such as this Project) that involve new urban development inconsistent with existing County Plans (MOU, Section 4.4); and (2) the MOU requirement for the County to adhere with Rural Residential Development Restriction policies and preserve agricultural land (MOU, Section 4.5).*

Response 19.74: The Project does not conflict with the cited Memorandum of Understanding (MOU) between the City and Fresno County or with the MOU between the City of Clovis and Fresno County. Those MOUs primarily address land use planning and tax revenue sharing between the cities and County for future development within the sphere of influence of the cities, or within a defined expanded sphere of influence for each city (comprising lands adjacent to the existing sphere). The Project Area is not within or adjacent to the sphere of influence of either city. At its closest point, the Specific Plan is 3 miles north of the City of Fresno's sphere of influence and 4 miles north of the City of Clovis's sphere of influence. Nor is the Project within the Fresno-Clovis Metropolitan Area boundary, as designated in the City of Fresno/County MOU, or within the designated area outside of the City of Clovis's sphere of influence. Thus, neither Section 4.4 of the City of Fresno/County MOU nor Section 4.3 of the City of Clovis/County MOU applies to the Project. Finally, the Project does not include land with the current General Plan designation of Rural Residential, nor does it propose to designate land as Rural Residential. As a result, City of Fresno/County MOU Section 4.5 (related to Rural Residential development restrictions) does not apply to the County's consideration of the Project. For these reasons, the MOUs referenced in the City's letter do not apply to the County's consideration of the Project. The County has considered the City's comments about the Project made both in scoping for this EIR and comments on the EIR itself, and those comments will inform the County's consideration of the EIR and Project.

Comment 19.75: *The EIR does not characterize the Bigelow Ranch (Friant Ranch) as eastside rangeland, and does not analyze the Project's consistency with County General Plan policies for Eastside Rangeland and Eastside Grazing Land.*

Response 19.75: Although the term “eastside rangeland” is not used in the physical setting section of the DEIR at page 3-22, the first two paragraphs of section 3.2.2 PHYSICAL SETTING clearly identifies the Friant Ranch area as grazing land. Although the County General Plan includes policies for “Westside Grazing Land”, no such policies can be found pertaining to “Eastside Grazing Land”

Comment 19.76: *The EIR fails to evaluate the Project's consistency with the San Joaquin Valley Regional Blueprint: Vision for the Valley.*

Response 19.76: Comment noted. The San Joaquin Valley Regional Blueprint: Vision for the Valley provides general policy guidance for county/city coordination on a voluntary basis throughout the entire valley and is not considered part of the regulatory setting for the DEIR.

Comment 19.77: *The Project is also completely inconsistent with the land use and transportation policies of SB 375. The goal of SB 375 is to reduce greenhouse gas (GHG) emissions from vehicle trips through regional land use and transportation planning. Under SB 375, a sustainable community strategy (SCS) will be developed as part of the regional transportation plan process. The SCS will reduce GHG emissions by reducing vehicle miles traveled relating to land use. The type of development that the SCS promotes is concentrated urban development in existing urban areas and reduced sprawl development. The SCS should include urban infill development that includes mixed use, higher density housing, proximity to transit or incorporation of alternative transportation elements, and the location of housing near jobs. SB 375 also promotes sustaining existing agricultural land and preventing its conversion to urban uses. The Project flies in the face of all these policies. It is classic sprawl development which converts existing agricultural land and open space to create housing that is not proximate to jobs, existing urban development, or transit. It will result in an increase rather than decrease of GHG emissions and vehicle miles traveled. It will impede the creation of a SCS for Fresno County that can meet the GHG reduction goals for the County established under SB 375.*

Response 19.77: On September 30, 2008, Governor Arnold Schwarzenegger approved *Senate Bill 375, The California Sustainable Communities and Climate Protection Act*, which supports AB 32's goals through regional planning coordination requirements. The bill directs the Air Resources Board (ARB) to develop and set greenhouse gas (GHG) emission reduction targets for the automobile and light truck sectors for 2020 and 2035. The targets must be set for each region that has a metropolitan planning organization (MPO). ARB is to propose draft targets by June 30, 2010 (this has not yet occurred), and adopt final targets by September 30, 2010. Once the targets are adopted, the MPOs must prepare a sustainable communities strategy to reduce the amount of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain ARB's targets through integrated land use, housing and transportation planning. The adopted SCS would be incorporated into the region's federally enforceable regional transportation plan. If ARB determines that a region's sustainable communities strategy would not achieve the GHG emission reduction targets, the MPO must prepare an alternative planning strategy, describing alternatives to achieve the targets. The alternative planning strategy would not be incorporated into the regional transportation plan.

SB 375 does not set any numeric targets for GHG emissions, and does not require that city or county land use policies and regulations, including general plans, be consistent with the sustainable communities strategy or alternative planning strategy. The bill does provide incentives to developers for certain projects that implement the region's sustainable communities strategy by relaxing CEQA requirements.

SB 375 requires ARB to develop and set GHG emission reduction targets prior to the development of the region's SCS. ARB is required to finalize the GHG emission reduction targets by September 30, 2010, and has yet to propose any such targets. The SCS must be based on various planning assumptions, including assumptions related to the regional housing need,

economic segments of the population, migration to the region, population growth, employment growth, and household formation. Given the absence of established GHG emission reduction targets for the subject region and studies in preparation of the SCS, any determination of this project's impact on the ability of Fresno County to meet the GHG emission reduction targets for the County would be based on pure speculation.

Section 3.15 of the DEIR addresses the greenhouse gases with regard to the Project in general and vehicle miles traveled. CEQA Guidelines proposed at the time the DEIR was released (October 2009) provided that GHGs should be addressed if either of the two following criteria apply: (1) the Project would generate GHGs, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance; or (2) the Project would conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. (DEIR at p. 3-384.) When the DEIR was released, there were no adopted significance thresholds for GHG emissions or adopted methodology for analyzing impacts related to GHG emissions, and the DEIR outlined then-current regulatory guidelines. (See also Response 19.144.) GHG emissions associated with the Project were estimated using CO2 emissions as a proxy for all GHG emissions. This is consistent with the current reporting protocol of the California Climate Action Registry (CCAR). Calculations of GHG emissions typically focus on CO2 because it is the most commonly produced GHG in terms of both number of sources and volume generated, and because it is among the most accurate GHGs to measure. (DEIR at p. 3-384.)

The URBEMIS modeling program was used to calculate CO2 emissions. The program estimates CO2 emissions from project-generated vehicle trips. The estimates were based on the trip-rates from the traffic study and proposed detailed land use information from the Friant Ranch Specific Plan and an estimate of possible uses for the areas outside the Friant Ranch Specific Plan and within the Community Plan boundary, including the Depot Parcel, based on the Friant Community Plan. A summary of the URBEMIS findings is provided at pages 3-384 and 3-385 of the EIR.

Given the significant adverse environmental effects linked to global climate change induced by GHGs, the emission of GHGs is considered a significant cumulative impact. Therefore, the DEIR at Impact 3.14.1 concludes that development of the Project could potentially result in a cumulatively considerable incremental contribution to the significant cumulative impact of global climate change. (DEIR at p. 3-387.) The Project thus includes various mitigation measures to reduce its impacts on global climate change. (See e.g., DEIR at pp. 3-391 to 3-393.)

See also Response 9-5 regarding the San Joaquin Valley Blueprint list of Smart Growth Principles and see Response 18-3 related to conversion of agricultural land.

Comment 19.78: Chapter 3.10 Noise

The EIR's determination that installation of sound insulation within existing structures is not feasible mitigation is not supported by substantial evidence. The EIR explains that installation of sound insulation is infeasible "because it would require remodeling of existing structures along

the roadways." This vague, unsupported, and unquantified assertion is not sufficient to support a determination that mitigation by installing sound insulation in existing structures.

Response 19.78: Comment noted. The “rule of reason” applies here. Existing structures are grandfathered in place and installation of additional sound proofing insulation can not be enforced. The statement in the DEIR is valid.

Comment 19.79: *Chapter 3.11 Population and Housing*

This section of the EIR concludes that the Project is consistent with the goals of the County's Housing Element in that the Project will provide adequate housing and supportive services for persons age 55 and older, who have special needs. This conclusion is unsupported, since the Project makes no provision for the skilled nursing facilities, hospital facilities, or community care assisted facilities which are typically required supportive services for this population.

Response 19.79: Section 8.3.1 of the proposed Friant Ranch Specific Plan discusses Conformance to General Plan and lists goals and policies to conform with General Plan Housing Element items, including appropriate supportive services for the active adult 55+ population. Section 1.4 of the proposed Friant Ranch Specific Plan provides for integrating “health and wellness amenities and medical facilities within Friant Ranch community and the Friant Ranch Village Center.” Further, section 7.5.3 of the Specific Plan provides for Active Adult Recreation Centers with many social amenities for this population. Section 2.3.2 of the Specific Plan also describes the planned Village Center that will incorporate medical and social gathering uses.

Comment 19.80: *The Project, and the EIR, must be revised to address adequate provision of medical care and social services for the age 55+ population accommodated by the Project.*

Response 19.80: Because of the proposed project orientation to the 55+ population it is anticipated that medical care and social services facilities to serve this population will be developed as the need arises with implementation of the proposed project. The land use designations and configurations proposed by the Project do not preclude such facilities and services. See also Response 19.79.

Comment 19.81: *The population and housing section of the EIR also fails to demonstrate that there is any actual demand for housing for active adults aged 55+ in the Friant area, nor does it provide any evidence to support a conclusion that the Project's housing would be price-accessible to lower-income seniors.*

Response 19.81: Comment noted. This comment does not address environmental issues. For summary of DEIR analysis and related information about demand for active adult 55+ housing, see Responses 9.8 through 9.10.

Comment 19.82: *The Project also fails to make adequate provision for other housing age groups, particularly children.*

Response 19.82: Comment noted. This comment does not address environmental issues.

Comment 19.83: *The EIR does not identify any provision that provides the County with power to enforce the "age 55 or older" requirement for the residential units designated for such a requirement. In Fresno County, it is currently estimated that a significant percentage of senior citizens are currently raising or housing their grandchildren, due to socioeconomic conditions. In light of the lack of County enforcement power, the EIR needs to either provide evidence to support a conclusion that CC&R and HOA regulations will be adequate to enforce the residential age requirements, or else revise its projections of the age groups likely to be accommodated by the Project.*

Response 19.83: See Response 9.11.

Comment 19.84: Chapter 3.12 Public Services and Recreation

The EIR's section on Public Services and Recreation determines that a potentially significant impact of increased demand for fire protection services will be mitigated to a less than significant level by establishment of a CFD to serve Friant Ranch "consistent with fire and emergency response time standards established in the County General Plan. However, the County standards do not quantify required response times, nor does the EIR contain any quantification or data on the fire/emergency response times which will be achieved under this mitigation measure. It is entirely unclear, therefore, how the EIR determines that this impact will be reduced to a less than significant level. The EIR must be revised to commit to achieve an acceptable, quantified level of fire/emergency response time.

Response 19.84: See Responses 19.85, 26.5, and 26.10.

Comment 19.85: *Additionally, as discussed below in comments on the Transportation/Traffic section, the EIR must be revised to address the potential for unacceptable levels of service on the Project's main access roads to significantly impair fire and emergency response times.*

Response 19.85: The DEIR addressed fire and emergency response times for the Project Area and found that the Specific Plan project's main access roads were sufficient to ensure adequate fire and emergency response times. Adherence to the County's policies established to ensure emergency response and safety, rather than levels of service on the main access roads, are the driving factor in ensuring appropriate emergency response times because all traffic is required by law to clear the roadway for emergency vehicles. See Fresno County General Plan Policy PF-H.8, which establishes minimum standards for average first alarm response times. "15 minutes in suburban areas" is the standard applicable to the Friant Ranch Project. Ingress and egress to support emergency vehicles is analyzed in Section 3.7 of the DEIR at pages 3-181, 3-188, and 3-189. Applicable Fresno County General Plan policies regarding fire protection are explained on pages 3-257 and 3-258 of the DEIR. Impact and mitigation analysis #3.12.1 (Increased Demand for Fire Protection Services and Personnel) on pages 3-265 and 3-266 of the DEIR discussed how the Project will be required to mitigate to ensure adequate fire protection.

Comment 19.86: *The above comments also apply to the EIR's unquantified analysis of law enforcement services. The EIR concludes that potentially significant impacts in this area will be reduced by formation of a CFD to maintain "adequate" staffing and facilities to serve the Friant*

Ranch community – without any explanation of how "adequacy" in this regard will be determined. The EIR provides no data or quantification regarding the need for law enforcement staffing and facilities which will be created by the Project.

Response 19.86: See Response 20.1.

Comment 19.87: *Nor does the EIR address any potential for significant environmental impacts to result from construction/operation of new law enforcement facilities for which the Project will create a need. The EIR needs to be revised to discuss these issues.*

Response 19.87: Should the project create a need for new law enforcement facilities, such facilities would be built within areas designated for commercial or public land uses by the General Plan or Specific Plan in effect at the construction location. Environmental Impacts associated with development under the respective General or Specific Plan have been addressed in the environmental documents prepared for the General or Specific Plans and all applicable mitigation measures will be required at the time of construction. If identification of a specific location for law enforcement facilities during processing of future discretionary approvals triggers supplemental environmental analysis pursuant to Public Resources Code section 21166, then additional environmental analysis pertaining to such new information will be conducted. At this time, however, analysis of impacts of potential law enforcement facilities would be based on pure speculation.

Comment 19.88: *Furthermore, the EIR does not appear to respond to the comments of the California Highway Patrol, on the NOP, that the Project is likely to create a need for a minimum of five, and as many as seven, additional officers to handle the increase in traffic volume and attendant collisions and other traffic-related emergencies created by the Project. The EIR needs to be revised to address those impacts, and to provide for the Project to fund the necessary CHP services.*

Response 19.88: The proposed project will pay fees in accordance with Mitigation Measure #3.12.2 found at page 3-266 of the DEIR to provide additional law enforcement services required as the proposed project develops. Meeting increased demand for CHP service is a function of the State budget process and would be addressed in this manner.

Comment 19.89: *Finally, the EIR needs to evaluate whether there will be any additional need to bus students from the Project area to public schools, and to address any impacts to public services related to such a need.*

Response 19.89: Although the focus of the proposed Friant Ranch Specific Plan is to provide housing for the 55+ population, there will be a need to bus students from the proposed non-age restricted units within the Project Area to schools that are located far enough from a student's residence to qualify the student for bus service. Provision of school bus service to the proposed project site will be accomplished, as throughout the County, through the school district budgeting process as the need arises. Impacts on public schools will be addressed as stated in the discussion of Mitigation #3.12.3 found at page 3-267 of the DEIR.

Comment 19.90: *The EIR should disclose and determine the significance of the impacts on existing recreational facilities (e.g., Lost Lake Park, Millerton Lake Recreation Area, and San Joaquin River Parkway) of increased use by the new residents who would be introduced by the Project.*

Response 19.90: As stated in the discussion of Mitigation #3.12.4 found at page 3-268 of the DEIR, at buildout the proposed project will be in compliance (exceed) the County acreage of parkland to population standards and the impact on surrounding recreation facilities will be less than significant.

Comment 19.91: Chapter 3.13 Transportation/Traffic

The EIR's traffic and transportation impacts analysis, and Appendix D (Traffic Impact Study, or TIS) is inadequate in many respects. The City of Fresno does not agree with the peak hour trip generation rate reductions. The EIR appears to assume that active adults aged 55 and above constitute a category of residents whose commuting patterns can be assumed to differ from those of the general population. Even though this is predominately an active senior (55 and over) housing project many people in this low socioeconomic region are still working 8AM-5PM positions well beyond the age of 55. This proposed project does not require that the active seniors are retired. The ITE trip generation rates for senior housing are for projects closer in proximity to the city center or adjacent to a metropolitan region. In addition, projects cited in the Fehr & Peers projects were in affluent communities and in a different economic period than a recession. The City of Fresno requires that intersection within its jurisdiction utilize the ITE trip generation rate for a single family home. All impact fees and mitigation should be calculated based on this single family home trip generation rate.

Response 19.91: See Responses 9.6 and 9.11. Active adult communities do not require that the residents be retired. The description of ITE Code 251 indicates that the “*The percentage of retired residents varies by development.*” The description of ITE Code 252 states that residents may or may not be retired. Furthermore, the City of Fresno Traffic Impact Study Report Guidelines do not suggest modification of trip generation analyses based on a “*low socioeconomic region.*”

ITE Codes 251 and 252 best match the description of the active-adult residential portion of the proposed Project. The descriptions of ITE Codes 251 and 252 acknowledge that residents may be employed. However, the active adult community is not expected to generate trips similar to a single-family detached housing (ITE Code 210), especially considering the location as described in the TIS, the fact that far fewer school-aged children are expected, and the percentage of retired residents is expected to be much greater than the typical neighborhood. See also Responses 19.93, 28.1 and 28.2.

Comment 19.92: *Furthermore, this assumption appears at least potentially at odds with the comments by CalTrans, on the NOP, that the Project has the potential to generate in excess of 30,000 daily vehicle trips.*

Response 19.92: The Caltrans comments on the NOP were prepared before the TIS was prepared and appear to have overestimated the trip generation. The TIS indicates that the Friant Ranch portion of the Project is expected to generate 17,673 trips per day after accounting for internalization (see DEIR, Appendix D at Appendix E thereto) and the Friant Depot portion of the Project is expected to generate 3,157 trips per day (see Table 9.6 of Appendix D of the DEIR). The methodology used by the traffic engineer for estimating daily trips is consistent with nationwide practices.

Comment 19.93: *It also contradicts the experience of the City of Fresno, which has observed that most or many homeowners in this age group commute to work daily, if only to afford their mortgages. The EIR's traffic analysis should be revised to reflect current societal conditions, under which great numbers of active adults over the age of 55 – particularly in suburban developments like the proposed Friant Ranch Project – have driving patterns similar to the general population.*

Response 19.93: This comment suggests that the City of Fresno has observed that the percentage of working persons in the 55-and-older age group is similar to the percentage of working persons in both the under-55 age group and the population as a whole. However, this observation was not substantiated. The comment that “most” persons over the age of 55 commute to work daily is also unsubstantiated. The ITE code utilized in the study indicates that the active adult communities include working residents. The ITE trip generation rates applied in the analysis hinge more on the overall lifestyles (i.e., 1-2 person household with fewer school extracurricular activities requiring daily trips). See also Responses 9.6, 9.11, 28.1 and 28.2.

Comment 19.94: *Appendix D identifies Friant Road and Willow Avenue as the major routes providing access to the Project site. Yet the EIR identifies multiple road segments and intersections on both Friant Road and Willow Avenue as operating at unacceptable levels of service either now or by 2030. Furthermore, the EIR concludes that no mitigation can feasibly result in either of these two major access routes operating at acceptable levels of service. Yet the EIR's traffic analysis concludes that development under the Friant Ranch Specific Plan, on property served by these two unacceptably impeded roadways will have absolutely "no impact" to emergency services access. The EIR, as a document providing environmental analysis of a project to create a new community containing nearly 3,000 residences for active adults (age 55+), must explain how it determines that access for necessary medical services will not be significantly affected by the unacceptable traffic conditions on Friant Road and Willow Avenue.*

Response 19.94: The Project is consistent with Fresno County General Plan Policies HS-B.4 and HS-B.5, and there are no limitations to the access of emergency vehicles to any portion of the existing Friant Community Plan Area. The improvement standards adopted by Fresno County provide adequate street width and requirements for secondary access to ensure that future development in the Friant area makes adequate provision for emergency vehicle access. According to the project's Infrastructure Master Plan, fire response will be from the CalFire station located in the town of Friant, approximately one mile north of the main project entrance, and is unaffected by any of the subject Friant Road segments and intersections. (See Section 3.7 of DEIR for discussion of impacts to emergency preparedness, which would not be significant.)

Comment 19.95: *The City of Fresno does not agree that the Average Daily Traffic (ADT) volumes will decrease due to trip chaining of a remote development. The model is showing that 75% of the proposed project traffic will be directed to the City of Fresno. While the percentage might not change the total amount of the project traffic based on the trip generation may change drastically and have significant impacts. We agree that the total average daily trips (ADT) at the entrance to this subdivision might be less based on the distance it is from the attractions, however I would argue that the Vehicle Miles Traveled (VMT) per trip would be substantially higher than a typical trip in the Fresno COG model for the City of Fresno due to its remote location and this could greatly affect air quality emissions in a region that is already not meeting air quality standards.*

Response 19.95: The TIS did not apply a reduction to the ADT volumes or a reduction due to trip chaining of a remote development. See also Response 19.128 that addresses vehicle miles traveled issue.

Comment 19.96: *In addition the City of Fresno has never approved a pass-by trip reduction of more than 15%, which is consistent with the Caltrans Traffic Impact Study Guidelines. This would assume that the adjacent roadway facility traffic volumes could support this amount of reduction (which was not discussed in the traffic impact study) and that the proposed commercial land uses would be of convenience that would support a pass-by reduction.*

Response 19.96: The application of pass-by reductions to retail-oriented developments is a standard and well-established traffic engineering practice as well as an empirical reality. The Caltrans Guide for the Preparation of Traffic Impact Studies requires that any pass-by reductions in excess of 15 percent be justified in the TIS, but does not disallow greater pass-by reductions. ITE allows the use of up to a 35% pass-by reduction (and up to 50% reductions for certain uses such as drive-thrus and gas stations). The pass-by reductions utilized in the TIS were justified with empirical data published in the ITE *Trip Generation Handbook* as described in the TIS in accordance with standard industry practice and were not applied to the residential and office aspects of the Project.

Only reasonable pass-by reductions substantiated with published data were applied, and only in the year 2030 scenario when a significantly greater amount of buildout creating pass-by trips is anticipated in Rio Mesa and Millerton New Town. See Section 9.4 of the TIS.

Comment 19.97: *Table 4.1 of Appendix D identifies a number of study intersections as operating acceptably under existing conditions. However field observations by the City of Fresno's Traffic Engineer confirm that these intersections are not operating acceptably due to long queues, demand exceeding capacity, traffic signal cycle length, and unserved demand. Many of these intersections operate at unacceptable levels for multiple hours and periods of the day. The "black box" analysis approach, utilized in the preparation of Appendix D, of merely counting the traffic volume that makes it through the intersection, is inadequate. The analysis must include identifying the demand and calculating the saturation flow rates due to ramp metering, blocked through lanes due to queues that exceed turn pockets, through lane queues that block both left and right-turn pockets, upstream queues that do not accept through traffic, and lane utilization. This requires peak hour field observations and documentation by a qualified*

professional engineer. Failure to perform this level of analysis appears to have grossly underestimated the impacts of the proposed project, and concealed the true level of service, demand, or capacity of the roadway. Some of the study intersections are misrepresented by 1-4 level of service grades. The entire TIS needs to be redone to actually reflect the existing conditions experienced in the field. Until this analysis is corrected the entire documentation and analysis in the TIS and DEIR is baseless and lacking in evidentiary support.

Response 19.97: See Response 19.98 below.

Comment 19.98: *The City of Fresno's preliminary review indicates that the following intersections are inaccurately analyzed in the EIR, and as a result affect all the analysis through the environment document as this is the base condition from which all impacts are determined, evaluated, and mitigated:*

- 1. Friant/Shepherd (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour, in addition westbound left-turns are not fully served and northbound right-turn queues exceed capacity)*
- 2. Friant/Audubon (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour)*
- 3. Friant/Fresno (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour)*
- 4. Friant/SR 41 NB off ramp (queues and capacity affected by ramp metering which serves between 1,500-1,900 vehicles per hour)*
- 5. Friant/SR 41 SB off-ramp (adjacent queues and lane utilization affect this intersection)*
- 6. Blackstone/Nees (SR 41 southbound on-ramp backs up into this intersection due to ramp metering. Northbound through lanes, Westbound left-turns, southbound U-turns/left-turns, and eastbound right turns all are impacted due to ramp metering)*
- 7. Herndon/Blackstone (City of Fresno has identified the WE right-turn needs to be extended by over 300 feet and become an overlap phase yet the TIS suggests that the queue is only 90 feet. This capital improvement grant application was ranked highly by the regional review panel as most people in the Fresno region are aware of the regular congestion at this intersection)*
- 8. Fresno/Nees (due to queues and delays on Friant many northeast commuters have shifted to Nees Avenue to access the southbound SR 41 on-ramp)*
- 9. Audubon/Nees (needs to be signalized and synchronized with both Palm/Nees and Nees/Ingram)*
- 10. Palm/Nees (adjacent queues from intersections affect intersection operations)*

11. *Palm/Herndon (intersection capacity exceeds demand. City of Fresno recently installed southbound right-turn overlap phasing as queues extend north to adjacent intersection)*
12. *Willow/Herndon (City of Clovis just widened intersection because of level of service operations)*
13. *Willow/Bullard (a capital project is already identified by both the City of Clovis and City of Fresno for unacceptable levels of service for which the traffic consultant that prepared the TIS bid on the design work)*
14. *Herndon/SR 41 NB off ramp (queues on the northbound off-ramp routinely back up to Sierra and Bullard Avenue on the SR 99 mainline in addition queues from Herndon/Blackstone and Herndon/Fresno block capacity)*
15. *Herndon/SR 41 SB off ramp (intersection is routinely blocked by queues from Herndon/Blackstone and Herndon/Fresno)*

Response 19.98: Peters Engineering Group performed additional field observations and reviewed the following reports:

- Traffic Impact Analysis, Fresno 40 Development dated September 17, 2008 by VRPA Technologies, Inc. (hereinafter referred to as the “VRPA Report”);
- Transportation Impact Analysis Report for Tesoro Viejo Project dated November 2007 by Fehr & Peers (hereinafter referred to as the “Fehr & Peers Report”).

Each of the reports listed above included analysis of several locations in common with the Friant Ranch TIS, including several intersections on Friant Road, the SR 41 interchange at Friant Road, and the SR 41 interchange at Herndon Avenue.

The EIR for the Fresno 40 report has been certified by the City of Fresno. The EIR for the Tesoro Viejo project has been certified by the County of Madera and the City of Fresno did not object to the traffic analyses presented in the Fehr & Peers Report.

The VRPA Report and the Fehr & Peers Report contained vastly different characterizations of the existing conditions at many of the study locations identified in Comment 19-98 by the City of Fresno. The VRPA Report typically reported that substandard levels of service exist based only on observations of queues and not based on the results of operational analyses (in many cases operational analyses were not performed to characterize the existing conditions). The Fehr & Peers Report presented operational analyses that were very similar to the results of the analyses presented in the Friant Ranch TIS. The discussions below will clarify and characterize the existing conditions at the study locations based on the results of the analyses presented in the TIS and recent field observations made by Peters Engineering Group.

Prior to addressing the intersections specifically identified by the City of Fresno in Comment 19-98, the operation of the Friant Road corridor between Blackstone Avenue and Shepherd Avenue should be clarified. During the a.m. peak hour, ramp metering at the SR 41 SB loop on-ramp

(which consists of two lanes) was observed serving approximately 22 vehicles per minute during peak a.m. periods (equating to a flow rate of approximately 1,320 vehicles per hour on the on-ramp and 660 vehicles per hour per lane on the on-ramp). Caltrans has indicated in discussions with Peters Engineering Group that each meter is on an eight-second cycle to maximize the metering rate at 900 vehicles per hour per lane (two vehicles per green). The on-ramp queue and high lane utilization in the Number 2 and Number 3 lanes of southbound Friant Road extend beyond the intersection of Friant and Audubon. The Number 1 lane (leftmost lane) of southbound Friant Road is not highly utilized, and those vehicles using the Number 1 lane southbound were observed experiencing a good LOS at each of the study intersections.

During the a.m. peak hour in the northbound direction, ramp metering on the SR 41 SB direct on-ramp (which consists of only one lane) was observed serving on the order of 14 vehicles per minute (flow rate of 840 vehicles per hour). The on-ramp queue extends to the intersection of Blackstone and Nees Avenues, at times blocking the westbound left turn, the eastbound right turn, and the northbound through.

During the p.m. peak hour, the predominant traffic flow is from the SR 41 NB off ramp, with the busiest conditions observed between approximately 5:30 p.m. and 6:00 p.m. The off ramp has three right-turn lanes; the Number 1 (leftmost) right-turn lane is not highly utilized. The Number 2 and Number 3 right-turn lanes are highly utilized, and this utilization of the Number 2 and Number 3 lanes extends along northbound Friant Road as drivers planning to turn right at Shepherd Avenue do not highly utilize the Number 1 lane on northbound Friant Road. Queues in the Number 3 lane extend from Fresno Street to the SR 41 NB off ramp, blocking the off ramp and creating queues on the off ramp, observed as long as approximately 700 to 800 feet. However, the queues at these intersections typically dissipate within one traffic signal cycle before building back up again with few, if any, drivers moving to the Number 1 right-turn lane.

Peters Engineering Group observed a vehicle traveling northbound on Friant Road at approximately 5:45 p.m. was stopped in the Number 3 lane at the back of the queue extending from Fresno Street near the end of the curb return at the east side of the northbound off ramp. It took exactly three minutes to travel from this point entirely within the Number 3 lane on Friant Road to completion of the right turn at Shepherd Avenue (a distance of approximately 0.87 miles), which is an average speed of 17.4 miles per hour. A faster speed would have been accomplished in the Number 1 lane where the observed queues were shorter. Friant Road most nearly matches the description of a Class II urban street in Chapter 10 of the *Highway Capacity Manual*, for which an average speed of 17 miles per hour is classified as an acceptable LOS for this City of Fresno roadway.

1. Friant / Shepherd: DEIR identified a cumulatively significant impact at the intersection (Impact #3.13-6a). Mitigation measure 3.13-6a requires payment of a fair share fee to fund a second northbound right-turn lane, a third westbound left-turn lane, and a third southbound through lane.

Peters Engineering Group staff observed the intersection on a normal weekday during both the a.m. and p.m. peak hours. Queues associated with ramp metering did not impede traffic flows at the intersection. Table 3.13-2 of the DEIR indicates an existing a.m. peak hour 95th-percentile westbound left-turn queue of 653 feet and existing p.m. peak hour 95th-percentile

northbound right-turn queue of 1,094 feet. This exceeds the VRPA Report observations of a 500-foot westbound left-turn queue and no mention of the northbound right-turn queue or ramp meter queues. Peters Engineering Group staff did not experience substandard levels of service or excessive delays while traveling through the intersection during peak hours. Therefore, the characterization of the intersection as presented in the TIS is accurate.

It should also be noted that, although long queues were observed in the northbound right-turn lane at Shepherd Avenue, the overlapping right-turn signal phase creates a condition in which the northbound right-turn queue typically continues to move with little stopping. It is anticipated that the addition of a second northbound right-turn lane may partially relieve lane utilization issues that extend to the northbound off ramp from SR 41 if the right-turn lanes are designed long enough and with an adequate weaving segment so as to facilitate entry into the right-turn lanes for vehicles in the Number 2 lane of Friant Road.

2. Friant / Audubon: Table 3.13-2 of the DEIR identified this intersection as operating at a substandard LOS with a queuing deficiency during the existing p.m. peak hour. Table 3.13-1 of the DEIR also identified the intersection as operating at LOS B during the existing a.m. peak hour. Impact #3.13-6 of the DEIR indicated that the Project will create significant impacts at the intersection. However, the DEIR explained that the intersection is constructed to its largest reasonable feasible configuration, the City of Fresno has identified this location as constrained, and the Project's impacts will be significant and unavoidable.

Table 3.13-1 indicates an existing p.m. peak hour 95th-percentile eastbound left-turn queue of 525 feet. This exceeds the VRPA Report observations of a 200-foot eastbound left-turn queue. Peters Engineering Group staff did not experience substandard levels of service or excessive delays while traveling through the intersection during the a.m. peak hour (traveling in the Number 1 lane when traveling southbound on Friant Road as excessive on-ramp queues were observed in the Number 2 and Number 3 lanes).

It is the conclusion of Peters Engineering Group that the deficiency during the a.m. peak hour is not with the intersection of Friant and Audubon, as no improvements at this location would mitigate the actual deficiency which occurs at the SR 41 SB loop on-ramp and no additional capacity is needed on any of the other movements during the a.m. peak hour. Therefore, the characterization of the Friant/Audubon intersection as presented in the EIR is accurate, with the caveat added that deficiencies at the SR 41 SB loop on-ramp extend through the Friant/Audubon intersection.

3. Friant / Fresno: The EIR reported this intersection as operating at LOS C during both the existing a.m. and p.m. peak hours in Table 3.13-1 with an eastbound p.m. peak hour 95th-percentile queue of nearly 700 feet (see Table 3.13-2). Field observations support these results, with queues clearing on all approaches during nearly every signal cycle, and eastbound queues in the Number 3 lane extending up to as much as 900 feet during approximately five percent of the traffic signal cycles during the p.m. peak hour. Additional capacity is typically available in the eastbound Number 1 lane. The only lanes approaching the intersection that may be operating below LOS D during the p.m. peak hour are the Number 2 and Number 3 eastbound lanes. All other approaches at the intersection appear to be operating at acceptable levels of service.

The DEIR identified that the Project will create a significant impact at the intersection (Impact #3.13-6c). The TIS identified in Mitigation Measure #3.13-6c that the intersection is constructed to its largest reasonable feasible configuration, the City of Fresno has identified this location as constrained (Chapter 4.E Public Facilities Element of the City of Fresno 2025 General Plan), and the Project's impacts will be significant and unavoidable.

It is the conclusion of Peters Engineering Group that the deficiency during the a.m. peak hour is not with the intersection of Friant and Fresno, as no improvements at this location would mitigate the actual deficiency which occurs at the SR 41 SB loop on-ramp and no additional capacity is needed on any of the other movements during the a.m. peak hour. Therefore, the characterization of the Friant/Fresno intersection as presented in the TIS is accurate, with the caveat added that deficiencies at the SR 41 SB loop on-ramp extend through the Friant/Fresno intersection.

4. Friant / SR 41 NB off ramp: The EIR identified this intersection in Table 3.13-1 as operating at acceptable levels of service during the peak hours. DEIR identified a cumulatively significant impact at the intersection (Impact #3.13-3d). Mitigation Measure #3.13.3d requires payment of a fair share fee to fund necessary improvements to this intersection.

As discussed above, queues originating at the SR 41 SB loop on-ramp during the a.m. peak hour extend through the intersection in the Number 2 and Number 3 lanes of westbound Friant Road. These queues cause drivers in the northbound left-turn lanes to heavily utilize the Number 1 (leftmost) left-turn lane while some blocking difficulty is experienced by drivers in the Number 2 left-turn lane. However, all approaches that are not within the on-ramp queue experience good LOS during the a.m. peak hour, including the westbound Number 1 lane which was not heavily utilized and was observed to have substantial reserve capacity.

During the p.m. peak hour, the predominant traffic flow is the northbound right turn. The off ramp has three right-turn lanes; the Number 1 (leftmost) right-turn lane is not highly utilized and has substantial reserve capacity. The Number 2 and Number 3 right-turn lanes are heavily utilized as described above, presumably because drivers planning to turn right at Fresno, Audubon, and Shepherd appear to be reluctant to use the Number 1 lane. Queues from Fresno Street at times block the Number 2 and Number 3 lanes of the off ramp, creating queues observed as long as 700 to 800 feet in the Number 3 lane of the off ramp. (It should be noted that queues this long were observed an estimated amount of less than five percent of the signal cycles.) However, the queues at these intersections typically dissipate within one traffic signal cycle before building back up again with few, if any, drivers moving to the Number 1 right-turn lane.

Peters Engineering Group staff did not experience substandard levels of service or excessive delays while traveling through the intersection during the peak hours (traveling in the Number 1 lane when traveling southbound on Friant Road during the a.m. peak hour as excessive on-ramp queues were observed in the Number 2 and Number 3 lanes).

It is the conclusion of Peters Engineering Group that the deficiency during the a.m. peak hour is not with the intersection of Friant and the SR 41 NB off ramp, as no improvements at this

location would mitigate the actual deficiency which occurs at the SR 41 SB loop on-ramp and no additional capacity is needed on any of the other movements. Therefore, the characterization of the Friant/ SR 41 NB off ramp intersection as presented in the TIS and DEIR is accurate, with the caveat added that deficiencies at the SR 41 SB loop on-ramp extend through the Friant/ SR 41 NB off ramp intersection during the a.m. peak hour, and northbound right-turn queues extend to as much as 700 to 800 feet in the Number 3 right-turn lane.

5. Friant / SR 41 SB off ramp: This intersection was observed during the a.m. and p.m. peak hours by Peters Engineering Group and adjacent queues and lane utilization had no effect on the operation of the intersection. Therefore, the characterization of the Friant/ SR 41 SB off ramp intersection as presented in the TIS and DEIR is accurate.

The DEIR identified a cumulatively significant impact at the intersection (Impact #3.13-3e). Mitigation Measure #3.13-3e requires payment of a fair share fee to fund required interchange improvements.

6. Blackstone / Nees: The DEIR identified the intersection of Blackstone and Nees as operating at substandard LOS with queuing deficiencies. (See Tables 3.13-1 and 3.13-2.) It is acknowledged that queues originating at the SR 41 SB direct on ramp from NB Blackstone Avenue/Friant Road extend to the intersection of Blackstone and Nees, blocking the eastbound left turn, the westbound right turn, and the Number 3 lane of the northbound through movement. These movements would not be heavily influenced by Friant Ranch project traffic. The characterization of the Blackstone / Nees intersection as presented in the DEIR is accurate.
7. Herndon / Blackstone: Recent traffic counts obtained from the City of Fresno suggest that traffic volumes on Herndon Avenue have increased since the original traffic counts for the Project TIS were taken, likely as a result of coordination of the Herndon corridor. Observation of the intersection of Herndon and Blackstone suggests that the intersection currently operates at LOS F. Errata revisions to the DEIR have been made to clarify the existing conditions at this intersection are at LOS F. Westbound queues typically extend to the SR 41 SB off ramp and impede traffic from the off ramp. The TIS identified that the intersection would eventually operate at LOS F, but that the Project trips at the intersection do not create a significant impact. This location has been identified as constrained in the City of Fresno General Plan (Herndon between Palm and Cedar would need 12 lanes to operate at LOS D). As such, LOS F is the level of service for this intersection, pursuant to the City of Fresno General Plan. The Project will not have any individually or cumulatively significant impacts to this intersection. No further revisions to the TIS or DEIR, particularly the identification of new Project impacts, are required as a result of this comment.
8. Fresno / Nees: The TIS characterized the intersection in a very similar manner with similar traffic volumes to the results of the VRPA Report. The Project trip assignment accounts for the traffic engineers' estimate of the "shift" described by commenter and reflects current industry practice. (See DEIR, Appendix D at section 5.3 ["the use of travel models requires that engineering judgment be incorporated into the values that are presented"].) Therefore,

the characterization of the Fresno / Nees intersection as presented in the TIS and DEIR is accurate.

9. Audubon / Nees: The DEIR identified the intersection of Audubon and Nees as operating at substandard LOS with traffic signals warranted in the existing condition during both the a.m. and p.m. peak hours. (See Table 3.13-1.) The DEIR identified a cumulatively significant impact at the intersection (Impact #3.13-6d). Mitigation Measure #3.13-6d requires payment of a fair share fee to fund the required intersection improvements.

The analyses presented in Appendix C of the TIS indicate an existing p.m. peak hour 95th-percentile eastbound left-turn queue of 317 feet. This compares to the VRPA Report observations of a 315-foot eastbound left-turn queue. The characterization of the Audubon / Nees intersection as presented in the TIS is accurate. Peters Engineering Group concurs that the intersection should be synchronized with the intersection of Palm and Nees, and the Project's fair share of the traffic signal facilities includes the required interconnect facilities to synchronize the signals (either fiber optic or wireless as determined by the City of Fresno).

10. Palm / Nees: The 95th-percentile queues in the westbound left-turn lane at Audubon Drive identified in Table 3.13-2 of the DEIR extend nearly to the intersection of Palm and Nees, and at times would be expected to block the eastbound through, the southbound left-turn, and the northbound right-turn movements.

It is the conclusion of Peters Engineering Group that the deficiency is not with the intersection of Palm and Nees, as no improvements at this location would mitigate the actual deficiency which occurs at the intersection of Audubon and Nees. Therefore, the characterization of the Palm / Nees intersection as presented in the TIS and DEIR is accurate, and the impacts and mitigations identified for the intersection of Audubon and Nees are intended to alleviate blocking at Palm and Nees as well as to improve the LOS at Audubon and Nees.

11. Palm / Herndon: The DEIR identified the intersection of Palm and Herndon Avenues as operating at substandard LOS with queuing deficiencies. (See Table 3.13-2.) However, the DEIR and TIS identified that the Project would not result in individually or cumulatively significant impacts to the intersection.
12. Willow / Herndon: The DEIR identified in Table 3.13-1 that the intersection of Willow and Herndon currently operates at LOS D. Recent observation of the intersection confirms that this characterization is accurate. It is acknowledged that the City of Clovis recently widened Herndon Avenue to six lanes east of Willow Avenue. The intersection is constructed to its ultimate configuration. The TIS identified that the Project will create significant impacts at the intersection (Impact #3.13-7b). The DEIR identified that the Project will be responsible for paying its fair share of the ultimate buildout of the intersection. The TIS identified that the intersection will be constructed to its largest reasonable feasible configuration, the City of Fresno has identified this location as constrained, and the Project's impacts will be significant and unavoidable.

13. Willow / Bullard: Table 3.13-1 of the DEIR identified that the intersection currently operates at LOS D. The DEIR identified a cumulatively significant impact at the intersection (Impact #3.13-7d). The DEIR further explained that the intersection will be constructed to its largest reasonably feasible configuration and the cumulative impact is significant and unavoidable.

The City of Fresno indicated to Peters Engineering Group that no improvements should be assumed prior to the year 2025, and the TIS was completed in accordance with these descriptions. The Request for Proposals for the design work was released by the City of Fresno after completion of the TIS, and the fact that Peters Engineering Group submitted a proposal is not relevant to the TIS. The DEIR identified that the intersection will be constructed to its largest reasonable configuration prior to year 2030.

14. Herndon / SR 41 NB off ramp: Table 3.13-1 of the DEIR identified this intersection as operating at LOS C during the peak hours in the existing condition and that the Project does not create significant impacts at the intersection. Queues in the westbound Number 3 lane typically extend to Fresno Street and beyond as a result of lane utilization favoring the southbound loop on ramp to SR 41. Caltrans has previously identified the need for widening of the off ramp and an auxiliary lane to minimize queues extending in the mainline of SR 41. See Response 9.33.

15. Herndon / SR 41 SB off ramp: Table 3.13-1 of the DEIR identified this intersection as operating at LOS A during the peak hours in the existing condition and that the Project does not create significant impacts at the intersection. Peters Engineering Group recently observed the intersection and determined that the two-phase signal operation is capable of providing the LOS characterized in the TIS and DEIR. It should be noted that queues originating at the intersection of Herndon and Blackstone in the westbound lanes typically extend to the off ramp and impede the off ramp. Caltrans has previously identified the need for widening of the off ramp and an auxiliary lane to minimize queues extending in the mainline of SR 41. See Response 9.33.

Comment 19.99: *Additional problems with the TIS include the queuing analysis from the software program Output, utilized in preparation of Appendix D. That analysis does not reflect existing conditions during the peak hours/periods in the field. These queues need to be measured in the field to verify that the analysis is done correctly. Queues affect lane utilization, accessibility of turn pockets, saturation of through lanes, and downstream and upstream intersection operations. Some of the worst congestion in the City of Fresno occurs on the intersections and roadway segments analyzed within this DEIR/TIS due to the imbalance of land uses in northeast Fresno. The Friant Ranch proposed project is adding more residential that already exists in northeast Fresno.*

Response 19.99: See Response 19.98 above.

Comment 19.100: *Section 4.3 of the TIS, concerning Existing Bicycle and Pedestrian Facilities, also contains errors. Willow Avenue from Shepherd to Friant Road in the County does not have Type II Bike Lanes as defined by the Caltrans Highway Design Manual. They need all of the following to qualify: stripe at the appropriate width, bike lane stencil, bike lane regulatory sign, and no parking signs.*

Response 19.100: Comment noted.

Comment 19.101: *With regard to Table 4.3 of the TIS, how can roadway segments operate worse than intersection level of service? When roadway segments are at capacity the intersections (or nodes) become the capacity constraint.*

Response 19.101: The criteria for intersection LOS are different from the criteria for road segment LOS. Generally, intersection assessments are more detailed and thus more accurate than segment analyses. Intersection levels of service are based on the average control delay per vehicle at an intersection, which is correlated to driver frustration, while road segment levels of service are based on average travel speed. It is possible that one direction of travel on a road segment approaching an intersection may experience reduced travel speeds due to high volumes, however, the adjacent intersection may have signals timed to minimize any additional delays caused by the signals and to minimize the delay on all the other approaches to the intersection. Therefore, the LOS of one high-volume approach segment may differ from the overall LOS at the intersection.

It should also be noted that levels of service are based on subjective measures of the acceptability of a certain amount of delay at a given location. For example, the Highway Capacity Manual presents different level-of-service criteria for signalized and unsignalized intersections as described in Section 2.1 of the TIS. The criteria suggest that a driver sitting at stop sign is experiencing LOS F if the driver is delayed more than 50 seconds, but the same driver sitting at a traffic signal experiences only LOS D if delayed up to 55 seconds. The rationale for the different criteria is that a driver at a traffic signal knows that a green light will eventually appear and accepts a greater amount of delay before frustration sets in, while a driver at a stop sign can become frustrated more quickly waiting for a gap in traffic to proceed.

Comment 19.102: *The TIS fails to account for the shift in traffic to adjacent facilities caused by the queues and level of service on Friant Road. Motorists will find the path of least resistance such as Audubon Drive (between Friant Road and Nees Avenue), Nees Avenue, and Herndon Avenue that are not reflected in the model because multiple travel time runs and field observations need to be completed to determine the path of least resistance.*

Response 19.102: The traffic modeling performed by the Council of Fresno County Governments for this Project was performed in the same manner as all traffic model runs performed for projects in the City of Fresno. The Fresno County travel model includes a feedback loop to determine congested speeds and an equilibrium assignment to balance traffic volumes where roadways are congested as required by the FHWA for conformity. Therefore, the analyses inherently address the “shift” in traffic resulting from the addition of the Project. Further, the Project trip assignment accounts for the traffic engineers’ estimate of the path of least resistance and reflects current industry practice. (See DEIR, Appendix D at Section 5.3 [“the use of travel models requires that engineering judgment be incorporated into the values that are presented”].)

Comment 19.103: *Roundabouts have been identified to calm traffic on Audubon Drive between Friant and Nees as a result of the traffic shift and queues in a number of traffic impact studies in*

northeast Fresno for large developments. This was not reflected as part of this DEIR/TIS. Contribution to these roundabouts should be included in these environmental documentations as this project further exacerbates Friant Road.

Response 19.103: The DEIR does not identify individually or cumulatively significant impacts to the segment of Audubon Drive between Nees Avenue and Friant Avenue (or to the intersections within that segment that would be served by any such roundabouts) resulting from the Project. As such, no mitigation is needed. Further, it appears that the identified roundabout improvements have been proposed to address quality of life issues along Audubon Drive rather than operational deficiencies of the roadway.

Comment 19.104: *On page 22 of the TIS, Shepherd Avenue/Willow Avenue traffic signal has already has been constructed. The traffic consultants for this TIS prepared the design for this traffic signal and were aware of the construction timing and completion.*

Response 19.104: Comment that the Shepherd and Willow Avenue traffic signal has been constructed is noted. Page 3-309 of the DEIR identifies the signalization of the intersection of Willow and Shepherd Avenues as a pending project (completion expected by 2011). Page 23 of the TIS indicates that the City's project to install traffic signals at the intersection of Willow and Shepherd Avenues was out to bid as of the date of the TIS and had not yet been constructed.

Comment 19.105: *On page 22 of the TIS, Herndon Avenue does not have bike lanes. It is designated as an Expressway from SR 99 to Willow Avenue in the City of Fresno General Plan.*

Response 19.105: The description that can be found on the Measure C web site (www.measurec.com/extension.php) is quoted as follows: "Complete the widening of Herndon Ave to a 6-Lane Divided Road from State Route 99 to De Wolf Ave and retrofit existing bike paths." The phrase as presented in the TIS was intended to accurately reflect the description of the project as reported on the Measure C web site and was not purported to be the result of a field review of Herndon Avenue.

Comment 19.106: *Rural level of service roadway segment thresholds should not be used for 4 lane divided roadways like Friant Road from Copper to the Town of Friant. When 3,000 homes are added and a 4 lane roadway is constructed it becomes more suburban (urban) setting and not a rural. Failure to correctly evaluate thresholds underestimates the existing conditions and impacts from the proposed project. The entire TIS needs to be redone correctly so that the existing conditions actually reflect the existing conditions experienced in the field so that the proposed project impacts can be evaluated, determined, and mitigated.*

Response 19.106: As discussed at page 3-272 of the DEIR, Fresno County General Plan Policy TR-A2 states:

The County shall plan and design its roadway system in a manner that strives to meet level of service (LOS) D on urban roadways within the spheres of influence of the cities of Fresno and Clovis and LOS C on all other roadways in the county.

See Tables 3.13-7 and 3.13-13 of the DEIR for application of this General Plan Policy TR-A2 to the minimum acceptable road segment LOS and the road segment analysis criteria. For example, the Friant Road segment between Copper and Road 206 is analyzed as a rural roadway since it is not within the City of Fresno or City of Clovis spheres of influence, based upon County interpretation of Policy TR-A2. As discussed in Response 19.101, this method results in a more conservative impact analysis as more stringent levels of service are demanded for rural roadways compared to acceptable levels of service for urban roadways.

Comment 19.107: *The City of Fresno does not agree with the methodology for determining how many lanes would be required if the roadways could be more than 6 lanes or that the capacity of a single lane is 742 vehicles per lane. This analysis does not adequately address the further exacerbation of infrastructure created by the proposed project.*

Response 19.107: The TIS and DEIR identify a significant impact where the Project will exacerbate constrained conditions and reveals that those impacts would be significant and unavoidable if the Project is approved. (See threshold discussion at page 3-282 of DEIR.) The methodology used to determine how many lanes could be required if roadways could be more than 6 lanes was taken from footnote 3 of Table VB-4: “Streets with Constrained Capacity”—Master EIR for the 2025 City of Fresno General Plan.

Comment 19.108: *The EIR's transportation and traffic impacts chapter, based on the TIS, is also riddled with errors. The County of Fresno has already identified the Friant Road as a dangerous roadway with fatality/accident billboards and the capital improvement project to widen a LOS A, two lane roadway to a LOS A, 4 lane roadway separated by a median prior to it experiencing capacity deficiency. Fatal accidents were associated with passing, high speeds, and driving under the influence. Adding more traffic to Friant Road without adequately addressing all the safety issues of Friant Road from Millerton Lake to the City of Fresno could cause more accidents. Friant Road should have a barrier in the median to keep motorists under the influence from hitting on-coming motorists.*

Response 19.108: The County of Fresno has not designated Friant Road as a dangerous road. The County of Fresno has designed and is constructing the road widening improvements to Federal and State standards.

Comment 19.109: *In addition, a Class 1 Trail may need to be constructed adjacent/parallel to Friant Road from the City of Fresno to Friant Ranch to allow cyclists a separation from the increased traffic volumes. The City of Fresno is concerned about the safety of the cyclist community on Friant Road. This is a main recreation route for many City of Fresno residents. The roadway was recently widened to improve safety of existing traffic, but that project did not anticipate this growth to occur outside of the urban metropolitan areas. More vehicles could cause more conflicts with cyclists that use this route as a major recreation area.*

Response 19.109: The improvements identified by commenter do not address any individually or cumulatively significant impact of the Project identified in the DEIR. No evidence suggests that such improvements are necessary or appropriate.

Comment 19.110: *Due to the Friant Road 4 lane widening project, traffic volumes on Friant Road are now driving faster than ever before. Fresno Police Department enforces these speeds regularly within the City of Fresno city limits but both County Sheriff Departments and the California Highway Patrol have funding and resource constraints on their ability to adequately serve and protect a new suburban area in northeast Fresno. The traffic impact study does not address the 85th percentile with respect to the posted speed limit of Friant Road.*

Response 19.110: The agency having jurisdiction over the roadway is responsible for analyzing and posting the appropriate speed limit based on observed speeds and other applicable factors. Under state law, speed surveys are required every 5 years.

Comment 19.111: *In addition, the speed differential of traffic on Friant Road north of Copper River and south of Shepherd (back of completely stopped vehicles due to ramp metering) has not been adequately addressed. A series of three overhead changeable message signs should be installed southbound between Willow Avenue and Shepherd Avenue (connected to the City of Fresno ITS system) to notify motorists of stopped traffic ahead. Sensors should be constructed between SR 41 and Copper Avenue to determine the flow of traffic and when stopped traffic occurs so that the Changeable Message Signs can automatically notify motorists.*

Response 19.111: Commenter has not provided sufficient information to warrant a meaningful response about potentially significant impacts of the Project. The suggested improvements do not address any identified impacts of the Project. City of Fresno has jurisdiction over control of traffic southbound on Friant Road between Willow Avenue and Shepherd Avenue. The identified concerns could be addressed by coordinating the signals along this segment. City of Fresno is responsible for coordinating the traffic signals along this segment. See also Responses 19.108 and 19.110 related to safety requirements and required speed limit analysis.

Comment 19.112: *The County of Madera is currently considering whether to approve two mining operations, the Jackson Mine and the 145/41 Vulcan Mine operation. We understand that both of these mining operations intend to utilize portions of Friant road as truck routes. Truck traffic and mining operations have a significant impact on our circulation infrastructure. Eighty percent of wear and tear damage to roadways is caused by heavy truck traffic, so when the percentage of truck traffic increases on a roadway the failure of the roadway infrastructure occurs faster. Friant Road has failed in the #3 and #2 outside lane because of truck traffic from County Vulcan mine near Copper River/Friant Road. It is our understanding that the County of Fresno failed to collect mitigation for the continued mining operation extension permit for maintenance of Friant Road per the request of the City of Fresno.*

Response 19.112: Comment noted. No response is warranted.

Comment 19.113: *Furthermore, the EIR does not make clear which of the cumulative projects, discussed in the EIR's cumulative impacts analysis, were or were not included in the EIR's discussion of cumulative traffic impacts. It is not clear whether either of these proposed mining operations in Madera County were included to determine the cumulative traffic impacts caused by this project.*

Response 19.113: These mining Projects would not result in meaningful changes to the cumulative conditions because it has been determined by the County that the proposed projects would generate less than 10 peak hour and 100 daily truck trips on County roadways. Therefore, truck trips within the study area generated by the two proposed aggregate mines in Madera County are unlikely to be noticeably different if these mines are approved.

Moreover, the existing, operating mines with access to Friant Road south of the Project site were included in the analysis, and no deduction was applied to the 2030 traffic volumes for the existing projects to account for the expected and planned completion of mining activities at the existing, operating mines long before 2030. As such, the traffic expected from the proposed mining activity will in all likelihood merely replace the traffic that now occurs from active mines in the area that will eventually cease operation due to completion of applicable reclamation/mining plans.

Comment 19.114: *Another significant impact of the Friant Ranch project is the "temporary" (10-30 years) of construction traffic to build out Friant Ranch. The City of Fresno does not have adequate maintenance resources to mitigate the impacts of Friant Ranch construction traffic.*

Response 19.114: Construction traffic volumes will be concentrated within the County of Fresno. Existing businesses within the City of Fresno that currently offer construction services are likely to perform construction services at Friant Ranch. It is logical that the demand for housing in the Fresno region will be the same whether or not the Friant Ranch project is approved, and the volume of construction traffic generated by construction businesses in the City of Fresno will likely be the same with or without the Project. The volume of traffic expected from construction of the Project will not be individually or cumulatively significant.

Comment 19.115: *The discussion of mitigation in the EIR is also inadequate. While payment consistent with the policies and nexus study of the City of Fresno Traffic Signal Mitigation Impact (TSMI) fee and Fresno Major Street Impact (FMSI) fee may help to mitigate some of the impacts of the Friant Ranch, this proposed project was not assumed as part of the modeling for those impact fees. The Friant Ranch project could be further exacerbating conditions for which those impact fees are intended to mitigate. The Friant Ranch project could consume reserve capacity for projects within the City of Fresno that are not fully built out but were assumed to be built out with the impact fee programs. Unfortunately the analysis provided in the existing conditions and subsequent phasing does not represent the field conditions so the City of Fresno is not able to determine the impacts and necessary mitigation measures.*

Response 19.115: The traffic modeling done to support the TIS is consistent with the *Model Steering Committee Recommended Procedures for Using Traffic Projections from the Fresno COG Travel Model* and the *Caltrans Guide for the Preparation of Traffic Impact Studies*. The traffic modeling performed by the Council of Fresno County Governments for the Project was conducted in the same manner as all traffic model runs performed for projects in the City of Fresno. The level of detail in the analyses contained in the TIS exceeds the level of detail presented in the City-Wide Traffic Signal Mitigation Impact Fee Nexus Analysis for Proposed Fee Update or the Draft Master Environmental Impact Report for the 2025 Fresno General Plan (which does not include intersection analyses). The baseline 2030 conditions in the TIS

essentially represent the conditions upon which the City of Fresno traffic impact fees were derived. The year 2030 with-Project analyses test the extent to which the Project may cause additional impacts. Therefore, the analyses in the TIS/DEIR are sufficient to identify Project impacts. If the Project would create an impact over and above that covered by the City impact fees then an additional fair share or construction of the improvements was required where feasible.

Comment 19.116: *The County of Fresno does not have an impact fee program for traffic signals or roadway improvements. Payment of pro-rata fair share is not consistent with CEQA to fully mitigate the impacts of the Friant Ranch project. CEQA requires that the mitigation project be included in a Capital Improvement Plan and be fully funded or an impact fee be developed consistent with the Mitigation Fee Act so that the mitigation project can be implemented. Until the details of a mitigation fee program can be finalized between the County and all other public agencies with jurisdiction over potentially affected roadway infrastructure, the mitigation measures in the EIR may be unenforceable and therefore invalid.*

Response 19.116: The DEIR acknowledges that the payment of the fair share fee to the County for improvements in another jurisdiction may not result in timely improvements such that the impact would be avoided. As such, the DEIR concludes that the impacts will remain significant and unavoidable until improvements are constructed.

Comment 19.117: *The EIR states that, where an intersection or roadway segment is identified as operating at an unacceptable level of service but the EIR provides no mitigation for the Project's contribution to that unacceptable level of service, the Project's contribution has been "deemed" not significant or cumulatively considerable. The EIR cannot "deem" Project impacts insignificant simply by refusing to discuss them. Where the Project would result in a significant transportation/traffic impact, or would contribute to a significant transportation/traffic impact, the EIR needs to explain, and support with substantial evidence, any conclusion that the Project's contribution is less than significant or less than cumulatively considerable.*

Response 19.117: As noted in the discussion of existing conditions and Year 2030 no Project conditions in the DEIR, regional growth in the Project vicinity has created, and is anticipated to create, deficiencies in the regional roadway network. Where deemed significant, the Project's contribution to these deficiencies is noted. To the extent a deficient roadway or intersection is not discussed, but is identified as deficient under the existing conditions or year 2030 no Project conditions, the Project's contribution to the deficiency, if any, is deemed less than significant and not cumulatively considerable.

A traffic impact is recognized if the Project will decrease the LOS below the minimum LOS presented in Tables 3.13-7 and 3.13-8 of the DEIR. A traffic impact is also recognized if the Project will exacerbate average delays at an intersection that is deficient under baseline conditions. In some cases, a very slight increase in average delay is not likely to be perceptible to motorists at intersections already operating at LOS E or F. In these cases the existing condition is not considered to be exacerbated and the impact is less than significant.

Comment 19.118: *The EIR also fails to address the NOP comments of the Public Utilities Commission, that the Project will create and/or contribute along with other cumulative development in Fresno and Madera Counties, to traffic impacts at at-grade rail crossings. The EIR needs to be revised to disclose the Project's impacts in this area, to determine their significance, and to provide mitigation for any significant Project-specific or cumulative impacts to at-grade rail crossings.*

Response 19.118: There are no active railroad crossings within the study area.

Comment 19.119: *The EIR's mitigation measure requiring that "information regarding alternative transportation such as ridesharing and mass transportation" is likely to be ineffective, since the Project does not include infrastructure for park and ride facilities, mass transit facilities, or other transportation services.*

Response 19.119: Comment noted. See Response 19.128.

Comment 19.120: *The City has also identified additional infrastructure which may require improvement due in part or in whole to the proposed Project. The intersection of Willow/Friant will definitely need improvements due to the high speed traffic, ability of motorists to judge gap acceptance, and available gaps in traffic.*

Response 19.120: The DEIR identifies feasible mitigation to address individually and cumulatively significant impacts resulting from the Project. For the intersection of Willow/Friant, Mitigation Measure #3.13-5c requires payment of a fair share fee to fund necessary improvements to this intersection to mitigate cumulatively significant impacts of the Project.

Comment 19.121: *Friant Ranch may also be required to fund or contribute to a second San Joaquin River Crossing be constructed or at a minimum an implementation and funding program developed so that Friant Ranch contributes to the construction of the new bridge. The County Board of Supervisors shall be on board with the San Joaquin River Crossing project and implementing that project and fee program prior to development in this area of the County to facilitate access to this region. Failure to do so would create a significant and unavoidable impact to the region.*

Response 19.121: The San Joaquin River Crossing study is not a completed approved study, and the location and funding for an additional river crossing has not been identified.

Comment 19.122: *The TIS/DEIR does not adequately address the existing capacity or substandard design of the existing bridge crossing near Friant Ranch over the San Joaquin River.*

Response 19.122: Mitigations 2030-31 and TR-34 presented in the TIS indicate that the bridge will need to be widened and the Project is responsible for a fair share of the improvement costs for widening the bridge. Mitigation Measures #3.13.4b and #3.13-5o of the DEIR (pages 3-316

and 3-322) have been amended as follows to clarify, as explained within the TIS, that the improvement identified for the fair share obligation includes widening the bridge:

Mitigation Measure #3.13.4b (TR-34): The Madera County segment of Road 206, including the bridge, west of Friant Road should be widened to four lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.

Mitigation Measure #3.13-5o (TR-34): Road 206, including the bridge, west of Friant Road for the Fresno County segment should be widened to four lanes to provide an acceptable level of service (LOS C or better) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.

Comment 19.123: *Friant Ranch may be required to pay the Measure C Regional Transportation Mitigation Fee (RTMF) through the Joint Powers Authority that will be put in place January 2010. Failure to contribute to the RTMF will cause significant and unavoidable impacts to the Measure C program for which this project is relying on to construct infrastructure to mitigate impacts. However, the timing of those assumed mitigation improvements are not consistently identified.*

Response 19.123: Comment noted. In addition to the mitigation measures identified in this EIR, Friant Ranch will be required to pay RTMF pursuant to standard County requirements. The text of the DEIR (page 3-309) will be amended as follows:

The adopted ~~proposed~~ RTMF Program is summarized in a report entitled Fresno Regional Transportation Mitigation Fee Final Report dated August 2008 by PB Americas, Inc. The RTMF Program has ~~not yet been~~ adopted by local jurisdictions, including Fresno County but is expected to be adopted by the County of Fresno based on information provided by County staff. On September 24, 2009, the Fresno County Regional Transportation Mitigation Fee Agency was established to administer the program. The RTMF fee took effect January 1, 2010. In addition to mitigation measures identified in this EIR, the Project will be subject to the RTMF fee.

Comment 19.124: *Since this proposed project will be utilizing the Friant Road/SR 41 interchange the southbound on-ramp auxiliary lane will need to be constructed from Friant Road to Herndon Avenue interchanges. Friant Road/SR 41 interchange was designed without knowledge of the Friant Ranch project and its associated traffic volumes. This project further exacerbates the need for the auxiliary lane.*

Response 19.124: See Response 9.27 above.

Comment 19.125: *Payment of the pro-rata Caltrans fair share does not fully mitigate the impacts of Friant Ranch because the improvement is not constructed and there is not an Implementation plan or identified funding to construct the project.*

Response 19.125: As discussed in Response 9.27, Mitigation Measure #3.13.3e of the DEIR requires payment of a fair share for necessary improvements to SR 41/Friant Road, including the auxiliary lanes adjacent to the SR 41 ramps at Friant Road. The DEIR recognizes that the impact will remain significant and unavoidable until complete funding is obtained and the identified improvement is constructed.

Comment 19.126: *Failure to construct these freeway improvements will result in a significant and unavoidable impact that is not acceptable to the City of Fresno.*

Response 19.126: Comment noted. See Response 19.125.

Comment 19.127: *Additionally, since this proposed project will be utilizing Friant Road/SR 41 interchange and the motorists have to either exit Herndon Avenue/SR41 interchange (or shift existing traffic to the Herndon Avenue/SR 41 interchange from the Friant Road/SR 41 interchange due to exacerbating the impacts of Friant Road) or else drive past the Herndon/SR 41 interchange of the SR 41 mainline, the northbound off-ramp at Herndon/SR 41 will need an auxiliary lane constructed from Sierra to Herndon along with off-ramp widening (to dual lefts and dual rights) to keep three through lanes on Northbound SR 41 operational for sprawl traffic to Friant/SR 41 interchange and Madera County from rear-ending motorists on SR 41 exiting Herndon Avenue. Observation of tire marks on the freeway suggests a lot of rear end accidents at high speeds under existing conditions, which will be exacerbated by the Project. Failure to construct these freeway improvements will result in a significant and unavoidable impact that is not acceptable to the City of Fresno.*

Response 19.127: See Response 9.33.

Comment 19.128: *Finally, these and other faults of the EIR's transportation and traffic section contaminate the rest of the EIR, resulting in an underestimation of the impacts of the Project in other areas. The Project will significantly increase the Vehicle Miles Travelled (VMT) for an existing single family home assumed in the Fresno Council of Government model for air quality conformity. Fresno County and the San Joaquin Valley are already in non attainment. In addition, an increase in VMT has a negative impact on the consumption of fossil fuels. This proposed project will not be served by alternative models of transportation such as transit. The proposed density would not make serving this project economically feasible for a region that is attempting to become more sustainable both fiscally and environmentally. In actuality single family homes at this density and at this remote location are not economically feasible to serve public safety, public infrastructure maintenance, or with public services.*

Response 19.128: Sections 2.13 and 2.14 of the DEIR explain implementation of public safety, public infrastructure maintenance, and public services through special zones of benefit and Specific Plan-specific funding mechanisms that are economically feasible. The DEIR acknowledges that bus service is not currently provided in the Project Area. The Specific Plan sets aside locations for future transit stops at such a time as when it becomes feasible and warranted to expand bus service to the Project Area. Overall vehicle miles traveled (VMT) per person may actually be less given the reduced non-discretionary trips due to the active-adult component of the Project.

Comment 19.129: *The County is proposing a development outside an incorporated or sphere of influence area that does not have fee programs in place that may cause future sprawl or expansion of our current City of Fresno sphere of influence similar to Copper River Ranch. Until the County of Fresno develops policies on sprawl and new town development or expansions consistent with SB 375 and AB 32 any approval of projects of this magnitude is a significant and unavoidable impact.*

Response 19.129: The DEIR determines the significance of impacts to regional roadways based on detailed traffic analyses. Further, the DEIR identifies mitigation measures to assess fair share fees for improvements within Fresno County and surrounding jurisdictions where warranted. The DEIR also analyzes growth-inducing impacts of the Project as required. Contrary to commenter's suggestion, the recent enactments of SB 375 and AB 32 do not justify a finding of any new significant and unavoidable impacts resulting from the Project.

Comment 19.130: *The County developing this project to County standards could cause ADA issues without sidewalks on both sides of residential streets. Seniors have a higher tendency to need ADA infrastructure. How will ADA seniors be served by para transit?*

Response 19.130: Sidewalk infrastructure for the Project will be implemented consistent with the Specific Plan and in compliance with ADA and CalACCS.

Comment 19.131: *The widening of Friant Road to four lanes has now become a sprawl inducing transportation capital improvement project when it was originally identified as a safety project. Without the widening of Friant Ranch to four lanes, this proposed project would not be economically feasible.*

Response 19.131: Comment noted. No response is warranted.

Comment 19.132: Chapter 3.14 Utilities and Service Systems

The water supply analysis does not satisfy the CEQA standards under Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova. Under Vineyard, the CEQA analysis must show a reasonable likelihood of adequate water being available to meet the Project and cumulative demand in the short-term and long-term. As the EIR acknowledges, there are significant uncertainties regarding the ultimate provision of water to serve the Project including: no water source currently available to serve the project; water is anticipated to be provided through an "agreement in principle" with LTRID involving Central Valley Project (CVP) water which has not been finalized and is subject to approval by the federal government; numerous lawsuits and settlements involving water rights and usage in the area; the need for LTRID to allocate other sources of water for existing agricultural users to replace the water transferred to meet Project demand; and impacts from global warming. Additional uncertainties which the EIR does not discuss include the recently announced reductions in CVP allocations for 2010 and the series of legislative bills passed this fall by the State Legislature which include a bond measure requiring voter approval. In light of all these uncertainties, Vineyard requires that the EIR analyze alternative sources of water and the impacts of obtaining these sources. The EIR does not contain this analysis. Also, since the proposed LTRID Agreement may terminate in the

future, the EIR should analyze the impacts of curtailment of the Project after it has been partially built out as required under Vineyard.

Response 19.132: The Water Supply Assessment, included as Appendix D to the DEIR and summarized in Section 3.14, concludes that the water supply WWD 18 proposes to contract from LTRID will meet the Project demands, over the required 20-year planning horizon, in normal, critically dry, and multiply dry years. The California Supreme Court decision in *Vineyard Area Citizens for Responsible Growth, Inc. v. Rancho Cordova* (2007) 40 Cal.4th 412 explained that if there are uncertainties regarding the actual availability of water supplies, the lead agency must acknowledge those uncertainties, discuss reasonably foreseeable alternatives to the water sources detailed in the EIR, and disclose significant environmental impacts of each alternative and mitigation measure designed to minimize those significant impacts.

The commenter raised the following specific issues related to the proposed water transfer, each of which is addressed in turn:

- (1) *Final Water Transfer Agreement.* As explained in the DEIR and the Water Supply Assessment, no formal contract has been signed between WWD 18 and LTRID for the identified short-term and long-term water supply from LTRID. The districts have not yet approved the agreement because potential impacts of the water transfer, which is a component of the Specific Plan project, are being analyzed within this EIR. Upon certification of the EIR, WWD 18 and LTRID will consider approval of the water transfer agreement after consideration of the pertinent information in this EIR. The U.S. Bureau of Reclamation will also consider approval of the proposed transfer and related federal actions at that time. *Vineyard* acknowledges this situation may occur and provides for approval of development projects on the basis of proposed water supply agreements. (*Vineyard*, 40 Cal.4th at 432, 433-434.) The DEIR addresses any potential uncertainties caused by the lack of a signed agreement by including mitigation to ensure that the development of the Specific Plan Area is subject to the water supply agreement. Mitigation Measure 3.14.1 requires that the proposed water agreement be in place prior to approval of any Tentative Map. (Mitigation Measure 3.14.1.) Mitigation Measure 3.14.1 insures that the Specific Plan development cannot proceed until final approval of the water supply agreement by WWD 18, LTRID, and the U.S. Bureau of Reclamation.
- (2) *Recent Reductions in CVP Allocations:* The comment seems to blur the distinction between Friant Division CVP Class 1 supplies and some other CVP deliveries pumped through the Delta into the California Aqueduct and delivered to the west side of the San Joaquin Valley, which supplies have been subject to significant shortfalls in recent years as discussed in the DEIR. The DEIR discusses the potential uncertainty for Friant Division Class 1 supplies related to the recent reductions to CVP allocations for through-Delta water at page 3-356 of the DEIR. Reliability of Friant Division CVP Class 1 supplies is analyzed in the DEIR and Water Supply Assessment, and has typically been over 94 percent reliable annually. As explained in the Water Supply Assessment, no substantial change to that historical performance is expected as a result of either potential global climate changes or changes in the

regulatory setting. Further, the U.S. Bureau of Reclamation's Class 1 declaration for the 2010 water year is 100% allocation of contracted Class 1 supplies.

- (3) *Legislative Developments.* The comment about uncertainties created by the recently enacted water bond measure for voter approval does not provide enough specific information to warrant a meaningful response. The California Legislature enacted Senate Bill 2 (SB 2 or SB7X 2) during its 2009-2010 legislative session. SB7X 2 authorizes the issuance of over \$11 billion in bonds for various water-related projects throughout the State, subject to voter approval during the November 2010 general elections. Though the approval of SB7X 2 creates a possibility of additional storage within the CVP Friant Division, which would increase available supplies, the approval or disapproval of SB7X 2 during the November 2010 general election has no potential to impact the planned agreement between LTRID and WWD 18. Nor does approval or disapproval of the bond have any potential negative impact upon existing CVP Friant Division Class 1 supplies.
- (4) *Term of Water Transfer Agreement.* The term of the proposed water transfer agreement will extend until the expiration of the LTRID Contract, including all renewals or conversions thereof. As described in the DEIR and Water Supply Assessment, the current LTRID Contract expires on February 28, 2026 with a right to renewal. The proposed water transfer agreement requires LTRID to take all action necessary to continually renew the LTRID Contract as provided for under LTRID's contract with Reclamation.

Notably, LTRID's contract with Reclamation and Reclamation law contemplates that the Friant Division construction would be completed by December 31, 2024, and that the LTRID contract with Reclamation will thereafter be ripe for conversion to a 9d repayment contract by 2030. Under 9d of the Reclamation Project Act of 1939, a 9d repayment contract would give LTRID a "permanent right to a proportionate share" of the Friant Division water supplies. (Water Supply Assessment, Appendix C.) Upon any such conversion of LTRID's USBR contract, the water transfer agreement would remain in effect for the duration of the 9d repayment contract. The recent San Joaquin River Settlement legislation authorizes and directs Reclamation to accept early prepayment and convert LTRID's long-term contract to a 9d repayment contract prior to December 31, 2010. Under the settlement legislation, early repayment warrants conversion to a 9d contract with a *perpetual term*. Thus, upon early repayment and conversion, LTRID would have a permanent right to its proportionate share of CVP Friant Division supplies in perpetuity so long as LTRID complies with the 9d repayment contract. In such case, LTRID would be obligated through the proposed water transfer agreement to continue to transfer the 2,000 acre-feet to Friant Ranch in perpetuity (barring any unforeseen breach of their then perpetual contract with Reclamation).

Thus, the contract obligates LTRID to provide water to the Project for so long as LTRID has a right to receive CVP Friant Division Class 1 supplies from the U.S. Bureau of Reclamation.

(5) *Alternative Supplies.* Vineyard does not require every EIR to analyze impacts of possible curtailment of the Project. Vineyard requires that where uncertainties “make it impossible to confidently identify the future water sources, an EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable alternatives—including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases” (Vineyard, 40 Cal.4th at 434.) The present circumstances do not warrant analyzing a curtailment alternative because the DEIR confidently identifies a long-term water supply, which is explained and analyzed in the Water Supply Assessment. As noted above, the proposed water transfer provides for supplies to the Project so long as LTRID has a right to receive water from CVP Friant Division. LTRID’s existing contract term extends beyond the planned ten- year buildout of the Project. (See DEIR at page2-19 for discussion of phasing.) Therefore, the curtailment option is not appropriate as the Water Transfer Agreement firmly commits LTRID to providing the identified supplies through the long-term planning horizon and well after construction of all the Project phases.

In the unlikely event LTRID no longer had a contractual right to CVP Friant Division supplies such that the water transfer agreement expired after buildout of the Project, WWD 18 would need to negotiate an agreement with another or other of the 28 Friant Division contractors entitled to water stored behind Friant Dam to serve the Project. Potential impacts associated with such transfer would likely be similar to those analyzed in the DEIR for the LTRID transfer; however, specific impacts of such a transfer are too speculative given that no such deal has been, or needs to be, negotiated since the Project proposes to use long-term water supplies identified through the proposed LTRID-WWD 18 transfer.

Comment 19.133: *The EIR does not analyze the environmental impacts of the water facilities needed to serve the Project. These facilities include the expansion of WWD 18 water treatment plant and other water system facilities. These are not included in the Project description and are not specifically analyzed in the EIR.*

Response 19.133: The required project water infrastructure facilities are set forth and described in the Infrastructure Master Plan, which is an included part of the Specific Plan and attached as Appendix N to the DEIR. The DEIR summarizes the proposed facilities at pages 3-357 through 3-362. The project description (at DEIR page2-9) describes the need for a new water treatment plant. Further, the project description (at DEIR pages 2-27 and 2-28 of the DEIR) recognizes the associated discretionary actions of responsible agencies related to the proposed water infrastructure facilities. As explained in the DEIR and the Infrastructure Master Plan, the proposed water treatment facilities and related infrastructure will include the expansion of the existing WWD 18 water treatment plant within the existing disturbed area (the WWD 18 “yard”) for the existing water treatment plant, and the improvement of existing infrastructure to facilitate conveyance of water stored behind Friant Dam to the WWD 18 treatment facilities. The existing Reclamation infrastructure includes: (1) the existing Reclamation-owned 6” supply line and point of delivery; (2) approximately 2,050 lineal feet (LF) of the abandoned 24” pipeline previously used to provide water from Friant Dam penstocks to the California Department of

Fish and Game (CDFG) fish hatchery; and (3) the connection of the abandoned 24" line to the point of delivery through an existing pipeline to facilitate conveyance of water from Friant Dam to the 24" line. Minor improvements would be required to use the abandoned 24" line for conveyance of Project water. Since the existing piping of the 24" line is not suitable for potable water supply, the existing 24" pipeline would be refitted with an internal pipe of 18" or 20", installed from the end with a winch (sliplining), resulting in minimal ground disturbance only at the point of entry. Additionally, the existing 24" pipeline will require a special connection to the point of delivery from Friant Dam. Because the existing ground conditions are highly disturbed and covered by pavement or gravel, the proposed use and improvements of Reclamation's existing infrastructure would result in less than significant ground disturbance. Additional conveyance infrastructure to get the treated water from the WWD 18 treatment plant to the development will be constructed within the proposed development of the Specific Plan Area.

The DEIR analyzes potentially significant impacts of the water treatment plant and related infrastructure. Section 3.14 of the DEIR (page 3-332) states:

Environmental Impacts associated with development of infrastructure, such as the wastewater treatment plant and water conveyance and storage system proposed in conjunction with the Friant Ranch Specific Plan, have been addressed, where appropriate, throughout the Draft EIR. More specifically, Section 3.1 Aesthetics (Impact 3.1.3), Section 3.3 Air Quality (Impacts 3.3.1 and 3.3.3), Section 3.4 Biological Impacts (All Impacts), Section 3.6 Geology, Soils and Mineral Resources (Impact 3.6.4), Section 3.7 Hazards and Hazardous Materials (Impact 3.7.2), Section 3.8 Hydrology and Water Quality (Impacts 3.8.1, 3.8.2 and 3.8.3), address impacts and provide mitigation, when appropriate, that could result from public utility and service system infrastructure development.

For example, page 3-69 of the DEIR explains that the water treatment plant and associated infrastructure improvements will be within ruderal, disturbed and degraded lands within the Existing Community Plan Area, and portions of the Specific Plan Area (the disturbance to which are analyzed with the general consideration of impacts associated with ground disturbance within the Specific Plan Area). As a further example, Page 3-14 of the DEIR explains that the water treatment plant facility will be in the immediate vicinity of the existing water treatment plant and, as such, will not significantly increase the visual impact of the area.

There is no evidence, and commenter has not provided any new evidence, of potentially significant impacts from the water facilities/infrastructure, other than the potential impacts associated with disturbance for any infrastructure within the Friant Ranch Specific Plan Area, which are discussed in that broader context throughout the document.

Comment 19.134: *The EIR does not adequately analyze the impacts of the proposed water transfer on the LTRID and its water users.*

Response 19.134: The premise of the water transfer agreement, as discussed in the Water Supply Assessment (DEIR, Appendix B) and particularly Appendix D thereto, is that LTRID currently has the water resources available to supply the contracted Class 1 amount to WWD 18

(see also Response 19.132 above), while also meeting the needs of growers within LTRID's own service area. LTRID conjunctively uses groundwater as the firm source of supply for its growers. Every irrigated parcel has access to groundwater as its firm source of supply. In dry years, LTRID has a history of not delivering any surface water to its growers and using its surface water supplies to "backstop" the water supplies of other regional water users that are water management partners with LTRID.

LTRID uses the proceeds from water management programs similar to the proposed transfer with WWD 18 to operate additional water distribution systems and additional groundwater recharge facilities, as well as purchase short-term water from other Friant division contractors on a year-to-year basis when needed. These additional facilities allow the District to take in more surface water in big water years and at flood times for groundwater recharge. The new water yield from flood water which otherwise would go unused, on the average, more than offsets the firm water dedicated to its water management partners such as WWD18 / Friant Ranch. This sort of conjunctive use agreement has been viewed as beneficial by USBR and other water regulatory agencies as conjunctive use is a primary purpose of the CVP Friant Division. The overall result is that the sale of LTRID's water for municipal use does not reduce but in fact enhances the water supplies available to LTRID's agricultural users. The outcome of this is that there are no potential adverse effects of the Project on LTRID or its users.

Comment 19.135: *There is no adequate description or graphic depiction of the location or size of the LTRID, nor any information on its total water supplies and current water uses.*

Response 19.135: Section 4.3 of the Water Supply Assessment (DEIR Appendix B) includes a comprehensive discussion of the District, its size and water resources. Figure 4-2 of the Water Supply Assessment and Figure 2-11 of the DEIR illustrate the LTRID service area. LTRID's resources are discussed at length in the Water Supply Assessment and are summarized in the DEIR at page 3-348.

Comment 19.136: *The EIR should specifically identify the customers and crops that will be deprived of the 2,000 AFY that the project proposes to divert to the Friant area.*

Response 19.136: See Response 19.135. No customers or crops in LTRID's service area will be deprived of water as a result of the Project, including the water transfer agreement. (See also Response 19.134 above.) LTRID has the water resources necessary to meet its obligations to its constituents, satisfy its existing contractual commitments, and fulfill the water transfer agreement with WWD 18. In addition, the water transfer agreement will result in an increase in useable water supply made possible by groundwater recharge facilities operated by the payments made by WWD 18 to LTRID.

Comment 19.137: *The EIR must analyze the impacts that the diversion of this water supply will have on the LTRID service area. If the EIR is relying upon the impact analysis in a certified environmental document prepared for the transfer of replacement water to the farmland located in LTRID, the analysis in the CEQA document must be summarized and the document incorporated by reference in this EIR. The EIR fails to comply with these requirements.*

Response 19.137: As discussed in Responses 19.134 and 19.135 above, no adverse impacts to LTRID have been identified. No other environmental document has analyzed the water transfer agreement. The DEIR acknowledges that LTRID prepared an environmental document for the construction of its Intertie project, however, that analysis did not analyze the subject water transfer agreement or the LTRID operations related to said agreement. LTRID is identified as a Responsible Agency for the purposes of this DEIR, and the LTRID Board of Directors will consider the EIR document as it relates to the proposed water transfer agreement. (See DEIR, at pages 2-22-2-25, 2-30-2-31.)

Comment 19.138: *The EIR should analyze the impacts of LTRID's use pre-1914 water in critical dry periods to meet demand. Although the Water Supply Assessment identifies the shortfall and LTRID's need to use this water to meet the demand, the EIR does not analyze the associated environmental impacts.*

Response 19.138: In critical dry years, LTRID expects to use its available pre-1914 Tule River supplies to meet its downstream commitments, south of LTRID's boundaries. In such years, the District has an existing policy of requiring in-District water users to rely on groundwater supplies rather than surface water supplies available to the District. The Tulare County Superior Court recognized and quantified the District's pre-1914 rights to the Tule River in 1916 through its decision in *Poplar Irrigation District v. Howard, et al.*, Case No. 7004. A water master has been assigned to ensure that LTRID's diversions on the Tule River, among other diversions subject to other pre-1914 rights recognized in said litigation, remain within the judicially recognized quantities. As such, LTRID's pre-1914 rights are fixed and enforced. The Project will not result in any additional use of Tule River water beyond the existing rights already exercised by LTRID. As noted in the DEIR, the pending Lower Tule Intertie improvement will allow LTRID to maximize the water diverted from the Tule River. To the extent LTRID chooses to exchange some of these pre-1914 supplies with other downstream transfer partners (not WWD 18 or otherwise related to the Project), LTRID could potentially transport the pre-1914 supplies in the Friant Kern Canal for delivery to the downstream uses. LTRID routinely participates in exchanges to maximize its available supplies, and such an exchange would be within the scope of its typical operations, which have not resulted in significant impacts. No reasonably foreseeable potentially significant impacts are expected to result from such an exchange in the future. The Project does not propose to use any Tule River water supplies within the Project Area.

Comment 19.139: *The EIR also does not analyze the regulations governing CVP water transfers, or use of this pre-1914 water. It is the City's understanding that the California Department of Water Resources has not yet obtained the detailed surface water user data to ascertain whether all surface water rights previously deemed "pre-1914 are, in fact, legitimate. The requirement for water used to report this date will begin next year, under provisions of SB7X 8. Until the status of "pre-1914 water rights are evaluated and affirmed after these surveys are done, it is too early to declare that LTRID's water transfers to the Friant Ranch Project can be made up by that surface water supply. Since this DEIR was released just prior to enactment of the SB7X 1, SB7X 2, SB7X 3, SB7 X 7 or SB7X 8 package of water reform legislation and since this legislation has such a significant impact on the projects proposed hydrology, re-analysis of the project under these new regulations, and recirculation of the DEIR, is warranted.*

Response 19.139: No Tule River water supplies will be used within the Project Area. The Project will receive CVP Friant Division Class 1 supplies stored in Millerton Lake in all years. (See DEIR, Section 9.3 of Appendix D.) The DEIR and Water Supply Assessment both explain the federal approval process applicable to the proposed transfer of CVP Class 1 water supplies from LTRID to WWD 18. (See e.g., DEIR, pages 3-354 and 354 and Appendix D at pages ES-3, 2, 40 and Appendix C thereto.)

While SB 7X 8 does impose heightened reporting requirements on diverters, it does not, as the commenter suggests, include the specific objective of reevaluating or reauthorizing existing pre-1914 water rights. However, under the new legislation, measurements must be obtained by “best available means” starting in 2012. Further, the new law imposes penalties for failure to report, which did not exist under prior law. LTRID has been required to provide records of its diversions for some time. In fact, as discussed in Response 19-138 above, a judicially appointed water master prepares detailed reporting of water diversions on the Tule River. Nothing in the law suggests that there will be immediate or dramatic changes in water rights allocations, and delaying decision on this Project until after 2012 is not justified.

SB7X 1 created the Delta Stewardship Council, a new body tasked with developing a comprehensive management plan for the Delta by the end of 2011. Since the Tule River is not tributary to the Sacramento/San Joaquin Delta system (it drains to the Tulare Lake Basin), it is not under the purview of this new council.

SB7X 2, if authorized by voters at the November 2010 statewide general election, would authorize over \$11 billion in general obligation bonds to be issued by the state to provide funds for water supply and protection facilities. None of these facilities would directly impact pre-1914 waters of the Tule River.

SB7X 3 did not pass out of the Legislature, and requires no further discussion.

SB7x 7 requires that California achieve a 20% reduction in statewide urban per capita water use by 2020, with an interim reduction goal of 10% by 2015, based upon a policy of meeting the demands of increasing population, climate change, environmental protection and economic growth. No specific regulations have been promulgated, but the measure would affect the infrastructure and building details of the Project, not the interagency water agreement. Any likely effect on the Project would be a reduction, if possible, in overall water demand as compared with the anticipated demand under the current regulatory environment.

The recent enactment of the above-described legislation (and the possibility of voter approval of the water bond this fall) does not necessitate recirculation of the DEIR because this information is not significant and does not affect the analysis of environmental impacts resulting from the Project.

Comment 19.140: *The EIR's discussion of water supply impacts "conservatively" declines to adjust water use forecasts due to an assumption that residences in the Friant Ranch Specific Plan Area will have lower-than average occupancy rates. By contrast, however, the EIR's discussion of wastewater treatment impacts does not adopt this "conservative" assumption, and*

instead assumes that active adult housing in the Specific Plan area will produce lower than average demand for wastewater treatment. What is the substantial evidence upon which the EIR bases its decision to adopt these two, mutually inconsistent assumptions. In light of this inconsistency, the EIR needs to re-evaluate anticipated wastewater treatment demands created by the Project, and if necessary revise the Project to provide adequate wastewater treatment capacity.

Response 19.140: The assumptions in the Infrastructure Master Plan and the DEIR are consistent. Water supply is analyzed with a “conservative” assumption because the largest part of residential demand consists of outdoor irrigation use, which is not sensitive to household formation size. The conservation assumption is provided in the text of Section 3.14, which states, “Approximately 2/3 of domestic water is for external use (i.e., landscaping).” Moreover, commonly accepted calculations of average water usage are based on acre-feet per single-family residence rather than per capita.

Wastewater calculations, on the other hand, are commonly based on the number of persons in a household. The anticipated household formation size for the Specific Plan Area was described in the DEIR based upon the 2001 American Housing Survey by the U.S. Census, which identified the combined demographic for the 55-64 and 65-74 age categories to average 1.9 persons per dwelling unit. Thus, the 2,816 age-restricted units within the Friant Ranch Specific Plan Area are expected to average at 1.9 persons per dwelling unit. The per-capita wastewater generation rate used in the Infrastructure Master Plan is consistent with modern developments employing current water-use-reducing technologies including low-flow faucets, showers, laundry equipment and toilets. An example of a local development using such technologies and having such a wastewater generation rate is the Quail Lakes project in Fresno County.

Comment 19.141: *The EIR indicates that PG&E has stated that it has a sufficient power supply to serve the Project. Since it is commonly known that overall population growth and development in California and the San Joaquin Valley will lead to future power shortfalls unless there are major gains in energy conservation and alternative energy development, the EIR cannot simply rely on PG&E's purported statement, but must reconcile that assurance with the long-term energy supply outlook for the state and region, and needs to provide mitigation in the form of higher standards for conservation and alternative energy programs, built into every component of the Project.*

Response 19.141: The commenter has argued generally that there may not be sufficient energy resources to serve future long-term population growth throughout California but has provided no specific evidence to support the contention that sufficient energy resources will not be available to serve the Project. By contrast, the applicant has met several times with PG&E during project planning, and, as noted on DEIR page 3-376, PG&E has indicated that it has or can develop the necessary capacity to serve the Project Area with both gas and electricity. More information about the potential sources of energy available to PG&E is provided in the DEIR at pages 3-376 thru 3-377. However, the availability of energy statewide in the long term is beyond the scope of this Project EIR to evaluate. Any conclusion about the relationship between long-term statewide energy resources and availability of energy sources to serve the Friant Ranch project would be speculative. What can be stated at this time is that the availability of energy resources is driven

in significant part by market factors and that there is a strong financial incentive for privately owned utilities, such as PG&E, to develop and maintain sufficient energy supply to satisfy demand. Despite rapid growth in California in the past 50 years, and especially the Fresno area, the County is aware of no evidence that any utility was unable to supply a new development project in the San Joaquin Valley with necessary electrical or gas service. Moreover, incentives for the use and development of renewable energy sources, such as solar and wind energy, have become and increasingly are becoming more available, which can be expected to expand the amount and type of energy statewide.

The Friant Ranch project includes many design and conservation features that will reduce energy demand compared to existing development, including water-conserving features and policies, such as metering of municipal water for the Project (residential and commercial), with a tiered rate system in place to discourage excessive consumption. The Friant Ranch Specific Plan design also emphasizes water conservation and reclamation. Water conserving plumbing fixtures and conjunctive reuse of reclaimed water are principles central to the Specific Plan design standards. By conserving water to a greater degree than existing development, the Project will help minimize its energy use.

In addition, as set forth elsewhere in the DEIR and restated below, the Fresno County General Plan and Friant Community Plan both contain goals and policies that apply to the Project which are designed to increase conservation and efficient use of energy. Further, increasingly aggressive conservation requirements mandated by State law, including the California Energy Code and Green Building Standards Code, to which the Project will be subject, can be expected to reduce overall demand for energy throughout the state, compared to existing conditions, and these conservation requirements can be expected to extend the availability of existing resources as population of the State grows.

The following County General Plan policies applicable to the Project will help reduce energy demand compared to existing development by reducing project water use, which requires energy for pumping, treatment and heating of water.

Policy PF-C.25 The County shall require that all new development within the County use water conservation technologies, methods, and practices as established by the County.

Policy PF-D.5 The County shall promote efficient water use and reduced wastewater system demand by:

- a. Requiring water-conserving design and equipment in new construction;*
- b. Encouraging retrofitting with water-conserving devices; and*
- c. Designing wastewater systems to minimize inflow and infiltration, to the extent economically feasible.*

As noted on pages 3-390 and 3-391 of the DEIR, the Friant Community Plan contains the following policies that will apply to the Project and that will help reduce project electrical and gas demand compared to existing development, including:

Goals: *Incorporate green building and other sustainable building practices into development projects.*

Policies:

Encourage the use of domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.

Facilitate the use of green building standards and Leadership in Energy and Environmental Design (LEED) in both private and public projects, where feasible.

Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.

Encourage the use of domestic and commercial solar energy in the Friant Community Plan Area in an effort to conserve fossil fuels and improve air quality.

Finally, mitigation measures recommended for the Project to address effects on air quality and global climate change will also help reduce project electrical and gas demand compared to existing development. See Mitigation Measure #3.3-2 (DEIR page 3-57 - 3-59) and Mitigation Measures #3.15.1a and #3.15.1g (DEIR pages 3-391 - 3-392).

Comment 19.142: *Since the Project includes a Specific Plan which is being examined at a project-specific level, the EIR needs to identify the routes of major electrical and gas transmission lines and distribution substations serving the Friant Ranch development.*

Response 19.142: As noted in the DEIR on page 3-376, electricity will be provided to the Specific Plan Area through extension of existing transmission lines located throughout the Project Area. The Project Area is presently not served by natural gas, so new lines would need to be extended to the area or an alternative use of propane gas may be pursued. The precise location of any necessary utility extensions cannot be known at this early stage in the project design and approval process, and will be developed at the time the tentative subdivision maps are created. Typically electrical and gas lines for new development are located within rights of way for existing or new roads and would be installed as part of the construction of new roads or expansion of existing roads. This is reflected in Mitigation Measure #3.14-7(a) (DEIR page 3-377), which requires that the Project Area work closely with the appropriate utility provider to ensure that development of electrical and natural gas infrastructure with the capacity to service the entire Project Area is located and provided concurrently with roadway construction and in accordance with applicable PUC regulations. This mitigation measure further requires that the applicant(s) grant all necessary easements for installation of electrical and natural gas facilities,

including utility easements along existing and future on-site arterial roads for the development of area-wide utility corridors.

As noted on page 3-332 of the DEIR, the DEIR evaluates the various impacts that are reasonably expected to occur from construction of project utilities in individual resource sections of the EIR. Because electrical and gas transmission lines would be installed as part of road construction, it is reasonable to assume there would be no new or different impacts than those already described in the DEIR for the proposed ground disturbance within the Specific Plan Area. Any service line extensions beyond the Specific Plan Area (e.g., gas lines) would be limited, would have impacts similar to those described in the EIR for road construction (e.g., air quality impacts from construction, minor traffic disruption from construction activity, possible minor biological impacts due to temporary disruption of vegetation) and would be subject to the same mitigation requirements identified in the EIR; there is no evidence to suggest such minor construction activity would result in any new significant impacts or substantially increase any impact identified in the EIR. In any event, the precise location of all proposed utilities will be included in the tentative subdivision maps for the project, which will be evaluated by County. At that time the County will consider whether the location or construction of any proposed utility line has the potential to result in new or different environmental impacts than those considered in this EIR and whether any additional environmental review is required.

Comment 19.143: *The EIR further needs to evaluate the impacts of transmission line construction, maintenance and operation on the Project site and other lands traversed by these lines (vegetation removal, erosion, fire hazards, EMF, etc.) The EIR cannot defer or segregate this vital component of the proposed Project for later design and evaluation.*

Response 19.143: See Response 19.142 above.

Comment 19.144: Chapter 3.15 Greenhouse Gas Emissions and Global Climate Change

The discussion of the Regulatory Environmental is completely inadequate. There is no discussion of numerous laws and regulations on greenhouse gas (GHG) impacts and analysis including: (1) the latest state CEQA Guidelines amendments on greenhouse gas analysis before the State Resources Agency for adoption which are expected to be in effect January 2010. The greenhouse gas analysis should comply with these CEQA Guidelines; (2) the proposed regulations of the San Joaquin Valley Air Pollution Control District on addressing and mitigating GHG impacts from development. SJVAPCD has been developing these regulations for over a year and they are expected to be adopted shortly. The regulations include guidance on how to address GHG impacts under CEQA; (3) the A6 32 Scoping Plan which includes reductions from land use development; (4) SB 375 which requires the adoption of regional targets for GHG reductions from land use and transportation and the development of regional plans to achieve these reduction targets; (5) information developed by the State Attorney General's Office on the analysis and mitigation of GHG emissions under CEQA; and (5) the recent determination by the US Environmental Protection Agency that CO₂ threatens public health and the environment due to its impacts on climate change. The EIR should discuss these important regulatory developments and apply these regulations and guidance in its analysis of GHGs.

Response 19.144: The commenter is correct that there have been numerous recent updates to regulations involving greenhouse gas (GHG) in early 2010. However, at the time the DEIR was released (October 2009), there were no adopted significance thresholds for GHG emissions or adopted methodology for analyzing impacts related to GHG emissions, and the DEIR outlined then-current regulatory guidelines. The DEIR did however, contrary to the comment, provide analysis pursuant to the pending (at the time) CEQA Guidelines amendments involving GHG analysis (see page 3-384 of the DEIR). An errata to the DEIR at pages 3-379 and 3-381 (Section 3.15.1 Regulatory Setting) has been added as follows:

California Air Resources Board

The CARB, a part of the U.S. EPA, is responsible for the coordination and administration of both federal and State air pollution control programs within California. The CARB conducts research, sets State ambient air quality measure standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs.

Senate Bill 375

SB 375 was signed by Governor Schwarzenegger on September 30, 2008. The bill provides means to further reduce greenhouse gas (GHG) emissions from passenger vehicles and light trucks. The intent of the bill is to connect land use planning with transportation policy, resulting in more sustainable and environmentally friendly communities. The bill requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within their Regional Transportation Plans (RTPs). The SCS sets forth a vision for growth of the region taking into account, transportation, housing, environmental, and economic needs of the region, with the goal of reducing the number of miles traveled by personal vehicles, and thus reducing GHG emissions. Under the law, the California Air Resources Board has two years to give each of California's MPO a GHG emissions reduction target for cars and light trucks. However this target GHG from cars and light trucks can only be implemented through changes in development pattern of the MPO. Once the guidelines have been established, (in mid-2010), regions will need to prepare an SCS an incorporate them into their RTPs.

The GHG emissions reduction targets for each region are required to be established no later than September 30, 2010. Once the GHG emissions reduction targets for each region have been established, SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their Regional Transportation Plan. While there is no deadline for adoption of the SCS, it is anticipated that the first plans would not be released until 2011, at the earliest. The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide individual jurisdictions with growth strategies that,

when taken together, achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS but provides incentives for consistency for governments and developers. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an Alternative Planning Strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measures.

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted guidelines for addressing greenhouse gas impacts in its *Guidance for Valley Land Use Agencies in Addressing GHG impacts for New Projects Under CEQA (2009)*. The guidance relies on performance-based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific GHG emissions on global climate change during the environmental review process. Projects implementing BPS's would be determined to have a less than cumulatively significant impact. Projects can also demonstrate compliance with the requirements of AB 32 by demonstrating that their emissions achieve a 29% reduction below "business as usual" levels.

To be determined to have a less than significant individual and cumulative impact on global climate changes, projects must be determined to have reduced or mitigated GHG emissions by 29% below "business as usual" conditions, consistent with GHG emission reduction targets established by the AB 32 Scoping Plan.

Projects meeting one of the following would have a less than significant impact on global climate change:

- Exempt from CEQA;
- Complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project achieves 29% GHG reductions by using approved Best Performance Standards; and
- Project achieves AB 32 targeted 29% GHG reductions compared with "business as usual".

Comment 19.145: *The EIR should quantify the GHG emissions from all construction and operational activities of the Project, including the construction and operation of the new wastewater treatment plant and the expansion of the water treatment plant. Methodologies for quantification from all the Project uses are known and should be used, so that the full amount of emissions from the Project is disclosed. The EIR's estimated Project GHG emissions only focus on a narrow part of the Project and greatly understate the Project's emissions.*

Response 19.145: GHG emissions from all operational activities of the Project are quantified through the URBEMIS calculations in Appendix C of the DEIR and summarized at pages 3-385 of the DEIR. See page 3-384 for discussion of GHG methodology of using CO₂ emissions as a proxy to ascertain the significance of all GHG emissions. The URBEMIS modeling for phases 1 through 5 of the Specific Plan accounts for construction activities including the new wastewater treatment facility and the expansion of the water treatment plant. The URBEMIS modeling calculates an operational emissions estimate that includes both vehicle source and area source emissions. The water treatment plant facility utilizes the pressure of the incoming water to move it through the filtration and chlorination process and as a result uses negligible amounts of power. The proposed treatment of 0.8 mgd at full build-out of the wastewater treatment plant would be expected to create only ROG emissions according to *Sewage Treatment Facilities (POTWS)*, July 17, 1991 guidance from the Bay Area Air Quality Management District. The anticipated emissions, calculated in accordance with such guidance are as follows:

	Emission Factor (lb/yr per Mgal/day)	Hourly Emissions (lb/hr)	Yearly Emissions (tons/yr)
Methylene Chloride	95	0.0087	0.038
Chloroform	40	0.0037	0.016
1,1,1-TCA	110	0.0100	0.044
Benzene	34	0.0031	0.014
TCE	11	0.0010	0.0044
Toluene	28	0.0026	0.011
Tetrachloroethylene	37	0.0034	0.015
Xylenes	33	0.0030	0.013
1,4-Dichlorobenzene	5	0.0005	0.002
Total ROG Emissions		0.036	0.16

SJVAPCD regulations require any person constructing, altering, replacing, or operating any source operation that emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. Operation of the wastewater treatment plant would emit approximately 0.16 tons of ROG per year, which equates to a 0.8% increase in ROG emissions. The wastewater facility daily emission rate is estimated at 0.86 lbs of pollutants per day. (Most new stationary sources, if they emit over 2 pounds of pollutants per day, will be subject to Best Available Control Technology in accordance with the SJVAPCD's *New Source Review Rule* (2004).) As such, the operational emissions anticipated for the water treatment plant and wastewater treatment plant do not measurably increase the Project's effect on global climate change.

Comment 19.146: *Since the EIR concludes that the impact from GHG emissions is significant and unavailable, it needs to evaluate and consider all feasible mitigation measures to reduce the impacts. The Plan policies and so-called mitigation measures included in the EIR to potentially reduce GHG are too general. The policies and programs are mostly to "support", "encourage" and "promote" certain actions, which are not requirements. Also, there is no evidence and analysis to show that the measures, if implemented, will actually reduce GHG emissions and, if so, by how much. The EIR should evaluate the feasibility of the Best Performance Standards proposed by the SJVAPCD as part of its Report for Addressing Greenhouse Gas Emissions Under CEQA (See [Friant Community Plan Update and Friant Ranch Specific Plan
Final Environmental Impact Report](http://www.valleyair.org/Programs/CCAP/11-05-</i></p>
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09/1_CCAP_FINAL_CEQA_GHG_Draft_Staff_Report_Nov_05_2009.pdf) and the mitigations recommended by the Attorney General's Office to address GHG emissions under CEQA (See http://aq.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf).

Response 19.146: The DEIR provides numerous mitigation measures to reduce greenhouse gas emissions (See pages 3-391 – 3-393 of the DEIR; also see mitigation measures in Chapter Three – Air Quality). The SJVAPCD has not yet established Best Performance Standards as suggested by the commenter. Rather, the SJVAPCD adopted guidance to require the development of Best Management Practices to reduce greenhouse gas emissions. Such guidance provided examples of potential practices, but did not adopt them as actual SJVAPCD Best Management Practices. The SJVAPCD is working with stakeholders to develop acceptable Best Management Practices. See http://www.valleyair.org/Programs/CCAP/CCAP_idx.htm#bps%20development. In any event, many of the project's applicable mitigation measures are duplicate of or similar to those outlined by the SJVAPCD's sample of potential practices. However, as explained in the DEIR, even after implementation of the mitigation measures, the impact will remain significant and unavoidable.

Comment 19.147: *The EIR should analyze and reach a conclusion on the significance of the impacts of global warming on the Project for other issues besides water. The EIR should analyze the potential global warming impacts due to flooding and increased temperature (especially as it relates to increasing the likelihood of violations of air quality standards).*

Response 19.147: Please refer to page 3-395 of the DEIR for a discussion of global climate change impacts on Flooding. Additionally, in August 2009, the California Energy Commission (CEC) published a document entitled "Using Future Climate Projections to Support Water Resources Decision Making." (The document is available on the Web at <http://www.energy.ca.gov/2009publications>.) The CEC report addresses the chance that an increase in average annual temperature will have potentially profound effects upon the accumulation of snowpack in the Sierra over the winter months, resulting in a marked decrease in runoff quantities between the months of April through July. The change would also result in an offsetting increase in the quantity of watershed runoff earlier in the wet season, perhaps from September through January. Much of this precipitation would be in the form of rain rather than snow, which could have significant impacts upon the existing river storage reservoirs and perhaps cause increased flood releases during the fall and winter months as storage facilities reach their rated limits and operators are forced to release runoff into the various rivers along the Sierra Nevada, including the San Joaquin. For any water user reliant upon the spring runoff, such an outcome could be very serious, and could require substantial changes in the way that agricultural operations around the state are operated. However, for LTRID and Water Works District No. 18, as well as other Friant Division contractors, the potential effect is not negative, and could even be positive. The Project differs from an agricultural water user in that while there is a peak water use season in the summer, there is substantial demand for water by the project's customers throughout the year. The Project needs water year-round. In addition, LTRID's recharge facility gives it the flexibility to accept high-flow water from Friant Dam (pursuant to the Section 215 water supply provisions of its contract with Reclamation) for recharge at any time of the year, not just in the summer months. Whether the water arrives in September, January or July does not make a difference to the operation, except that evaporation is reduced in the

cooler months of the year and net recharge may be marginally higher as a result. In cooler months, conveyance is available in the Friant Kern Canal to allow Section 215 water to be delivered to LTRID and other Friant Division contractors, which demonstrates LTRID positioned to take full advantage of this additional river water even in non-peak months.

The DEIR discloses significant and unavoidable impacts to air quality caused by greenhouse gas emissions, which encompasses such indirect impacts resulting from any increased temperatures.

Comment 19.148: *Even though the EIR finds that the impact on greenhouse gases is significant and unavoidable, it should establish a significance threshold on which to base this determination. Under the proposed SJVAPCD Guidance, the recommended standard of significance is a 29% reduction.*

Response 19.148: At the time the DEIR was published (October 2009), there were no adopted GHG thresholds. Since that time, the SJVAPCD has established guidance for local land use agencies related to analysis of GHG emissions. The comment does not completely explain the “threshold” recommended by SJVAPCD. The policy requires quantification of project specific GHG emissions. The DEIR quantified GHG emission at page 3-385. The text of page 3-385 been provided to clarify the breakdown of GHG emissions as between the Friant Ranch Specific Plan Area and the remainder of the Project. The SJVAPCD policy also allows a project to be found to have no significant effect on GHG emissions if it implemented appropriate (and as yet unspecified) “Best Performance Standards” (BPS) for minimizing GHG emissions. Though the policy provides some “illustrative” examples of these BPS, the SJVAPCD has yet to approve official standards to apply for use of this “threshold.” Alternatively, the guidance provides that a project could be found to have no significant GHG impacts if it is shown that project specific GHG emissions have been reduced by 29%, compared to a projected “business as usual” operating standard for that particular type of equipment or operation set by the California Air Resources Board. Notably, this approach has been subject to scrutiny and is currently subject to litigation.

Regardless of the thresholds recommended by the guidance, and currently being refined and detailed by the SJVAPCD, the DEIR has concluded that the Project will have a significant and unavoidable impact on global climate change. It is not anticipated that use of either possible threshold identified by the new SJVAPCD policy would change that determination. Moreover, nothing in such policy would change the quantified GHG emissions anticipated to result from the Project, which the County has found to be cumulatively considerable in light of global climate change and as such a significant and unavoidable impact.

Comment 19.149: *Chapter 4 Evaluation of Alternatives*

The EIR does not discuss an adequate or reasonable range of alternatives. Aside from the statutorily required No Project Alternative, the EIR only evaluates three alternative configurations of development under the Friant Ranch Specific Plan. These three "alternatives" are so similar as to not represent a reasonable range. The EIR admits that "[t]he North, East, and Northeast Development Configuration Alternatives are similar in terms of their level of impact."

Response 19.149: The range of alternatives analyzed in the DEIR was based on CEQA Guidelines Section 15126.6. As discussed in the DEIR, Chapter Four – Evaluation of Alternatives, the range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. As such, the alternatives chosen reflect the project objectives as well as the inherent ties between the Friant Community Plan and the Friant Ranch Specific Plan. See section 4.3 of the DEIR for explanation of selection process for alternatives.

Comment 19.150: *The EIR's rejection of analysis of an off-site alternative is entirely self-serving and circular. The EIR bases its decision not to evaluate an off-site alternative primarily on the purpose of the Project to create "a master-planned active adult community" that is "within or immediately adjacent to the Friant Community." This "purpose" describes the proposed Project precisely, and so admits of no meaningful alternative. That is not acceptable under CEQA. An EIR may not reject consideration of off-site alternatives simply because they would not be identical to the proposed Project. The EIR is required to look at a range of reasonable alternatives to achieve the objectives of the Project while lessening its impacts, and so needs to broaden its range of alternatives to consider (1) other potential Project's to "revitalize" the existing Friant Community with fewer environmental impacts than the creation of a vast new residential development in the Specific Plan Area and (2) other potential locations for master-planned active adult communities in the County or neighboring counties, or in established urban areas of the County, which would have fewer impacts than the proposed Project.*

Response 19.150: As described in the DEIR, Chapter Four – Evaluation of Alternatives, an important component of the project is its proposed location near recreational facilities such as the San Joaquin River Parkway and Millerton State Recreational Area; of which similar facilities with the required amount of land required by the development are not available in the region. Further, the Applicant does not own or control land within the region, other than the proposed project site, which would be suitable for the proposed development. Finally, as described in the DEIR, development of the project on any suitable alternative site in or around the County would be unlikely to avoid or substantially lessen the Project’s significant impacts, and therefore would not be a feasible alternative. Section 4.4 of the DEIR provides an adequate explanation of the alternatives considered and eliminated from consideration, such as potential off-site locations. This discussion addresses commenter's suggestion of locating the community within urban areas or other unincorporated parts of Fresno or Madera County. Unlike commenter, section 4.4 attempted to identify such properties and provided an explanation as to why specific off-site locations would not satisfy key objectives of the Project. Moreover, there is no evidence to support commenter's assumption that development within other unincorporated parts of Fresno and Madera County would necessarily result in less significant impacts. To the contrary, section 4.4 explains that such locations would have similar impacts. Commenter has not identified any specific locations that would in fact satisfy the key objectives of the Project and actually result in fewer environmental impacts. Commenter also notes that the EIR should analyze other ways of revitalizing the Existing Community Plan Area. Commenter has not provided any specific

suggestions, and it is unlikely that any such alternative would satisfy the key objective of the Project to meet an unmet need for active adult communities to serve a growing portion of the County's population.

Comment 19.151: *Additionally, the EIR should discuss a variation on the No Project Alternative, under which the "programmatic" changes proposed for the Community Plan and the Redevelopment Plan would occur, but the "project-level" activities in the Specific Plan Area and the Depot Parcel would not occur.*

Response 19.151: As described in the DEIR, Chapter Two – Project Description, the Update of the Friant Community Plan does not propose any changes to land use designations other than those within the Friant Ranch Specific Plan area and the Depot Parcel. Therefore, the “No Project Alternative” in Chapter Four – Analysis of Alternatives, essentially discusses implementation of the Community Plan, without “project-level” activities associated with the Specific Plan Area and the Depot Parcel.

Comment 19.152: *Finally, it does not appear that the EIR discusses any alternative for development of the Depot Parcel as a shopping center. In light of the existing vacant commercial and retail space in the Friant Community, the EIR should evaluate other potential uses for the site that would have fewer environmental impacts and would not potentially contribute to blight in the existing Friant Community by drawing away commerce.*

Response 19.152: The 6.75 acre Depot Parcel is located adjacent to Friant Road and is essentially surrounded by urban use. Development of an alternate type of land use (other than Highway Commercial) at this location could conflict with surrounding uses. As described in the DEIR, there are no specific uses yet identified for the Depot Parcel, and therefore quantification of impacts is based on land use, rather than project-specific use. As such, depending on land use, it is difficult to quantify whether or not another use would have less of an impact. Though the proposed land use of a “shopping center” was used as a worst case example for assessing potential traffic and air quality impacts, the Project does not specifically propose such use. If identification of a specific tenant and/or land use within the Highway Commercial designation prior to future discretionary approvals triggers supplemental environmental analysis pursuant to Public Resources Code section 21166, then additional environmental analysis pertaining to such new information will be conducted. At this time, however, analysis of potential urban decay or urban blight resulting from a specific tenant or specific end use would be based on pure speculation.

With regard to potentially contributing to blight within the existing Friant Community by drawing away commerce, the project itself is proposed to bring in additional population to the area who will potentially increase commerce at existing facilities as well as utilize proposed facilities.

Comment 19.153: Chapter 5 Cumulative Impacts

The list of cumulative projects is inadequate. It fails to include past general plan amendments for projects on the east side of the Friant-Kern Canal, Madera County projects across the San

Joaquin River north of Friant, and the Blasingame project proposal to the south of the Project. Among relevant cumulative projects which are improperly not included in the EIR's cumulative analysis are (1) commercial developments, already approved but not yet constructed, at Freeway 41 and Friant Road; (2) the 40-acre retail commercial project located at the corner of Friant and Audubon; (3) the proposed Jackson Baker Mining Quarry in Madera County; and (4) the proposed Vulcan mining quarry in Madera County.

Response 19.153: The DEIR relied upon the list approach to establish a list of past, present and reasonably foreseeable future projects. (See Table 5-1 at DEIR pages 5-2 through 5-6). This list was compiled based upon the following criteria: projects for which an application had been filed for development as of the date of the notice of preparation for the DEIR (October 2007) that affect similar resources to that of the Project. (See DEIR Figure 5-1 on page 5-7 for a depiction of the geographic range.) Table 5-1 and corresponding Figure 5-1 were intended to show geographic context for cumulative impacts associated with aesthetics, agricultural resources, biological resources, cultural resources, geology/soils/mineral resources, hydrology/water quality, land use, noise, public services/recreation, and utilities/service systems. Cumulative 2030 traffic impacts were analyzed using the Fresno County COG models, pending roadway improvement programs and the pending projects within the region listed on Table 5.1 of the Traffic Impact Study (See Appendix D of the DEIR). Additionally, as discussed in the DEIR, cumulative impacts related to regional air quality, global climate change and energy usage, hazardous substances/materials, and population and housing are also not limited to consideration of the geographical area reflected in Figure 5-1.

Impacts and mitigation measures to be approved for the 356-acre Austin Quarry, a project proposed by Vulcan Materials Company, are not known with certainty at this time. The ADEIR for said project is in progress, and a draft has not yet been posted on Madera County's website. The mine site is located in Madera County south of Highway 145, north of the Madera Canal and west of Highway 41. For purposes of cumulative biological evaluation, the general project vicinity is an area where vernal pool wetlands are known to occur. An unknown area of such wetlands would likely be eliminated by the Vulcan project.

The California Natural Diversity Data Base (2010) confirms the presence of a number of state and federally listed plant and animal species in the Vulcan project vicinity that may occur in on-site vernal pool wetlands. The Vulcan project would likely result in impacts to California tiger salamander breeding and aestivation habitat, as well as seasonal aquatic habitat for the vernal pool fairy shrimp. It may result in impact to one or more of the following listed plant species: succulent owl's-clover, San Joaquin orcutt grass, hairy orcutt grass, and Greene's Tuctoria. Therefore, the Vulcan project would likely result in impacts to biological resources similar to impacts resulting from the Friant Ranch project. The Vulcan Materials Company has reportedly acquired two sections of land just to the west of the quarry site that would serve as mitigation (or partial mitigation) for impacts to grassland and vernal pool resources resulting from the quarry operation.

While impacts and mitigation measures associated with the Vulcan project are not known in detail, the Vulcan project will not affect the conclusions of the cumulative impact analysis for this Project. Biological mitigation required under federal law would eliminate or lessen project

impacts through avoidance, the creation of compensatory habitat in the region, and the improvement of existing habitat from restoration and management such that Vulcan's project impacts to biological resources would not materially affect the cumulative condition described in the DEIR, nor affect the analysis of the Project's contribution thereto. To the extent that the quarry site includes grazing land, such biological mitigation would also offset the loss of grazing land disturbed by the quarry development.

With respect to the Madera Ranch Quarry (referred to by commenter as the Jaxson/Baker Mine project), the California Court of Appeal, Fifth District held in an October 24, 2008 ruling that the environmental impact report for the project was inadequate and sent the project back to Madera County for further environmental review. Just recently (after circulation of the DEIR for the subject Project), Madera County adopted a new Madera Ranch Quarry EIR and approved the conditional use permit required for the proposed mining operations. The certified Madera Ranch Quarry EIR has been posted on the County's web page (http://www.madera-county.com/rma/planningdept/planning_dept_docs.html), dated March 2010 (State Clearinghouse No. 2003102128). The Madera County Planning Commission on March 16, 2010 voted to approve certification of the revised EIR and then the Madera County Board of Supervisors on April 13, 2010 also voted to approve certification. Without mitigation, the Madera Ranch Quarry would be expected to effect some of the same biological resources affected by the subject Project, including the California tiger salamander, nesting raptors and Golden Eagles, and the waters of the United States. The certified Madera Ranch Quarry EIR provides within its appendices a completed Army Corps Clean Water Act Section 404 Permit, USFWS Approval Letter, Regional Water Quality Control Board Clean Water Act Section 401 certification, and Department of Fish and Game Section 1602 Permit, which collectively provide compensatory mitigation for the effects to the California Tiger Salamander, 1.55 acres of wetlands mitigation and restoration to riparian habitat. For the same reasons discussed for the Austin Quarry above, resurrection of this project does not change the analysis or conclusions for the cumulative impact analysis of the subject Project in the DEIR because mitigation required under federal law eliminates or considerably lessens each of the project's biological impacts through avoidance, the creation of compensatory habitat in the region, and the improvement of existing habitat from restoration and management such that the project impacts to biological resources would not materially affect the cumulative condition described in the DEIR, nor affect the analysis of the subject Project's contribution thereto. See also Response 19.113 discussing the de minimus effect of these mining projects on the cumulative traffic analysis. Similarly, these projects would not substantially increase the significant cumulative impact resulting from regional traffic air quality emissions discussed in the DEIR.

Projects to be built in already-developed areas of incorporated cities, such as Fresno (i.e., the Fresno 40 development at Highway 41 near Friant Road near Audubon, raised by commenter, commonly referred to as "Fresno 40" project), do not support the kind of resources to be affected by the Project. However, cumulative impacts related to such urban development were considered in the broader cumulative analysis such as air quality, global climate change and energy usage, population and housing, hazardous substances/materials, and traffic. For example, the Traffic Impact Study for the Project analyzed traffic impacts associated with the Fresno 40 project in the cumulative condition. (See Appendix D, Table 5-1.)

The Blasingame Project noted by the commenter, a project that appears to have been abandoned since the DEIR was prepared, was included on the DEIR Table 5-1 list under “Wellington Ranch” and was considered in the cumulative impact analysis.

Comment 19.154: *Overall, the cumulative analysis is inconsistent with CEQA requirements and vastly understates the significant cumulative impacts of the Project. The analysis is flawed in two important respects: (1) it improperly concludes, without any further analysis, that just because the Project level impact is reduced to less than significant, the Project’s impact is less than cumulative considerable. CEQA law is clear that whether a project's cumulative impact is significant (i.e., cumulative considerable) cannot be determined based on the mitigation of Project level impacts; and (2) the EIR improperly finds that the Project contribution is less than cumulative considerable if the project impact is a small percentage of a large problem (ex. Project impact on "only 2 acres" of vernal pools as less than cumulatively considerable because small amount compared to overall number of vernal pools impacted by cumulative development). This use of the "ratio" rule has been firmly rejected by CEQA case law (see Kings County Farm Bureau v. City of Hanford). Contrary to the EIR analysis, the bigger the cumulative impact is, the smaller the Project contribution that should be considered significant. These flaws are especially prominent in the analysis of biological impacts where the impacts on vernal pools, CTS and its habitat, and riparian and special status species habitat are found less than cumulatively considerable because Project impacts are mitigated and there still remains a "significant amount" of these resources in County even after project impacts. The majority of the Project's impacts on biological resources should be found cumulatively considerable.*

Response 19.154: As stated in CEQA Guidelines Section 15130, cumulative impacts are to be analyzed where they are significant. A cumulative effect is deemed significant if the project’s incremental contribution to a cumulative impact is “considerable.” A cumulative impact is not considered significant if the impact can be mitigated to below the level of significance through mitigation, including providing improvements and/or contributing funds through fee-payment programs. As such, the applicable mitigation measures outlined for each resource area in Chapter Three are applied as mitigation to reduce the cumulative impacts, but not to a less than significant level.

Specific responses to cumulative impacts to resource areas follow in Responses 9.155 through 9.164.

With specific regard to cumulative impacts on biological resources, mitigation required by the DEIR will ensure the following:

- (1) no net loss of Hartweg’s golden sunburst population;
- (2) no net loss of succulent owl’s-clover population;
- (3) no net loss of vernal pool fairy shrimp habitat or population;
- (4) no net loss of California tiger salamander breeding habitat;
- (5) no net loss of western spadefoot breeding habitat; and
- (6) no net loss of waters of the U.S. and of state of California.

Since Project impacts to the aforementioned species and habitats will be mitigated such that there will be no net loss (i.e., no impact after mitigation), then it is not logical to conclude that Project impacts to these species are cumulatively considerable. Similarly, the Project will result in no impact to sensitive biological resources not present on the Project site (i.e., several species of special status plants and special status animals), so Project impacts to these species by definition will not be cumulatively considerable.

The Specific Plan development will result in the net loss of approximately 690 acres of open space (comprising mostly grassland habitat – there will be no net loss of wetland habitat) used as aestivation habitat by California tiger salamanders and western spadefoot toads, denning habitat by American badgers, and nesting and foraging habitat by various raptor species and western burrowing owls. The DEIR requires the management and preservation in perpetuity under conservation easement of approximately 1,300 acres of rangeland suitable for these species within the region. This requirement reduces Specific Plan impacts to them sufficiently such that impacts cannot be considered cumulatively significant. The management of these lands will control grazing in a manner favorable to these species (controlled grazing reduces the growth of annual grasses that would otherwise outcompete native forbs). Management will encourage rodent populations by eliminating rodent control using poison baits. Monitoring and management will ensure that noxious weeds inimical to native species are eradicated or not permitted to become established. These benefits resulting from the preservation and management of these lands sufficiently offset the impacts related to the loss of approximately 670 acres of open space. The DEIR further finds that the mitigation requirement for the creation of vernal pools will also result in associated grassland habitat around the new pools to provide new habitat suitable for aestivating CTS. As such, the Specific Plan development's impacts to open space used as aestivation habitat by California tiger salamanders and western spadefoot toads, denning habitat by American badgers, and nesting and foraging habitat by various raptor species and western burrowing owls, with mitigation replacing the functional values of the existing habitat, will not be cumulatively considerable. (See DEIR, at pages 5-12 -5-15.)

Contrary to the commenter's suggestion that the "ratio" rule was applied, the DEIR relies on the achievement of no net loss to vernal pools among other sensitive resources, and the replacement of the functional value of the affected grasslands through mitigation, to find that the Specific Plan development will not result in a cumulatively considerable significant impact to biological resources. (See DEIR at pages 5-10 – 5-17.)

Comment 19.155: *Since the Project's impact on agricultural resources is cumulatively considerable, there must be mitigation analyzed and adopted to address this significant impact (see discussion of mitigation of agricultural impacts above).*

Response 19.155: See Response 18.3 regarding the feasibility of mitigation for agricultural impacts resulting from the Project, as well as a discussion of agricultural conservation incorporated in Project design, the alternatives analysis, and biological mitigation.

Comment 19.156: *The Project's significant conflicts with land use and other policies create a cumulatively considerable impact. As discussed above, the Project violates the fundamental policies that guide County and city planning, including directing urban development to cities or*

within existing developed unincorporated area, preserving agricultural land, directing development to areas with public services in place, and protecting environmental resources.

Response 19.156: See Responses 18.3, 19.16, and 19.74. The Project does not conflict with Fresno County land use planning policies or agreements.

Comment 19.157: *The EIR's analysis of cumulative air quality impacts is severely inadequate under CEQA. The analysis does not distinguish among types of air quality impacts (e.g., emissions impacts, ambient or concentration impacts, odor impacts, etc.)*

Response 19.157: The DEIR, Chapter Five – Cumulative Impacts, page 5-9 has been revised as follows:

5.2.3 AIR QUALITY

As growth continues in the San Joaquin Valley, attainment of air quality standards will become more difficult, even though overall air quality has improved. Proposed cumulative development planned in Fresno, Tulare, Kings and Madera Counties will result in thousands of new homes and millions of square feet of new retail uses. The SJVAPCD is classified as a nonattainment area for the state and federal ozone standards. The region is also a nonattainment area for state and federal dust standards measured by particulate matter. Air pollution in the SJVAPCD comes primarily from mobile sources, such as on and off-road vehicles, as well as from stationary sources including agricultural operations, mineral industries, diesel generators, naturally occurring sources, among others.

The Project would contribute to cumulative air emissions by allowing for substantially greater development in the Project Area than currently exists. The amount of mobile and stationary emissions would be substantially greater than what would be generated under existing conditions, or future conditions if the Project Area were to remain rural. The SJVAPCD has adopted a cumulative threshold of significance of ~~10 pounds per day~~ tons per year for ozone precursors (ROG and NO_x). Project emissions of these two pollutants, after mitigation, would exceed this threshold. Consequently, the Project would contribute to air quality degradation, and impede the region's ability to attain air quality standards.

According to SJVAPCD methodology, any proposed project that would individually have a significant impact would also be considered to have a significant cumulative air quality impact. Significant Unavoidable air quality impacts identified in the DEIR are: 1) Construction Impacts resulting from the Development of the Friant Ranch Specific Plan and Community Plan Update ; and 2) Violation of Air Quality Standards by Area and Operation Emissions. The project will have a less than cumulatively considerable impact on creation of odors because the types of odors typical of residential communities are not considered significant generators of odor impacts.

Mitigation measures applied for short-term construction activities and long term operational activities of the project (as outlined in the DEIR, Section 3.3 – Air Quality) would lessen the impacts, but not to a less than significant level. The cumulative air quality impacts of the Project, together with other foreseeable development throughout the San Joaquin Valley air basin including build out of the Community Plan area pursuant to the existing General Plan designations, would be ***cumulatively considerable*** and as such ***significant and unavoidable***.

Comment 19.158: *The analysis furthermore fails to provide quantified data, or even to qualitatively describe the future cumulative air quality conditions to which the Project will make a cumulatively considerable contribution, or present any information on the relative size of the Project's contribution.*

Response 19.158: See Response 19.157.

Comment 19.159: *The discussion is also entirely lacking in any mention of mitigation for the Project's cumulatively considerable contribution to this significant cumulative impact. The discussion of cumulative air quality impacts must be fundamentally revised, made more detailed, and expanded.*

Response 19.159: See Response 19.157.

Comment 19.160: *The EIR's Project-specific analysis of population and housing impacts used a threshold under which impacts are significant if a Project would "induce substantial population growth in an area, either directly . . . or indirectly." Under this standard, the EIR identifies a significant and unavoidable Project-specific population and housing impact. However, the EIR's treatment of cumulative population and housing impacts is entirely inconsistent with its treatment of Project-specific impacts.*

Response 19.160: As discussed in Response 19.161 below, the Project will not have a significant adverse project-specific impact on population and housing, and it will not contribute considerably to any cumulative population and housing impact. In establishing the impact criterion (a) noted by the commenter, the DEIR further states: “according to CEQA, a significant impact on population and housing does nothing itself necessarily to result in significant adverse environmental impacts, but may cause physical changes that result in significant adverse environmental impacts.” (DEIR at page 3-255.) The DEIR’s discussion of project-specific and cumulative impacts related to population and housing impact criterion (a) has been revised as follows to clarify the project-specific impact determination and its implications for the cumulative impact determination.

The text of the DEIR (page 3-255) has been amended as follows:

As noted above, a significant impact on population and housing does nothing itself to result in significant adverse environmental impacts, but may cause physical changes that result in significant adverse environmental impacts. For purposes of this analysis, impacts on population and housing criterion (a) were

considered significant if they would result in significant impacts from unplanned growth. Other potential adverse physical changes that could result from the Project's effect on population and housing are evaluated in the other resource-specific sections of this EIR.

For more information about the analysis of population and housing, and the Project's potential to induce growth, see Response 19.161 below.

Comment 19.161: *The EIR's cumulative analysis inexplicably abandons the standards used in the Project-specific analysis, and purports to recognize cumulative impacts only if they result from unplanned growth. By this sleight of hand, the EIR reaches the unsupportable and absurd conclusion that the Project, which even by itself would have a significant and unavoidable population and housing impact, and which would clearly contribute along with other cumulative projects to "substantial population growth," would somehow not contribute to a significant cumulative population and housing impact. This conclusion is clearly irrational and unsupported. The EIR must be revised to recognize that the Project, in addition to resulting in significant Project-specific population and housing impacts, will additionally make a cumulatively considerable contribution to significant cumulative population and housing impacts.*

Response 19.161: CEQA requires that an EIR evaluate a project's potential to result in various significant effects on the environment. A "significant effect on the environment" is defined under CEQA as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project." (CEQA Guidelines, § 15382, emphasis added.) One of the potential effects identified in Appendix G to the CEQA Guidelines is whether the project has the potential to induce substantial population growth in an area, either indirectly or indirectly. (See CEQA Guidelines Appendix G, Environmental Checklist, XII(a).) CEQA further provides that "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." (CEQA Guidelines, § 15126.2(d).)

DEIR Section 3.11.1 (pages 3-255 and 3-256) evaluated the Project's potential to induce substantial population growth. The DEIR further considered the Project's cumulative effects on population and housing growth in Section 5.2.11. Because approval of the Project would facilitate development of up to 2,996 new households within the Friant Ranch Specific Plan area as well as development of vacant properties within the Friant Community Plan area, the DEIR stated that the Project would induce substantial population growth, and that the project-specific impact would be significant.

Elsewhere, in the discussion of cumulative population and housing impacts (Section 5.2.11) and growth inducing impacts (Section 6.4), the DEIR explained why and how the Project would induce growth within the Friant Ranch Specific Plan and Community Plan area. There the DEIR also concluded that the Project would not have adverse effects related to unplanned growth because the policies of the Community Plan and Specific Plan will ensure that such growth is compatible with existing uses and consistent with General Plan policies relating to growth.

As stated above, CEQA provides that a substantial increase in population or housing is not in and of itself an adverse impact. The DEIR's analysis of population and housing impacts, Section 3.11.1, reflected this consideration in presenting its thresholds of significance: the DEIR on page 3-255 explained that "a significant impact on population and housing does nothing itself to result in significant adverse environmental impacts, but may cause physical changes that result in significant adverse environmental impacts." As was indicated in DEIR Section 5.2.11, population and housing effects were considered to be significant and adverse if they would result in substantial impacts from unplanned growth.

Although the Project would facilitate a substantial amount of growth primarily within the Friant Ranch Specific Plan Area and, to a much lesser degree, the Friant Community Plan Area, the Project includes policies and guidelines to control and direct growth in a well-planned manner, thus ensuring that such growth would be compatible with existing and future uses and with the General Plan policies related to growth, would provide needed housing and facilities for a growing segment of the population, and would improve jobs and housing opportunities in the community.

As described in DEIR Section 3.11.1, the Project's potential impact on growth outside of the Project Area is very limited: existing services are generally adequate to serve the Project and its future residents, and new jobs that might be created by the Project can be filled by the existing job-seeking population in the greater Fresno-Madera County area, which has relatively high levels of unemployment. The Project would not extend or result in the creation of new services outside the Project that would facilitate growth beyond the Project. For these reasons, there would not be a significant adverse project-level impact.

Consistent with the above, the DEIR analysis explained that there would not be a significant *adverse* project-level impact related to population and housing. (See, for example, DEIR, page 3-255 ["The Project will induce population growth in the area, both directly and indirectly, however; not at a rate considered substantial enough to result in a significant environmental impact"].) However, the DEIR applied a standard conclusion format used throughout the EIR that likely led to the commenter's confusion. That is, after determining that impacts were "significant" (though not *adverse*), the DEIR addressed the availability of mitigation and, identifying none, concluded that the project-specific impact was "significant" and that no mitigation measures were available to mitigate that impact. The use of this standard format appears to have led the commenter to infer, incorrectly, that project-specific impacts related to population and housing were considered to be "significant and unavoidable" adverse impacts. While the inducement of significant amount of growth in the Project area is inevitable in that the purpose of the Project is to create new housing and commercial opportunities, for the reasons stated, the impact, although significant, was not considered to be an adverse environmental impact. As such, the DEIR should have noted that no mitigation is required related to the project-specific population and housing analysis.

As stated in DEIR section 5.2.11, growth unrelated to the Project will occur outside of Friant, in other nearby cities and unincorporated communities in Fresno and Madera County. Fresno County and other incorporated and unincorporated jurisdictions are required by State law to use the General Plan process, as well as other planning processes, such as utility master plans, to

plan for and control future growth. As a result, a significant cumulative impact associated with unplanned growth is not expected, and the proposed Project would not contribute considerably to a significant cumulative impact related to population and housing.

In conclusion, the analysis in Section 3.11.1 should have more clearly explained how the EIR evaluated population and housing impacts. The use of a standard conclusion format relating to impact and mitigation contributed to potential confusion on this issue. To address the issues raised by the commenter, clarifications have been made to the text of DEIR Sections 3.11.1 and 5.2.11.

The text of the DEIR (page 3-255 thru 3-257, Section 3.11.4, Impact #3.11.1) has been amended as follows:

3.11.4 IMPACT ANALYSIS

Impact #3.11.1 – Induce Substantial Population Growth [Evaluation Criteria (a)]

Project implementation will have a direct, ~~growth-inducing~~ impact on the area's population and housing stock by facilitating the development of up to 2,996 new households within the Friant Ranch Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area. Friant Ranch will be developed in five phases over a 10-year period. Because the majority of housing units will be occupied by individuals age 55 and over, it is expected that the average household size will be less than Friant's average household size of 2.27. According to the 2001 American Housing Survey by the U.S. Census, the combined demographic for the 55-64 and 65-74 age categories average 1.9 persons per dwelling unit. Thus, the 2,776 age restricted units within the Friant Ranch Specific Plan Area are expected to average at 1.9 persons per dwelling unit. The Friant area is presently rural in character, and the change in population and housing resulting from the Project will be substantial.

As noted above in the thresholds of significance, the primary concern with a significant change in population and housing is whether the change will result in a significant impact associated with unplanned growth. In addition to environmental impacts, unplanned growth can have other deleterious effects, by thwarting the implementation of General Plan and other applicable policies designed to ensure orderly development, or by occurring at a rate that would outpace the availability of essential public services. The Project includes policies and guidelines to control and direct growth in a well-planned manner, thus ensuring that such growth would be compatible with existing and future uses and with the General Plan policies related to growth, would provide needed housing and facilities for a growing segment of the population and would improve jobs and housing opportunities in the community.

The Project is consistent with Goal H-E of the County's Housing Element in that the Project will provide an adequate supply of housing and supportive services for

persons with special needs such as persons age 55 years and older. The Project is consistent with policies H-C.1, H-C.2 and H-D.3 in that the Project will provide a full range of quality housing that allows residents access to safe and affordable housing while preserving the character and integrity of existing neighborhoods; will include higher housing densities; and promotes mixed-use development where housing is located adjacent to jobs, services and shopping. The Project is consistent with Policy H-C.6 in that the Friant Community Plan is being updated. The Project is consistent with Fresno County General Plan Land Use Element Policy LU-G.23 in that the necessary public services can be provided in the Project area. ~~The Project will induce substantial population growth in the area, both directly and indirectly, however, not at a rate considered substantial enough to result in a significant environmental impact.~~

Not including the Friant Ranch Specific Plan Area, the majority of land designated residential in the Community Plan Area boundary is built out. The few remaining vacant parcels will be built dependent upon market conditions and need. The U.S. Census shows that Friant's population in 2000 was 519, total households were 226, and total housing units were 236. Vacant housing units in 2000 ~~was~~ were 10 units. The development of those 10 units would result in an increase of approximately 23 persons to the community of Friant. There are approximately 18 acres of Low Density, five acres of Medium Density, and eight acres of Medium High Density designated land in the Friant Community Plan Area that is vacant and available for development. The total number of units (.80 net density to account for right of way) which could be built is approximately 17 Low Density units, 29 Medium Density units and 116 Medium High Density units. At 2.27 persons per household, the total number of additional persons in the Friant Community Plan Area could be 367.

Much of the commercial frontage property on Friant Road is currently either vacant or under utilized. These parcels will develop dependent upon market conditions and need. The majority of land west of Friant Road within the Community Plan Area is designated Agriculture and Open Space and not subject to development.

The redevelopment of properties in the 597-acre Friant Redevelopment Area within the Community Plan Area is subject to available funding sources. The Friant Redevelopment Implementation Plan for the years 2005 – 2009 contains as a primary program, "the design and construction of a sewage treatment and collection system for the commercial strip along Friant Road and for new and existing residential development within the Community of Friant." These improvements have not yet been implemented due to lack of funding sources.

The Friant Ranch portion of the Project will bring new commercial uses into the area that will create new employment opportunities within the Project Area. The jobs created by the commercial areas could be filled by people already living in the area and future residents and would not substantially induce additional

population growth. Buildout of the remaining Friant Community Plan Area would also result in new employment opportunities as a good amount of the properties fronting onto Friant Road are vacant, so the potential for new development is available. It is unknown what future uses would develop in Friant and the timing of those future uses, therefore, it is speculative as to the number of employees that would be generated and when.

The Project will induce population growth in the Friant area, both directly and indirectly. However, the Specific Plan includes policies that will ensure that development does not occur before necessary public services are available, and development is not expected to occur at a rate considered substantial enough to result in any significant adverse impact. The Project's potential impact on growth outside of the Project area is very limited: existing services are generally adequate to serve the Project and its future residents, and new jobs that might be created by the Project can be filled by the existing job-seeking population in the greater Fresno-Madera County area, which has relatively high levels of unemployment. The Project would not extend or result in the creation of new services that would facilitate growth beyond the Project.

Conclusion: Implementation of the Friant Ranch Specific Plan will induce substantial population and housing growth ~~have a direct, growth-inducing impact on the area's population and housing stock~~ by facilitating the development of up to 2,996 new households within the Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area. The proposed Project will considerably-accelerate projected population growth within the Friant Community Plan Area, although not at a rate that would be expected to result in any significant adverse impact related to unplanned growth. The Project is consistent with, and promotes, all relevant General Plan land use planning policies and will not have any adverse impact relating to unplanned growth. While the change in population and housing is substantial, because it will not result in any adverse impacts from unplanned growth, the impact is not considered to be adverse. This impact is **less than significant**, and is considered a **significant impact**.

Mitigation Measures: No mitigation measures are required, ~~available to reduce this impact to a less than significant level.~~

The text of the DEIR (page 5-20, Section 5.2.11) has been amended as follows:

SECTION 5.2.11 POPULATION AND HOUSING

As discussed previously in Section 3.11.1 and Section 6.4, population and housing effects are considered to be significant and adverse if they will result in substantial impacts from unplanned growth. The proposed project includes policies and guidelines to control and direct growth in a well-planned manner, thus ensuring that such growth is compatible with existing and future uses and

with the General Plan policies related to growth, provides needed housing and facilities for a growing segment of the population and would improve jobs and housing opportunities in the community. As stated in Section 3.11.1, the Project's potential impact on growth outside of the Project Area itself is very limited: existing services are generally adequate to serve the Project and its future residents, and new jobs that might be created by the Project can be filled by the existing job-seeking population in the greater Fresno-Madera County area, which has relatively high levels of unemployment. The Project would not extend or result in the creation of new services outside the Project that would facilitate growth beyond the Project. As a result, there would not be a significant adverse or unavoidable project-level impact. Growth unrelated to the Project will also occur outside of Friant, in other nearby cities and unincorporated communities in Fresno and Madera County. Fresno County and other incorporated and unincorporated jurisdictions are required by State law to use the General Plan process, as well as other planning processes, such as utility master plans, to plan for and control future growth. As a result, there would not be a cumulative impact associated with unplanned growth, and As a result, the proposed project would **not contribute considerably to a significant cumulative impact** related to population and housing.

Comment 19.162: *The discussion of cumulative utilities/service systems impacts appears to conclude that the Project will not contribute to significant cumulative surface water demand impacts, simply because the Project applicant claims to have obtained adequate surface water supplies for the Project through 2030. That conclusion is incorrect under CEQA, under which a Project may make a cumulatively considerable contribution to a significant cumulative impact even if it has a less than significant Project-specific impact.*

Response 19.162: The cumulative impacts associated with the Project water transfer between LTRID and WWD # 18 is analyzed on pages 5-17 – 5-18 and 5-21 through 5-22 of the DEIR.

The comment inappropriately suggests that the water supply commitment only applies through 2030. For clarification, see Response 19.132 for further discussion of the nature of the water supply component of the Project. As analyzed in the Water Supply Assessment (Appendix B) and Chapter 3 of the DEIR, the Project includes a long-term contractual commitment of 2,000 acre-feet of water for the Project Area. This identified water supply exceeds the projected water demand of the Project and, as such, would actually increase the amount of water currently available to the existing uses within the Project Area. The result is a net benefit to water supplies in the Project Area. As such, the Project does not negatively affect the cumulative water supply condition.

Comment 19.163: *Furthermore, the EIR's implied conclusion that there is no significant cumulative water supply problem to which the Project would contribute is contradicted by the EIR's own (too brief) discussion of the West's finite water supply, which will likely be drastically reduced by factors including climate change. The EIR's discussion, which is entirely lacking in data about cumulative surface water supply impacts, and which fails to account for the Project's share in compounding those impacts, is completely inadequate under CEQA.*

Response 19.163: See discussion of Impact 3.15.2 in the DEIR as well as Responses 19.147 and 19.162.

Comment 19.164: *The EIR does not contain an analysis of the Project's contribution to the significant cumulative water impact in the region. The EIR analysis is a Project level analysis based on the Water Supply Assessment. The Project requires the reallocation of water from existing users. The EIR does not analyze how the water demand for the cumulative development in the area will be met. Given the existing water crisis and the lack of new supplies, the Project's demand should be found cumulatively considerable.*

Response 19.164: See Response 19.162.

Comment Letter #20

County of Fresno Sheriff's Office
2200 Fresno Street
Fresno, CA 93717

Comment 20.1: *The Sheriff's Office has reviewed the draft environmental impact report regarding the Friant Ranch project in Friant, an unincorporated area of Fresno County, served by the Fresno County Sheriff's Office, Area 2.*

We anticipate the location, once completed and operational, will require law enforcement services that will exceed the abilities of current Sheriff's office staffing in that area. Therefore, prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, we request a Community Facilities District (CFD) be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD should be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.

Response 20.1: As stated in the DEIR, page 3-267, in Mitigation Measure #3.12.2: "Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD will be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance." It is expected that funding will ensure that the project area maintains acceptable service ratios and response times for law enforcement, as stated in policy PF-G2 and PF-G4 of the County of Fresno General Plan.

Comment Letter #21

Charles M. Ashley
wattsvalleypreservation@gmail.com

Comment 21.1: *As a concerned citizen, I appreciate the opportunity to submit comments on the Environmental Impact Report on the Friant Community Plan.*

Regardless of whether the various aspects of the plan meet the legal requirements, this project is undesirable and will diminish both the local environment and the quality of life of residents in and around Fresno and the San Joaquin Valley.

I have lived in Fresno and Fresno County for most of my life since I was born here in 1950. My ancestors first moved to Fresno County in 1882, when my great-great grandparents moved to Burrough Valley, in part at least to take advantage of the real estate boom. Yes, they took advantage of policies and attitudes about land and resource use that persist even today—in spite of all the red flags. I know the history and the natural history of the area, and in my opinion our quality of life has diminished considerably because of overdevelopment and overpopulation.

Response 21.1: Comment noted. No response warranted.

Comment 21.2: *Two facts about the San Joaquin Valley are of extreme importance: water (or the lack of it) and air quality (or the lack of it). We live in a closed air basin well known for its stagnant air. Every bit of pollution we make stays here for a long time and works on our lungs and health. We are all polluters and we have no more room for more polluters. We must put up the "No Vacancy" sign.*

I recall what John S. Eastwood said about California rivers in 1914: "The California slogan ever should be, this a crime to let our rivers reach the sea." Now Eastwood is remembered as a hero for designing the Big Creek Project and the Shaver Flume, which despite what local historians say involved the degradation of more than 200 square miles of Sierra forests and watersheds. Most of us hereabouts—judging from our attitudes about economics and politics—still think the same way. That kind of thinking has been an anachronism for at least 50 years. We need to wake up. We are not satisfied to live in partnership with nature. We have to have it all. One could almost forgive Eastwood as not knowing any better.

But we now have a century of environmental science behind us, and we still don't know any better.

Response 21.2: Comment noted. No response warranted.

Comment 21.3: *We still think in the same short-sighted way as Leland Stanford did when he rode horseback from Sacramento down to Fresno in 1873 and saw Easterby's fields of grain and Moses Church's ditches irrigating them. All the former governor saw was dollar signs when he decided to site a Southern Pacific railroad station here in the middle of a desert to take advantage of the wheat and cattle trade. 136 years later, our collective vision is no better. Our*

politicians think only about the next election and the campaign money coming in from the developers. The planners think only what the politicians who appointed them want them to think.

Response 21.3: Comment noted. No response warranted.

Comment 21.4: *The long and short of it is just this: We have too many people in Fresno, Fresno County, and the San Joaquin Valley. The local resources cannot meet the needs of the people already here, and we have no moral right to steal-legally (with the flick of a politician's pen) or otherwise-from other places to satisfy the greed and convenience of more growth. We must adopt a no-growth policy in Fresno County. There is no more room for growth. In the Central Valley, there is no longer such a thing as "responsible growth." We must learn to work in partnership with the environment. If we don't stop denying nature, nature will have the last laugh and deny us.*

Response 21.4: Comment noted. We appreciate the commenter's historical knowledge of the area, and his taking time to share his views. Because it is impractical for the County to adopt a no growth policy, it is important to evaluate the potential impacts development projects may have on local and regional resources through the EIR process.

Comment Letter #22

San Joaquin River Conservancy
5469 E. Olive Avenue
Fresno, CA 93727

Comment 22.1: *The Conservancy respectfully requests the County of Fresno to modify the proposed maps of the Friant Community Plan to recognize the existing land uses of two properties owned by the State of California, San Joaquin River Conservancy within the plan's boundaries:*

- 1. Parcels 300-10-06 & 07 are a developed San Joaquin River Parkway public access site.*
- 2. Parcel 300-16-50 is habitat conservation land, and will be developed for public access and recreation in conjunction with the County's adjacent Lost Lake Regional Park.*

I believe that the Open Space designation would be appropriate for both of these properties. Parcel maps are attached.

Response 22.1: Thank you for the information regarding the public access site in the San Joaquin River Parkway and habitat conservation land that will be developed for public access and recreation. Figure 3.9-2 (DEIR, page 3-235) was provided by the San Joaquin River Conservancy, and shows the public access areas known at that time (which include the two subsection locations as items 26 and 30). The County General Plan and existing Friant Community Plan designate the three parcels raised by commenter for Highway Commercial, Flood Plain, and Agriculture per Figure 2-7 of the DEIR. The Project analyzed in this DEIR and

described in the proposed Community Plan Update does not include a change to the General Plan or Community Plan land use designations for the parcels described by commenter. As such, no changes to the Community Plan are appropriate at this point in the processing of this Project.

Comment 22.2: *The Conservancy also requests the County to edit the trail label on the draft map for clarity, changing it from "River Parkway" to "River Parkway Trail."*

Response 22.2: The referenced land use map appears as Figure 3.15-1 (page 3-278) and Figure 2-7 (page 3-14) in the DEIR and appears as Figure 5 in the Draft Friant Community Plan Update. Each respective map will be replaced to address the comment. See , for example, the following errata land use map:

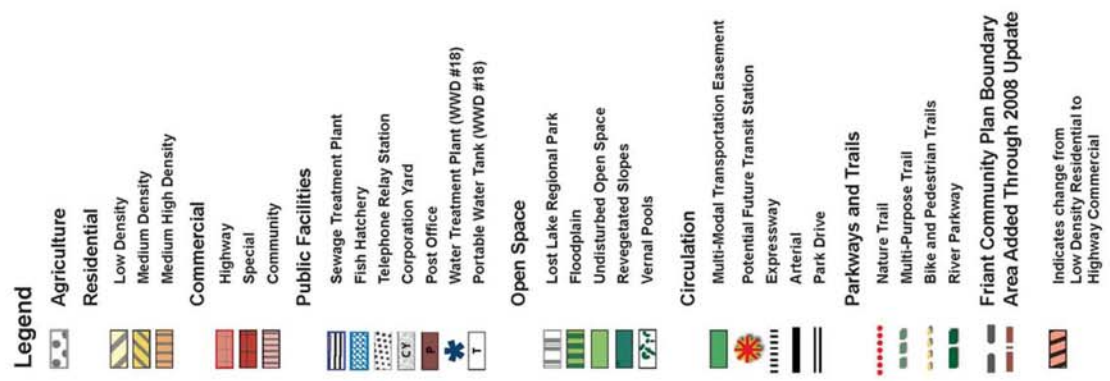
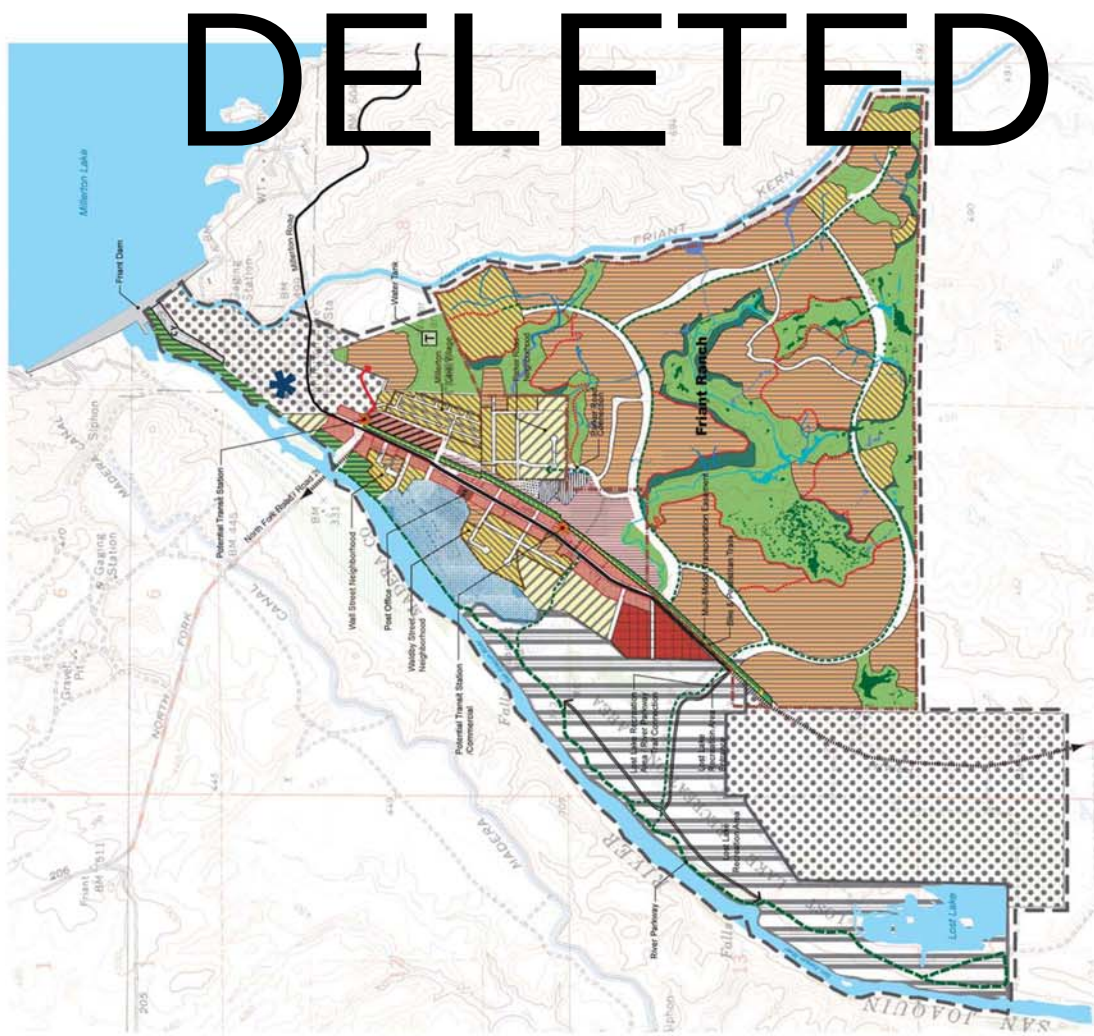


FIGURE 3.15-1

LAND USE MAP



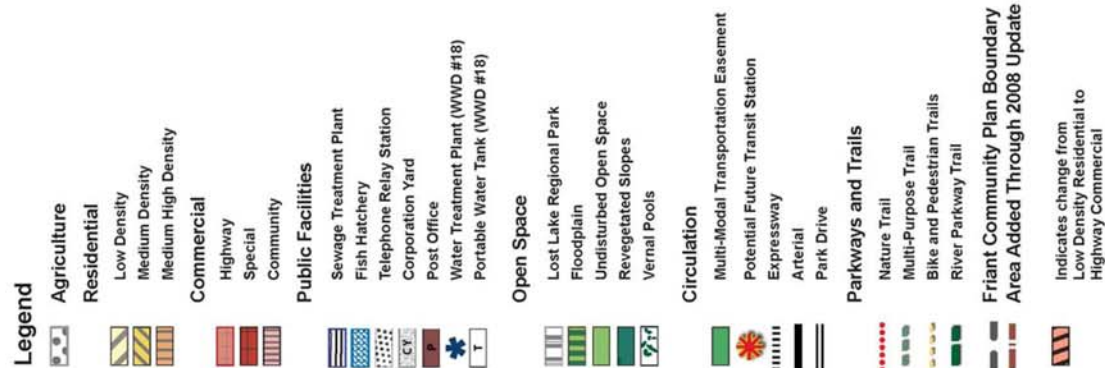
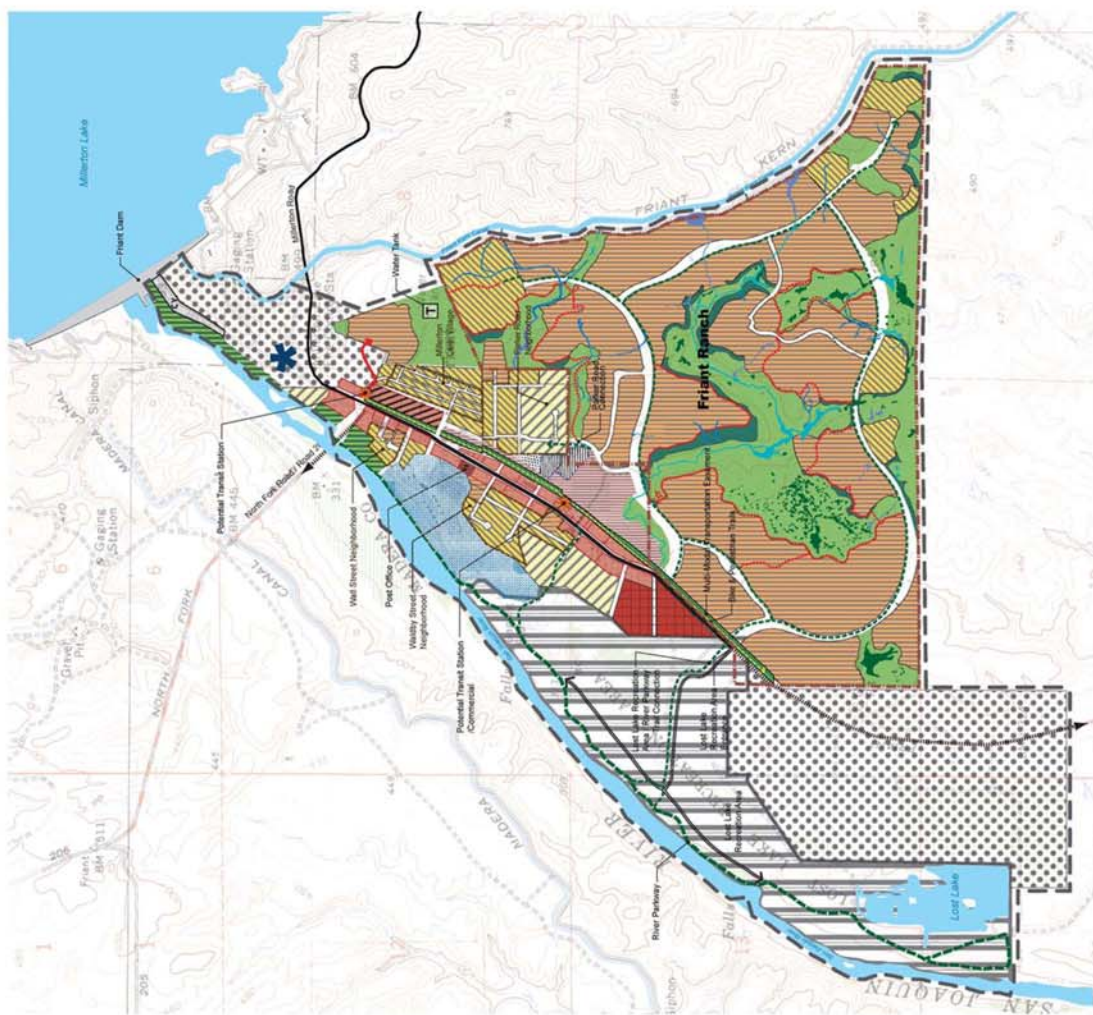


FIGURE
3.15-1

LAND USE MAP



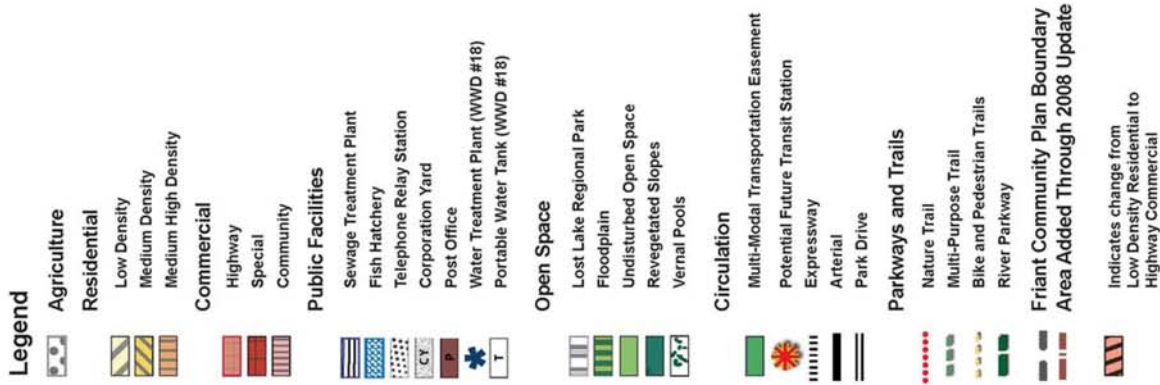
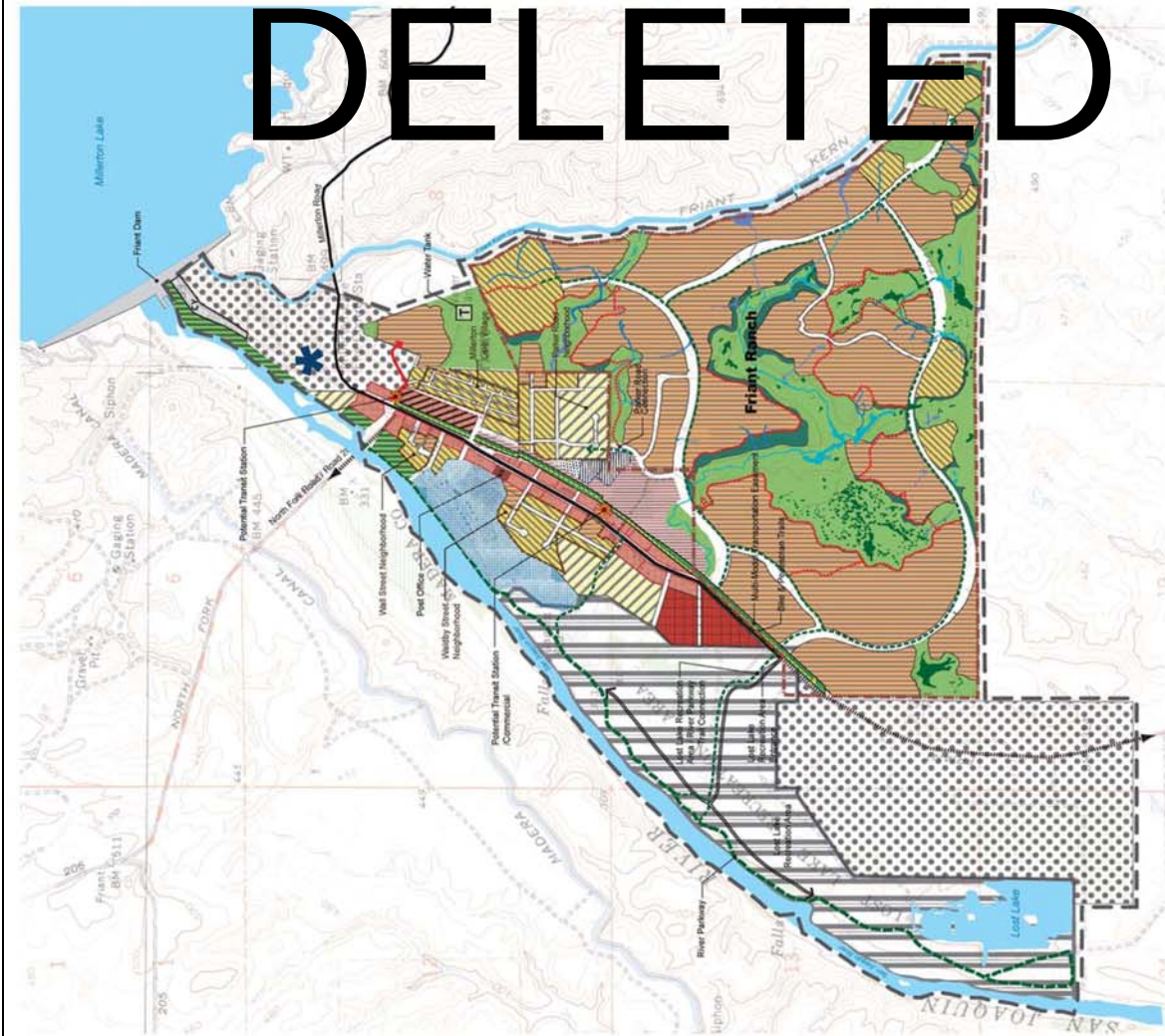


FIGURE
2 - 7

PROPOSED FRIANT COMMUNITY PLAN AREA



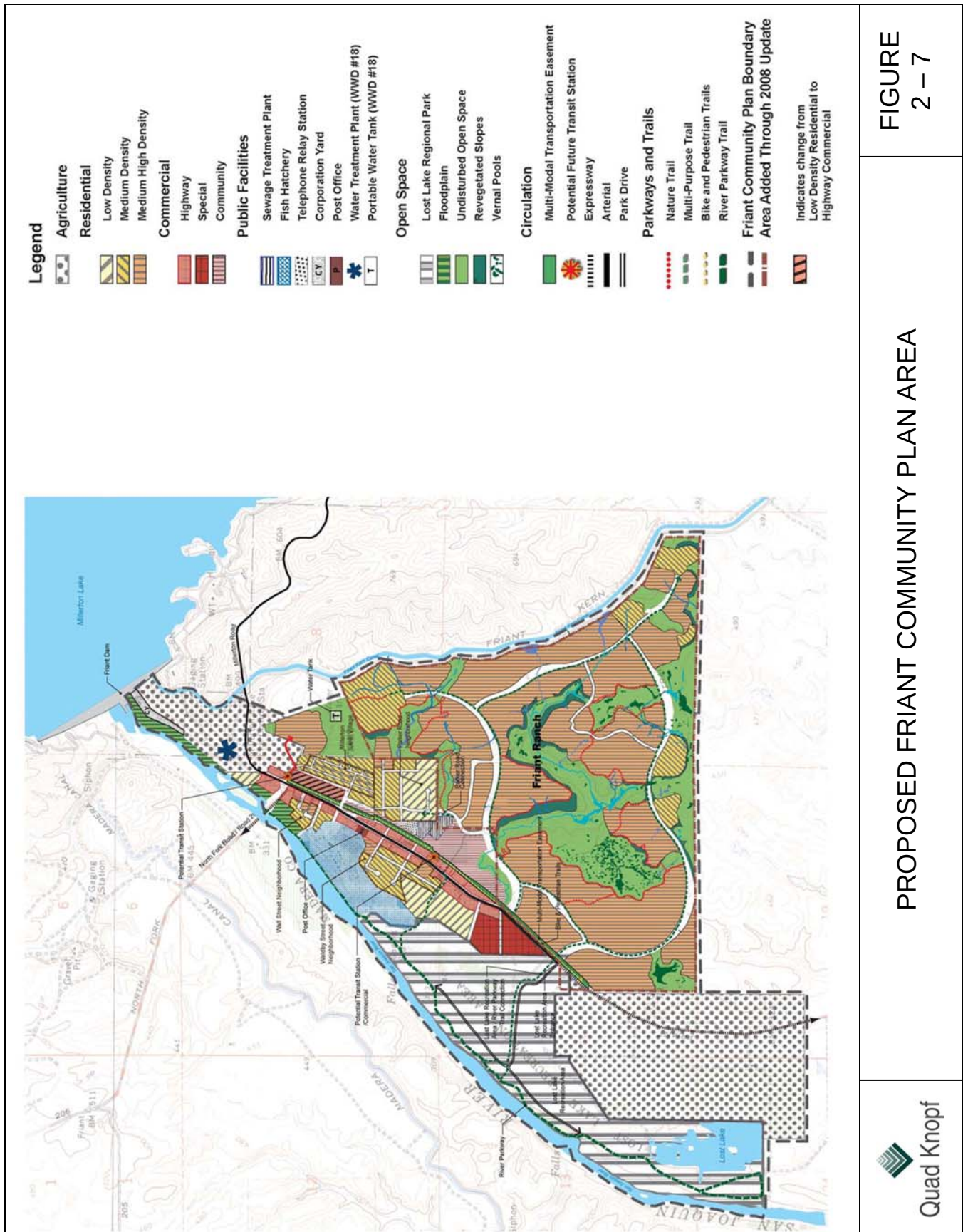


FIGURE
2 - 7

PROPOSED FRIANT COMMUNITY PLAN AREA

Comment Letter #23

Fresno Irrigation District
2907 S. Maple Avenue
Fresno, CA 93725-2218

Comment 23.1: *The Fresno Irrigation District (FID) has reviewed the Draft Environmental Impact Report (EIR) for the Friant Community Plan Update and Friant Ranch Specific Plan located in and on lands adjacent to the unincorporated community of Friant in north-central Fresno County and has the following comments:*

- 1. Although the subject project area is not located within FID, it is located just a few miles north of FID's northerly boundary line.*

Response 23.1: Comment about Fresno Irrigation District's (FID) northerly boundary is noted. The point of the northerly FID boundary closest to the Specific Plan project is at Willow Avenue and International Avenue in Clovis, which is approximately 5.5 miles from the southerly Specific Plan project entrance across from Lost Lake Park.

Comment 23.2:

- 2. The proposed development may negatively impact local groundwater supplies. Under current circumstances the project area is experiencing a modest but continuing groundwater overdraft. Should the proposed development lose the imported surface water mentioned in the EIR, this deficit will increase and will impact FID.*

Response 23.2: The Specific Plan project does not propose to use groundwater resources. The project's Water Supply Assessment evaluated the proposed surface water supply and found it to be reliable over the required 20-year planning horizon in normal, critical-dry and multiple dry years. The groundwater hydrogeology beneath the Specific Plan Area is not sufficient to provide groundwater supplies for the Specific Plan development. Groundwater use within the Specific Plan Area is simply not part of the Project's reasonable range of alternatives. Since no use of groundwater within the Specific Plan Area is planned or otherwise reasonably foreseeable, commenter's inference that the Specific Plan will use groundwater if surface water supplies were unavailable is without merit. Even if sufficient groundwater supplies were to be available beneath the Specific Plan Area to serve the proposed development, which is not the case, WWD 18 would have to take discretionary action to shift to groundwater service, which would be subject to CEQA review at that time. With respect to potential buildout of the Existing Community Plan Area (outside of the Specific Plan Area), wherein some existing residences use domestic wells, the Project proposes additional surface water supplies to negate the need for wells to serve future individual residences within the Existing Community Plan Area. The Project will not result in any adverse impacts to local groundwater supplies.

Comment Letter #24

Fresno County Public Works & Planning Department
Development Services Division
Water, Geology & Natural Resources
2220 Tulare Street, 6th Floor
Fresno, CA 93721

Comment 24.1: *The water/geology section reviewed the DEIR and has no comments at this time.*

Response 24.1: Comment noted. No response warranted.

Comment Letter #25

California Regional Water Quality Control Board
Central Valley Region
1685 E Street
Fresno, CA 93706

Comment 25.1: *Your request for comments on the Draft Environmental Impact Report (DEIR) for the Friant Community Plan Update and Friant Ranch Specific Plan project was received on 30 October 2009. Friant Ranch, a Limited Partnership (Applicant) is proposing to develop a master planned community on a 942-acre parcel adjacent to the existing community of Friant.*

During a 29 October meeting, the Applicant provided additional information about the project. Specifically, the Applicant has modified configuration of the development from the proposed configuration to Alternative 3: Northeast Development Configuration. This modification reduces the footprint of the developed area to protect biologically sensitive areas.

According to the DEIR, Alternative 3 will concentrate development on approximately 482 acres, including approximately 2500 residential units and 250,000 square feet of commercial area. Approximately 460 acres will be dedicated onsite open space maintained under conservation easements. According to the Applicant, the United States Army Corps of Engineers (Corps) has issued a jurisdictional determination that Alternative 3 will impact 5.43 acres of jurisdictional waters of the U.S. and, therefore, the Applicant must obtain a permit for the discharge of dredged or fill material into these waters pursuant to the Federal Clean Water Act Section 404 of the Clean Water Act from the Corps. For the Corps permit to be valid, the applicant must also obtain a Section 401 Water Quality Certification from this office. The Central Valley Water Board will review the Section 401 certification application and will issue a certification with conditions to ensure that discharges will not violate State water quality standards. Impacts to an additional 1.35 acres, determined by the Corps to be waters of the State, will also require impact mitigation, which may be included in the Corps permit, or may require individual waste discharge requirements from the Central Valley Water Board.

Response 25.1: Comment noted. The Applicant will comply with the requirements of the Section 404 permit and the Section 401 Water Quality Certification.

Comment 25.2: *As construction associated with this development will disturb more than one acre, compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities is required. The General Permit was adopted by the State Water Resources Control Board on 2 September 2009 and becomes effective on 1 July 2010. This General Permit requires all dischargers to electronically file all Permit Registration Documents (PRDs), Notices of Termination (NOT), changes of information, annual reporting, and other compliance documents required by this General Permit through the State Water Board's Storm water Multi-Application and Report Tracking System (SMARTS) website. The General Permit requires development of a Storm Water Pollution Prevention Plan to control all pollutants and their sources associated with construction, construction site erosion and all other activities associated with construction activity. Additionally, the General Permit contains post-construction standards that should be addressed within the project planning process.*

Response 25.2: Comment noted. The Applicant will comply with the requirements of the General Permit which becomes effective July 1, 2010.

Comment 25.3: *The project proposes to collect and treat wastewater from the development at a new wastewater treatment facility that will be constructed near the project boundaries. The treatment facility will be designed to serve the development as well as the community of Friant, replacing the existing wastewater treatment facility. Proposed wastewater disposal options include discharge to the San Joaquin River, discharge to land, specifically to percolation ponds, and reclamation by irrigation of landscaping and agricultural land. The reclamation option and the consolidation proposal of wastewater treatment facilities within the community are consistent with Central Valley Water Board Resolution No. R5-2009-0028, In Support of Regionalization, Reclamation, Recycling and Conservation for Wastewater Treatment Plants, and the federal Clean Water Act goal of eliminating the discharge of pollutants into navigable waters. The project design should only consider a discharge to the San Joaquin River as a last resort disposal option.*

Response 25.3: Comment noted. No response warranted. As a point of clarification, the Project proposes land discharge and reclamation by irrigation of landscaping and agricultural land as the preferred disposal approach. However, the lands identified for such discharge are not suitable for percolation and, as such, the Project proposes to use a treated effluent storage pond as described in the DEIR.

Comment Letter #26

Law Offices of William D. Ross
520 South Grand Avenue, Suite 300
Los Angeles, CA 90071-2610

Comment 26.1: *This office represents the Fresno County Fire Protection District ("District"). This communication comments on the Draft Environmental Impact Report ("DEIR") for the County of Fresno ("County") Friant Community Plan Update and Friant Ranch Specific Plan ("Project").*

I. INTRODUCTION AND SUMMARY OF COMMENTS

The District encompasses approximately 2,655 square miles and serves a population of more than 220,000 citizens. It is bounded on the east by the Sierra Nevada Mountains and on the west by the Coastal Mountain Range and includes the unincorporated areas of the County as well as territory included within the County's sphere of influence.

Response 26.1: Comment noted. No response warranted.

Comment 26.2: *Although the DEIR provides an assessment of Project's impact to the District's fire protection services for the development authorized by the Project (specifically the DEIR provides for the formation of a Community Facilities District ("CFD") to address Project impacts associated with maintaining adequate District staffing and facilities), the District believes the County in asserting the Project under the California Environmental Quality Act (Public Resources Code §§ 21000 et seq., "CEQA") has an obligation in the DEIR to address the impact on the Project resulting in physical changes to the environment caused by the past, current and on-going economic impacts of the current State fiscal crisis.*

Response 26.2: CEQA, Section 15131, states that, "Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes." Physical changes that will occur in the project area include conversion of rural and agricultural land to urban use, including construction of housing, roads, and other infrastructure. As is noted in Chapter Three of the DEIR, Section 3.11 Population and Housing (page 3-251), "Changes in population and housing resulting from the Project are social and economic effects, not environmental effects. According to section 15382 of the CEQA Guidelines, an economic or social change is not by itself considered a significant effect on the environment. Though population and housing changes do not necessarily cause direct adverse physical environmental impacts, they can cause indirect effects such as increased traffic and air quality emissions and increases in ambient noise levels. The purpose of this section is to identify and evaluate population and housing changes caused by the Project. The potential environmental effects related to any physical changes caused by the population and housing changes resulting from the Project are evaluated in the applicable sections contained in Chapter Three of this Draft EIR, particularly Section 3.1 Aesthetics, Section 3.9 Land Use, Section 3.10 Noise, Section 3.12

Public Services and Recreation, Section 3.13 Traffic and Circulation, and Section 3.14 Utilities and Service Systems.”

Comment 26.3:

II. CEQA PRIMARY PURPOSES

CEQA has two primary purposes which are only partially satisfied by the DEIR. First, CEQA, is designed to inform decision-makers and the public about the potential, significant effects of a project and inform the public of the reasons why a project is approved despite having significant environmental effects.¹ Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring feasible alternatives or mitigation measures.²

Response 26.3: Comment noted. No response warranted.

Comment 26.4:

III. PROJECT DESCRIPTION

An EIR's project description must contain a general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals, if any, and supporting public facilities.³ An accurate, stable, and finite project description is a prerequisite to an informative and legally sufficient EIR.⁴

The DEIR's Project description⁵ fails to include a description of the State and County's economic condition and, thus, fails to address physical changes to the environment that may be caused by Project's economic effects undercutting public review. Although CEQA generally does not require an analysis of the economic and social effects of a project, physical changes to the environment caused by a project's economic and social effects must be analyzed if those effects are potentially significant.⁶ Economic effects resulting from a project may be found to cause a significant physical impact that must be analyzed in the EIR.⁷

Response 26.4: As noted by the commenter, §15124(c) of the CEQA Guidelines requires the inclusion of a general description of economic characteristics in the Project Area *considering the principal engineering proposals, if any, and supporting public facilities*. Section 15124 also states that “[t]he description of the project shall contain [such] information but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact.” It is not necessary to provide an exhaustive analysis of the current state and County economic situation. Further, the commenter has not provided specific information about likely physical changes that would result from economic effects of the project. The Project Description set forth in Chapter 2 of the EIR explains principal engineering proposals and supporting public facilities (this information is also supplemented by Chapter 3.14 of the DEIR). Chapter 2 also explains that the development proposed by the Project will encourage redevelopment in the Project Area, and that the Specific Plan development includes commercial uses within the Friant Redevelopment Plan Area that will generate additional revenues for redevelopment in the area (DEIR, page 2-8). Redevelopment is further described on page 2-12 of the DEIR. The inclusion

of an Economic Development Element in the Friant Community Plan is described on page 2-15. There is no evidence to suggest that the Project will cause economic effects that lead to physical changes resulting in environmental impacts.

Comment 26.5: *Here, physical changes to the environment, in the form of reduced public services as well as related impacts on facilities and equipment, caused by the Project's economic effects on the physical environment could be potentially significant given the State, County and District fiscal condition. California's cities, counties and special districts face a combined loss of \$2 billion in property tax revenue to the state this year alone. In July of this year, Governor Arnold Schwarzenegger again declared a State fiscal emergency and, with support from two thirds of the Legislature, suspended Proposition 1A ("Prop 1A") permitting the State to borrow eight percent of property taxes that otherwise would have gone to local government, including the County, the District and other local government entities which provide fire services adjacent to the Project.*

Response 26.5: The applicant understands the commenters concerns regarding the provision of public services, and the burden that a decrease in funding has placed on these services, including fire protection and law enforcement. The proposed project will be consistent with County of Fresno General Plan goals and policies, including *Policy PF-H.1: "Prior to the approval of development projects, the County shall determine the need for fire protection services. New development in unincorporated areas of the County shall not be approved unless adequate fire protection facilities are provided."* As is noted in Chapter Three of the DEIR, page 3-265, "The Draft Friant Ranch Specific Plan states that the Plan will be reviewed to ensure that the development design or fair share costs will adequately fund any additional facility or personnel needed to maintain the fire emergency response time and ISO ratings established in the Fresno County General Plan. Mitigation measure 3.7.6a ensures that the Project will be consistent with General Plan Policy PF-H.1 and PF-H.2 by requiring formation of a CFD to fund additional fire protection personnel and equipment for CDF."

Comment 26.6: *Official notice can be taken that the general fund of cities and counties across the State has been severely impacted by the loss of tax revenue over the past few years due to the decline in real estate values and the resulting reduction in the share of one percent of property tax, including the County's property tax. This reduction directly impacts the level of local government services.*

Response 26.6: Comment noted. No response warranted.

Comment 26.7: *The DEIR's Project description addresses physical changes to the environment that may be caused by Project's economic effects to aid public review; the creation of a CFD and the extension of the Friant Redevelopment Plan by twenty (20) years in order to maximize potential redevelopment funds. Although CEQA generally does not require an analysis of the economic and social effects of a project, physical changes to the environment caused by a project's economic and social effects must be analyzed if those effects are potentially significant.⁸ Economic effects resulting from a project may be found to cause a significant physical impact that must be analyzed in the EIR.⁹*

Response 26.7: Comment noted. This comment generally summarizes CEQA law regarding the duty to consider significant physical effects to the environment caused by social or economic impacts from the project. (See CEQA §15064.)

Comment 26.8: *An accurate project description is imperative for an intelligent evaluation of the potential environmental effects of a proposed activity.¹⁰ Accordingly, the Project's DEIR description needs to be supplemented to comply with the CEQA requirement that a project description be accurate for an informative and legally sufficient DEIR. Without a project description that includes the County's fiscal condition on which to base the EIR's analysis, CEQA's objectives of public disclosure and informed environmental decision-making are thwarted.*

Response 26.8: The project description set forth in Chapter 2 of the DEIR, and supplemented in the specific impact discussions within Chapter 3 as appropriate, adheres to the CEQA Guidelines section 15124 requirements for a project description. CEQA does not require analysis of the County's fiscal condition within the project description. Rather, CEQA requires that an EIR accurately identify: the public services for the Project at the time the EIR notice of preparation issues; the County's public services planning goals that must be met for the Project, if doing so is feasible; and how the Project will meet those goals. Chapter 3 of the DEIR provides a thorough discussion and resolution of all such matters. See also Response 26.4.

Comment 26.9:

IV. ENVIRONMENTAL SETTING

An EIR must describe the environmental setting for a proposed project to establish the baseline that a lead agency can use to determine whether project impacts are significant.¹¹ Establishment of the baseline is critical to a meaningful assessment of the environmental impacts of a project because the significance of environmental impacts cannot be determined without setting this baseline.¹² The EIR must describe the "physical environmental conditions in the vicinity of the project" as they exist when the notice of preparation ("NOP") for the EIR is published. This description of physical environmental conditions must include both a local and regional perspective.¹³

The DEIR describes the Project's environmental setting¹⁴ because it identifies the public service improvements that currently provide public services to property that will be developed. For example, the DEIR identifies CalFire as the current public agency that provides fire protection for the Project property to be developed and states that there is currently one fire station that serves the area.¹⁵ The DEIR also identifies the Fresno County Sheriff's Department as the law enforcement agency that currently provides services to the property to be used for the Project.¹⁶ Stated another way, the DEIR provides an, adequate environmental setting to adequately address the impacts that the Project will have on District's public improvements, and other agencies' public improvements and, thus, impact on the physical environment.

The DEIR's identification of the public improvements that currently serve the Project property provides an adequate description of the environmental setting, and thus sets an adequate

baseline. However, to provide a truly meaningful assessment of the environmental impacts of the Project's economic effects, the DEIR's environmental setting may need to be revised to incorporate the current fiscal situation in the area.

Response 26.9: CEQA Guidelines section 15125(a) requires the EIR to describe the environmental setting as it exists around the time of the notice of preparation. Regarding the public services that are the focus of this comment, the most direct manner of describing the setting is to discuss what services are provided and to what standards. Chapter 3 of the DEIR describes the environmental setting with a thorough discussion of the various public services. The standards for such services, as set forth in various County planning documents, are described therein and an analysis is provided to determine how those standards will be maintained with the Project.

The comment acknowledges that the DEIR identifies the existing public services as part of the environmental setting, but then suggests that the DEIR should provide further analysis of the “current fiscal situation in the area.” The comment does not provide any specific evidence, however, regarding what the “current fiscal situation in the area” or how that information is relevant to physical changes that would result in a significant environmental impact. An additional discussion of County fiscal issues and how they may impact the environmental setting at some point in the future would be based on pure speculation and is in conflict with the CEQA Guidelines section 15125(a) mandate to describe the current environmental setting as a baseline – not some future condition.

See Responses 26.2 and 26.4.

Comment 26.10:

V. DESCRIPTION OF IMPACTS ON THE ENVIRONMENT

The adequacy of an EIR's project description is closely linked to the adequacy of the EIR's analysis of the Project's environmental impacts. An EIR must contain a project description that is sufficient to allow an adequate evaluation of the project's environmental impacts.¹⁷ Given that the Project description fails to include a description of the State, County, and District's economic condition in light of the suspension of Prop 1A, the Project description may be insufficient to determine whether there will be significant physical changes to the environment caused by the Project's economic effects. The impact analysis for the Project states that development will increase the demand for fire protection services which will result in the need for the CDF to adequately support additional personnel and facilities.¹⁸ However, because the project description does not discuss the ongoing fiscal crisis, and the CDF is to be maintained by a special tax assessment on the developed property, the DEIR may underestimate the impacts, resulting from the additional demand, to the District's fire protection services for the property that is proposed to be developed.

Response 26.10: A thorough discussion of the existing funding sources for the Fresno County Fire Protection District (District) and the new fees necessary to fund services to support the population growth associated with the project are found in two studies prepared for the District. The first study, entitled the “*Fresno County Fire Protection District Fiscal Impact Analysis*,”

dated January 14, 2009, analyzes the fiscal impact of new development on the District's services. The second study, entitled, "*Fresno County Fire Protection District Fire Facilities Impact Fee Study*," dated January 14, 2010, establishes the rationale for a fee to fund capital facilities necessary to meet the demands of new development on the District's services. Copies of these studies are available at the Fresno County Planning Department for review.

The funding mechanism for fire protection services is described in Chapter 3 of the DEIR as a community facilities district (CFD) to fund fire protection services for the Project. The studies referenced above provide the basis for establishing fees to fund the services of the District in the Project Area. As such, the studies necessary to establish appropriate fees to pay for fire protection services within the Project Area and the funding mechanism to impose the fees have been taken into account and are available for review.

See also Response 26.9 regarding request for additional discussion of "ongoing fiscal crisis."

Comment 26.11: *Additionally, the description of the environmental setting effects the impact analysis and can render it legally inadequate.¹⁹ The DEIR does not identify the status of funding for the public improvements that currently serve the Project property which is part of the environmental setting for the Project. Accordingly, the DEIR fails to establish a baseline that may be necessary for a meaningful assessment of the environmental impacts the Project will have on the District, and other public service agencies, that currently serve the Project property.*

Because the District is proposed to be the sole provider of fire services to the Project area, the County, as the Lead agency, is required by law to perform an adequate environmental review which takes into account, describes and analyzes the impacts that the proposed will have on the District's fire protection services for the property that is proposed to be detached from the District and impact on fire protection services in the remaining portions of the District.²⁰ Accordingly, the County should be mindful that the DEIR may need to be revised to incorporate such an analysis.

Response 26.11: Public funding for the District is described in detail in the District's January 14, 2009 Fiscal Impact Study referenced in Response 26.10 above. The study explains that the District is funded by property tax revenue, and that the District receives between 6.488% and 8.363% of the property tax revenues collected in its jurisdiction. The study also explains that these revenues may decline, if the legislature chooses to address shortfalls in education budgets through property tax reallocations to the Education Revenue Augmentation Fund. Fees adopted through the CFD discussed in Response 26.10 above would be available to offset declines in property tax revenues.

Comment 26.12:

VI. PROJECT ALTERNATIVES

The DEIR describes a range of Project alternatives which may not be sufficient or "feasible."²¹ An EIR must describe a reasonable range of alternatives to the proposed project, or its location, that would feasibly accomplish most of the project's basic objectives while reducing or avoiding

any of its significant effects. An EIR must contain sufficient information about each alternative to permit an evaluation of the relative merits of the alternatives and the project.²² The analysis must contain concrete information about each alternative sufficient to allow a fact-based comparison of the alternatives with the project.²³ An EIR's analysis of alternatives must be specific enough to allow informed decision making and public participation.²⁴ Generally, courts review potential alternatives to determine whether they: 1) can substantially reduce significant environmental impacts; 2) can attain most of the basis project objectives; 3) are potentially feasible and 4) are reasonable and realistic.²⁵

Economic viability is a factor that may be considered when assessing the feasibility of alternatives. In *Citizens of Golera Valley v. Board of Supervisors*, the court noted the agency's conclusion that an alternative site was infeasible was supported by an economic analysis that showed that the site could not support a version of the project large enough to be economically viable.²⁶ Again, the reference to economic viability in the CEQA Guidelines relating to alternatives underscores the general principal that economic considerations are an important component of determining feasibility of alternatives under CEQA.

Response 26.12: There is no evidence to suggest that Project alternatives are not feasible. In fact, the Project applicant supports the adoption of the Environmentally Superior Alternatives, the Alternative 3 development configuration and the alternative wastewater treatment plant location, as feasible and viable alternatives.

Comment 26.13: The DEIR describes a reasonable range of alternatives because, as discussed above, it provides an adequate project description, environmental setting, and adequate description of the impacts on the environment. However, all of the project alternatives would have less of an impact on public services than the proposed project. Thus, the DEIR may need to provide more information about each alternative to allow evaluation, analysis, and comparison with the project.²⁷ For example, in considering the economic feasibility of each alternative, the DEIR does not go into detail. The DEIR does not provide an economic analysis for each of the project alternatives to adequately assess the potential impacts the Project's economic effects will have on the physical environment. Such an economic analysis may help to determine the feasibility of each project alternative, and aid informed decision making and public participation. Nevertheless, the DEIR's project description adequately describes the Project by addressing potential impacts to the District's fire protection service for the property, informing the public whether the Project can be located at another County location to avoid or reduce negative effects on these public services.

Response 26.13: See Responses 26.10 and 26.12.

Comment 26.14:

VII. MITIGATION MEASURES

A fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental impacts can be mitigated or avoided.²⁸ Accordingly, an EIR must describe

feasible mitigation measures that can minimize the project's significant environmental effects.²⁹ Mitigation measures should be feasible, practical and effective.³⁰

Response 26.14: Comment noted. No response warranted.

Comment 26.15: *The DEIR proposes the formation of a CFD as mitigation for the increased demand on public services, including the fire protection services provided by the District. The DEIR states that there are plans for a second fire station and that the formation of a CFD, created by an initial per-unit capital contribution and sustained by special tax assessments on the Project property will reduce the impact on public services.³¹ Nevertheless, the DEIR fails to take into account the current fiscal crisis and the suspension of Prop 1A and the impact on local government providing Public Safety services. Thus, even the CFD may not necessarily provide a reliable source of funding for staffing and facilities for Public Services, including fire, for the Project.*

Response 26.15: See Responses 26.2, 26.4, and 26.10.

Comment 26.16:

VIII. CONCLUSION

Given that the DEIR addresses CEQA's directives concerning project description, environmental setting, description of impacts on the environment, project alternatives, and mitigation measures, the District believes that the DEIR complies with CEQA. However, to ensure that the DEIR provides adequate funding for the increased demand on fire protection services as a result of the Project, the District urges the County that additional analysis of the current fiscal crisis may be needed to ensure the long term success of the operation and maintenance of the CFD.

Response 26.16: Comment noted. The County appreciates the comments from the representative of the Fresno County Fire Protection District.

Comment 26.17: *Consistent with Public Resources Section 21177, the District reserves the right to comment further upon the environmental review of the Project.*

Response 26.17: Comment noted. No response warranted.

Comment Letter #27

Friant Ranch L.P.
1322 East Shaw Avenue, Suite 340
Fresno, CA 93710

Comment 27.1: *As the Friant Ranch Specific Plan applicant, Friant Ranch, L.P. (Friant Ranch) appreciates the time and effort that Fresno County staff and the consultants have put into the Draft Environmental Impact Report (Draft EIR) for the Friant Community Plan Update and*

Friant Ranch Specific Plan (Project). We respectfully request your consideration of the following comments pertaining to the proposed mitigation addressing biological and traffic impacts.

The Draft EIR provides a comprehensive and detailed analysis of the Project impacts and proposes extensive mitigation to minimize, to the extent feasible, the effects of the Project on the environment. Friant Ranch understands the need for appropriate mitigation and, despite the associated costs, generally embraces the proposed mitigation.¹ However, with respect to certain biological and traffic impacts, the Draft EIR simply goes beyond the bounds of reasonableness. Consistent the California Environmental Quality Act Public Resources Code sections 21000 et seq. (CEQA) and the United States Constitution, Friant Ranch urges the County to reconsider the following mitigation measures:

- *MM 3.13-5a: North Fork Road/Road 206 intersection*
- *MM 3.13-5o: Road 206 segment in Fresno County*
- *MM 3.13.4b: Road 206 segment in Madera County [Road 206 bridge replacement]*
- *MM 3.4.1b(l): Hartweg's golden sunburst*
- *MM 3.4.1c(3): Vernal pool fairy shrimp (buffers)*
- *MM 3.4.1c(4a): Vernal pool fairy shrimp (stormwater runoff)*
- *MM 3.4.1d(l): California tiger salamander*
- *MM 3.4.1g(2): Burrowing owl (pre-construction surveys)*
- *MM 3.4.1g(4): Burrowing owl (endowment)*
- *MM 3.4.1g(6): Burrowing owl (weekly monitoring)*
- *MM 3.4.1h: American badger*
- *MM 3.4.1i(1-2): Nesting raptors (pre-construction surveys)*
- *MM 3.4.1i(2): Nesting raptors (buffers)*
- *MM 3.4.9a(1): Spiny sepaled button celery (Community Plan area surveys)*
- *MM 3.4.9a(2): Spiny sepaled button celery (Community Plan area avoidance)*
- *MM 3.4.9b(1): Vernal pool fairy shrimp (Community Plan area)*
- *MM 3.4.9h(2): Burrowing owl (Community Plan area offsite surveys)*
- *MM 3.4.9h(4): Burrowing owl (Community Plan area endowment)*
- *MM 3.4.9h(6): Burrowing owl (Community Plan area weekly monitoring)*
- *MM 3.4.9h(l): Nesting raptors (Community Plan area surveys)*
- *MM 3.4.9h(2): Nesting raptors (Community Plan area buffers)*
- *MM 3.4.9k: American badger (Community Plan area)*

As demonstrated herein and within the attached correspondence from David Hartesveldt, a qualified biologist at Live Oak Associates (hereinafter "Exhibit A", incorporated herein by reference) the above-referenced mitigation measures (MM) are not necessary, feasible², practical, roughly proportional to the identified Project impact, or effective. As such, the County should modify or eliminate the above-referenced measures.

Response 27.1: Comment noted. No response is warranted.

Comment 27.2: Mitigation of Traffic Impacts

The Draft EIR requires the applicant to pay an unquantified fair share mitigation fee for certain improvements to the intersection of Friant Road and Road 206 and the Road 206 segment west of Friant Road. (See MM 3.13-5a, 3.13.5o, and 3.13-4b.) The Road 206 segment west of Friant Road includes an existing 2-lane bridge crossing the San Joaquin River. The midline of the San Joaquin River serves as the county line between Madera County and Fresno County in this area. As such, the Draft EIR includes mitigation for the Road 206 segment within Madera County (MM 3.13-4b) and within Fresno County (MM 3.13.5o.) The Road 206 segment that falls within Fresno County (including the eastern half of the bridge) extends approximately 825 feet from the bridge to Friant Road. Thus, the proposed improvement to widen the river crossing to four lanes is directly connected to the proposed configuration of the short Road 206 segment within Fresno County and its intersection with Friant Road. Thus, we address MM 3.13-5a, 3.13-5o, and 3.13-4b collectively below.

The Draft EIR and Traffic Impact Study are unclear as to the scope of proposed mitigation for the segment of Road 206 west of Friant Road. (Mitigation Measures 3.13.5o and 3.13-4b.) While the Draft EIR makes no mention of the existing bridge crossing the San Joaquin River along Road 206 west of Friant Road, the Traffic Impact Study suggests that Friant Ranch must pay a fair share fee to fund widening this segment to four lanes, "including widening the bridge across the San Joaquin River." (Draft EIR, Appendix D at pages 113, 129.) In other portions of the Traffic Impact Study, however, "a lane drop in advance of the existing bridge" was contemplated in lieu of a bridge widening. (Draft EIR, Appendix D, pages 73, 86.) Friant Ranch urges the County to clarify that the Road 206 bridge widening is not included in the scope of mitigation required for the segment of Road 206 west of Friant Road.

Response 27.2: Mitigation Measure #3.13-5o requires that the Project contribute a fair share of widening Road 206 west of Friant Road. Payment of the Madera County road impact fee as described above will accomplish the required fair share contribution for widening of Road 206 in Madera County (per Mitigation Measure #3.13.4b), including half the cost of widening the bridge. The Project shall also be responsible for paying a fair share of the required widening of Road 206 between the bridge and Friant Road and a fair share of the half of the bridge not covered by the Madera County road impact fee.

Comment 27.3: *Though the Traffic Impact Study casually calls for "widening" of the Road 206 bridge to four lanes, a complete realignment and replacement of the existing bridge and adjacent roadway segment within Fresno County would be necessary to provide a four-lane San Joaquin River crossing along the Road 206 segment west of Friant Road. Moreover, it is our understanding that current engineering and flood control requirements would require constructing the replacement bridge at an elevation considerably higher than the existing bridge (e.g., an increase of approximately 30 feet). The realignment and raised elevation of the bridge would necessitate considerable changes to the entire alignment and elevation of the Road 206 segment within Fresno County, immediately east of the future crossing.*

Since the Road 206 bridge falls within both Fresno and Madera Counties, the proposed bridge improvements would require the approval and involvement of both counties. As explained in the

Traffic Impact Study, Fresno and Madera Counties have identified the need for improvements to the regional transportation network to facilitate improved and additional San Joaquin River crossings, and commissioned the San Joaquin River Transportation Study prepared by URS Corporation (River Crossing Study) to analyze the feasibility of various alternatives, including replacing the Road 206 bridge. (Draft EIR, Appendix D, p.24.) As demonstrated by the River Crossing Study, the necessary improvements to the Road 206 river crossing will require inter-agency planning, regional funding, and extensive engineering to design a feasible plan to improve this Road 206 segment and intersection with Friant Road. Though the information provided in the River Crossing Study is a good start, there is no evidence currently available to suggest that Fresno and Madera County will have the plans and funding in place to construct the proposed improvements in the reasonably foreseeable future, if at all. (Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors (Napa Citizens) (2001) 91 Cal.App.4th 342, 364 [mitigation measures that cannot be accomplished within a reasonable period of time are infeasible].)

Response 27.3: The Project will be required to pay a fair share mitigation of the Project's significant impact. The impact will remain significant until the improvements are constructed.

Comment 27.4: *The River Crossing Study suggests that it would take \$399 million to make the necessary improvements to the Road 206 San Joaquin River crossing, the intersection of Road 206 and Friant Road, and the adjacent segment of Road 206 within Fresno County. Though the \$399 million estimate likely analyzes more extensive improvements than what is specifically identified by the Draft EIR, the \$399 million estimate is the only information currently available that provides any idea of what it would take to make the necessary improvements to this Road 206 river crossing and adjacent road segment and intersection.*

The Draft EIR estimates that Friant Ranch Specific Plan and Depot Parcel development will contribute approximately 17% of the year 2030 cumulative condition on the Road 206 segment west of Friant Road and its intersection with Friant Road. Given the regional context of this roadway and the limited number of vehicle trips on this segment of Road 206 resulting from the Friant Ranch Specific Plan and Depot Parcel development, this percentage is 17% and that the \$399 million estimate is a fair indication of what it might take to improve the intersection, Fresno County segment of Road 206, and the San Joaquin River crossing at Road 206, the Friant Ranch Specific Plan and Depot Parcel mitigation requirement would be \$67.83 million dollars or roughly \$22,640 per unit. This is an incredible financial burden to impose on one project and completely out of proportion of the Project's share of the traffic delays expected at this location under the anticipated year 2030 cumulative condition. (CEQA Guidelines, § 15126.4, subsections (a)(4)(B) and (a)(5) [mitigation measures are legally infeasible if they are not reasonably related to the adverse impacts created by the project].) Moreover, given that there are no inter-County agreements or funding programs currently in place (or even pending) to effectuate the proposed improvements, the likelihood that the applicant's fair share fees would result in any actual mitigation of the traffic delays in the reasonably foreseeable future is completely speculative and highly unlikely. (Napa Citizens, 91 Cal.App.4th at 364 [mitigation measure that cannot be accomplished within a reasonable period of time are infeasible].)

Response 27.4: The estimated cost of the required bridge project is \$12 million. The estimated \$399 million cost presented in the San Joaquin River Crossing study includes many other improvements and is not the basis of the fair share mitigation required for the Friant Ranch project.

Comment 27.5: *Further, the Draft EIR fails to acknowledge the following significant physical, practical and economic constraints to the proposed improvements to the Friant Road and Road 206 intersection (MM 3.13-5a):*

- *Significant physical constraints affect the ability to carry out MM3.13-5a's proposed widening to create a second north bound left-turn. The County recently widened the southbound lanes of this portion of Friant Road. As a result, approximately 200 feet south of the intersection the southbound lanes have an edge of pavement within 10 feet of existing buildings (i.e., a hotel) with in the vicinity of the southwest corner of the proposed intersection. At the northeast corner of the proposed intersection there is an existing gas station and commercial area with two access points to Friant (Millerton) Road and one to Reclamation Ave (Road 206). The proposed second northbound left-turn lane would extend along this commercial frontage and would inevitably occupy space currently used by the existing land uses. Even assuming the County condemned these areas or otherwise obtained rights to construct a roadway on the private property on either side of the proposed intersection, due to the vertical elevation differences of the current road and the adjacent land currently occupied by the gas station/commercial area, the proposed intersection configuration could only be constructed with the incorporation of costly retaining walls and the closure of one of the access points for the existing gas station/commercial area. Reduction of an access point at the existing gas station/commercial area would pose safety and access concerns.*

Response 27.5: There have been no specific engineering or design documents prepared regarding any proposed improvements to the Friant Road/Road 206 intersection. As such, the proposed improvements cannot be deemed infeasible at this time. If proposed improvements are found to be infeasible during design as a result of unforeseen conditions, the impact will be significant and unavoidable.

Comment 27.6:

- *The proposed southbound improvements would require an addition of approximately 24 feet of pavement adjacent to a recently constructed public park and ride facility at the northwest corner of the intersection. This would require additional right-of-way take and potentially impact existing landscaping, established rock monuments, and the size and number of cars that can be parked in the lot.*

Response 27.6: See Response 27.5.

Comment 27.7:

- *The proposed eastbound improvements would require an addition of approximately 24 to 30 feet of pavement which will impact either or both the park and ride parking lot facility at the northwest corner of the intersection and vacant parcels at the southwest corner of the intersection. The park and ride lot could also be impacted by right-of-way take and could result in reduced functionality of the parking lot as intended. Additional right-of-way take to vacant lots on the southwest corner could impose an unreasonable restriction to the respective landowners' ability to build on their property within the reduced lot area.*

Response 27.7: See Response 27.5.

Comment 27.8:

- *The proposed westbound improvements (2 lanes total) are mainly impacted by the disproportionate number of lanes required eastbound (5 lanes total) because generally accepted traffic safety standards require the east- and west-bound through lanes to be aligned, which will require additional pavement width and transitions not otherwise required to accommodate anticipated westbound traffic. As such, the westbound improvements would unreasonably restrict land uses either at the gas station and commercial area at the northeast corner or the vacant property at the southwest corner.*

Response 27.8: See Response 27.5.

Comment 27.9:

- *As suggested above, the intersection of Friant Road and Road 206 would have to be planned in such a way so as to accommodate the proposed replacement and realignment of the Road 206 bridge. The precise engineering of any scull replacement and realignment remains unknown and highly speculative. However, since Friant Road is within 800 feet of the existing bridge, the configuration, alignment, and elevation of the east and west bound lanes would have to coincide with the location and elevation of the Road 206 bridge. As suggested by the \$399 million estimate set forth in the River Crossing Study, the costs of completely altering the existing intersection far exceed the normal costs of adding signals and additional turning lanes to an existing intersection.*

Response 27.9: See Response 27.5.

Comment 27.10: *In sum, the fair share requirement imposed on the Project for improvements to the intersection of Friant Road and Road 206, the Road 206 segment west of Friant Road within Fresno County, and the Road 206 bridge (MM 3.13-5a, 3.13-5o, and 3.13-4b) are completely infeasible, impractical and out of proportion with the Friant Ranch Specific Plan and Depot Parcel's contribution to the anticipated cumulative traffic delays and inadequate levels of service. Moreover, there is no evidence to suggest that the applicant's payment of a fair share mitigation fee for the identified improvements to this portion of the regional transportation*

network would be effective in mitigating the identified impacts in the reasonably foreseeable future. As such, these mitigation measures must be eliminated.

Response 27.10: See Response 27.5.

Comment 27.11: *Mitigation of Biological Impacts*

The Draft EIR provides extensive and comprehensive mitigation and alternatives analysis to ensure that the Project does not result in a significant impact to biological resources. Friant Ranch understands the need to impose reasonable, feasible mitigation measures as necessary to minimize significant impacts to biological resources. However, in several instances the Draft EIR proposes mitigation measures that simply are not practical, reasonable, appropriate or necessary. (See Exhibit A [Live Oak Associates correspondence described above and incorporated herein by reference].)

Substantial evidence in the record demonstrates that the biological studies conducted by Live Oak Associates in conjunction with the preparation of the Draft EIR (Draft EIR, Appendix E) were exhaustive and conclusive. As explained in the attached Exhibit A, mitigation measures 3.4.1b(1), 3.4.1c(3), 3.4.1c(4a), 3.4.1d(1), 3.4.1g(2), 3.4.1g(4), 3.4.1g(6), 3.4.1h, 3.4.1i(1), 3.4.1i(2), 3.4.9a(1), 3.4.9a(2), 3.4.9b(1), 3.4.9h(2), 3.4.9h(4), 3.4.9h(6), 3.4.9i(1), 3.4.9i(2), 3.4.9k do not provide meaningful additional mitigation beyond the extensive mitigation otherwise required in the Draft EIR, which is sufficient to reduce biological impacts to a less than significant level. (CEQA Guidelines, §15126(a)(4)(B) and (a)(5) [mitigation measures are legally infeasible if they are not reasonably related to the adverse impacts created by the project]; San Franciscans for Reasonable Growth v. City & County of San Francisco (1989) 209 Cal.App.3d 1502, 1519 [lead agencies "need not, under CEQA, adopt every nickel and dime mitigation scheme brought to its attention or proposed in the project EIR"].) As such, these measures modified or eliminated consistent with the recommendations in the attached Exhibit A.

Response 27.11: The recommendations made in Exhibit A are addressed in Responses 27.12 through 27.24 below.

Comment 27.12: *Comment 1: Hartweg's Golden Sunburst Impact and Mitigation Discussion (Mitigation Measure 3.4.1b[1])*

The DEIR requires pre-construction surveys of the proposed development area for Hartweg's golden sunburst populations not already documented.

LOA conducted extensive surveys for Hartweg's golden sunburst within the Specific Plan Area (SPA) during the spring of 2006, which followed a wet winter (rainfall was approx. 150% of average). Conditions were optimal for viewing this species. It is unlikely that conditions would be better in future years, and in fact conditions would likely be worse. Pre-construction surveys as prescribed by the DEIR would be unlikely to identify previously undocumented populations of this species. Because surveys for Hartweg's golden sunburst were thorough and conducted in an optimal year for observing it, and because all populations of this species were mapped using

GPS technology having sub-meter accuracy, additional surveys would not be warranted. This mitigation measure should be dropped.

Response 27.12: It is recognized that the on-site studies provided by LOA are extensive and have likely documented all populations of Hartweg's golden sunburst that occur on the Specific Plan Area. Mitigation Measure#3.4.1b of the DEIR (pages 3-103 and 3-104) protecting Hartweg's golden sunburst has been amended as follows:

Mitigation Measure #3.4.1b: The following measures will be implemented to reduce the level of impacts to Hartweg's golden sunburst to a level that is less than significant.

- ~~1. In the spring preceding project construction, pre-construction surveys for this species will be conducted to locate any populations not already documented. These surveys will be conducted during the flowering period of this plant (March to May).~~
21. Prior to the issuance of a grading permit that would result in activities affecting the Hartweg's golden sunburst populations, the on-site open space which contains the species will be protected in perpetuity through a conservation easement to be held by a non-profit land trust.
32. The designated open space will be managed to preserve in perpetuity the populations of Hartweg's golden sunburst. Prior to issuance of a grading permit that would result in activities affecting the Hartweg's golden sunburst, a Land Management Plan will be prepared (see mitigation measure #3.4-1a2) that will include the protection of the golden sunburst population from human foot traffic and off road vehicles by restricting access to open space through fencing and signage.
43. Prior to issuance of an occupancy permit, an informational brochure will be prepared that educates Friant Ranch Community members about the sensitivity of this species to human trampling, discouraging trespass into conserved open space.
54. Where avoidance is not possible, the project applicant will have a qualified biologist develop a Restoration Plan to salvage populations of Hartweg's golden sunburst located in proposed development areas that would be destroyed during construction activities. A draft of this plan will be submitted to the California Department of Fish and Game and the U.S. Fish and Wildlife Service for review, comment, and approval. The plan will be finalized and implemented by the project applicant prior to issuance of a grading permit for the areas inhabited by Hartweg's golden sunburst. Elements of the Restoration Plan shall include the collection of mature seed prior to natural dispersal (late April or early May), the storage of the seed in a cool dry location until the fall, and the dispersal of the seed onto proposed open space

areas of the Site where suitable Rocklin soils are known to be present. The selected planting areas would be mapped using GIS, fenced to reduce grazing pressure, and monitored after planting for a minimum of four years during a 7 year monitoring period. An annual monitoring report will be prepared and submitted to CDFG and the USFWS. The salvage and relocation of this species will be considered successful when a self-sustaining population of Hartweg's golden sunburst has been established on approximately 0.06 acres of the designated open space (representing a 3:1 ratio).

65. The Restoration Plan described in number 5 above shall include alternatives or contingencies for ensuring that appropriate compensation for the loss of Hartweg's golden sunburst is met (at a ratio of 3:1) should the initial relocation of the Hartweg's golden sunburst populations not meet established success criteria. These alternatives shall be approved by the CDFG and USFWS.

Comment 27.13: *Comment 2. Vernal Pool Fairy Shrimp Impact and Mitigation Discussion (Mitigation Measure 3.4.1c[3 and 4a]) Mitigation Measure 3 of the DEIR requires that "designated open space proposed for the project site will provide buffers of 100 to 450 feet between developed areas of the project site and vernal pools." As noted in the Biological Evaluation (BE) prepared by LOA attached as Appendix E to the DEIR, the minimum buffer distance is to be 75 feet, not 100 feet. This buffer will acceptable for several reasons. These are:*

- *Robust vernal pool fairy shrimp populations have been found in vernal pools located immediately abutting busy roads (including Hwy. 41 in Madera County) and leveled land used for citrus production (Rio Mesa Planning Area). Vernal pool fairy shrimp populations have also been found in dry-fanned fields that are repeatedly disturbed by discing, planting, and harvesting. Proximity to development does not appear to adversely affect vernal pool fairy shrimp populations. Therefore, a disturbance-free buffer will be more an adequate to protect any vernal pool fairy shrimp that may occur in pools located 75 or more feet from the development boundary.*
- *The project/open space boundaries will be fenced and signed to keep people and off-road vehicles out of the open space. The concern about human and off-road vehicle encroachment into the open space is somewhat misplaced, since cows and ranch vehicles encroach on the vernal pools of the site under existing conditions, and vernal pool fairy shrimp populations are not only present on the site, but appear to be robust.*
- *It is not material whether vernal pools of the open space area are 75 feet or 100 feet from the open space/development boundary, since mitigation measures 4a through e stipulate that the project not substantially change the hydrology or water quality of pools of the site.*

Response 27.13: It is agreed that a setback of 75 feet from vernal pools will adequately protect vernal pool fairy shrimp. Mitigation Measure #3.4.1c(3) of the DEIR (page 3-105) is amended as follows:

Mitigation Measure #3.4.1c: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are less than significant.

...

3. The designated open space proposed for the project site will provide buffers of ~~100 to 450 feet~~ 75 feet or greater between developed areas of the project site and vernal pools, to reduce encroachment into pools by foot and off-road vehicle traffic.

Comment 27.14: *Mitigation Measure 4a of the DEIR requires that "Design plans to ensure that winter stormwater runoff into open space areas of the project site will mimic to the maximum extent possible pre-project conditions." This language should be modified to read "to the maximum extent feasible," as set forth and justified in the BE.*

Response 27.14: Mitigation Measure #3.4.1c(4)(a) of the DEIR (page 3-105) is amended as follows:

Mitigation Measure #3.4.1c: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are less than significant.

...

4. Prior to issuance of a grading permit for the project site, a Drainage Plan will be prepared for the undisturbed open space of the site. Elements of this plan will include:
 - a. Design plans to ensure that winter stormwater runoff into open space areas of the project site will mimic to the maximum extent feasible ~~possible~~ pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved vernal pools will be roughly equivalent to pre-project conditions.

Comment 27.15: *Comment 3. California Tiger Salamander Impact and Mitigation Discussion (Mitigation Measure 3.4.1d [1]) Mitigation Measure 1 of the DEIR states that "Open space areas and vernal pool complexes of the completed project, totaling 27.4 acres, shall be linked to one another to facilitate the movements of CTS from one preserved habitat area to another," The preferred language would be "Open space areas with vernal pool complexes. ..."*

Response 27.15: The linkage of open spaces, regardless of the presence of vernal pools, is an important component for maintaining viable upland migration corridors for adult tiger salamanders. All of the project alternatives, including the selected alternative, provide adequate open space linkages or a contiguous block of open space by design, thus meeting the conditions of Mitigation Measure #3.41d(1).

Comment 27.16: *Comment 4: Burrowing Owl Impact and Mitigation Discussion (Mitigation Measure 3.4.1g [2, 4, and 6]) Mitigation Measure 2 of the DEIR stipulates that pre-construction surveys be conducted for ground-nesting raptors including burrowing owls on both on the SPA and in surrounding areas up to 1,000 feet of the SPA. Required mitigation would be the establishment of a maximum 500-foot buffer around any active nests observed within the SPA.*

The requirement to survey areas on adjoining properties up to 1,000 feet in distance from the SPA is not reasonable. This is so for the following reasons:

- The applicant's biologists may not have access to private lands adjoining the SPA. If so, it would be impossible for the applicant to fully comply with this requirement.*
- Most lands within 1,000 feet of the SPA are bordered by Friant Road (a four-lane expressway), residential development within the community of Friant, and the Friant-Kern Canal. Site construction would have very little impact on ally burrowing owls that might nest in such areas, due to their distance from construction areas and the barriers between them and construction areas.*
- The DEIR requires as mitigation for possible impacts to nesting burrowing owls within the SPA a 500-foot radius buffer. No buffer is required around burrowing owl nests outside of the SPA, let alone 1,000-foot buffer. If only active burrowing owl nests occurring on the SPA are to be provided buffers, why have a requirement to survey adjoining lands up to 1,000 feet from the SPA boundaries? If the DEIR preparer intended to say that a 500-foot radius buffer must be provided around all burrowing owl nests, whether within the SPA or on adjoining lands, then why require surveys on lands up to 1,000 feet of the SPA boundaries? The maximum distance of such surveys from the SPA boundaries should be 500 feet.*

LOA recommends that pre-construction burrowing owl surveys be confined to the project site.

Response 27.16: The standard avoidance distance for active burrowing owl dens are 250 feet during the breeding season and 160 feet during the non-breeding season (CDEFG's October 17, 1995 *Staff report on burrowing owl mitigation*). It is irrelevant whether the dens are on or off of the project site, avoidance by these distances are warranted. However, it is agreed that there is no logic in conducting surveys beyond areas where avoidance would be necessary. Mitigation Measure #3.4.1g(2) of the DEIR (page 3-110) is amended as follows:

Mitigation Measure #3.4.1g: The following measures will be implemented to ensure that impacts to the burrowing owl are ***less than significant***.

...

2. If burrowing owls are identified onsite or within the area of influence of the project site (within ~~1,000~~ 250 feet of the project site), during surveys required in mitigation measure 3.4.1g (1) above, an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the

required mitigation site will be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be $2 \times 6.5 = 13$ acres provided that no more than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the preconstruction survey, then the mitigation requirement shall be $3 \times 6.5 = 19.5$ acres). Two natural or artificial nest burrows will be provided on the mitigation site for each burrow in the project area that will be rendered biologically unstable.

In addition, Mitigation Measure #3.4.1g(5) of the DEIR (page 3-110 and 3-111) is amended as follows:

Mitigation Measure #3.4.1g: The following measures will be implemented to ensure that impacts to the burrowing owl are *less than significant*.

...

5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to be engaged in nesting behavior, a fenced ~~500~~ 250 foot buffer would be required between the nest site(s) (i.e., the active burrow(s)) and any earth-moving activity or other disturbance on the project site. This ~~500~~ 250 foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a 160 foot buffer area will be established. If construction activities require the removal of an active den, the occupying burrowing owls and must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity will be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring will be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as required in item 6 below.

Comment 27.17: *Mitigation Measure 4 of the DEIR requires that the project applicant provide the Grantee (entity holding the easement) an endowment to cover the management of the conservation easement within six months of breaking ground on the SPA. The applicant may*

need to explore a number of options with state and federal resource agencies and a non-profit land trust for funding on-site management activities during phased project construction over a number of years. This mitigation measure could just as effectively ensure funding of management activities within on and off-site open space preserves if it provided the applicant and non-profit land trust options for such funding, rather than specifically requiring the establishment of an endowment within six months of breaking ground.

Response 27.17: Actual requirements for the amount and timing of endowment funds will be dictated by the Biological Opinion prepared for the project. It is anticipated that funds would need to be in-place prior to the initiation of grading or perhaps even prior to the issuance of a grading permit. Alteration of Mitigation Measure #3.4.1g(4) is not warranted.

Comment 27.18: *Mitigation Measure 6 of the DEIR requires that the site be monitored weekly by a qualified biologist to identify any burrowing owls that may move into the construction area while construction is proceeding. This measure further requires that monthly monitoring reports be submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game. The purpose of the weekly monitoring is to reduce the likelihood that project construction will result in mortality of burrowing owls. The preparation of monthly monitoring reports makes sense, because such reports provide clear evidence that the applicant exercised diligence in avoiding owl mortality. This measure should nonetheless be revised to read that a qualified biologist will monitor the construction site weekly if that biologist has determined that suitable burrowing owl habitat in the form of ground squirrel burrows persists on the site or has been created by the storage of open pipes. If suitable burrowing owl habitat is absent from the construction site following initial mass grading, weekly monitoring surveys would not be warranted.*

Response 27.18: Comment noted. Mitigation Measure #3.4.1g(6) of the DEIR (page 3-111) is amended as follows:

Mitigation Measure #3.4.1g: The following measures will be implemented to ensure that impacts to the burrowing owl are ***less than significant***.

...

6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring will be conducted by a qualified biologist provided by the project applicant. Monitoring may be suspended or discontinued if, in the opinion of the qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading. Monthly reports of monitoring activities will be submitted by the biologist to the project applicant, the County of Fresno, and the California Department of Fish and Game. A final report of all monitoring application will be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.

Comment 27.19: *Comment 5: American Badger Impact and Mitigation Discussion (Mitigation Measure 3.4.1h (1 through 12))*

The DEIR concludes that mortality to badgers caused by construction activities would constitute a significant adverse impact. Mitigation Measures 1 through 12 required by the DEIR fall into three categories. These include the following:

- Pre-construction surveys for badger dens within the footprint of project construction;*
- Verification that likely dens are occupied, badger relocation, and construction of replacement dens in nearby open space;*
- Implementation of avoidance and minimization measures drafted for the San Joaquin kit fox.*

The DEIR treats the badger as if it were a federally or state listed threatened or endangered species. The badger is a furbearing mammal, which according to California Fish and Game Code may be trapped with no bag or possession limit from November 16 through the last day of February throughout the state. LOA recognizes that the badger is a California "species of special concern," but it is difficult to reconcile the provisions of California Fish and Game Code with the DEIR's conclusion that mortality of individual badgers incidental to project construction is a significant adverse impact.

LOA concluded in the BE that the loss of badger habitat constituted a significant adverse environmental effect. As set forth in the BE, anticipated habitat loss from the project would be fully mitigated by the establishment of four open space preserves totaling in excess of 1,300 acres (nearly a 2:1 ratio). These preserves would be managed to maximize habitat values for various sensitive species, including the American badger, and the trapping of badgers that is authorized in Fish and Game Code would not be permitted.

Response 27.19: The DEIR considered the impact of habitat loss and direct mortality to badger. As explained by commenter, the establishment of four open space preserves totaling in excess of 1,300 acres pursuant to Mitigation Measure #3.4.1d(3) (requiring a 2:1 ratio for preservation), which is required to address CTS impacts, will ensure that the impact of habitat loss for American badgers will be less than significant. However, the DEIR determined that mortalities to individual badgers caused by construction activities would be a significant impact. To ensure mitigation for such impact is reasonable and feasible, and yet still provides adequate avoidance and minimization measures for the protection of individual badgers, Mitigation Measure #3.4.1h of the DEIR (page 3-112) will be amended as follows:

Mitigation Measure #3.4.1h: The following measures shall be implemented to ensure that impacts to American badgers are ***less than significant***.

1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground

disturbing activities) are phased, then so shall the pre-construction surveys be phased.

2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy. All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. ~~Dens must be replaced at a ratio of 2 artificial den for each natural dens removed. Replacement dens may be constructed within grassland habitat on-site, within the open space, conservation area. Replacement dens shall consist of 6 inch diameter plastic corrugated sewer pipe cut to a 6 foot length. One end of the pipe shall be buried no deeper than 2 feet and no less than 1 foot below grade. The other end of the pipe shall remain above ground. Dirt shall be mounded above the pipe to a depth of at least 1 foot above grade, with the opening exposed. If a badger is found during construction on the site, a qualified biologist with the appropriate permits shall trap the badger and physically relocate it to the onsite undisturbed open space. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den.~~
3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s).
4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunset to sunrise) should be prohibited, ~~unless:~~
 - a. ~~The construction area is appropriately fenced to exclude American badgers. Appropriate fencing would consist of a 4 foot chain link fence or similar material (e.g., 2 inch mesh stock fence) buried at least 6 inches below grade.~~
 - b. ~~The area within any such fence should be inspected by a qualified biologist for badger dens, all dens must be removed, and the site determined to be uninhabited by American badgers prior to initiation of construction.~~
5. Off-road construction traffic outside of designated construction areas shall be prohibited.

6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor.
7. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.
- ~~7~~8. American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped.
- ~~8~~9. During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site.
- ~~9~~10. No firearms shall be allowed on the project site during construction activities.
- ~~10. A representative should be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure an American badger, or who finds a dead, injured or entrapped individual. The representative's name and telephone number should be provided to the CDFG.~~
- ~~11. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.~~
- ~~12. Any contractor, employee(s), or other personnel who inadvertently kills or injures an American badger should immediately report the incident to their~~

~~representative. This representative should contact the CDFG immediately in the case of a dead, injured or entrapped American badger. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.~~

Comment 27.20: *Comment 6. Nesting Raptor Impact and Mitigation Discussion (Mitigation Measure 3.4.li [1 and 2])*

The DEIR stipulates that pre-construction surveys be conducted for nesting raptors both on the SPA and in surrounding areas up to 1,000 feet of the site. Required mitigation would be the establishment of a maximum 300-foot buffer around any active nests observed on the project site.

As noted in the BE prepared by LOA, two cottonwood trees and several power poles provided limited nesting habitat for tree nesting raptors. Active nests were not observed during the time that LOA biologists were surveying the site for wetlands, rare plants, CTS, etc. These surveys were conducted during various seasons between the years 2003 and 2008. It would be helpful if the EIR noted that nesting habitat for tree-nesting raptors is extremely limited within the SPA and surveys should be limited to those areas where such habitat is present.

The requirement to survey areas on adjoining properties up to 1,000 feet in distance from the SPA is not reasonable. This is so for the following reasons:

- The applicant's biologists may not have access to private lands adjoining the SPA. If so, it would be impossible for the applicant to fully comply with this requirement.*
- Most lands within 1,000 feet of the SPA are bordered by Friant Road (a four-lane expressway), residential development within the community of Friant, and the Friant-Kern Canal. Site construction would have very little impact on any raptors that might nest in such areas, due to their distance from construction areas and the barriers between them and construction areas.*
- The DEIR requires as mitigation for possible impacts to nesting raptors within the SPA a 300-foot radius buffer. No buffer is required around raptor nests outside of the SPA, let alone a 1,000-foot buffer. If only active raptor nests occurring on the SPA are to be provided buffers, why have a requirement to survey adjoining lands up to 1,000 feet from the SPA boundaries? If the DEIR preparer intended to say that a 300-foot radius buffer must be provided around all raptor nests, whether within the SPA or on adjoining lands, then why require surveys on lands up to 1,000 feet of the SPA boundaries? The maximum distance of such surveys from the SPA boundaries should be 300 feet.*

LOA recommends that pre-construction raptor surveys be confined to the project site.

Response 27.20: *Potential impacts to raptor nests are not confined to nests occurring on the project site. To avoid and minimize impacts to raptor nests that occur in the proximity of the project site, surveys and avoidance areas must include areas off-site. It is however, reasonable and acceptable to conduct the necessary surveys from the confines of the project site and from*

other areas accessible by public access. Mitigation Measure #3.4.1i of the DEIR (page 3-114) is amended as follows:

Mitigation Measure #3.4.1i: To protect breeding raptors, the following measures shall be implemented:

1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys will be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a ~~1,000~~ 300 foot area of influence surrounding the Site. Suitable nesting sites in the Specific Plan area are extremely limited; surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified biologist. If construction begins between September 2 to February 28, nest surveys will not be required since this is outside the typical breeding period for raptors.
2. If nesting raptors are identified during the surveys on the project site, or within the 300 foot areas of influence, a 300-foot radius buffer around the nest tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer.
3. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can be terminated.

Comment 27.21: *Comment 7. Candidate, Sensitive, or Special Status Species Impact and Mitigation Discussion (Mitigation Measure 3.4.9a[1 and 2])*

The DEIR has determined that development of the Friant Community Plan Area has the potential to eliminate populations of spiny-sepaled button celery. Any such populations affected by

community plan development constitutes a potentially significant adverse environmental impact. Mitigation measures include preconstruction surveys for this species during the appropriate phenological period, and avoidance of observed populations, or compensation for take of this species.

Surveys of Lost Lake Park and the right-of-way along Friant Road have failed to detect this species. It would not occur in areas of existing development. The remaining lands within the community plan are limited, and wetland habitat suitable for this species may not even be present. The impact analysis should be re-drafted to acknowledge that vernal pool/vernal swale habitat suitable for this species is very limited in the community plan area, previous studies for two major projects have failed to detect it, and that future surveys for this species should be limited to previously unsurveyed lands having wetland habitats suitable for spiny-sepaled button celery.

Response 27.21: It is recognized that there is a low probability of encountering spiny-sepaled button celery in the community plan area and that potential habitat for this species would be concentrated in and near vernal pools and swales. Impact #3.4.9a and Mitigation Measure #3.4.9a(1) of the DEIR (page 3-125) is amended as follows:

Impact #3.4.9a - ~~Swales and depressions~~ Vernal pools and swales in the Friant Community Plan Area potentially contain spiny-sepaled button celery. Projects within the Area have the potential to eliminate this species through grading and construction activities.

Conclusion: Removal of spiny-sepalled button celery would be a ***potentially significant impact***.

Mitigation Measure #3.4.9a: To ensure that there is no take of spiny-sepaled button celery, the following measures will be implemented:

1. Prior to the issuance of a grading permit within the Existing Friant Community Plan Area, a biological survey will be conducted on the project site during the appropriate phonological period for spiny-sepaled button celery. This period generally occurs between April 1 and May 31, but this species persists and is identifiable through July of most years. Surveys need only be conducted within vernal pools and swales capable of supporting this species.

Comment 27.22: *Comment 8. Vernal Pool Fairy Shrimp Impact and Mitigation Discussion (Mitigation Measure 3.4.9b[1])*

The DEIR concludes that vernal pool fairy shrimp are likely to occur in ephemeral pools, roadside ditches, and other seasonal water sources within portions of the community plan area. The DEIR stipulates that all possible wet areas be surveyed for vernal pool fairy shrimp according to USFWS survey protocols prior to the issuance of a grading permit. These protocols require two consecutive wet surveys or one wet season and one dry season survey.

While roadside ditches and seasonal puddles that form on disturbed lands constitute possible habitat for vernal pool fairy shrimp, such areas are not typical habitat. Vernal pools are more typical habitat. Unlisted species of fairy shrimp are more common to roadside ditches and seasonal puddles occurring in disturbed lands. Branchinecta lindali more frequently occurs on highly disturbed sites.

We have not encountered very many EIRs, if any, claiming ephemeral pools and roadside ditches as habitat for the vernal pool fairy shrimp, thus necessitating surveys and mitigation measures. While we know that the possibility exists that vernal pool fairy shrimp may occur in disturbed habitats such as rain-filled tire ruts, we question the significance of the impact to this species (as "significant" is defined by CEQA), if such habitats are disturbed or eliminated by a project. The following question must be asked. Will the loss of roadside ditches and ephemeral puddles in disturbed lands of the Friant Community Plan Area result in a substantial and adverse effect on vernal pool fairy shrimp populations in the Friant/Millerton area, or throughout its range? The answer is clearly no. Impacts to this species, should it inhabit disturbed human-created ditches and pools, would be inconsequential to the long-term viability of this species. Impacts to vernal pools, however, which are this species preferred habitat, may arguably affect the long-term viability of some local fairy shrimp populations.

Therefore, we recommend that the wording of this measure be revised. It should read that the loss of vernal pool habitat, if present in the community plan area, may result in the loss of vernal pool fairy shrimp, a potentially significant adverse environmental impact. The mitigation measures should be revised to read that surveys for vernal pool fairy shrimp would be warranted if vernal pools are present on a project site and the applicant wishes to determine if vernal pool fairy shrimp are absent. Alternatively, an applicant whose project may affect vernal pools can presume that vernal pool fairy shrimp are present, since the cost of mitigation for a small amount of vernal pool fairy shrimp habitat may be far less than the cost of protocol surveys.

Response 27.22: Vernal pool fairy shrimp are not restricted to vernal pools and are commonly found in other ephemeral water sources including short-lived, disturbed pools and puddles. This is particularly the case in northern Tulare County and southern Fresno County, in the immediate region of the project site. It is agreed that they are infrequently found in human-created ditches and pools, which have not historically contained vernal pools fairy shrimp populations and especially in those instances when pools and puddles are not inundated in a natural fashion. Although the loss of vernal pool fairy shrimp inhabiting such marginal habitats may not result in a substantial and adverse effect on vernal pool fairy shrimp populations in the Friant/Millerton area, this is not the threshold for significance associated with the species. Instead, this species is federally listed as threatened and take of the species is prohibited under section 9 of the federal endangered species act. As such, the threshold for significant impacts is related directly to the take of the species. Nonetheless, Mitigation Measure 3.4.9b(1) of the DEIR (page 3-126) is amended to clarify the conditions under which surveys are and are not warranted as follows:

Mitigation Measure #3.4.9b: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are ***less than significant***.

1. Prior to issuance of a grading permit, the project proponent must ensure that a qualified biologist conduct a survey for ~~wet areas~~ ephemeral pools which potentially support vernal pool fairy shrimp. That survey must be conducted during the wet season (October through April), and immediately after a substantial rainfall event (of 0.5 inches of rainfall or more). If ephemeral pool habitat is found on the project site that is suitable for supporting vernal pool fairy shrimp, then the project applicant must ensure that a qualified biologist implement a standard vernal pool fairy shrimp protocol survey. Alternatively, the project applicant could assume presence of the vernal pool fairy shrimp and implement the provisions listed in a-d below. If vernal pool fairy shrimp or other sensitive vernal pool invertebrates are not found during protocol surveys, then no other actions are warranted. If vernal pool fairy shrimp are found, then the following measures will be implemented:

Comment 27.23: *Comment 9. Burrowing Owl and Nesting Raptor Impact and Mitigation Discussion, Friant Community Plan Area (Mitigation Measure 3.4.9h [2, 4, and 6], 3.4.9i [1, 2])*

Same comments with respect to burrowing owls and nesting raptor impact and mitigation discussion as for the specific plan area. There is no apparent reason for surveys being conducted on adjoining lands (that may not be accessible to project biologists), when the only buffers that must be provided are for active nests of individual project sites within the Community Plan Area.

Response 27.23: See Response 27.16. Mitigation Measure #3.4.9h of the DEIR (page 3-134) is amended as follows:

Mitigation Measure #3.4.9h – The following measures will be implemented to ensure that impacts to the burrowing owl are *less than significant*:

1. A pre-construction survey shall be conducted for ground nesting raptors, including burrowing owls, within 14 to 30 days prior to initiation of site grading activities. If the grading activities are implemented in phases, then so shall the surveys be conducted in phases. If more than 30 days lapse between the time of the preconstruction survey (s) and the start of ground-disturbing activities, another preconstruction survey must be completed. This process should be repeated until the habitat is converted (e.g., graded and developed). The survey shall be completed in accordance with the survey requirements detailed in the CDFG's October 17, 1995 *Staff Report on Burrowing Owl Mitigation*.
2. If burrowing owls are identified onsite or within the area of influence of the project site (within ~~1,000~~ 250 feet of the project site), an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the required mitigation site will be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per

pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be $2 \times 6.5 = 13$ acres provided that no more than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the preconstruction survey, then the mitigation requirement shall be $3 \times 6.5 = 19.5$ acres). Two natural or artificial nest burrows will be provided on the mitigation site for each burrow in the project area that will be rendered biologically unstable.

3. If burrowing owls are present on the site and require relocation, an upland mitigation site for burrowing owls shall be designated as provided for in item 2 above. This site may be located within the on-site open space area or it may be located off site. The mitigation site must consist of grassland habitat, contain small mammals (or other prey), and ground squirrel burrows. The mitigation site must be approved by the California Department of Fish and Game. The area shall be preserved in perpetuity as wildlife habitat through a conservation easement that designates the California Department of Fish and Game, or any other qualified conservation organization as the Grantee of the easement. The mitigation area need not be identified prior to finding burrowing owls on the site, however advance planning would reduce the potential for construction delays.
4. If a Conservation Easement is established for burrowing owl mitigation, an endowment to cover the management of the area must be provided. The management fund shall be provided by the project applicant to the Grantee of the Conservation Easement within six months of breaking ground on the project site.
5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to be engaged in nesting behavior, a fenced ~~500~~250 foot buffer would be required between the nest site(s) (i.e., the active burrow(s)) and any earth-moving activity or other disturbance on the project site. This ~~500~~250 foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a 160 foot buffer area will be established, and If construction activities require the removal of an active den, the occupying burrowing owls must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity will be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated

owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring will be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as required in item 6 below.

6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring will be conducted by a qualified biologist provided by the project applicant. Monitoring may be suspended or discontinued if, in the opinion of a qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading. Monthly reports of monitoring activities will be submitted by the biologist to the project applicant, the County of Fresno, and the California Department of Fish and Game. A final report of all monitoring application will be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.

In addition, Mitigation Measure #3.4.9i of the DEIR (page 3-136) is amended as follows:

Mitigation Measure #3.4.9i: To protect breeding raptors, the following measures shall be implemented:

1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys will be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a ~~4,000~~ 300 foot area of influence surrounding the Site. If construction begins between September 2 to February 28, nest surveys will not be required since this is outside the typical breeding period for raptors. Surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified biologist.
- ~~12.~~ If nesting raptors are identified during the surveys on the project site or within the 300 foot areas of influence, a 300-foot radius buffer around the nest tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could

cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer.

23. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can be terminated.

Comment 27.24: *Comment 10. Badger Impact and Mitigation Discussion (Mitigation Measure 3.4.9k [1-12])*

Same comments with respect to American badger impacts as for the specific plan area.

Response 27.24: See Response 27.19. Mitigation Measure #3.4.9k of the DEIR (page 3-138) is amended as follows:

Mitigation Measure #3.4.9k: The following measures shall be implemented to ensure that impacts to American badgers are ***less than significant***:

1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground disturbing activities) are phased, then so shall the pre-construction surveys be phased.
2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy. All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. ~~Dens must be replaced at a ratio of 2 artificial den for each natural dens removed. Replacement dens may be constructed within grassland habitat on site, within the open space, conservation area. Replacement dens shall consist of 6 inch diameter plastic corrugated sewer pipe cut to a 6 foot length. One end of the pipe shall be buried no deeper than 2 feet and no less than 1 foot below grade. The other end of the pipe shall remain above ground. Dirt shall be mounded above the pipe to a depth of at least 1 foot above grade, with the opening exposed. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den.~~

3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s).
4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunrise to sunset) should be prohibited, ~~unless:~~
 - ~~a. The construction area is appropriately fenced to exclude American badgers. Appropriate fencing would consist of a 4 foot chain link fence or similar material (e.g., 2 inch mesh stock fence) buried at least 6 inches below grade.~~
 - ~~b. The area within any such fence should be inspected by a qualified biologist for badger dens, all dens must be removed, and the site determined to be uninhabited by American badgers prior to initiation of construction.~~
5. Off-road construction traffic outside of designated construction areas shall be prohibited.
6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor.
7. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.
78. American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under

- the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped.
- ~~89.~~ During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site.
- ~~910.~~ No firearms shall be allowed on the project site during construction activities.
- ~~10.~~ A representative should be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure an American badger, or who finds a dead, injured or entrapped individual. The representative's name and telephone number should be provided to the CDFG.
- ~~11.~~ In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.
- ~~12.~~ Any contractor, employee(s), or other personnel who inadvertently kills or injures an American badger should immediately report the incident to their representative. This representative should contact the CDFG immediately in the case of a dead, injured or entrapped American badger. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.

Comment Letter #28

City of Clovis
1033 Fifth Street
Clovis, CA 93612

Comment 28.1: *We appreciate the opportunity to meet with you and your staff on this project and the opportunity to provide our late comment letter. Our concerns with the Draft EIR are provided below.*

ITE Code May Underestimate Trips Generated

The traffic generation for the detached housing is based on ITE code 251 (Senior Adult Housing). It is our opinion that the traffic generation rates for this land use code underestimate the traffic that may be generated by the proposed Specific Plan. As we have pointed out in previous communications to County staff regarding the project, the ITE trip generation manual recognizes that the data set supporting this should not be relied upon at face value because it

represents too wide a range of project types, age groups, and geographical settings. The analysis of potential traffic impacts is therefore defective.

Response 28.1: Section 9.0 and Appendix E of the TIS contain a significant discussion in support of the applicability of ITE Codes 251 and 252.

Regarding the comment that *“the ITE trip generation manual recognizes the data set supporting this should not be relied upon at face value because it represents too wide a range of project types, age groups, and geographical settings.”* The ITE Trip Generation describes ITE Code 251 as follows:

Senior adult housing consists of detached independent living developments, including retirement communities, age-restricted housing and active adult communities. These developments may include amenities such as golf courses, swimming pools, 24-hour security, transportation and common recreational facilities. Detached senior adult housing communities may or may not be gated. Residents in these communities are typically active (requiring little to no medical supervision). The percentage of retired residents varies by development.

Caution should be used when applying trip rates for this land use as it may contain a wide variety of studies ranging from communities with very active, working residents to communities with older retired residents.

Many factors affected the trip generation rates for detached senior adult housing. Factors such as average age of residents, development location and size, affluence of residents, employment status, and vehicular access should be taken into consideration when conducting an analysis. Some developments were located within close proximity to medical facilities, restaurants, shopping centers, banks and recreational activities.

ITE does not suggest that the data should not be relied upon, or that it includes too broad a range of project types, age groups, or geographic settings. Based on the cautions provided by ITE, a supplemental study was performed to analyze actual trip generation from several existing active adult communities. The supplemental study was included in Appendix E of the TIS. The supplemental study prepared by Fehr and Peers study on August 22, 2007 determined that the nearest similar facility (Sun City community in Roseville, CA) generated significantly fewer trips than predicted by the ITE rates. Therefore, the more conservative ITE Code 251 values were utilized. See also Response 9.11.

Comment 28.2: *It is our opinion that the Specific Plan trip generation is substantially different than the uses employed by ITE, because, though restricted to "active adults," the project exists in a setting and distance from Fresno and Clovis and is more likely to generate vehicle trips closer to single family detached housing. Many of the residents in the target age group will likely have occupations that will take them to Fresno or Clovis on a daily basis. Also, residents who are apt to live in such a setting would not be averse to traveling to the "City" for services that are not offered in the mixed use development. The viability and sustainability of the services provided*

would certainly play a role, but the DEIR fails to demonstrate or adequately explain how such services would not only support the population, but be supported by the population.

Response 28.2: As described in Responses 9.11 and 28.1, the ITE Code 251 best matches the description of the active-adult residential portion of the proposed Project. The description of ITE Code 251 acknowledges that many residents may be employed. However, the active adult community is not expected to generate trips similar to a single-family detached housing (ITE Code 210), especially considering the location as described in the TIS, the fact that far fewer school-aged children are expected, and the percentage of retired residents is expected to be much greater than the typical neighborhood. It is expected and reasonably intuitive that active adult residents living in the Friant Ranch community will consolidate trips to the “City.” For example, it is expected that a working resident is more likely to shop on the way home from work or on a consolidated weekend trip, rather than making separate long weekday trips into the “City” for shopping or to pick up another family member. The logistics of the longer commute at times will necessitate consolidation of trips. See also Response 9.6.

Comment 28.3: *The small sample size in the ITE manual and the fact that the project is remote from urban type facilities such as medical facilities, banks, employment, entertainment, etc. should be accounted for in the TIS. We do not have confidence that the trip generation data set used in the DEIR can accurately reflect potential trips or impacts.*

Response 28.3: When the sample size is too small, ITE Trip Generation includes a cautionary statement. No such cautionary statement is included by ITE for Code 251. The remote location and availability of urban-type facilities was considered and discussed in the TIS. The Friant Ranch project, the Friant Depot, and the Rio Mesa area near Friant all plan such urban-type facilities in the ultimate condition. The effects of these factors were included, discussed, and analyzed in the TIS. See also Responses 9.6, 9.11, 28.1 and 28.2.

Comment 28.4: *If an ITE code other than Single Family Detached is to be used for the detached product under the premise that it is senior housing, there would need to be some surety that there's a market for a restricted senior housing development of this size and there will not be opportunity for the project to cater to other demographics under market pressure unless there is further evaluation and mitigation. It is our understanding that the age restriction cannot be made a condition of the County's approval of the project. We therefore recommend that the worst case (or highest possible traffic generator) should be evaluated as the basis for establishing project mitigations. At a minimum, the traffic generation should be estimated based on 80% age restricted units and 20% non-age restricted units.*

Response 28.4: Pages 2-9 and 2-11 of the DEIR explain the allowable age-restrictions authorized under state and federal law. As explained therein, state and federal law impose stringent requirements on age-restrictions allowed to create active adult (55+) communities. The communities analyzed in the supplemental Fehr and Peers study also adhered to these same state and federal standards. The ITE 251 and 252 trip generation rates would have also analyzed communities operating pursuant to the federal law. As such, the trip generation rates used in the TIS and reflected in the DEIR analysis are accurate and do not need additional adjustment as requested by commenter.

Further, the population projections discussed in Response 9.10 show that the demand for 55+ housing will increase during the buildout of the Project. The proposed active adult community proposed by the Project will be the first and only master planned active adult community within the County and, as such, will serve this growing demand.

Comment 28.5: *The Traffic Impact Study (TIS) and DEIR Analysis May Underestimate the Project's Cumulative Traffic Impacts and Clearly Avoids Feasible Mitigation Measures*

The TIS and DEIR fail to analyze the impacts from the entire Friant Community Plan Area. The DEIR states that "this EIR also analyzes the potential impacts associated with the future buildout of vacant lands within the Existing Friant Community Plan Area according to the proposed land use designations (DEIR, page 2-8)." Even with this statement in the project description, there is a failure to provide the analysis in the TIS and DEIR's Transportation/Traffic Section. CEQA Guidelines advise the lead agency to consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect." The traffic impacts from the Friant Community Plan Area are relevant and must be analyzed in the TIS and DEIR. Failure to do so does not provide a complete analysis of the impacts and can lead to unidentified impacts.

Response 28.5: As explained on page 3-270 of the DEIR, project-level traffic studies were not prepared for future buildout within the Community Plan Area (other than the Depot Parcel and Specific Plan Area) because there are no specific proposals for development within this area currently before the County and no proposed changes to the existing designations. The Project includes an update to the existing Community Plan, but does not change any General Plan/Community Plan designations for properties other than the Specific Plan Area and Depot Parcel. Page 3-270 explains that project-level traffic studies will be required at the time of specific proposals within said area. In assessing the cumulative impacts of the Project, the TIS analyzed buildout of the proposed Friant Ranch and Friant Depot projects in addition to buildout of other known projects and a substantial amount of other development projected by the Fresno County travel model and the Madera County travel model, including the growth projected by the Fresno County travel model within the Friant Community Plan Area. This is the standard approach to perform a traffic impact study.

Comment 28.6: *The TIS and DEIR also fail to provide a complete and accurate cumulative project list resulting in an underestimation of cumulative impacts. Both project lists fail to list projects within the City of Clovis. Examples include projects that have regional impacts such as the Clovis-Herndon Shopping Center, Clovis Community Medical Center Expansion, and the Central Valley Research and Technology Business Park Expansion and other smaller projects. Pursuant to CEQA Guidelines Section 15130 (b) (1), the analysis for both individual and cumulative impacts essentially depends on a list of "past, present, and probable future projects" causing related impacts. Not including a complete cumulative list severely limits the cumulative analysis, may lead to unidentified impacts, and thwarts public review and comment of the Project's ultimate cumulative impacts.*

Response 28.6: The pending projects in the City of Clovis were inadvertently excluded from the list of pending projects included in the TIS but were not excluded from the analysis. Peters

Engineering Group was aware of the pending projects in the City of Clovis, having performed traffic impact studies for several of them. The traffic volumes in the TIS provide evidence that the projects were accommodated in the analyses. For example, the existing westbound traffic volume of 1,405 a.m. peak hour trips on Herndon Avenue approaching Willow Avenue increases to 1,685 trips in the year 2013 no-Project scenario.

Comment 28.7: *The DEIR inaccurately concludes that the improvements to intersections and roadways within Clovis' sphere of influence and within Clovis' boundaries are fully funded and assumes on that basis that the project has no obligation to participate in the mitigation of its impacts. The mitigation measures neglect to assign a fair share contribution from the Friant Ranch development to the improvements that will mitigate the impact of the increased traffic. While the Clovis development impact fee program is fairly comprehensive, it does not fully fund the improvements and relies on other sources of revenue including grants, tax measures, and projects outside the City's sphere. There are many other examples of traffic from projects within the County that impact Clovis' street system. In these projects, the impacts are normally mitigated by a fair share contribution from the development as identified in the CEQA document based on the proportionate share of traffic generated by the project.*

Response 28.7: See Errata to DEIR page 3-311 addressing commenter's concern about potential funding uncertainties related to Measure C improvements. See also Response 28.8 below.

Comment 28.8: *As identified in Section 3.13 of the DEIR, including Impacts 3.13-7, a through f, and Table 3.13-19, which assumes that the traffic signals are in place at all the intersections on Willow Avenue between Copper and Shepherd, the proposed project contributes to or exacerbates LOS problems along the Willow Avenue corridor and should contribute a fair share toward the improvements at each intersection and on each road segment, including:*

Intersections

- Willow/Copper
- Willow/International
- Willow/Perrin
- Willow/Nees
- Willow/Herndon - Quadrant Intersection
- Willow/Bullard

Road Segments

- Willow - Copper to International
- Willow - International to Behymer
- Willow - Behymer to Perrin
- Willow - Perrin to Shepherd
- Willow - Shepherd to Herndon

Response 28.8: The TIS/DEIR have analyzed the Willow Avenue corridor and determined that the Measure C Tier 1 improvements are reasonably foreseeable projects to include in the 2030 condition, as demonstrated by the construction timelines presented in the Fresno Council of Governments (COG) Regional Transportation Plan (RTP). In fact, according to COG's 2011

RTP as posted on the COG website, the following improvements are scheduled to be completed by 2014:

- Willow / International intersection
- Willow / Behymer intersection
- Willow / Perrin intersection
- Willow / Shepherd intersection
- Willow / Nees
- Willow Avenue road segments – International to Shepherd
- Willow Avenue road segment – Nees to Alluvial

Moreover, with respect to the following City of Clovis roadways/intersections, as of this FEIR, the ultimate City of Clovis improvements identified through the COG RTP (which the DEIR assumed complete prior to 2030) have already been constructed:

- Willow / Shepherd intersection
- Willow / Nees intersection
- Willow / Herndon intersection
- Willow Avenue road segment - Teague to Nees
- Willow Avenue road segment - Alluvial to Herndon

As such, the EIR cumulative condition accurately assumed that these improvements would be built by 2030.

The DEIR identified cumulatively significant 2030 impacts at the following locations raised by commenter but indicated that the location is planned and funded to be constructed to its maximum feasible size prior to 2030 and no further mitigation would be feasible, resulting in significant and unavoidable cumulative impacts:

- Willow / Nees intersection (Mitigation Measure #3.13-7a)
- Willow / Herndon intersection (Mitigation Measure #3.13-7b)
- Willow / Bullard intersection (Mitigation Measure #3.13-7d)
- Willow Avenue road segment- Alluvial to Herndon (Mitigation Measure #3.13-7f)

The DEIR identified a fair share requirement for the Project at the following locations raised by commenter because the DEIR identified cumulatively significant impacts resulting from the Project:

- Willow / Copper intersection (Mitigation Measure #3.13-5j)

No individually or cumulatively significant Project impacts were identified at the following locations raised by commenter (and thus no fair share mitigation is appropriate for these locations):

- Willow / International intersection
- Willow / Perrin intersection

- Willow Avenue road segment– Copper to International
- Willow Avenue road segment – International to Behymer
- Willow Avenue road segment – Behymer to Perrin
- Willow Avenue road segment – Perrin to Shepherd
- Willow Avenue road segment – Shepherd to Alluvial

See Errata to page 3-311 of the DEIR, which addresses the City of Clovis’s concern about potential funding uncertainties related to the identified Measure C improvements for the City of Clovis roadways and intersections listed immediately above.

Comment 28.9: *The DEIR inaccurately indicates that there are no feasible mitigations to address the LOS deficiency at the Herndon/Willow intersection. This conclusion does not reflect the record: for example, the 2002 Herndon Corridor Study identified a quadrant intersection design to improve LOS at this intersection by relocating left turns at the main intersection. This improvement scheme is feasible and was approved by the City council and planned for future implementation. Portions of the infrastructure have already been built and are not fully funded. The EIR fails to identify this feasible mitigation measure. The Friant Ranch development should contribute a fair share toward this improvement and other intersections/segments that it impacts.*

Response 28.9: Impact #3.13-7b of the DEIR identifies a cumulatively significant impact at the intersection. However, the DEIR found that the largest reasonable configuration of this intersection is already planned and funded for construction, the City of Fresno has identified this location as constrained in its General Plan, and the cumulative impact is significant and unavoidable. The City of Fresno Traffic Signal Mitigation Fee (TSMI) Program provides \$1.8 million for planned traffic signal upgrades for additional turn lanes and quadrant intersection configuration. In fact, the planned improvements to the Herndon and Willow intersection have been completed. The additional improvement of a “quadrant intersection” immediately east of the current, completed intersection has been substantially constructed. The City of Clovis’ current 5-year projections include a planned expenditure of \$750,000 to complete the proposed quadrant improvement. The City of Clovis has already commenced construction of the quadrant improvement, which has been planned, budgeted, and approved by the City of Clovis to address level of service deficiencies expected at the Herndon/Willow intersection from near-term growth within the City of Clovis. As such, the identified improvements to this intersection are planned, funded, and in progress and are reasonably foreseeable projects to evaluate within the 2030 condition. However, as described in the City of Fresno 2025 General Plan and related environmental document, the intersection will remain constrained since additional through lane widening is not feasible due to physical limitations at the intersection. As acknowledged in the DEIR, the improvements to this intersection are not sufficient to reduce the significant impact to less than significant. It is not appropriate for the Project applicant to fund the remaining portion of the quadrant improvement demanded by City of Clovis near-term growth conditions, which will be built in the near future regardless of any of approval of this Project and (based on its configuration related to the expected flow of traffic resulting from the Project) will not mitigate the Project’s portion of the cumulative impact expected in 2030 to less than significant.

Comment 28.10: *In dismissing feasible mitigation measures, the EIR mischaracterizes the Measure C funding capacity. The measure does not fully fund the Willow Avenue corridor, but*

will require a minimum 20% match from the local agencies. This match is to be made up from developer contributions, not from the RTMF, but from projects within Clovis and/or from projects outside the City sphere, such as Friant Ranch, that add to the traffic on Clovis streets.

Response 28.10: See Responses 28.7 and 28.8. Comment that RTMF funding does not provide the local match for these identified Measure C improvements is accurate. An errata to page 3-311 has been provided in this FEIR to provide clarification of funding sources for Measure C projects in response to this comment.

Comment 28.11: *Water Demand Estimations*

Table 3.14-6 does not appear to accurately estimate acre feet/year demand figure for the MFD (Apartments, etc.). Based on a density of 15.6 units per acre (83 units divided by 5.3 acres), and using Clovis' water use data of 5.1 acre feet/acre of similar development, the average day demand (ADD), should be 4,553 gpd/ac, the demand should be 24,131 gpd or .074 AF/day:

	Number of Units	Acres	Density	ADD gpd/ac	Demand gpd	Demand AF/day	Demand AF/yr
MFD (DEIR)	83	5.3	15.7	3035	16085	0.05	18
MRD (Clovis Revision)	83	5.3	15.7	<u>4553</u>	<u>24131</u>	<u>0.07</u>	<u>27</u>

Response 28.11: The City of Clovis Water Master Plan sets forth estimated specific water use by land use type. The break between what Clovis calls Medium Density at 3.4 acre-feet/acre annually, and High Density at 5.1 acre-feet/acre annually is at 15.1 units per acre. The High Density value extends up to well over 20 units per acre. While the Friant Ranch High Density may fall slightly above this break-over point, the actual demand is expected to be lower than the averages set forth in the more general standards of the City's Water Master Plan, due to the smaller household size found in age-restricted (55+) communities. In any event, as noted by the City, the difference in calculated demand between the High and Medium Density categories is a total of 9 acre-feet/year for the Project. The Water Supply Assessment has identified a considerable surplus of available water supply (totaling 631 acre-feet/year in critically dry and multiple dry years), so an additional 9 acre-feet of demand would not constitute a significant change and would not affect the conclusions of the Water Supply Assessment or the DEIR.

Comment 28.12: *Also, the demand for landscaped slopes seems underestimated. By our calculations it should be at least 258 acre feet/year which would be comparable to water demand for our parks. If the DEIR assumes lower demand by use of drip irrigation this number may be correct, but the assumption should be clear to the reader.*

Response 28.12: The landscape slope water use estimated in the DEIR reflects the assumption that drip irrigation will be used. Drip irrigation is assumed because the steepness of the slope being irrigated makes conventional irrigation impractical. Drip irrigation also serves as a water conservation measure. Also, Friant Ranch's "landscaped slopes" are not analogous to the City's

parks, since they will be landscaped with native vegetation with much lower annual water demand than the Bermuda or fescue grasses common to most parks. See DEIR page 3-352 for more information about the Project's water conservation measures supporting the DEIR's assumptions and impact determinations related to water use.

Comment 28.13: *As we understand the analysis, the DEIR includes the total recycled water output from the sewage treatment plant in its supply calculations in the main body of the report; although in the executive summary it indicates only 50%. This apparent discrepancy should be clarified.*

Response 28.13: The EIR water supply analysis assumed that 100 percent of the Project's treated wastewater would be reused, with just under 50 percent assumed to be used within the Project for landscape irrigation and the remaining reclaimed water used outside the Project for irrigation. At Project buildout, the wastewater treatment plant will have a capacity of 0.80 mgd, or 896 acre-feet/year at full capacity. (See Infrastructure Master Plan, Section 5 H.) Section 9.2 of the Water Supply Assessment discusses use of reclaimed (recycled) water for landscape irrigation within the Project Area and states that up to 400 acre-feet/year of reclaimed water will be used within the Friant Ranch Specific Plan Area, with the remainder used for irrigation of lands outside the Specific Plan Area. Possible locations include the Beck Property and other nearby agricultural lands such as Lost Lake Park. Table 10.1.1 of the Water Supply Assessment assumes that 400 acre-feet of reclaimed water will be available to use within the Specific Plan Area in normal, critically dry and multiple dry years. Similarly, page 3-354 of the DEIR identifies 400 acre-feet of reclaimed water for non-potable uses as a component of the available water supplies serving the Project.

Comment 28.14: *While the project's overall supply appears to exceed its demand, it is difficult to ascertain the precise water balance due to this apparent discrepancy. In any case, our experience is that it is not reasonable to consider that 100% of the recycled water produced will be available for supply. Fall through early spring demands for landscape irrigation will likely be substantially less than the recycled water produced during those time periods. The applicant should prepare a water balance which compares recycled water produced and recycled water demand on a monthly basis. This should then be used to identify how much of the recycled water can be used in meeting the overall water demand.*

Response 28.14: The commenter's experience regarding the relationship between generation of and demand for reclaimed water is valid. The Project analysis recognizes this reality and plans for it accordingly. The DEIR identifies more water supplies than are necessary to serve the Project, but this conservative identification of available water supplies does not suggest that the Project will not have the capacity to utilize reclaimed water. A water balance has been conducted for the Project to determine and plan for expected effluent supply and demand. Effluent will be applied to landscape irrigation use as needed (during irrigation season from spring to fall) and excess effluent (e.g., effluent during winter months not otherwise disposed of) would be stored in tanks or ponds located onsite or at the off-site disposal sites for subsequent use onsite (see e.g., DEIR page 366). The Beck property disposal option includes over-winter storage, where effluent would be held until it could be used for irrigation. The water balance shows the Beck Property has capacity to provide 100 days storage, which is sufficient to

accommodate wastewater generated by the Project, with enough remaining land to use the balance of reclaimed water for agriculture irrigation after supplying 400 acre-feet to the development areas of the Specific Plan Area for landscape irrigation. The Project is not relying on 100% of the anticipated effluent to contribute towards onsite landscaping within the Specific Plan Area throughout the year. The excess effluent will be used off-site, once the on-site demand is met.

Comment 28.15: *The DEIR indicates that during critical dry year(s) they will use the Lower Tule River Irrigation District's historic Tule River allocation, and that LTRID users will use groundwater to make up the shortage. Given CEQA's direction to address all reasonably foreseeable impacts of supplying water to the project, the DEIR should discuss and analyze the potential impact to that groundwater basin and whether the normal reallocation of 2000 AF will also be offset by groundwater extractions.*

Response 28.15: Commenter requests that the DEIR discuss and analyze reasonably foreseeable groundwater impacts within LTRID resulting from supplying water to the Project. Such impacts are analyzed at pages 3-215 and 3-216 of the DEIR. As explained therein, no significant groundwater impacts are anticipated because LTRID has sufficient alternative supplies within its control to use in meeting in-district demands during normal years. To maximize the supplies available to the District water users, consistent with the objectives of the conjunctive use nature of the CVP Friant Division, LTRID has an existing policy that in-district water users must rely solely on groundwater during critically dry years. In all other year types, however, the District serves its constituents with a variety of surface water supplies within its control, including pre-1914 water rights to the Tule River and water made available pursuant to its Cross Valley Contract with Bureau of Reclamation. Additionally, LTRID is also able to use the proceeds from water transfers, such as the subject transfer for the Project, to purchase additional surface water supplies through short-term transfers (pre-authorized pursuant to its USBR contract) at prices significantly lower than the per-acre foot payments received by LTRID from its long-term transfer partners, such as WWD 18.

Moreover, when the District receives CVP Friant Division Class 2 supplies, the District participates in groundwater recharge efforts to recharge/bank such Class 2 surface water supplies into the groundwater basin. The district has recently embarked on the Lower Tule Intertie project to facilitate additional recharge with pre-1914 supplies from the Tule River and more efficient use of those pre-1914 supplies. As such, to the extent groundwater is used in lieu of the 2,000 acre-feet provided to the Project, such groundwater use is fully offset by the surface water recharge to the groundwater basin and does not reduce the volume of naturally occurring groundwater supplies in the basin.

The DEIR and Water Supply Assessment (including the engineering memorandum in Appendix D thereto), explain how LTRID will ensure it satisfies its out of district obligations, including the subject transfer, in critically dry years where CVP Friant Division Class 1 water supplies are considerably reduced. As noted above, in such years, LTRID already has a district-wide policy that in-District water users shall rely solely on groundwater and do not receive surface water supplies from the district. As such, no change in the groundwater usage within LTRID is

expected to occur in such years because the district water users would not otherwise use the surface water supplies in the critically dry years.

However, LTRID has other transfer/exchange obligations outside of its district, with no stated priorities among them. These out of district obligations of LTRID, such as the subject water transfer, still apply in critically dry years. LTRID is obligated to provide 100% of the water supply called upon pursuant to the water transfer agreement and any shortage would be a breach of the water transfer agreement. As discussed in the DEIR, LTRID has pre-1914 Tule River and Cross-Valley Canal supplies that it would bring to bear in a water short year in order to meet its obligations to its water management partners other than Friant Ranch/WWD#18. LTRID also has the ability to carry water over CVP Friant Division water supplies in Millerton Lake from one year to the next, which can also serve as a dry year reserve. All of these assets, along with other assets the District is developing, provide LTRID and its water management partners the assurance that LTRID will be able to meet its contractual obligations in even the driest of years. The DEIR and Water Supply Assessment (DEIR, Appendix B) determined that in most dry years, the CVP Class 1 allocation would remain sufficient to satisfy these out of district obligations. Assuming the worst year conditions on record (1977, 25% allocation, 1988-1990, 47.1, 52.2, 40% allocations, respectively), LTRID would not have sufficient Class 1 supplies to satisfy its existing obligations during those years. To offset the loss and avoid breach of the water transfer agreement, LTRID intends to use Tule River and/or Cross-Valley Canal supplies to satisfy its district and out of district obligations in critical dry years to free up CVP Friant Division Class 1 supplies to satisfy its obligation to WWD # 18. (Water Supply Assessment, Appendix D.)

Contrary to the commenter's suggestion, no Tule River water supplies will be used within the Project Area in any year. The Project will receive CVP Friant Division Class 1 supplies stored in Millerton Lake in all years.

Comment Letter #29

Law Offices of William D. Ross
520 South Grand Avenue, Suite 300
Los Angeles, CA 90071-2610

Comment 29.1: *This communication supplements our prior communication of December 24, 2009 on behalf of the Fresno County Fire Protection District ("District").*

The following information within the Draft Environmental Impact Report ("DEIR") for the Friant Community Plan Update and Friant Ranch Specific Plan ("Project") needs to be corrected, or supplemented, as follows:

- 1. On DEIR page 3-266, the first paragraph should indicate in line 4 the proximity of a "Fire District" station not "CDF" Station:*

Response 29.1: Comment noted. The DEIR, page 3-266 will be amended as follows:

The Project is consistent with Fresno County General Plan Policy PF-H.5 in that the Project will be designed to maximize safety and minimize fire hazard risks by requiring all commercial facilities be equipped with fire sprinklers and by prohibiting wood burning fire places in residential homes. The proximity of the ~~CDF~~ fire station will ensure that the Friant Ranch Specific Plan complies with Fresno County General Plan Policy PF-H.8, which calls for an average first alarm response time to emergency calls of 15 minutes in suburban areas such as Friant. The County has determined that adequate fire protection facilities will be available to serve the Friant Ranch Specific Plan Area pursuant to Policy PF-H.2.

Comment 29.2:

2. *The reference on DEIR page 3-265 to “equipment for CDF” should be changed to “equipment for the Fire District”; and,*

Response 29.2: Comment noted. The DEIR, page 3-265, will be amended as follows:

...Mitigation measure 3.7.6a ensures that the Project will be consistent with General Plan Policy PF-H.1 and PF-H.2 by requiring formation of a CFD to fund additional fire protection personnel and equipment for ~~CDF~~ the Fire District.

Comment 29.3:

3. *In Section 3.12.4 analyzing impact #3.1.12.2 which reads “...the need for the CDF...” should be changed to read “...the need for the CFD...”*

Response 29.3: The DEIR, page 3-265, will be amended as follows:

Development of the Project will increase the demand for fire protection services in Friant, which will result in the need for the ~~CDF~~ CFD, which provides fire protection in Friant, to hire more personnel and purchase additional equipment.

Comment 29.2: *In DEIR Section 2.6 "Intended Uses of the DEIR", which begins on DEIR page 2-30, the District should be added to the list of agencies which may utilize the DEIR when it becomes final and is certified under the provisions of the California Environmental Quality Act (Public Resources Code §§21000 et seq.) for purposes of evaluation of development authorized by both the Community Plan and the Specific Plan.*

Response 29.4: The DEIR, page 2-31 will be amended as follows to add the Fresno County Fire Protection District to the list of agencies that may use the EIR upon its completion:

- Fresno County
- Fresno County Fire Protection District
- Fresno County Water Works District No. 18

- Lower Tule River Irrigation District
- County Service Area 44
- Fresno Local Agency Formation Commission
- San Joaquin Valley Air Pollution Control District
- California Department of Transportation
- California Department of Fish and Game
- California Department of Public Health
- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- United States Department of the Interior, Bureau of Reclamation
- United States Environmental Protection Agency
- Central Valley Regional Water Quality Control Board
- State Water Resources Control Board

Comment Letter #30

Mrs. Novice Tavarez
P.O. Box 512
Friant, CA 93626

Comment 30.1: *I hope you can forward this response to the meeting I attended on December 9th, 2009 regarding the Friant Ranch Project in Friant.*

First, I would like to state that this project will be a God send to this little community. I feel that the Friant Ranch Project will bring things to this community that would never happen otherwise. Our water facility is very, very old and with the help of the Friant Ranch Project it will be upgraded, something that we as a community of 800 people cannot afford to do and is so needed. Also, all the other facilities that they want to build and implement will help the whole community in a huge way. I'm sure the benefits will spill over into the other foothill communities and individuals that live scattered out all over the foothills in this area.

I can't wait to see this come and I know everyone I talk to in the area are very upbeat about this project and what it will mean to us all.

Response 30.1: Comment noted. The County appreciates the input from current Friant residents.

Comment Letter #31

S. McKeeman
P.O. Box 506
Friant, CA 93626

Comment 31.1: *As a long time resident of Friant, it's increasingly absurd that any new large scale buildings be put here.*

Since Table Mtn., our traffic, dust (valley fever) is immensely increased, the road is always under construction either towards Willow/Shepherd or up here in Friant. I am sick of the dust, having Disseminated Valley Fever anyway. It only makes it more possible to become sicker and sicker. You've already destroyed our peace and quiet, our air, our roads, and potentially our water. What else do you think you can destroy?

I would vote a huge NO.....I would attend, but I'm sick....get it?????

Response 31.1: Comment noted. The County appreciates the input of nearby residents. Issues regarding airborne dust particles are addressed under the Air Quality section (Section 3.3) of the DEIR. Construction phases of the project must adhere to requirements of the San Joaquin Valley Air Pollution Control District, as described in that section.

Comment 31.2: *Oh, and where do you suppose any ag would take place if you keep eating up land. We subsist on food not houses or apts. You've all destroyed many, many tree groves, a good oxygen source to what? Decrease it by building? For your bottom dollar? You are greedy, and that is one thing wrong in the USA. GREED.*

Response 31.2: Comment noted. No response warranted.

Comment 31.3: *Leave us alone to what peace and quiet we have currently, which is getting worseno where in the past did we have gun shots, break-ins.....and they'll be more if you allow this to grow-trust me, they'll be more ns more and more people move up here!*

Response 31.3: Comment noted. The increased need for law enforcement and associated mitigation measures are described in Section 3.12 of the DEIR, on pages 3-266 and 3-267.

Comment Letter #32

Revive the San Joaquin
5132 N. Palm Avenue, PMB 121
Fresno, CA 93704

Comment 32.1: *I am writing in response to the draft EIR for the Friant Ranch Specific Plan adjacent to the San Joaquin River. Reading the document it is very clear that there are many potential significant environmental impacts and unavoidable cumulative impacts that will have serious consequences to the San Joaquin River and the health of its wildlife. These impacts should be considered in a regional forum where the many water users of the San Joaquin River can be informed of the reasonable potential impacts. My organization is engaged in the restoration of the river below Friant Dam, and the restoration of ecosystems and fisheries that depend on a clean water supply from Millerton Lake. The inability of this document to recognize impacts of the development and its associated uses to the San Joaquin River and its surrounding ecosystem is the primary focus of this letter. The assertion that there will be no significant environmental impacts to the hydrology, water quality, or biological resources of the San Joaquin River system is negligent and the document fails to provide adequate information for use*

as a decision making tool for environmental accountability under this decision making process. The following sections further discuss concerns with the Draft EIR.

Response 32.1: The commenter asserts that the Friant Ranch Specific Plan will result in many potentially significant environmental impacts and unavoidable cumulative impacts that will have serious consequences for the San Joaquin River and the health of its wildlife. It is important to point out that the Specific Plan Area does not front the San Joaquin River and that all development will be at least 0.2 mile from the river. Friant Road and, in the northern Specific Plan Area, the town of Friant lie between the Specific Plan Area and the river.

The commenter further states that Project impacts should be considered in a regional forum where the many water users of the San Joaquin River can be informed of the potential impacts. The purpose of the EIR is to inform the public of the Project's impacts. CEQA mandates that for such a project as the Friant Ranch Specific Plan the EIR serves as the regional forum the commenter thinks should be provided. The project proponent describes the project plan, and experts define the baseline conditions and then predict how those conditions will change (for better or worse). Significant adverse impacts are identified, mitigation measures are proposed, the level of impact remaining after implementation of specified mitigation measures is predicted, and the document is then circulated so that the public can respond. It is not clear what additional regional forum the commenter believes should be available to the public.

Finally, the commenter asserts that the DEIR does not recognize impacts of the proposed development and its associated uses to the San Joaquin River and its surrounding ecosystem, and that the failure of the DEIR to recognize these impacts is negligent. As will be fleshed out in greater detail in responses to specific comments, this assertion is not supported by the facts.

Comment 32.2: CEQA Alternatives

Section 15126.6(f)(2) of the CEQA Guidelines states alternatives must be discussed. Other locations within Fresno County and contiguous with the existing city limit, or within the existing Sphere of Influence, should be analyzed as viable alternative sites. The economics and land-holdings of the project proponent should not be a valid reason for avoiding consideration of other viable sites. Sufficient capacity exists in the existing new growth areas of the County to accommodate this level of development, with significantly less impact to the County's environmental resources.

Response 32.2: See Response 19.150.

Comment 32.3: San Joaquin River Planning Efforts

If the planned development is allowed at its current site, best control practices and mitigation may not be significant enough to avoid many of the specific and cumulative impacts from the project. The siting of this project adjacent to the San Joaquin River may pose significant threats to the fisheries of the San Joaquin River and its viability as a municipal water supply for downstream users. The proposed development is located on an area with natural drainage channels, ephemeral and seasonal creeks, and wetlands that drain to the San Joaquin River. The

river stretch immediately below the dam is the critical spawning grounds for the salmonid species and habitat for other native fishes that are targeted for reintroduction as a part of the San Joaquin River Restoration Program (SJRRP). It is expected that water from Millerton Lake will be adequate in quality to sustain these spawning grounds, and that a multi-agency effort will be needed to sustain the fishery. The draft EIR does not adequately assess the impacts to the river and it conflicts directly with many of the San Joaquin River restoration goals including a revived Spring-run Chinook salmon fishery and reintroduction of Steelhead and possibly 34 other native fishes.

Response 32.3: As an initial matter, the Specific Plan project is not adjacent to the San Joaquin River as stated in the comment. At its closest point, the river is approximately 0.2 miles from the Specific Plan Area (at its northernmost point). The town of Friant and the four-lane Friant Road (under expansion from a two-lane road to a four-lane road in 2009-2010) lie between the river and the Specific Plan Area at this location. The river is as much as 0.5 miles to the west of the western boundary of the Specific Plan Area along Friant Road to the south. Lost Lake Park, a Fresno County recreational facility, also lies between the river and the Specific Plan Area at this location. While drainages and associated wetlands within the Specific Plan Area eventually drain to the San Joaquin River as noted by commenter, the Project provides for a storm water management program that will maintain water quality in the on-site drainages, and therefore will not adversely affect water quality in the San Joaquin River. (See Responses 19.47, 19.62, and 19.63.)

The commenter has made broad, general statements about the San Joaquin River and the San Joaquin River Restoration Program (SJRRP) and alleged Project-specific and cumulative impacts of the Project related thereto. However, this comment does not provide enough information about the alleged impacts to inform a response. More specific comments about impacts associated with the river and the SJRRP follow in Comment Letter 32 and these are addressed in the responses below. See Responses 32.7, 32.13, 32.14, 32.17, 32.22, and 32.26.

Comment 32.4: *The SJRRP is an active program consisting of a partnership between the Department of the Interior and the State of California. A legal settlement is in effect that would allocate approximately \$750 million to ensure a return of healthy fisheries to the river; including salmon, steelhead, and many species of native fish that could rebound in numbers after water releases begin in 2009. Water released through the Friant Dam for restoration will also present new opportunities for downstream communities as a clean source of drinking water, a use that is currently not in effect with waters released from the dam. The success of this restoration effort is largely dependant on proper land-use, environmental, and economic considerations during project development along the banks of the San Joaquin River. A comprehensive look at impacts along the San Joaquin River is underway and is crucial to establishing the San Joaquin River as a corridor for the transmission of clean drinking water and wildlife habitat.*

Response 32.4: Comment pertaining to the existence of the San Joaquin River Restoration Settlement is noted and will be forwarded to the County decision makers for consideration during the EIR certification and Project approval process.

Comment 32.5: *Any proposed development should not impact negatively any existing San Joaquin River planning efforts or threaten the likely outcomes of those efforts. The document does not adequately take into consideration existing and ongoing planning efforts on the San Joaquin River, including the San Joaquin River Parkway Master Plan, the San Joaquin River Restoration Program, the San Joaquin River Conservancy, and the CALFED Bay-Delta Program.*

Response 32.5: An EIR must consider potential impacts to resources in the project area, and changes to the environment that may occur on adjacent lands as a result of the project. CEQA does not require that resources not be impacted, but that when negative impacts are likely to occur that reasonable mitigation measures are established to reduce or avoid those impacts. A number of documents concerning water use, fisheries, cultural resources, and planning for the San Joaquin River and San Joaquin Parkway were considered in the preparation of the DEIR. Also, because the project must be compliant with the County of Fresno General Plan policies, the project will need to consider planning along the San Joaquin River, such as Policy 3.2 Support efforts to implement the San Joaquin River Parkway Master Plan. As the commenter notes, some resources utilized are not included in Chapter Seven – References & Persons Contacted: most were referenced instead in other documents, such as the Friant Ranch Community Plan, the Biology Report prepared for the DEIR, or similar documents. Therefore, the DEIR, Chapter Seven (pages 7-2 and 7-3) will be amended as follows to include:

Friant Redevelopment Plan. Approved by Fresno County Public Works & Development Services Department in October, 2006

Lund et al. (2003) (referenced on page 3-397 of DEIR)

Sacramento-San Joaquin Basin Plan (referenced first on page 3-336 of DEIR)

San Joaquin River Conservancy. Adopted July 20, 2000. San Joaquin River Parkway Master Plan (referenced first on page 3-269 of DEIR)

San Joaquin River Restoration Program

San Joaquin River Settlement Agreement, 2007 (referenced on page 3-355)

VanRheenen et al (2004) (referenced page 3-396)

Additional resources, including Federal and State requirements, were utilized to determine potential impacts to the San Joaquin River and its associated basin, such as the Regional Water Quality Control Board, and Water Code §§ 13263, 13523.

Comment 32.6: *Additionally a Fresno County comprehensive water planning effort should be completed before approval of this project to ensure cumulative impacts likely to occur from implementation of the project are considered and mitigated on a regional or cumulative basis.*

Response 32.6: As indicated in the DEIR, Section 3.8 – Hydrology and Water Quality; Section 3.14 – Utilities and Service Systems; and Chapter Five – Cumulative Impacts, it was determined that, with mitigation, project level and cumulative impacts to hydrology, water supply, and water quality are less than significant. The County strives to protect and preserve its water resources and has noted the request for a County-wide comprehensive water planning effort.

Comment 32.7: *The project fails to address the impacts of stormwater, wastewater and specifically the impacts of endocrine disruptors, pyrethroids, and cumulative pollutant levels on the species likely to be returned to the river under the restoration program. Also the potential changes in beneficial uses resulting from restoration could drastically alter the water quality standards used for the basis of assessment for the draft EIR.*

Response 32.7: The commenter raises five different issues related to “species likely to be returned to the river” in this comment. A response to each of the individual comments related to impacts to “species likely to be returned to the river” is provided below:

- a. *Stormwater impacts.* As explained in the DEIR, the stormwater runoff from the Project will not result in any significant impacts to water quality or aquatic resources. A technical memorandum prepared by Robertson-Bryan, Inc., a firm with extensive consulting and research experience in water quality, toxicology, and fisheries biology/aquatic toxicology, has been included as an Appendix R to further explain the rationale for the DEIR’s conclusion that stormwater runoff from the Project will not result in significant impacts to aquatic resources.

Depending on the specific practices within any given community, certain endocrine disrupting compounds (EDCs), such as some pesticides and polycyclic aromatic hydrocarbons, may be present in *untreated* urban stormwater. However, contrary to commenter’s suggestion, urban stormwater runoff has not been identified as a source of pharmaceutical and personal care product pollution. Stormwater runoff from urbanized watersheds with *conventional stormwater treatment best management practices* (BMPs) could potentially result in adverse effects to aquatic resources in the waters receiving increased runoff (compared to the predevelopment condition) at increased temperatures that contains potentially harmful constituents such as total suspended solids, nutrients nitrogen and phosphorus, and total recoverable fractions of heavy metals (copper, lead and zinc).

However, the Friant Ranch Specific Plan does not propose a conventional stormwater treatment system. Rather, The Specific Plan incorporates a Low Impact Development (LID) system (described in detail in the Infrastructure Master Plan attached as Appendix N to the DEIR) to manage stormwater runoff expected to result from the Project. See Response 32.47 for detailed discussion of the LID system and related requirements. The proposed LID stormwater system will provide superior performance in reducing runoff rates, volumes, and contaminant mobilization and transport from impervious surfaces compared to a conventional stormwater system. Moreover, the Friant Ranch Specific Plan commits to maintaining predevelopment hydrology and to not increasing runoff compared to the predevelopment condition.

LID systems provide effective stormwater runoff controls through implementation of lot level features that emphasize infiltration, evaporation, and reuse. Integrated management practices identified for the Project, such as bioretention, biofiltration strips, infiltration trenches, filter strips, biofiltration swales, and pervious pavement, are designed to provide improved and integrated contaminant removal functions. LID components mimic predevelopment hydrology, which thereby reduces runoff from impervious surfaces and thus contaminant loading to the receiving water. Remaining development runoff is treated using various integrated management practices and typically results in occurrence of constituents in the runoff by 95% or more. Bioretention areas significantly reduce both maximum and median water temperatures of runoff. Combined with the fact that these systems reduce overall runoff from the development, they reduce thermal impacts from runoff. Consequently, the development, implementation, and maintenance of the LID system within the Specific Plan Area will provide the means to avoid and minimize any potentially adverse hydrologic and water quality effects to fisheries and aquatic resources. The proposed LID treatment would provide state-of-the-art stormwater runoff minimization and treatment for the development. As such, the treated, controlled volumes of stormwater runoff leaving the Specific Plan Area and entering the San Joaquin River would not result in significant impacts to the aquatic resources in the San Joaquin River.

See section “e” of this Response 32.7 related to beneficial uses and associated water quality standards for the San Joaquin River. See Section “c” of this Response 32.7 for further discussion of EDCs/pharmaceuticals.

- b. *Wastewater impacts.* The Project provides for the construction of a new wastewater treatment facility. This new facility will utilize tertiary treatment technology. The preferred option for effluent disposal is landscaping of the Specific Plan Area (outside of the onsite open space preserves) and the Beck Property where effluent will be discharged into an existing gravel extraction pit for storage, and then applied as irrigation water on lands adjacent to Friant Road. The DEIR also considers winter river discharge to the San Joaquin River, which is not the preferred option of the Specific Plan applicant or the RWQCB.

The proposed wastewater treatment facility is not expected to cause or contribute to any violation of applicable water quality standards or to substantially degrade existing water quality, and the discharge activities will operate under permits issued by the RWQCB in compliance with state and federal law. (DEIR at pages 3-191, 3-214.) Beneficial uses and water quality objectives are the regulatory standards to meet state and federal water quality control requirements. (DEIR at page 3-191.) Consistent with these requirements, the RWQCB adopted water quality control plans that identify beneficial uses in the Project Area and establish water quality objectives to protect the beneficial uses. (See 33 U.S.C. § 1313; Water Code, §§ 13240, 13241.) The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Sacramento-San Joaquin Basin Plan) contains the water quality objectives that apply to any discharges from the Project Area to the San Joaquin River. (DEIR at page 3-191.) The Water Quality Control Plan for the Tulare Lake Basin (Tulare Lake Basin Plan) contains the groundwater quality objectives that will apply to the Project Area and proposed irrigation site for reclaimed wastewater. (DEIR at page 3-191.)

The RWQCB is required to protect *all beneficial uses* designated for the particular water body in the applicable basin plan, including those associated with fisheries as set forth in the Sacramento-San Joaquin Basin Plan. Since the Project is not expected to cause or contribute to any violation of applicable water quality standards or substantially degrade existing water quality, the Project will not affect the use of the river as habitat for fisheries, including spring-run Chinook salmon and steelhead. (DEIR at page 2-214.)

As discussed in Response 19.71, RBI prepared a thorough assessment of the proposed wastewater treatment plant's potential impact on the aquatic resources of the San Joaquin River, which is entitled *Final Report, Assessment of the Friant Ranch Wastewater Treatment Plant on the Aquatic Biological Resources of the San Joaquin River* and is included as Appendix G to the DEIR. The assessment considers the "fish species of primary management concern that have the potential to occur in the reach of the San Joaquin River" implicated by the Project. (DEIR, Appendix G at page 3.) The assessment "examines how the Project impacts to fish and aquatic resources may change in the future following implementation of new instream flow standards under the SJRRP." (DEIR, Appendix G at page 66.) The assessment concludes that the subject species would not be adversely affected by activities related to construction of the outfall infrastructure. (DEIR, Appendix G at page 66.) The assessment also concludes that the additional flows provided under the SJRRP would provide substantially more dilution than was used in the DEIR and assessment's impact analysis, meaning that any potential adverse water quality- or temperature-related effects on fish communities would be lesser under the SJRRP conditions. (DEIR, Appendix G at page 67.)

The Project will have no direct effect on federally listed anadromous fish, which have not been present in the San Joaquin River between its confluence with the Merced River and Friant Dam since about 1950. The RBI assessment analyzes possible impact to the aquatic habitat of the San Joaquin River from the wastewater treatment plant, taking into account both 2008 and "restored" river flows in its analysis. This document assumed that river discharge of effluent would be required during the winter months, and evaluated construction-related impacts including:

- (1) alteration of aquatic and riparian habitat,
- (2) water quality effects on fish and benthic macroinvertebrate communities,
- (3) potential for fish to become stranded, and
- (4) potential for change in amount of predator holding habitat.

This document also examined long-term operational impacts including:

- (1) potential for contaminants to adversely affect fish or benthic macroinvertebrates,
- (2) effects on aquatic life of anticipated trace metal concentrations downstream of effluent discharge,
- (3) effects on aquatic life of anticipated pesticides and polychlorinated biphenyls (PCBs) concentrations downstream of effluent discharge,

- (4) potential for short-term thermal effect to fish and benthic macroinvertebrates moving downstream of effluent discharge,
- (5) population or community-level effects to fish or macroinvertebrates resulting from incremental increases in downstream water temperatures,
- (6) potential for decreased dissolved oxygen concentrations downstream of the outfall and resultant effects on aquatic life,
- (7) effects of anticipated pH levels on aquatic life downstream of effluent discharge,
- (8) effects of project discharges on turbidity and total suspended solids (TSS) conditions downstream of effluent discharge,
- (9) potential for whole effluent toxicity to adversely affect fish and aquatic resources,
- (10) potential for habitat loss or alteration within the area affected by the plume, and
- (11) potential for alteration of the natural instream flow regime downstream of the outfall.

All construction-related and operational effects of the wastewater treatment plant, assuming river discharge were to occur during the winter months, were determined to be less than significant. Thus, even assuming an anadromous fishery resource in the San Joaquin River downstream of presumed effluent discharge, the Project impact resulting from such discharge would not adversely affect existing aquatic resources.

As noted in Response 32.7, river discharge is not the preferred option for effluent discharge. The preferred option is effluent storage in an existing pit on the Beck Property (adjacent to Friant Road) and effluent disposal within the Specific Plan Area (for landscape irrigation) and the Beck Property (for agricultural irrigation). The proximity of the effluent storage pit to the San Joaquin River (it is somewhat more than 1,200 feet from the river) might engender some concern that effluent would contaminate the river. This concern is fully allayed by the following:

- (1) Geotechnical studies demonstrate that the bed of the proposed effluent storage pit lies just above bedrock. Being “perched” on bedrock, the stored effluent will thus not reach groundwater that may feed the San Joaquin River.
- (2) Hydrologic studies demonstrate that lateral movement of San Joaquin River water through the alluvium creates hydrostatic “head” sufficient to prevent effluent stored on the Beck Property from moving laterally into the San Joaquin River.
- (3) As discussed above, studies by RBI conclude that direct river discharge would result in a less than significant effect on aquatic biological resources of the San Joaquin River. Two essential factors in the conclusion that direct river discharge would result in a less than significant effect on aquatic resources including anadromous fish are (1) that the proposed SJRRP will result in the discharge from Friant Dam significantly greater flows

(111% greater in dry years and 375% greater in wet years), thus providing significant dilution of thermal plumes and storm and waste water containing small amounts of possible pollutants; and (2) the proposed waste water treatment facility will be a state-of-the-art treatment facility discharging UV-disinfected tertiary effluent. This report therefore suggests that the volume of water flowing from the Specific Plan Area will be an insignificant fraction of the discharges from Friant Dam, and any possible discharges directly from the proposed waste water treatment facility will be of such high quality that Project-related impacts to water quality will be negligible. (See DEIR, Appendix G.)

Effluent storage and disposal on the Beck Property would not increase Project impacts on such resources. As determined in studies of the subsurface hydrology of the Beck Property, the hydraulic head created by the lateral movement of water from the San Joaquin River will prevent effluent stored at the Beck Property from moving into the San Joaquin River (see Response 32.8). In fact, the preferred effluent storage and disposal option would decrease impacts on such resources since the discharge will not reach the river and, even assuming it did, would be subject to additional filtration of soil and rocks underground before entering the groundwater. Thus, the impact of the preferred disposal option would remain less than significant.

- c. *Endocrine Disruptors and Pyrethroids (Contaminants of Emerging Concern)*. Potential impacts associated with trace amounts of pharmaceuticals and other contaminants of emerging concern are too speculative to address in the EIR. As stated in the RBI aquatic assessment:

There are two constituent groups – endocrine disrupting chemicals and pyrethroids – for which insufficient information is available to support meaningful impact assessments for the [wastewater treatment plant]. Nevertheless, a general overview discussion of what is known about these potential constituents of concern is provided below.

Endocrine Disrupting Chemicals

In recent years there has been heightened scientific awareness and public debate over potential impacts that may result from exposure to endocrine disrupting chemicals (EDCs). Humans and fish and wildlife species could potentially be affected by sufficient environmental exposure to EDCs. This discussion is provided to summarize what is currently known about EDCs and the status of their regulation. The World Health Organization's (WHO) published document, *Global Assessment of the State-of-the-Science of Endocrine Disruptors*, 2002, defines an EDC as "... an exogenous substance or mixture that alters function(s) of the endocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub)populations." The endocrine system is combination of glands and hormones that assist in vertebrate reproduction, growth, and development. EDCs block, mimic, stimulate, or inhibit the production of natural hormones, disrupting the endocrine system's natural functions. Endocrine disruption may be described as a functional change that may lead to adverse effects, not necessarily a toxicological end-point. EDCs can be natural or synthetic. Plants, such as soybeans and garlic, produce natural EDCs as a defense mechanism.

However, most EDCs are human-made synthetic chemicals released into the environment unintentionally. Certain drugs, such as birth control pills, intentionally alter the endocrine system. Categories and sources of substances that are potential EDCs are presented in Table 2. (See Table 2 at page 7 of DEIR Appendix G.)

Although there are some known EDCs, many chemicals are termed “suspect,” because there are not enough data to make a conclusive determination of their endocrine disrupting characteristics. Some known EDCs (e.g., PCBs, DDT, chlordane) are already regulated via surface water quality standards or drinking water standards based on their toxicological and carcinogenic effects. However, no water quality standards applicable to the San Joaquin River or for the protection of aquatic life currently exist for natural and synthetic estrogens or related pharmaceutical chemicals. Based on the current state of knowledge regarding dose-response relationships of EDCs for various organisms at the low levels in which they can occur in surface waters, it is likely to be a number of years, possibly many years, before any such standards are promulgated.

The ecological effects have been researched in early studies by Desbrow and Jobling. Research by Desbrow et al. (1998) has documented the presence of 17-beta ethynylestradiol (a synthetic hormone used in the birth control pill) in wastewater and suggested that the presence of natural and synthetic estrogen hormones in wastewater has induced vitellogenin production in male fish. Vitellogenin is a female protein involved in reproduction that is normally only found in females. Jobling et al. (1996) have shown similar results with alkylphenolic compounds, breakdown products of a group of industrial surfactants used in products such as paints, herbicides, and cosmetics. Other research has since confirmed that natural and synthetic estrogens can be present in effluents in sufficient quantity to cause endocrine disruption in fish (Rodgers-Gray et al. 2000). The absence of adequate exposure data, especially exposure data during critical development periods, is the weakest link in determining whether any observed adverse effects in fish are linked to EDCs. The WHO’s state-of-the-science assessment concludes that “...our current understanding of the effects posed by EDCs to wildlife [including fish] and humans is incomplete.”

Some known endocrine disruptors have been banned in the United States (i.e., PCBs, DDT, and chlordane). These chemicals were banned for their carcinogenic effects, not strictly for their estrogenic effects per se. Some European countries are further along in phasing out certain chemicals because of their hormone interference, but this action is not common among governmental agencies worldwide. The approach in the United States has been that more definitive information needs to be gathered and conclusive research conducted before regulatory measures can be taken.

Pyrethroids

Upon banning/restricting the uses of organochlorine pesticides and, more recently, various organophosphate pesticides, pyrethroid insecticides have seen more wide-spread use in recent years. Pyrethroids are the active ingredient in many pet flea and tick shampoos and other pesticide products marketed for domestic use.

To date, little monitoring of pyrethroids has occurred in wastewater treatment plant effluents in California. Although monitoring for pyrethroids may increase, it is not anticipated that wastewater effluent will contain significant concentrations of pyrethroids because of their hydrophobic nature (i.e., these compounds are not soluble in water and thus absorb to sediment particles and thus are removed in wastewater treatment plant sludge). As such, it is anticipated that pyrethroids will adhere to wastewater solids and thus be removed through the treatment process and not be in treated effluent discharged to surface waters. For example, the Sacramento Regional Wastewater Treatment Plant (SRWTP) has monitored for a number of pyrethroid compounds in its treated effluent since the mid-90s. None of the pyrethroids monitored were found above method detection limits in the SRWTP effluent (C. Irvine, CH2M HILL, Environmental Scientist, pers. comm., February 21, 2008).

(DEIR Appendix G at pages 6-9.)

As addressed in the excerpt above, the scientific knowledge regarding pharmaceuticals and other “constituents of emerging concern” (CECs) is incomplete and uncertain. Much is unknown about their fate and transport in the natural environment, and even less is known about the effects of low levels of CECs on humans and wildlife. The SWRCB recently acknowledged as much. In a recently adopted order, the SWRCB stated “[a]t this point in time, however, the science is too uncertain to require each [publicly owned treatment works] to monitor for a host of materials that have the potential to be found in its discharge.” (See *In the Matter of Petitions of City of Stockton, California Sportfishing Protection Alliance, San Luis & Delta-Mendota Water Authority and Westlands Water District*, SWRCB/OCC Files A-1971, A-1971(a) and A-1971(b) (Oct. 6, 2009) at page 9.)

Moreover, the SWRCB’s Recycled Water Policy discussed in Response 19.65 provides:

The state of knowledge regarding CECs is incomplete. There needs to be additional research and development of analytical methods and surrogates to determine potential environmental and public health impacts. ... Regulating most CECs will require significant work to develop test methods and more specific determinations as to how and at what level CECs impact public health or our environment. (Recycled Water Policy at page 13.)

In response to the lack of knowledge and uncertainty regarding CECs, the SWRCB (in consultation with the California Department of Public Health) convened a blue ribbon advisory panel. The panel is to report on the current state of scientific knowledge regarding CECs, recycled water, public health, and the environment. (Recycled Water Policy at page 13.) The panel’s report is due to the State Water Board in May 2010. The target date for the adoption of CEC monitoring recommendations based on the panel’s report is November 2010. To leverage the panel’s efforts in addressing issues relevant to the ambient environment, the David and Lucile Packard Foundation and Southern California Coastal Water Research Project partnered to support a second panel that will recommend how best to

limit any potential impacts CECs may have on oceans, estuaries and wetlands. The second panel expects to release a final report in June 2011.

Other significant studies are underway to determine the potential impacts CECs may have on public health and the environment. (See Q&A on Pharmaceuticals in Water, Water Education Research Foundation (WERF) (April 11, 2008).) The United States' wastewater industry is investing millions of dollars to research and analyze the benefits of various treatment processes with respect to CECs. (*Id.*) The United States Environmental Protection Agency has stated "to date, scientists have found no evidence of adverse human health effects from [pharmaceuticals and personal care products] in the environment." (www.epa.gov/ppcp/faq.html#ifthereareindeed.)

Although CECs are the subject of ongoing study, none of the relevant studies will be completed or provide any meaningful information upon which to evaluate the Project's potential effects related to CECs within the timeframe that this Project EIR is being prepared. At this point, the state of science is too speculative to evaluate this issue as it relates to the project or reach any determination of impact significance. If and when the state of science supports the regulation of CECs through discharge or recycled water permits, the RWQCB will, pursuant to state law, incorporate appropriate regulatory requirements into any such permit(s) related to the Project. Such permits include reopener provisions for changes that may occur (for example, a basin plan addition of newly regulated constituents) justifying a modification of permit conditions.

- d. *Cumulative Pollutant Levels.* See Response to Comment 32.26 related to cumulative impacts.
- e. *Beneficial Uses/Water Quality Standards.* The water quality objectives in the Sacramento-San Joaquin Basin Plan serve to protect various beneficial uses of the San Joaquin River, including the preservation and enhancement of fish, wildlife and other aquatic resources. (Sacramento-San Joaquin Basin Plan at page II-1.00; see 40 Code of Federal Regulations § 131.10(a); Water Code, § 13050(f).) The Sacramento-San Joaquin Basin Plan, which applies to the San Joaquin River, does not distinguish between fish species for purposes of beneficial use designations and water quality objectives, but rather includes requirements that protect cold water and/or warm water habitats for aquatic life. The Sacramento-San Joaquin Basin Plan identifies the San Joaquin River (Friant Dam to the Mendota Pool) as supporting the beneficial use of Cold Freshwater Habitat (COLD), which would apply to salmon species. (See Sacramento-San Joaquin Basin Plan at page II-7.00.) COLD is defined as "[u]ses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates." (Sacramento-San Joaquin Basin Plan at page II-2.00.) The water quality objectives applicable to COLD beneficial uses protect cold-water aquatic life and are not species-specific. The Project is not expected to cause or contribute to any violation of applicable water quality standards or to substantially degrade existing water quality, and the discharge activities will operate under permits issued by the RWQCB in compliance with state and federal law. Those discharge permits will require monitoring designed to ensure compliance with the water quality objectives to protect beneficial uses, including those associated with fisheries. Such

permits also routinely include reopener provisions for changes that may occur (for example, revisions to water quality standards) justifying a modification of permit conditions.

Comment 32.8: *Possible mitigations could be to re-route all wastewater and stormwater away from the San Joaquin River for offsite application to a crop such as alfalfa in an area that is not hydrologically connected to the San Joaquin River system. The current plans for reuse of treated wastewater at Lost Lake has already received scrutiny at public meetings and would require further discretionary approvals by the County in the face of already existing opposition. Other options explored for reuse along the San Joaquin River floodplain could produce negative impacts to the water quality of the river system as any hydrologically connected discharge would degrade the San Joaquin River through surface seepage or lateral groundwater seepage. Impacts should also be considered to the groundwater supply for the City of Fresno.*

Response 32.8: Commenter's suggestion to mitigate Project impacts by dewatering the San Joaquin River (i.e., sending stormwater to offsite locations) is not a reasonable mitigation measure to reduce potential impacts to the river and will likely create additional significant impacts resulting from the loss of water. Moreover, such proposed mitigation is entirely inconsistent with the Project itself, which by definition adheres to the LID philosophy of maintaining predevelopment flows to the river.

No mitigation in the form of alternative wastewater disposal sites is required. The DEIR recognizes that the reuse of treated wastewater at Lost Lake Park would require discretionary approvals by the County (see DEIR at 2-22). Consistent with the commenter's suggestion, the Specific Plan applicant has investigated alternatives to the potential reuse at Lost Lake Park. The DEIR analyzes the potential agricultural reuse at the Beck Property (see, for example, DEIR pages 2-9, 2-10, 3-210, 3-213) and concludes, based on substantial evidence, that there would be no significant impact to groundwater or surface water from agricultural reuse. The Beck Property location would allow reuse of the treated effluent for agricultural purposes in a manner that will not adversely affect the water quality of the San Joaquin River or the groundwater supply for the City of Fresno. See also Response 19.65.

The text of the DEIR (page 2-9) has been amended as follows to include a footnote regarding the "Beck Property":

The Friant Ranch Specific Plan incorporates two active adult recreation centers, approximately 15 miles of trails and parkways, approximately 20 acres of parks and public open space areas, approximately 92 acres of landscaped slopes, and approximately 275 acres of conservation open space areas (including 245 acres of undisturbed open space and 30 acres of revegetated open space slopes). The Specific Plan development will require a number of additional actions, which are analyzed in this EIR, including but not limited to a water transfer agreement for 2,000 acre-feet of water annually between Lower Tule River Irrigation District and Fresno County Waterworks District No. 18 (WWD #18), Regional Water Quality Control Board permits for irrigation with treated effluent of Specific Plan landscaping and off-site disposal of treated effluent on suitable nearby lands such as the Beck Property² (identified in Figure 2-6) and/or Lost Lake Park (and, if

sufficient winter land disposal areas are not available, seasonal discharge to the San Joaquin River), United States Army Corps of Engineers and Regional Water Quality Control Board permits for dredge and fill of wetlands, Endangered Species Act and California Endangered Species Act compliance through United States Fish and Wildlife Service, United States National Marine Fisheries Service, and California Department of Fish and Game, replacement of the current wastewater treatment plant servicing the Millerton Lake Village Mobile Home Park, construction of a new water treatment plant, annexation of Friant Ranch Specific Plan Area into Fresno County Waterworks District No. 18, and various agreements and permits related to the water treatment plant and wastewater treatment plant infrastructure and operation. The Project also includes the adoption of a new zoning ordinance for the Friant Ranch Specific Plan Area.

Footnote: ² The Beck Property is the former 150-acre CEMEX gravel extraction facility south and east of Lost Lake Park. It consists of highly disturbed agricultural lands and an aggregate mining quarry. One existing residence, associated outbuildings, parking areas, and landscaping currently occupy 3-4 acres of the Beck Property in its southeast corner. The mining pit at the north end of the property will be used as an effluent storage pond for seasonal irrigation of the remaining irrigable lands on the Beck Property. A maximum of approximately 100 days of effluent will be stored. A pipeline from the wastewater treatment plant to the Beck Property would be constructed within disturbed areas directly adjacent to existing roadways. Prior to disposal at the Beck Property, the effluent will be treated to a level that is consistent with Title 22 requirements for the unrestricted use of recycled water. Recycled water from the WWTP will be applied to irrigate the Beck Property at agronomic rates.

The DEIR explains that there would be minimal to no surface or lateral groundwater seepage of any traces of treated effluent to the San Joaquin River from the Beck Property site. (See DEIR at pages 3-210 and 3-213.) In drawing this conclusion, the DEIR relied on the Live Oak Associates, Inc. 2009 Beck Property Biological Resources Analysis, Memo to Bruce O'Neal (which incorporated as Appendix A thereto the Provost & Pritchard 2009 Memorandum to Bruce O'Neal regarding Evaluation of the Beck Property for Effluent Storage and Reclamation) and the Water Quality Assessment (Appendix L). (See DEIR at page 7-2.) The Provost & Pritchard and Live Oak Associate memoranda noted above are included as Appendix B to this FEIR.

As discussed at page 3-210 of the DEIR, due to the impermeable soil conditions and the direction of groundwater flow underlying the site, it is unlikely that a hydrologic connection exists between the groundwater and the San Joaquin River such that lateral groundwater seepage of treated wastewater into the San Joaquin River from the Property would occur. Provost & Pritchard performed test hole drilling and reconnaissance geologic mapping at the Beck Property on October 3, 2008. As discussed in the 2009 Provost & Pritchard evaluation, the minimal thickness of the lateral soils and the distance to the San Joaquin River will preclude lateral migration of water stored in the 25-acre storage pond on the Beck Property to the San Joaquin River. The 2009 Provost & Pritchard Memorandum analyzed the potential hydraulic connectivity between the proposed alternative wastewater disposal site at the Beck Property and

the San Joaquin River. The report demonstrates that the 25-acre storage pond at the Beck Property has already been excavated to the hard, resistant, and impermeable granitic bedrock and there is no possibility of downward migration of water into that rock layer. Though there may be some permeability in the thin top layers (approximately the upper few inches to feet), the underlying hard bedrock is effectively impermeable. Only a relatively thick veneer of sand and gravel currently overlies this bedrock. Further, the report shows that the elevation of the pond surface, relative to the surface of the San Joaquin River, combined with the minimal thickness of the lateral soils and the distance to the San Joaquin River, will preclude later migration of water in the pond to the San Joaquin River. The antidegradation analysis included within the Water Quality Assessment (DEIR, Appendix L) demonstrates that the application of tertiary treated effluent at agronomic rates, as proposed, will not cause or contribute to a violation of water quality criteria or objectives, and is not expected to cause a significant lowering of water quality in the groundwater. (See DEIR, Appendix L, pages 25-27.)

As discussed at page 3-213 of the DEIR, RWQCB restrictions that apply to the Project prohibit the application of treated effluent 24 hours before or after rain. These mandatory restrictions will minimize any chance of stormwater carrying traces of treated effluent to the San Joaquin River from the Beck Property, Lost Lake Park or other similarly situated properties used for disposing effluent. Moreover, an existing levee rising approximately six feet above the ground surface along the western property line of the Beck Property effectively precludes any surface water runoff from the Beck Property draining to the San Joaquin River. Moreover, except for a small strip of non-irrigable land (40 feet wide) abutting the river at the south end of the Beck Property (see Figure 2-6), the Beck Property is situated more than 700 feet from the 100-year flood plain associated with the San Joaquin River.

Though there are pockets of groundwater flowing within the fractured granitic bedrock underlying the Project Area, the Project Area does not overly a viable groundwater aquifer. The existing groundwater wells in the Project Area are fed from water in subsurface fractures. As such, groundwater is not a potential source of water supply for the Friant Ranch Specific Plan Area. Further, there exists no hydrologic connection between the groundwater underlying the Beck Property and the groundwater basin underlying the City of Fresno. Figure 1-1 of the December 2006 Fresno Area Regional Groundwater Management Plan shows the boundary of the Kings groundwater subbasin, which includes the City of Fresno but ends approximately 3 to 4 miles southwest of Friant. Given the distant and separate groundwater basin providing water supply to City of Fresno and the impermeability of the soils underlying the Project Area, there will be no impacts to the groundwater supply for the City of Fresno.

Comment 32.9: *Land Use*

The proposed specific plan is not consistent with many policies contained within the Fresno County General Plan. The proposed specific plan describing the site development and proposed changes in use must comply with policies within the General Plan unless specific analysis in the CEQA document shows adequate analysis to support a change with its adoption. Compelling arguments are not given in the document to support changes contrary to the following County policies:

Policy LU-A.1 The County shall maintain agriculturally-designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and Infrastructure are available.

The County did not adequately assess alternatives for growth within the existing Sphere of influence and did not mitigate farmland conversion impacts.

Response 32.9: See Responses 18.3, 19.16, and 19.150.

Comment 32.10: *Policy LU-A. 14 The County shall ensure that the review of discretionary permits includes an assessment of the conversion of productive agricultural land and that mitigation be required where appropriate.*

Mitigation to create permanent conservation easements should be considered, and project locations within the SO1 should be identified.

Response 32.10: See Response 18.3 regarding establishment of an agricultural conservation easement.

Comment 32.11: *Policy LU-G.4 The County shall encourage orderly outward expansion of urban development by supporting only those city sphere of influence expansion proposals where the city has demonstrated a need for additional territory after documenting a good faith effort to implement an infill development program and minimize conversion of productive agricultural lands.*

A needs test should be done to determine if privately developed 'New Towns' should be allowed in remote County locations.

Response 32.11: Policy LU-G.4 of the County of Fresno's General Plan refers specifically to circumstances when a *city sphere of influence expansion proposal* is being considered. This project will not require a change of a city sphere of influence.

Comment 32.12: *Policy LU-H.8 The County shall prepare a regional plan for the Friant-Millerton area. The preliminary study area boundaries for the new regional plan depicted in Figure LU-5 are designed to encompass the area's major recreation facilities and open space resources, include the area's existing and potential residential growth areas, but exclude most productive agricultural land. In the near-to-midterm, planning and development in the area should focus on expanding and enhancing the area's recreational activities and resources. In the long-term, the area may be suitable for urban development as the unincorporated county's largest remaining area without productive agricultural soils near the Fresno-Clovis Metropolitan Area and recreational and scenic resources.*

The project identifies a change in land use which promotes a precedent setting action that results in the urbanization of land in a remote location (leapfrog development). The County is directed by the General Plan to prepare and adopt the Friant-Millerton Area Regional Plan by FY 02-03.

The necessity of the plan as identified in the General Plan is to identify and address issues such as open space, recreation, and groundwater and surface water supply in the near-term. In the long-term the area could be considered for development with identification of regional suitability issues for long-range urbanization. The Plan has failed to materialize and no public process was undertaken to identify or address these regional issues making the current planning process in conflict with the General Plan Policy LU-B.8

Response 32.12: A regional plan for the Friant-Millerton area has not been prepared. Several neighborhoods exist in areas surrounding the Specific Plan area. Additional nearby developments, including Millerton New Town, Brighton Crest, and Table Mountain Casino are planned or exist. The proposed project would not be considered leapfrog development. Plans for the Friant-Millerton area have considered the resources that were to be addressed in the regional plan.

As stated in the DEIR, page 3-232, “The Fresno County General Plan includes the following overall goal (LU-G) in the Incorporated City, City Fringe Area, and Unincorporated Community Development section of the Agriculture and Land Use Element: ‘To direct urban development within city spheres of influence to existing incorporated cities and to ensure that all development in city fringe areas is well planned and adequately served by necessary public facilities and infrastructure and furthers countywide economic development goals.’ The Project Area is not within an incorporated area of the County. However, the project furthers the purpose of General Plan Goal LU-G and Policy LU-G.23 by providing adequate public facilities services to meet the needs of the development...The Project also furthers Countywide economic development goals by providing necessary infrastructure that will assist in achieving implementation of the Friant Redevelopment Plan.” See also Response 19.16 regarding consistency with General Plan Policy LU-A.1.

Comment 32.13: Water Quality

The project is proposing uses in which irreversible damages can occur from potential environmental accidents and increased chronic exposures to elevated levels of pollution from the project. Because the storm-water systems can not guarantee that contaminated waters will not eventually drain to the river, and because discharge of wastewater and direct discharge of storm-water are outlined in the proposal, the development could reasonably exceed design capacity and create irreversible harm to fisheries and wildlife that depend on the river adjacent to the project as defined in Section 15126.2(c) of the CEQA Guidelines.

Response 32.13: The cited section of the CEQA Guidelines, entitled “Significant Irreversible Environmental Changes which would be caused by the Proposed Project Should it be Implemented,” does not apply to the commenter’s suggestion that accidents may occur, which is wholly speculative and not supported by any evidence. The comment poses a hypothetical scenario (for example, the Project for some reason exceeds its designed wastewater effluent quantities) and requests that analysis be performed and mitigation measures provided for that hypothetical. Any permit issued by the RWQCB for the project wastewater treatment plant will limit discharge to land or surface water to a volume that is consistent with the design capabilities of the treatment facility. As noted in Response to Comment 19.63, the Specific Plan requires

that stormwater runoff not exceed pre-development levels and provides design criteria and performance standards that will ensure this requirement is met. More information about how the Project's LID standards will manage stormwater quantity and quality is provided in Responses 19.47, 19.62 and 19.63. For these reasons, it is not reasonably foreseeable that the Project would exceed treatment plant or stormwater system design capacity or result in significant harm to fisheries and wildlife. CEQA does not require speculation or analysis of impacts beyond those that can be reasonably foreseen to result from the Project.

Comment 32.14: *Storm-water runoff and subsurface shallow groundwater drains to the river and mixes with waters of the San Joaquin River. Storm-water runoff typically contains pesticides, grease, oil, heavy metals, poly nuclear aromatic hydrocarbons, and other organics and nutrients. Sedimentation from construction activities will also pose significant threats to the river ecosystem if not contained properly. The temperature of water entering the river also impacts fisheries. Trace amounts of pharmaceuticals have been found to disrupt the reproductive cycles of fish. Treatment of urban wastewater using best available technologies is not sufficient to guarantee that trace amount of pharmaceuticals and other constituents will not impact fisheries.*

Response 32.14: The comments pertaining to effects of stormwater runoff on the San Joaquin River ecosystem and fisheries are addressed in Response 32.7. With respect to the commenter's discussion of pharmaceuticals, see Response 32.7 pertaining to pharmaceuticals and other contaminants of emerging concern.

The commenter notes that temperature of water entering the river impacts fisheries. RBI and the DEIR preparers took temperature under consideration in assessing impacts to fisheries and ultimately concluding no significant impact thereto. For example, the aquatic species assessment set forth in Appendix G to the DEIR assessed the potential temperature effects on the aquatic biological resources of the San Joaquin River (i.e., the fisheries), including salmon and steelhead. (See, for example, DEIR Appendix G at pages 14, 68-69.)

Comment 32.15: *The analysis of water quality does not adequately take into consideration the project impacts to existing or future water quality within this reach of river. Construction activities may be mitigated, but no adequate water quality monitoring plan is available to quantify impacts. The document established that non-point source pollutants and diffuse-source pollutants are significant, but proposes inadequate monitoring or control plans for the development of the site. The RWQCB does not monitor water quality or chemical constituents necessary for fishery health and should not be the platform for proving no impacts to fisheries.*

Response 32.15: As discussed in Response 32.7, the aquatic assessment prepared by RBI is a thorough, state-of-the-practice report by a firm respected statewide in the field of aquatic biology. It considers both 2008 and "restored" river flows in its analysis. (DEIR, Appendix G.) There is no expectation that the quality of water released from Friant Dam will change significantly in the future, so no attempt has been made to calculate or represent a "future" water quality. Since the DEIR and RBI report do not identify any significant impacts to vertebrate or invertebrate species resulting from the Specific Plan project, no mitigation measures (including monitoring and control programs) are proposed. The RBI report analysis goes well beyond

typical RWQCB constituent monitoring in its analysis, allowing the expert consultant to reach the stated conclusions of non-significance.

Further, the RWQCB is required to protect all beneficial uses, including beneficial uses associated with fisheries. See Response 32.7 for a discussion of RWQCB water quality standards. As discussed in Response 32.7, RWQCB requires monitoring to ensure that discharges do not cause or contribute to the exceedance of the water quality objectives set for designated beneficial uses of the San Joaquin River, including cold water fisheries. (DEIR at page 3-191.) As discussed in Response 19.63, the Construction General Permit will similarly require monitoring of construction stormwater runoff.

Comment 32.16: *The planned development could impede other beneficial uses of the river and its waters. Other beneficial uses identified in the State's Water Quality Control Plan for the San Joaquin River Basin include: safe water contact recreation, non-contact water recreation, commercial and sport fishing, warm freshwater habitat enhancement, cold freshwater habitat enhancement, estuarine habitat enhancement, wildlife habitat, preservation of biological habitats of special significance, threatened species habitat, migration of anadromous fish species, sanctuary for safe reproduction and spawning offish, and private navigation. California Water Code states economic considerations and future beneficial uses must be considered when deciding water quality objectives, the most sensitive use should be protected. and beneficial uses should not be unreasonably affected. The RWQCB regulations impact existing permitted uses, and are not adequate indicators of project siting considerations. Agreements to follow these and other local, federal, or State regulations do not constitute mitigation or guarantees of reduced impacts.*

Response 32.16: The RWQCB's regulations require protection of all designated beneficial uses identified in the Sacramento-San Joaquin Basin Plan. (See Response 32.7.) As indicated in DEIR, Table 3.8-1, Page 3-192, the designated beneficial uses of the San Joaquin River from Friant Dam to Mendota Pool include municipal supply, agricultural supply, industrial process, recreational uses, freshwater habitat, migration, spawning and wildlife habitat. (See Sacramento-San Joaquin River Basin Plan at page II-7.00.) Beneficial uses include both existing and anticipated future uses. Thus, compliance with permits and regulations issued by the RWQCB will protect all of the beneficial uses associated with this segment of the San Joaquin River. Moreover, effluent from the wastewater treatment plant is proposed to meet Title 22 standards for full-contact recreational use of the treated effluent, directly, not accounting for any dilution in the river. The project proposal would provide a minimum dilution of approximately 100:1 on a day when the project and the Friant Community Area are fully built out and the river is at minimum restored flow. Dilutions would reach over 1000:1 during irrigation season. These facts support the determination that there will be no significant impact to river recreational uses. In addition, the RBI report (Appendix G to DEIR) provides substantial Project-specific evidence and analysis to support the determination that the Project will not have a significant impact on fish or other aquatic biological resources. (See Response 32.7.) There is no evidence that implementation of the Project would inhibit or impair potential uses of the river, including navigation, in any way.

Comment 32.17: *Development impacts from the project site have potential to degrade water quality above and beyond those impacts identified in the document. No mitigation is considered to ensure that non-point source or diffuse-source pollution will not impact water quality. Point-source direct discharge of treated effluent is a project element that can be mitigated. Compliance with the RWQCB permits do not guarantee that impacts to all users of the San Joaquin River are mitigated. Septic and storm-water systems are not adequately designed to keep pollutants from impacting the San Joaquin River. Direct discharge, discharge through shallow groundwater movement, or storm-water discharges could impact fisheries and drinking water supply for downstream users. Shallow perched groundwater supplies are listed as contaminated by agricultural pollutants beyond domestic or agriculture use standards, further degradation with new pollutants from septic and storm-water infiltration should therefore be avoided. With low infiltration rates, additional groundwater quality depletion would impact on-site wetlands and should be investigated.*

Response 32.17: The DEIR provides an extensive evaluation of the potential for the Project to adversely affect surface and groundwater quality, and related biological resources. The DEIR considers the water quality effects of direct discharge of treated effluent from the proposed wastewater treatment plant and stormwater runoff as well as potential changes to water quality resulting from land storage and land application of treated wastewater. (See DEIR Sections 3.4, 3.8 and DEIR Appendices G and L.) Contrary to the commenter's suggestions, the DEIR considered mitigating Project design features and mitigation measures to ensure any stormwater effects would be less than significant. (See Responses 19.47, 19.62, and 19.63.) Further, the DEIR does not consider mitigation measures related to point-source direct discharge of treated effluent because these impacts were determined to be less than significant and, as such, no mitigation is necessary.

The comment regarding the effectiveness of RWQCB permits in ensuring water quality is addressed in Response 32.7 above.

The Project does not propose any new septic systems. Continued development of planned uses within the Existing Community Plan Area could result in construction of additional on-site septic systems, as no public sewer system currently exists outside of the existing Millerton Lake Mobile Home Park. However, any new septic tanks will have to comply with County Health Department requirements and the California Building Code. The Project includes the construction and operation of the new wastewater treatment plant with treatment capacity adequate to accept inflow from the Specific Plan Area and the balance of the Community Plan Area. However, the Project does not include the construction of a sewer collection system necessary to make use of that capacity outside of the Specific Plan Area and the existing Millerton Lake Mobile Home Park. Any such system is not part of this Project and the funding and construction thereof would be the future responsibility and decision of the citizens and businesses within the Existing Friant Community in cooperation with Water Works District 18.

The comment pertaining to stormwater or wastewater impacts (including land application and river discharge) to the San Joaquin River fisheries is addressed in Response 32.7.

There is no evidence that the Project will result in adverse impacts to groundwater quality as a result of stormwater runoff (or any groundwater movement related thereto). Rather, as discussed in Responses 19.44, 19.47, 19.62, 19.63, and 32.7, the stormwater system design will ensure no significant impacts to water quality. Some incidental groundwater recharge could potentially take place in detention basins, however the fact that the basins are designed to empty within 72 hours (for vector control) limits the opportunity for stormwater to percolate into the soil. Moreover, the impermeability of the soil makes any percolation of stormwater highly unlikely. See, for example, discussion related to groundwater movement in Response 32.8.

The effectiveness of Title 22 discharge requirements for wastewater effluent, combined with the level of dilution anticipated, ensure that there would be no adverse impacts on future municipal users of San Joaquin River water downstream related to the river discharge or land application (including any alleged groundwater movement) of treated effluent. See general discussion of water quality objectives and beneficial uses in Response 32.7 above, and discussion of water quality impacts related to land application and storage of treated effluent (onsite and offsite) in Responses 19.65 and 32.8. The RWQCB is required to protect *all beneficial uses* designated for the particular water body in the applicable basin plan, including those associated with municipal and domestic uses (i.e., drinking water supply) as set forth in the Sacramento-San Joaquin Basin Plan. (Sacramento-San Joaquin Basin Plan at page II-1.00; see 40 Code of Federal Regulations § 131.10(a); Water Code, § 13050(f).) Accordingly, discharge permits issued for the Project must ensure compliance with water quality standards to protect beneficial uses, including those associated with drinking water. Such permits include reopener provisions for changes that may occur (e.g., water quality standards revisions) justifying a modification of permit conditions. Since the Project is not expected to cause or contribute to any violation of applicable water quality standards or substantially degrade existing water quality, the Project will not have a significant impact on drinking water supplies for downstream users. (DEIR at page 2-214.)

Comment 32.18: Water Supply

The water supply for the project is not yet secured. The Bureau of Reclamation will be required to review and approve a long-term transfer agreement for 2,000 af/yr of water from the Lower Tule River Irrigation District. This approval will require NEPA and ESA findings and an analysis of groundwater impacts and economic and social effects, including environmental justice, of the proposed water transfers on both the transferor and transferee, before the transfer is approved. The San Joaquin Basin is losing 3.5 cubic kilometers [2.8 maf] a year due to groundwater overdraft. The groundwater basin below the Lower Tule Irrigation district is severely over-drafted and it is reasonable to assume that until groundwater programs are implemented and sustainability planning is underway, the district does not have a surplus supply to sell out of district. With severe shortages to other CVP users reliant on the Delta it is also reasonable to assume that the District's supplies could be reduced from the Cross Valley Canal Supply creating more demand from within the District for their Class 1 supplies. Any exports of district water can have a significant impact on their ability to recharge groundwater within the district. This water supply is not a "firm" supply and should provide an adequate backup supply for amounts needed in extremely dry years.

Response 32.18: See Responses 19.132 and 28.15. NEPA analysis of the proposed transfer and related USBR approvals is currently under way by USBR. The commenter is correct that no agreement between the parties would be final before USBR environmental analysis is complete. Mitigation Measure #3.14.1 set forth in the DEIR ensures that no tentative maps will be approved for the Specific Plan Area until USBR approves the proposed water transfer.

As explained in the DEIR and Water Supply Assessment, LTRID intends to rely on a variety of its supplies to ensure satisfaction of all of its in-district and out-of-district obligations, including the subject transfer, in critically dry years within the CVP Friant Division. The identification of the Cross Valley Canal supplies as a potential source of water in Appendix D to the Water Supply Assessment recognizes expected year-to-year shortages thereto (including a summary of historical delivery percentages). Future delivery of less than the full contractual entitlement to Cross Valley Canal supplies is anticipated and would not result in unexpected demand on Class 1 supplies.

In the 1980 update of DWR Bulletin 118, "California's Groundwater," the Tulare Lake basin is identified as critically over drafted, based upon work done by DWR that was funded by the Legislature in 1978. When Bulletin 118 was updated in 2003, DWR did not take a position on the overdraft condition or potential of the Tulare Lake basin or any basin in the State. The Bulletin states on page 98:

In some basins or subbasins, groundwater levels declined steadily over a number of years as agricultural or urban use of groundwater increased. In response, managing agencies developed surface water import projects to provide expanded water supplies to alleviate the declining water levels. Increasing groundwater levels, or refilling of the aquifer, demonstrate the effectiveness of this approach in long-term water supply planning. In some areas of the State, the past overdraft is being used to advantage. When the groundwater storage capacity that is created through historical overdraft is used in coordination with surface water supplies in a conjunctive management program, local and regional water supplies can be augmented.

This excerpt appropriately describes the situation in the eastern portion of the Tulare Lake basin, where the groundwater management situation has changed substantially in the years since 1978 by the construction of subregional water banking projects. LTRID's banking facility, where the overall volume of water recharged has exceeded the volume pumped and groundwater levels have measurably recovered, is one such example of why the DWR's 1978 evaluation of basin condition no longer strictly applies. In its 2003 update, the Department recognized conditions were changing and was careful to not apply the old labels when it had not had the budget or opportunity to update its investigation.

Meaningful planning and implementation of sustainability programs within LTRID have been ongoing for many years. The commenter may be unaware that LTRID has already established a groundwater bank, and has sunk over 80,000 acre-feet of water into the bank that can be withdrawn to meet its dry year needs. Also, as noted in the Water Supply Assessment, revenues from the proposed agreement will be used by LTRID in part to enhance its ability to capture its

pre-1914 Tule River entitlements and other available surface water supplies (such as Class 2 CVP Friant Division water to which LTRID has a contractual right), which will be stored in the groundwater bank and used to enhance and increase the overall supply of water available to the District and its customers.

Comment 32.19: *The proposed backup supply is proposed as a temporary short-term exchange of water from the Tule River to the downstream Friant Kern contractor to provide adequate supplies to Friant Ranch. This is another supply requiring approval from the Bureau without guarantee of its suitability for use at Friant Ranch. Conditions for short-term exchanges do not allow land conversion activities from agricultural to M&I use which this project would be doing until full buildout was achieved and delivery records could show three consecutive years of sustainable supply. These contractual requirements limit this supply's reliability as a backup source of water. The pre-1914 water rights discussed as a supply of backup water would need to be identified, as the Tule River pre-1914 water rights are fully appropriated. The source of the water rights would need to be contractually identified from specific users and proof supplied that the rights could be handed over during these dry year deliveries. Also the rights if riparian could not be stored behind the dam for delivery due to the nature of riparian rights. Any SWRCB approvals required for short-term transfers should be included as regulatory requirements in the Final EIR.*

Response 32.19: The comment mischaracterizes both the mechanism of the proposed agreement and the legal status of the Tule River water. As explained in Response 19.132 above, only CVP Class 1 water will be delivered to the Project. Tule River water will not be used within the Project Area as suggested by commenter. Further, the Project does not propose any storage of water pursuant to riparian rights and will not be served by water made available from riparian rights. The DEIR discusses the possibility of LTRID using Tule River water made available under its pre-1914 rights to satisfy other out-of-district demands to south valley exchange partners, consistent with past practices. Any such exchanges to other partners are not subject to State Water Resource Control Board approval because the subject rights are pre-1914 rights and not subject to State Water Resources Control Board jurisdiction pertaining to transfers or exchanges. For more information about LTRID's pre-1914 rights to the Tule River, see Response 19.138 above.

Comment 32.20: *There was no evidence in the Draft EIR that the project is within the SWRCB Place of Use Boundary or that the use of the existing Point of Diversion is authorized by the State Water Resources Control Board.*

Response 32.20: The Project is fully within the State Water Resources Control Board's assigned place of use boundary for the CVP Friant Division. An exhibit depicting this place of use boundary has been included as Appendix S. The boundary runs roughly parallel with and approximately one-half mile northeast of the Friant Kern Canal. The point of diversion currently used by WWD 18 has been used for over 40 years. The WWD 18 contract with USBR, attached as Appendix B to the Water Supply Assessment, allows for potential changes to the identified point of diversion. However, any future point of diversion would be consistent with the identified points of diversion in the U.S. Bureau of Reclamation permits with the State Water Resources Control Board for the CVP Friant Division.

Comment 32.21: *The proposed reuse of treated wastewater onsite and the quantities proposed for reuse are not supported by the Draft EIR. A discussion should be included about what open space and landscaping acreage is suitable for application of wastewater. Areas designated as wetland and wildlife buffers should not receive wastewater and other protected cultural resource areas and drainages should be analyzed for their suitability as disposal sites. Any plans for application offsite should be supported by substantial evidence to determine whether the reuse and application of wastewater is feasible and eligible for consideration as a backup supply or supply reduction for the purpose of the SB 610 water supply assessment.*

Response 32.21: The Infrastructure Master Plan calls for use of recycled effluent on “landscaped open space areas such as, for example, trails, road medians, and landscape easements to the maximum extent practical.” The Project does not include application of reclaimed water in the identified open space preserves within the Specific Plan Area. The Water Supply Assessment estimates that the Project may use as much as 400 acre-feet/year of recycled water, which is reflective of up to approximately 100 acres of applied area. The Water Supply Assessment includes this 400 acre-feet in its Table 10.1.1, “Comparison of 20-year Projection of Supply and Demand for Normal, Critical Dry, and Multi-Dry Years,” (page 37) for all types of water years because reclaimed water is dependent upon indoor water use, which is not subject to wet year/ dry year variations to any significant degree. The reuse and application of the tertiary treated wastewater is feasible because it will satisfy the requirements of Title 22 for unrestricted use. See also Responses 28.13 and 28.14 above.

Comment 32.22: *Biological Resources*

The Draft EIR does not take into consideration the San Joaquin River Restoration Program and the impacts of development to the reasonably foreseeable goals of a restored Spring-run and Fall-run Chinook salmon fishery. By the time the project will be implemented, the full restoration flows to the river will be in effect and the quantities analyzed in the aquatic study will need to be revised. Other anadromous salmonid species are projected to be returned to the river by 2013, and numerous native reintroduced species will likely be managed along with the salmon reintroduction. The SJRRP planning efforts have been initiated to establish guidelines for maintaining a sustainable fishery. The RWQCB has not established water quality thresholds that would ensure discharge into the San Joaquin River would impact a restored salmon fishery. It is not certain that existing Best Management Practices or regulations are significant to protect water quality or quantity for a restored salmon fishery, therefore potential impacts could occur even if the development is properly permitted. Impacts to San Joaquin River fish and wildlife species are therefore not adequately addressed or mitigated in this report.

Response 32.22: The DEIR identifies and considers potential impacts with regard to the SJRRP restoration goals. For example, the DEIR states that although Chinook salmon are no longer present in the area, restoration of the San Joaquin River will focus on the recovery of viable salmon populations. (DEIR at page 3-95.) “Hence, proposed projects within the Friant Community Plan Area should be evaluated for their compatibility with recovery efforts and San Joaquin River restoration, which is why this species is included in this EIR.” (DEIR at page 3-95.) The DEIR includes similar language for other species of interest, such as the Central Valley steelhead. (See e.g., DEIR at page 3-95.)

The issues discussed in Comment 32.22 (related to existing best management practices and regulations, RWQCB standards, and impacts to the San Joaquin River ecosystem) are addressed in Response 32.7. As discussed therein and contrary to commenter's suggestion, the aquatic species assessment set forth in Appendix G to the DEIR analyzed both 2008 and restoration flows in determining impacts to fisheries.

Comment 32.23: *There was no identification of the State designated wetlands, only federally designated wetlands. The identification of State wetlands is an essential tool for analysis of potential biological impacts from the project. State wetlands should be assessed and potential impacts should be mitigated with adequate buffers established to protect the habitat for threatened and endangered species. Without adequate buffers to natural wildlife habitat corridors that run through the property in natural wetlands and drainage channels, wildlife migratory paths will be impacted severing upland migratory paths required for maintaining populations. Wetlands and habitats for biological species of concern should be protected in a natural state and no treated wastewater should be applied to these areas. Wetlands should also be protected from pollutants discharged in Stormwater.*

Response 32.23: The DEIR considers all wetlands within the Specific Plan Area. (See DEIR at pages 3-116 thru 3-119.) The state of California asserts jurisdiction over all wetlands of the site, including those meeting the regulatory definition of waters of the United States. As identified on page 3-116 of the DEIR, approximately 35 acres of wetland channels, vernal swales, and vernal pools were identified on the site. All 35 acres of such waters are within state jurisdiction. Of these 35 acres, the U.S. Army Corps of Engineers has asserted jurisdiction over approximately 31.35 acres. The U.S. Army Corps of Engineers verified the delineation of these hydrologic features in October 2008. As identified on Table 3.4-4 (page 3-117 of DEIR), the Specific Plan development will impact approximately 10.88 acres of "waters" that are in the combined jurisdiction of the state of California (CDFG) and the federal government (USACE). As also explained in Table 3.4-4, the Specific Plan development will impact an additional 1.45 acres of isolated waters, which are only within state jurisdiction. The Specific Plan development will fully mitigate its impacts to all jurisdictional waters, whether in state jurisdiction alone, or state and federal jurisdiction together. (See Mitigation Measure #3.4.3a.) This mitigation consists of the USACE/USFWS-approved creation/ restoration of vernal pool wetlands and wetland swales off-site at a 1:1 ratio, thus ensuring no net loss of wetland acreage, functions, and values. Additional mitigation includes the preservation under conservation easement of approximately 83 acres of existing wetlands and natural drainage channels. Thus, the DEIR in fact has fully addressed Project impacts to waters of the state of California.

The Specific Plan places buffers around all wetlands preserved in on-site open space. The Project does not include a plan to discharge any effluent in any open space preserves required as mitigation for wetland impacts.

Comment 32.24: Air Quality

The air quality section is grossly inadequate as a document to ensure enforceable mitigation occurs to offset the total impacts of the construction and operational phases of the project. Data was not presented in the Draft EIR showing the total emissions from the project as a whole.

Individual and distinct analyses based on development phases are not adequate to assess the total impact from the project. Total construction and annual operational emission estimates must be presented and explained in the document. Total emissions over the CAA emission thresholds represent a significant impact as the region is in non-attainment status for NOx, ROG, and PM10. Emissions that exceed these CAA emission thresholds should be quantified and reduced through offsite emission reductions to reduce the significant impacts resulting from the project. The San Joaquin Valley Air Pollution Control District has a program called the Voluntary Emission Reduction Agreement program designed to mitigate excess emissions through fees for off-site reductions, and this program should be considered as a feasible mitigation measure in the Final EIR.

Response 32.24: See Responses 19.29 and 19.33. Regarding a Voluntary Reduction Emission Agreement (VERA), a VERA is a voluntary agreement and therefore is not a mitigation measure that is enforceable by the County. In addition, VERAs are typically handled prior to issuance of a tentative map. However, the applicant will also be subject to an Indirect Source Review (ISR), at which time the applicant will discuss a VERA with the San Joaquin Valley Air Pollution Control District.

Comment 32.25: *The project should identify that it is subject to the SJVAPCD's Indirect Source Review Rule and have completed applications filed with the air district identifying on-site mitigations to be completed and a schedule of fees to be paid. Compliance with the ISR rule is mandatory and must be complied with prior to final discretionary approval with the District. On-site mitigations are voluntary; however, fees must be scheduled for any unmitigated emissions within the rule thresholds as they apply to the project.*

Response 32.25: A discussion of the ISR – Indirect Source Review regulations is included in the DEIR under 3.3.1 Regulatory Setting on page 3-29 of the DEIR. Although not stated explicitly, the project must comply with rules of the Air District and other State and Federal regulations in order to be approved by the County. The DEIR states that the new ISR rules apply to all new projects with over 50 residential units (or that exceed any of a number of other thresholds). Page 2-27 of the Project Description Chapter of the DEIR lists various Project-related approvals over which the San Joaquin Valley Air Pollution Control District has jurisdiction, including “Appropriate Action to Ensure Rule 9510 Compliance for Friant Ranch Specific Plan Development.”

Comment 32.26: Cumulative Impacts

The Draft EIR does not consider the cumulative impacts of surface water imports to the Friant-Millerton area, or cumulative impacts of wastewater and stormwater releases to the San Joaquin River and its aquifer. Any assessment of impacts to aquatic biological species and fish species should take into consideration not only single-project impacts to these species but also the cumulative impacts of the projects listed on the fish and other species in the San Joaquin River and terrestrial species on the project site. These cumulative impacts to river ecosystems have been the subject of the Bay Delta Conservation Plan that is underway identifying the cumulative impacts of multiple wastewater systems and their impacts to aquatic species. Other possible mitigations would be to sell or give water to nearby farms for agricultural application

in areas not hydrologically connected to the river, with firm agreements for acceptance of the treated wastewater.

Response 32.26: The commenter suggests that there are “surface water imports” to the Friant-Millerton Area. However, there is no evidence to suggest that any surface water is imported into Friant. Rather, for the Project and the identified past, present, and reasonably foreseeable future projects, the identified surface water supplies are from the Central Valley Project, Friant Division project (i.e., the San Joaquin River water stored locally behind Friant Dam). (See DEIR, pages 5-17, 5-18, and 5-21.) The Project does not include any deliveries of “imported” water supplies to the Project Area. Water Works District 18 will continue to supply stored water behind Friant Dam to the Project Area, although with the Project the Friant Dam supplies available to the district would increase significantly.

The DEIR analyzes the less than significant cumulative impact associated with stormwater and wastewater releases on page 5-19 of the DEIR.

The text of Section 5.2.8 of the DEIR (page 5-19) has been amended as follows to clarify the rationale for concluding that the cumulative water quality impacts associated with such releases would be ***less than significant***:

5.2.8 HYDROLOGY AND WATER QUALITY

As development proceeds within the proposed Project Area, an increase in storm water runoff, potentially containing pollutants, will result in potential impact to surface and groundwater quality. However as discussed in Section 3.8 of the Draft EIR, project-level water quality and flooding impacts would be reduced to a less than significant level through compliance with Fresno County General Plan policies and existing regulations and the proposed Friant Community Plan and proposed Friant Ranch Specific Plan policies.

Other new development within the County reflected in Table 5-1 would also result in additional storm water runoff and wastewater discharge to the San Joaquin River and adjoining groundwater aquifers. The Project-specific analyses of stormwater runoff and wastewater discharge analyzed whether the Project would “cause or contribute to” any violations of water quality standards. As such, the Project-specific analysis considered any combined effects of the Project in addition to existing contaminants already occurring in the river below Friant Dam. Since the discharge from these other developments will be to groundwater aquifers, river segments, and/or tributaries outside of the Project Area, it is not likely that the respective discharges will somehow combine in a given area to result in significant decreases in water quality. With respect to surface water discharges, the proposed discharge point within the Project Area is miles from any other discharge of stormwater or wastewater and, as such, the flow of the river will dilute any discharge from the Project such that by the time it reaches another discharge point, the effect of Project discharges is not recognizable. With respect to discharges to groundwater, as discussed in Section 3.8, due to

impermeable soil conditions, it is unlikely that stormwater runoff or land application of treated wastewater within the Project Area would migrate through the groundwater to other groundwater areas to combine with similar releases from other projects in such a way as to create a cumulatively significant impact to groundwater quality. This Moreover, the past, present and reasonably foreseeable regional development would be required to comply with regional, State and federal regulations, including the attainment of the Sacramento-San Joaquin Basin Plan and Tulare Lake Basin Plan water quality standards to protect designated beneficial uses (discussed in Section 3.8 of the Draft EIR), designed to appropriately manage and control storm water runoff, water quality and flooding. Compliance with these regulations will reduce the potential for cumulative hydrological and water quality impacts to ***less than significant and*** the Project proposed-project would, therefore, result in a ***less than significant cumulative impact.***

The commenter's mention of the state's Bay Delta Conservation Plan (BDCP) process is noted, but does not provide relevant information to assess cumulative impacts. The BDCP process is intended to create a document that functions as a federal habitat conservation plan and a state natural communities conservation plan to provide incidental take coverage for the operation of the state and federal water supply projects in the Delta. In the process of establishing such a document, the parties have identified "other stressors" affecting the protected species at issue, potentially including secondary-treated wastewater treatment plants in the Delta. The allegations concerning said plants relates to the release of ammonia directly into the Delta. There is no evidence to suggest that the Project will have any similar effects because the proposed plant involves tertiary treatment, rather than mere secondary treatment as is found in the plants of concern in the Delta. As such, the Project will not have any adverse effect on the cumulative condition with respect to ammonia impacts in the Delta. (See DEIR Appendix L at page 22.)

CEQA does not require the same level of detail in analyzing cumulative impacts and the Project's contribution thereto as is required for Project-specific impacts. As such, detailed project-specific studies (such as Appendix G of the DEIR) need not also cover cumulative impacts at the same level of detail as the Project.

See Response 32.8 relating to the commenter's suggestions about using wastewater and stormwater offsite.

Comment 32.27: *Thank you for your time in reviewing these comments to the proposed development project. I have attached several articles and study references to support the comments made by Revive the San Joaquin. Please feel free to contact me for further explanation of these comments and for any references needed.*

Response 32.27: The County appreciates the comments of Revive the San Joaquin and the reference materials supplied by the commenter.

Responses to Letter 32 Attachments: The commenter provided miscellaneous attachments to the comments with no explanation of how they relate to the Project or the comments thereon.

The attachments do not provide any specific information about any potential significant impacts of the Project. The commenter provided an article about a secondary-treated wastewater treatment plant in the Delta as if to suggest the proposed wastewater treatment plant at Friant, which is significantly smaller in size, tertiary-treated and hundreds of miles from the Delta, is somehow synonymous. No evidence in the record suggests any correlation to the proposed plant. Further, the possibility of the large Sacramento County regional treatment plant operators selling wastewater does not provide any indication of the feasibility or appropriateness of doing so in the small Project Area. Finally, the commenter submitted an inconclusive study about pharmaceuticals and other contaminants of concern, which only confirms the lack of certainty with respect to the likely occurrence of harm to humans or species from such contamination. (See discussion in Response 32.7.) These attachments will be forwarded to the decision makers for consideration during the EIR certification and Project approval process.

The commenter attached an article related to the current state of groundwater supplies in the San Joaquin Valley. The article does not provide any substantial evidence of impacts expected to occur from the Project. As discussed in Response 23.2 above, the Project does not involve the use of groundwater within the Friant Ranch Specific Plan Area. As discussed in Responses 19.134, 19.135, and 32.18 above, the proposed transfer of CVP Class 1 water supplies from LTRID to WWD 18 to serve the Project will facilitate additional groundwater recharge efforts to enhance the groundwater supplies within LTRID.

3.4 Oral Testimony

The following is a summary of the DEIR public hearing/participation meeting held December 9, 2009, 6:00 p.m. at the Friant Elementary School, located at 3992 E. Marcus Avenue, Fresno, CA 93626.

SUMMARY

Bruce O'Neal (County consultant) introduced the project and gave a description of the documents under preparation. Travis Crawford (County consultant) then gave a PowerPoint presentation. Mr. O'Neal explained that there were comment cards available that could be left with him after the meeting, and to which he would provide follow up responses.

18:20 Jonathan Harris asked about the details of the 20-year plan, and the waste water treatment system. Mr. O'Neal repeated the question, explaining that it deals with existing residents and requirements for them to hook up to the proposed waste water treatment system. According to the City of Fresno and County of Fresno "mandatory sewer importance" if a major truck line is installed, residents must hook up to it. But, the project does not include plans for a major truck line to be installed.

20:25 Mr. Harris asked about utilizing water from the lake. Mr. O'Neal explained that the water demand would be an estimated 13,000 ac/ft/yr, and that they were asking for 20,000 ac/ft/yr. The water agreement would need to be approved as part of the project to proceed.

21:48 This question referred to federal water use downstream of the project. The project was developed before recent State decisions were made regarding releasing water for use downstream of the lake. Mr. O’Neal asked Mr. Harris to write this question on a comment card, so that he could research the answer and respond more fully at a later date.

23:44 Mr. Harris asked a follow-up question regarding odors potentially generated by the waste water treatment plant, and Mr. O’Neal responded that it was analyzed in the EIR, and that impacts would be minimized because of the prevailing wind direction. Mr. O’Neal asked that this question also be noted on a comment card.

24:33 Alma Ferris asked about density and numbers of homes anticipated to be built per year. Mr. O’Neal explained that the project was expected to be built in five phases, but there was no requirement for a specific time frame. The EIR does include a table describing the number of residences and when each will be built. There are expected to be 100-200 units built per year. It is likely that construction will not begin for two years, once improvement reports have been concluded.

Alma Ferris asked about the adult community, and the size of the homes. Mr. O’Neal explained that these lots would be small, single family homes, with sizes starting at about 1,200 sq. ft.

27:48 Mr. Harris asked about the percentage set-aside for seniors. Mr. O’Neal explained that would be 2,996 units, of which 2,776 are age-restricted (to those 55 years and older). That is 92 percent.

28:42 Ms. Ferris or another female asked about public access and alternative transportation. Mr. O’Neal stated that this project has accommodation for buses. He explained that many communities of this nature have their own buses. This issue is described in the EIR under GHG emissions and transportation, which discusses trails and alternative transportation.

31:10 Ms. Ferris or another female asked if grandchildren needed to move in with grandparents, would then have to move from the community because of the age restrictions. Mr. O’Neal said that there are rules in place that, if enforced, could require the residents to move. He said that this rarely happens.

32:10 Ms. Ferris asked if children could inherit a home in the community. Mr. O’Neal said that the residents would need to be aware of the restrictions.

32:45 Mr. Harris asked about community design. Mr. O’Neal explained that the applicant has submitted an application for Friant Ranch that does include aesthetic requirements. He also explained that the Specific Plan has an overall design theme. Mr. Harris asked several follow-up questions about design, and Mr. O’Neal explained that the design was primarily “western” with some aspects of “Mediterranean” and “French Country.” Mr. Harris wanted assurance that the residents could have some input about the design, and Mr. O’Neal said that this was possible, and that they could “make this case with the planning commission.”

39:21 Mr. Harris asked about noise studies and where they were conducted. Mr. O’Neal explained that they were completed along Friant Road (as there are no internal road completed yet). Mr. O’Neal explained that when development is planned within the community, a noise study will be completed for that specific project. He did not think there were any “noise generators” planned for Friant Ranch.

41:05 Mr. Harris asked about an increase in lanes to Highway 65, and the route planned for it. Mr. O’Neal stated that there were several options. He thought that if Friant Ranch were approved, the highway would go south of it. There was considerable discussion about this issue, but Mr. Harris referred to meetings held in Madera County, and then made observations on a map that was displayed at the meeting. Mr. O’Neal stated that Caltrans is studying the traffic issue.

50:30 Paula Ramson (or possibly Branson) asked if the public would have access to the recreation in Friant Ranch. Mr. O’Neal responded that the community would probably have access to trails, but probably not to the community building. Ms. Ramson/Branson asked if Friant Ranch would offer a membership package to those in the community. Mr. O’Neal stated that it was common to do so, but also reiterated that the public would have access to only the trails.

Mr. O’Neal then made closing statements, and reminded participants to submit comment cards if they wanted to.

SECTION FOUR

ERRATA

SECTION FOUR – ERRATA

4.1 Errata Pages

This section contains the corrections that have been made to the DEIR based on comments received on the DEIR and updated information that has become available. The corrections on the following pages are formatted as follows: deletions to the text are shown in ~~striketrough~~ text and additions to the text are underlined.

Unavoidable Significant Environmental Effects

AESTHETICS

- Cumulatively considerable contribution to the overall aesthetic impact of past, present and reasonably foreseeable development in the surrounding area

AGRICULTURAL RESOURCES

- Conflict with Agricultural Zoning

AIR QUALITY

- Construction and Operational Emissions
- Greenhouse Gas Emissions

NOISE

- Off-site traffic noise impacts to existing homes

TRAFFIC AND TRANSPORTATION

- Significant and Unavoidable Impacts to Intersections and Roadway Segments

Alternatives to the Project

Chapter Four of this EIR evaluates the Project against the No Project Alternative, and against viable alternatives, which would achieve, or partially achieve, Project objectives. The conclusion reached in Chapter Four is that the No Project Alternative is environmentally superior compared to the other alternatives. However, the No Project Alternative would not meet the applicant's Project objectives, as identified in Section 4.2. Therefore the Northeast Development Configuration Alternative (#3) was determined to be the environmentally superior alternative because by reducing the footprint of the development project and reducing the unit count, while still incorporating (proportionate with the reduced units) the mitigation measures applicable to the proposed Project, Alternative #3 reduces all of the impacts of the proposed Project (except for cultural resource impacts which remain the same as with the Project) including, but not limited to traffic, biological, air quality, greenhouse gas, energy usage, aesthetic, agricultural, water supply, and water quality impacts. Specifically, Alternative #3 substantially reduces the impacts to waters of the United States, the California tiger salamander, vernal pools, and vernal pool fairy shrimp by reducing the affected area and creating a larger on-site open space with connectivity to adjacent open space areas to benefit species migration. The alternatives analyzed in Chapter Four are:

- No Project
- North Development Configuration (Alternative 1)
- East Development Configuration (Alternative 2)
- Northeast Development Configuration (Alternative 3)

Chapter Four of this EIR also evaluated the Project against an Alternative WWTP Location at the Beck Property, and determines that such an alternative location is environmentally superior to the proposed location within the Specific Plan Area.

Biological Resources. This section evaluates the available data and Project-specific biological field survey(s) of the Friant Ranch Specific Plan Area to determine whether the Project has any potential to disturb special-status species, adversely affect habitat or wetlands, or conflict with plans and policies protecting biological resources, and recommends measures that are necessary to mitigate potential impacts.

Cultural Resources. Existing and potential cultural resources (archaeological, paleontological, and historical) are described in this section, and impacts and mitigation measures are identified.

Hazards and Hazardous Materials. Hazardous materials, fire hazards, airport safety issues, and emergency response issues are addressed in this section, along with measures that are necessary to mitigate potential impacts.

Hydrology and Water Quality. This section addresses issues associated with hydrology and water quality, for both surface (potable water and reclaimed effluent) and ground water. For purposes of obtaining appropriate water quality permits from the RWQCB, an anti-degradation analysis has been prepared and is included as Appendix L to the EIR. Issues related to drainage, storm water runoff, ~~climate change effects on snowpack and rainfall~~, and flooding are also evaluated and mitigation measures are identified.

Land Use and Planning. This section addresses potential Project impacts related to land use conflicts and Project compliance with Fresno County land use planning documents, regulations and zoning.

Noise. The noise section evaluates impacts on sensitive receptors from noise-generating activities, including new stationary noise sources and traffic noise associated with roadways.

Population and Housing. This section addresses the growth-inducing potential of the Project and impacts on the housing stock and recommends mitigation measures to the extent necessary.

Public Services and Recreation. Subjects addressed in this section include impacts on police and fire protection, schools, recreational resources, and parks, along with recommended mitigation measures.

Traffic and Circulation. The transportation and circulation section evaluates and summarizes existing and cumulative conditions in the relevant study area, including an analysis of roadway capacities and future cumulative traffic conditions. Circulation improvements are identified to reduce potential impacts, and public transit needs are discussed.

Utilities and Service Systems. This section addresses water supply (including the information provided within the SB 610 water supply assessment for the Friant Ranch Specific Plan development), sewage disposal, storm water drainage, and solid waste management, and recommends mitigation measures to address potential impacts.

Greenhouse Gas Emissions and Global Climate Change. This section analyzes the Project's potential impact on global climate change including climate change effects on snowpack and rainfall and potential impacts on the Project's water supply resulting from global climate change.

1.1 Organization of the EIR

Section 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. A Draft EIR must include a description of the environmental setting, environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts.

This Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

The Executive Summary defines the general characteristics of the proposed Project and provides an overview of the Draft EIR. The Executive Summary also summarizes the alternatives to the Project and areas of known controversy.

CHAPTER ONE

Chapter One briefly summarizes the proposed actions under review, delineates the procedures and methodology for environmental evaluation of the Project, and outlines the contents of the EIR. The Chapter also provides a concise matrix of the Project's significant impacts and proposed mitigation measures (Mitigation Monitoring Program).

CHAPTER TWO

Chapter Two describes the Project in greater detail and summarizes the general characteristics of the Project location. The Project objectives are also presented. The Project's environmental setting is briefly described, and the regulatory context within which the Project is evaluated or must be approved is outlined.

CHAPTER THREE

Chapter Three details the environmental setting as it relates to each topical area described above (e.g., aesthetics, traffic, air quality), identifies and evaluates impacts, and proposes mitigation measures to reduce potentially significant impacts to less than significant levels where feasible. The format and content of this chapter are as follows:

Introduction

Each environmental topic is introduced by either a brief description of the topic or a brief statement of the rationale for addressing the topic.

Regulatory and Physical Setting

The existing regulatory and physical setting and conditions with respect to the environmental topic being discussed are briefly described.

effects” (CEQA Guidelines §15362). An EIR is intended to identify significant effects on the environment defined in CEQA Guidelines §15382 as “...substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project...”. An EIR is intended to be used by the public, decision-makers, interested individuals, and other agencies and organizations that may have responsibility for a project or project components. CEQA Guidelines §15091 points out that “no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding.” Further, CEQA Guidelines §15092 states that “after considering the final EIR and in conjunction with making findings...the lead agency may decide whether or how to approve or carry out the project,” which is a separate action from EIR certification. When significant environmental effects cannot be reduced to a less than significant level, the Lead Agency must prepare a Statement of Overriding Considerations, in addition to findings, that documents how project benefits outweigh the unavoidable impacts.

1.6 Mitigation Monitoring Program

INTRODUCTION

State and local agencies are required by *Section 21081.6* of the *California Public Resources Code* to establish a monitoring and reporting program for all projects which are approved and which require CEQA processing.

Local agencies are given broad latitude in developing programs to meet the requirements of *Public Resources Code Section 21081.6*. The mitigation monitoring program outlined in this document is based upon guidance issued by the Governor’s Office of Planning and Research.

The mitigation monitoring and reporting program for the proposed Project corresponds to mitigation measures outlined in the DEIR. The Program summarizes the environmental issues identified in the EIR, the mitigation measures required to reduce each potentially significant impact to less than significant, the person or agency responsible for implementing the measures, and the agency or agencies responsible for monitoring and reporting on the implementation of the mitigation measures.

THE PROGRAM

The County will adopt this mitigation and monitoring program at the time of adoption of the Specific Plan and Community Plan broad planning-level actions. Moreover, the Specific Plan and Community Plan documents will incorporate a requirement to comply with this mitigation and monitoring program. Such compliance will be enforced through subsequent conditions of approval for future discretionary actions related to these broad entitlements, such as a conditional use permit for the wastewater treatment plant and tentative maps for the proposed subdivision of the Specific Plan Area. As such, mitigation measures contained herein shall be included as conditions of approval for the Project, to the extent permitted by law. Fresno County shall ensure that all construction plans and project operations conform to the conditions of the mitigated project. Table 1-1 shall be attached to future discretionary approvals, such as a conditional use

permit or tentative map, as a condition of approval. As explained in Mitigation Measure S-1, as a condition of approval and/or by and through the proposed Development Agreement for the Specific Plan project, the applicant shall enter into an agreement with Fresno County to compensate the County's time for mitigation monitoring and overseeing compliance of mitigation monitoring. Such agreement will provide for ongoing review of the applicant's compliance with the mitigation measures.

~~The mitigation measures contained herein shall be included as conditions of approval for this permit, to the extent permitted by law. Fresno County shall ensure that all construction plans and project operations conform to the conditions of the mitigated project. Table 1-1 shall be attached to the permit as a condition of approval. As a condition of approval, the Applicant shall enter into an agreement with Fresno County to compensate the County's time for mitigation monitoring and overseeing compliance of mitigation monitoring.~~

Compliance with local land use regulations is enforced by the Fresno County. Upon evidence of, or receipt of complaints of, noncompliance, the Code Compliance Officer and Building Inspector of Fresno County conducts inspections for such noncompliance, the remedies for which are citations, fines, permit modifications, permit revocation, and even criminal charges.

~~Section 15123(b)(1) of the CEQA Guidelines provides that this summary shall identify each significant effect with proposed mitigation measures that would reduce or avoid that effect. This information is summarized in Table 7-1 "Mitigation Monitoring Program." With the exception of agricultural resources, air quality, traffic, and greenhouse gas emissions and global climate change, all identified impacts are either less than significant in relation to identified significance threshold levels or can be mitigated to a less than significant level through recommended mitigation measures.~~

Chapter Three should be consulted for the full text of impacts and mitigation measures.

This Draft EIR has analyzed cumulative impacts and found that there shall be significant cumulative impacts on aesthetics, air quality, and traffic and transportation resources regardless of implementation of feasible mitigation measures.

Table 1-1
Mitigation Monitoring Program

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #S.1 – Mitigation Monitoring Agreement	#S.1: The Applicant shall enter into an agreement with Fresno County to compensate the County’s time for mitigation monitoring and overseeing compliance of mitigation monitoring. At the County’s discretion, the County may hire an independent consultant to conduct on-going mitigation monitoring and compliance on behalf of the County.	Applicant	Fresno County	On going
Impact #3.1.3 – Introduction of New Sources of Light and Glare and Increased Lighting on the Night Sky as a Result of the Project	Mitigation Measure #3.1.3a: Prior to issuance of any discretionary permit necessary for development within the Project Area, a lighting plan shall be prepared and submitted to Fresno County for approval in conjunction with the permit applications related to such development. The County shall ensure that the lighting plan incorporates the requirements set forth in mitigation measures 3.1.3b through 3.1.3f below.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3b: All lighting in the Project Area shall be shielded, directed downward and away from adjoining properties and rights-of-way. Light shields or equivalent shall be installed and maintained consistent with manufacturer’s specifications, and shall reduce the spillage of light onto adjacent properties to less than a one-foot-candle standard, as measured at the adjacent property line.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3c: Development within the Project Area shall incorporate lighting fixtures designed to produce the minimum amount of light necessary for safety purposes. All parking lot pole lights and street lights shall be fully hooded and back shielded to prevent light spillage and glare.	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.1.3d: The design of any development proposed within the Project Area shall include the use of glare reducing materials, including non-reflective paints and building materials, to reduce the amount of glare created by the structures.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3e: Landscaping within the Project Area shall include vegetation designed to shield adjacent properties from Project-generated light and glare.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.1.3f: Night lighting within the Project Area shall be limited to that necessary for security, safety, and identification. Night lighting shall also be screened from adjacent residential areas and not be directed in an upward manner or beyond the boundaries of the parcel on which the buildings are located.	Applicant	Fresno County	Prior to construction
Impact #3.1.4 – Degradation of the Existing Visual Character or Quality of the Project Area and its Surroundings Resulting from Utilities and Roadway Construction	Mitigation Measure #3.1.4a: Those portions of the Project Area containing natural vegetation or landscape material that are disturbed during utility line and or roadway construction shall be revegetated upon completion of work utilizing plant materials similar to those disturbed. Revegetated areas within the Friant Ranch Specific Plan Area shall be actively maintained by the developer until fully established, in accordance with the landscape design guidelines contained in the Friant Ranch Specific Plan.	Applicant	Fresno County	Prior to construction <u>Upon completion of construction</u>
	Mitigation Measure #3.1.4b: All permanent utility structures <u>buildings</u> within the Friant Ranch Specific Plan Area extending above ground shall be screened where feasible using a combination of berms, mounds, landscape material, decorative fencing/walls, or other screening feature approved in the Friant Ranch Specific Plan. In addition, any proposed roadway and utility pump station lighting within the Project Area shall be directed downward using cut-off fixtures to minimize	Applicant	Fresno County	Prior to construction <u>Upon completion of construction</u>

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	lighting effects on adjacent areas and the night sky.			
Impact #3.3.1 – Construction Impacts for the development of the Friant Ranch Specific Plan (5 phases) and Community Plan Update Carbon Monoxide (CO), Reactive Organic Gases (ROG), Nitrogen Oxide (NOx), Particulate Matter (PM₁₀), & Fine Particulate Matter (PM_{2.5})	Mitigation Measures #3.3.1a: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 1: 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 45% 40% reduction in NOx emissions on all diesel equipment <u>with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)</u> 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. <u>All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.</u> 5. <u>Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.</u> 6. <u>Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.</u> 7. <u>Use of alternative fueled or catalyst equipped diesel construction equipment.</u> 8. <u>Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.</u>	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	9. <u>To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).</u> 10. <u>Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.</u> 11. <u>Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).</u> 12. <u>During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.</u> 13. <u>During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.</u> 14. <u>During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.</u> 15. <u>During construction activity, wind breaks shall be installed at windward side(s) of construction areas.</u> 16. <u>During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.</u> 17. <u>During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.</u>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measures #3.3.1b: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 2: 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 45%–40% reduction in NOx emissions on all diesel equipment <u>with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)</u> 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. <u>All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.</u> 5. <u>Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.</u> 6. <u>Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.</u> 7. <u>Use of alternative fueled or catalyst equipped diesel construction equipment.</u> 8. <u>Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.</u>	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	9. <u>To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).</u> 10. <u>Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.</u> 11. <u>Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).</u> 12. <u>During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.</u> 13. <u>During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.</u> 14. <u>During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.</u> 15. <u>During construction activity, wind breaks shall be installed at windward side(s) of construction areas.</u> 16. <u>During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.</u> 17. <u>During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.</u>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measures #3.3.1c: To reduce emissions and thus reduce air quality impacts, the following Option #2 (enhanced mitigation) measures shall be implemented for Phase 3. <i>Option 1 mitigation measures:</i> 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 45% 40% reduction in NOx emissions on all diesel equipment <u>with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)</u> 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. <u>All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.</u> 5. <u>Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.</u> 6. <u>Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.</u> 7. <u>Use of alternative fueled or catalyst equipped diesel construction equipment.</u> 8. <u>Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.</u>	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	9. <u>To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).</u> 10. <u>Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.</u> 11. <u>Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).</u> 12. <u>During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.</u> 13. <u>During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.</u> 14. <u>During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.</u> 15. <u>During construction activity, wind breaks shall be installed at windward side(s) of construction areas.</u> 16. <u>During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.</u> 17. <u>During construction activity, areas subject to excavation, grading, and other construction activity</u>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	shall be limited at any one time.			
	Mitigation Measure #3.3.1d: To reduce emissions and thus reduce air quality impacts, the following Option #2 (enhanced mitigation) measures shall be implemented for Phase 4. Option 1 mitigation measures: 1. The use of aqueous diesel fuel for the construction vehicles. 2. Use of diesel oxidation catalysts capable of a 45% 40% reduction in NOx emissions on all diesel equipment <u>with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)</u> 3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules. 4. <u>All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.</u> 5. <u>Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.</u> 6. <u>Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.</u> 7. <u>Use of alternative fueled or catalyst equipped diesel construction equipment.</u> 8. <u>Operation of heavy duty equipment and/or the</u>	Applicant	Fresno County/SJVAPCD	During all phases of construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	amount of equipment in use shall be limited to the minimum number of hours practicable each day. 9. <u>To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).</u> 10. <u>Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.</u> 11. <u>Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).</u> 12. <u>During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.</u> 13. <u>During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.</u> 14. <u>During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.</u> 15. <u>During construction activity, wind breaks shall be installed at windward side(s) of construction areas.</u> 16. <u>During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.</u> 17. <u>During construction activity, areas subject to</u>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	excavation, grading, and other construction activity shall be limited at any one time.			
	Mitigation Measures #3.3.1e: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 5: <u>The use of aqueous diesel fuel for the construction vehicles.</u> <u>Use of diesel oxidation catalysts capable of a 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)</u> <u>Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.</u> <u>All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.</u> <u>Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.</u> <u>Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.</u> <u>Use of alternative fueled or catalyst equipped diesel construction equipment.</u> <u>Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the</u>	<u>Applicant</u> <u>Fresno County/SJVAPCD</u>	<u>During all phases of construction</u>	

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	<u>minimum number of hours practicable each day.</u> 9. <u>To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).</u> 10. <u>Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.</u> 11. <u>Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).</u> 12. <u>During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.</u> 13. <u>During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.</u> 14. <u>During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.</u> 15. <u>During construction activity, wind breaks shall be installed at windward side(s) of construction areas.</u> 16. <u>During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.</u> 17. <u>During construction activity, areas subject to excavation, grading, and other construction activity</u>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	shall be limited at any one time.			
Impact #3.3.2 – Violation of Air Quality Standards by Area and Operational Emissions	Mitigation Measure #3.3.2: Implementation of the following mitigation measures shall substantially reduce air quality impacts related to human activity within the entire Project area, but not to a level that is less than significant: The following guidelines shall be used by the County during review of future project- specific submittals for non-residential development within the Specific Plan area and within the Community Plan boundary in order to reduce generation of air pollutants with intent that specified measures be required where feasible and appropriate: ▪ <i>Trees shall be carefully selected and located to protect building(s) from energy consuming environmental conditions, and to shade paved areas. Trees selected to shade paved areas should be varieties that shall shade 25% of the paved area within 20 years.</i> ▪ <i>Equip HVAC units with a PremAir or similar catalyst system, if reasonably available and economically feasible at the time building permits are issued. Catalyst systems are considered feasible if the additional cost is less than 10% of the base HVAC unit cost;</i> ▪ <i>Install two 110/208 volt power outlets for every two loading docks; and.</i> Implement the following, or equivalent measures, as determined by the County in consultation with the APCD: The following measures shall be used singularly or in	Applicant	Fresno County/SJVAPCD	Ongoing

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	combination to accomplish an overall reduction of 10 to 20% in residential energy consumption relative to the requirements of the 2008 State of California Title 24: ▪ <i>Use of air conditioning systems that are more efficient than the 2008 Title 24 requirements;</i> ▪ <i>Use of high-efficiency heating and other appliances, such as water heaters, cooking equipment, refrigerators, and furnaces; and</i> ▪ <i>Establishment of tree-planting guidelines that require residents to plant trees to shade buildings primarily on the west and south sides of the buildings. Use of deciduous trees (to allow solar gain during the winter) and direct shading of air conditioning systems shall be included in the guidelines; <u>and</u></i> ▪ <i>Establish paving guidelines that encourage businesses, if feasible, to pave all privately owned parking areas with a substance with reflective attributes (albedo = 0.30 or better) similar to Portland cement concrete. The use of a paving substance with reflective attributes similar to Portland cement concrete is considered feasible under this measure if the additional cost is less than 10% of the cost of applying a standard asphalt product.</i> Bicycle usage shall be promoted by requiring the following: ▪ <i>All non-residential projects shall provide bicycle lockers and/or racks; and</i> ▪ <i>All apartment complexes or condominiums without garages shall provide at least two Class I bicycle</i>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	storage spaces per unit. Transportation related mitigation measures (Extended Conditions of approval): ▪ <i>Commute options: to inform Specific Plan area occupants of the alternative travel amenities provided, including ridesharing and public transit availability/schedules;</i> ▪ <i>Maps showing the Community Plan's pedestrian, bicycle, and equestrian paths to community centers, shopping areas, employment areas, schools, parks, and recreation areas; and</i> ▪ <i>Information regarding SJVAPCD programs to reduce county-wide emissions.</i> The County and SJVAPCD may substitute different air pollution control measures for individual projects, that are equally effective or superior to those proposed herein, as new technology and/or other feasible measures become available in the course of build-out within the Friant Community Plan boundary.			
Impact #3.4.1 - Impacts to candidate, sensitive, or special status species within the Friant Ranch Specific Plan Area				
Impact #3.4.1a – Impacts to succulent owls clover:	Mitigation Measure #3.4.1a: To ensure that indirect impacts to succulent owls clover shall will be less than significant; the following mitigation measures shall will be implemented: 1. The wetlands on the Friant Ranch Specific Plan Site that contain succulent owls clover shall be maintained as undisturbed open space, as required	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	in mitigation measure 3.4.1c(4). 2. Prior to issuance of a grading permit that would result in activities affecting the succulent owls clover, a Land Management Plan shall be prepared for the open space that exists on the Specific Plan Site. That Land Management Plan shall include continued management by cattle grazing and shall: ▪ be developed in cooperation with the California Department of Fish and Game and the United States Fish and Wildlife Service, ▪ describe management goals and objectives, ▪ include provisions for monitoring existing populations of protected biological resources (including succulent owls clover), ▪ include the use of adaptive management to ensure that results of the monitoring efforts are incorporated into management actions, and follow the management goals and objectives, and ▪ identify remedial actions and alternatives for protection (which may include off-site compensation) if management fails to protect on-site resources to the level established for each resource.			
	<u>Mitigation Measure # 3.4.1a(1):</u> <u>The Specific Plan applicant will pay the market rate for 0.5 acres of succulent owl's clover creation/restoration credits from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Area.</u>	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.1b – Impacts to Hartweg’s golden sunburst	Mitigation Measure #3.4.1b: The following measures shall be implemented to reduce the level of impacts to Hartweg’s golden sunburst to a level that is less than significant. 1. In the spring preceding project construction, pre-construction surveys for this species will be conducted to locate any populations not already documented. These surveys will be conducted during the flowering period of this plant (March to May). 21. Prior to the issuance of a grading permit that would result in activities affecting the Hartweg’s golden sunburst populations, the on-site open space which contains the species will be protected in perpetuity through a conservation easement to be held by a non-profit land trust. 32. The designated open space will be managed to preserve in perpetuity the populations of Hartweg’s golden sunburst. Prior to issuance of a grading permit that would result in activities affecting the Hartweg’s golden sunburst, a Land Management Plan will be prepared (see mitigation measure #3.4-1a2) that will include the protection of the golden sunburst population from human foot traffic and off road vehicles by restricting access to open space through fencing and signage. 43. Prior to issuance of an occupancy permit, an informational brochure will be prepared that educates Friant Ranch Community members about the sensitivity of this species to human trampling, discouraging trespass into conserved open space. 54. Where avoidance is not possible, the project applicant will have a qualified biologist develop a	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Restoration Plan to salvage populations of Hartweg's golden sunburst located in proposed development areas that would be destroyed during construction activities. A draft of this plan will be submitted to the California Department of Fish and Game and the U.S. Fish and Wildlife Service for review, comment, and approval. The plan will be finalized and implemented by the project applicant prior to issuance of a grading permit for the areas inhabited by Hartweg's golden sunburst. Elements of the Restoration Plan shall include the collection of mature seed prior to natural dispersal (late April or early May), the storage of the seed in a cool dry location until the fall, and the dispersal of the seed onto proposed open space areas of the Site where suitable Rocklin soils are known to be present. The selected planting areas would be mapped using GIS, fenced to reduce grazing pressure, and monitored after planting for a minimum of four years during a 7 year monitoring period. An annual monitoring report will be prepared and submitted to CDFG and the USFWS. The salvage and relocation of this species will be considered successful when a self-sustaining population of Hartweg's golden sunburst has been established on approximately 0.06 acres of the designated open space (representing a 3:1 ratio). 65. The Restoration Plan described in number 5 above shall include alternatives or contingencies for ensuring that appropriate compensation for the loss of Hartweg's golden sunburst is met (at a ratio of 3:1) should the initial relocation of the Hartweg's golden sunburst populations not meet established success criteria. These alternatives shall be approved by the CDFG and USFWS.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.1c – Impacts to vernal pool fairy shrimp	Mitigation Measure #3.4.1c: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are less than significant. - The Project shall avoid vernal pool fairy shrimp to the maximum extent feasible. The Friant Ranch Specific Plan has been designed to avoid the majority of vernal pools on the site. Of the 14.38 acres of vernal pool habitat identified on the project site, 12.09 acres of vernal pools shall be protected within approximately 233 acres of designated undisturbed open space that shall be placed under a conservation easement. The area of vernal pool fairy shrimp habitat to be protected within designated on-site open space shall be at a ratio of 5 acres of protected vernal pool habitat for each acre of such habitat directly or permanently disturbed by grading and construction associated with the development of the project. - Prior to the issuance of a grading permit the project applicant shall compensate for the loss of vernal pool habitat through the creation/restoration of additional vernal pool habitat at a ratio of one acre of creation/restoration for each acre of such habitat directly and permanently disturbed by grading and construction associated with the project development. Creation/restoration of vernal pool habitat shall be accomplished by one or a combination of the following three mitigation alternatives: <u>Off-Site Creation/Restoration.</u> The project applicant shall conserve through acquisition or conservation easement off-site lands suitable for vernal pool creation/restoration in Fresno, Madera, or Merced County. Such lands shall consist of the following characteristics: natural	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	undisturbed native wetlands and habitat suitable for threatened and endangered plant and animal species shall be absent (i.e., these lands shall have been previously disturbed by farming, or some other intensive use); vernal pools once occurred on these lands naturally; the underlying hardpan layer is still intact; and the natural topography has not been eliminated through land leveling. Topographic depressions shall be created/restored on these lands according to a “mitigation and monitoring plan” prepared by a qualified biologist. The depressions shall hold water for approximately three months of every year. When full, the depth of the filled pools shall vary from 6 to 18 inches. The depressions shall be revegetated with vernal pool species native to the area; soil collected from existing pools in the region shall be distributed on the bottoms of the constructed pools in order to enhance the prospects for establishing vernal pool fairy shrimp populations. Efforts to establish fairy shrimp populations in the constructed pools shall only occur after receiving formal authorization to do so from the USFWS, as required by law. The components of this mitigation and monitoring plan shall be consistent with standard USACE guidelines. b. <u>Purchase of Vernal Pool Creation/Restoration Credits from a Conservation Bank.</u> The project applicant shall pay the market rate for Vernal Pool Creation/Restoration Credits at the stipulated 1:1 ratio from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Area. c. <u>Payment into the Vernal Pool Fund.</u> Should a			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	conservation bank having vernal pool creation credits for sale not exist south of the Fresno River in Fresno, Madera or Merced Counties, the project applicant shall pay the going rate per acre into the Vernal Pool Fund managed by the Center for Natural Lands Management. These funds may only be used for the purchase of vernal pool creation credits in a local conservation bank. 3. The designated open space proposed for the project site shall provide buffers of 400 to 450 feet <u>75 feet or greater</u> between developed areas of the project site and vernal pools, to reduce encroachment into pools by foot and off-road vehicle traffic. 4. Prior to issuance of a grading permit for the project site, a Drainage Plan shall be prepared for the undisturbed open space of the site. Elements of this plan shall include: a. Design plans to ensure that winter stormwater runoff into open space areas of the project site shall mimic to the maximum extent <u>feasible</u> possible pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved vernal pools shall be roughly equivalent to pre-project conditions, b. All runoff originating in developed areas of the site shall pass through retention basins, bio-filtration swales, or both, which shall act together as stormwater filters such that water quality shall not be significantly reduced from pre-project conditions, c. Irrigation runoff from landscaped areas shall be routed away from vernal pool habitats during the summer and fall to ensure that the			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	hydrology of these habitats mimics pre-project conditions, d. A grazing management plan shall be developed and implemented to control the proliferation of non-native annuals in grassland and vernal pool habitats of the on-site open space areas, and to control the build-up of flammable thatch, e. Access to the open space areas shall be controlled in order to minimize impact to vernal pools and other habitats, and to ensure that cattle are confined to the open space areas when grazing is permitted. This plan shall be submitted to the USFWS for review and approval.			
Impact #3.4.1d – Impacts to the California tiger salamander	Mitigation Measure #3.4.1d: The following measures shall be implemented to ensure that impacts to the California tiger salamander are at levels that are <i>less than significant</i>. 1. The Project shall be designed to avoid elimination of breeding and aestivation habitat to the maximum extent possible. The project applicant has designed the project to avoid a substantial amount of on-site habitats suitable for CTS. Of the 14.38 acres of on-site vernal pool habitat potentially used as breeding habitat by the CTS, 12.09 acres of vernal pools shall be protected in designated undisturbed open space (Table 3.4-2). The area of California tiger salamander breeding habitat to be protected within designated open space shall be at a ratio of 5 acres of protected vernal pool habitat for each acre of such habitat directly and permanently disturbed by grading and construction associated with project development. Of the 927.82 acres of potential aestivation habitat now present in the Specific Plan Area, approximately 233 acres of undisturbed	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	aestivation habitat shall be preserved within the proposed open space. An additional 30 acres of the site that are contiguous with undisturbed open space and that are to be temporarily disturbed by site grading shall be restored to native vegetation and managed as part of the proposed open space area. Open space areas and <u>with</u> vernal pool complexes of the completed project, totaling 275.4 acres, shall be linked to one another to facilitate the movements of CTS from one preserved habitat area to another, and linked to significant breeding and aestivation habitats on lands to the south of the Site. 2. Management of the undisturbed open space, as required in mitigation for vernal pool fairy shrimp set forth in mitigation measure 3.4.1c, shall ensure that vernal pools protected in open space areas of the Site shall continue to provide breeding habitat for CTS and that grasslands shall continue to provide habitat for burrowing rodents, which create aestivation habitat for CTS. 3. Prior to issuance of a grading permit for all or any portion of the project site, the project applicant shall preserve grassland habitats suitable for CTS aestivation under conservation easement at a minimum ratio of two acres of habitat preservation for every acre of such habitat directly or permanently disturbed by project grading and construction. Such preservation shall include on-site (i.e., open space areas) and off-site habitat in Fresno, <u>Madera</u> and/or <u>Merced</u> Madera-Counties south of the Fresno River. Should the project be constructed in phases, preservation can be phased concurrent with development phases as long as the 2:1 ratio is met for the acreage subject to the grading permit.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	At full buildout the project shall eliminate approximately 694.5 acres of suitable on-site aestivation habitat. Under this mitigation measure, the applicant shall preserve two times that amount of known and created CTS aestivation habitat on-site and off-site in suitable habitat located on other parcels within Fresno, Madera and Merced Counties.. Parcels that could meet the requirements of this mitigation measure and are available for mitigation purposes have been identified in Tables 3.4-2 and 3.4-3 and are further illustrated in <u>Figure 3.4-7</u>. These representative parcels provide up to 31.21 acres of breeding habitat in the form of vernal pools and 1,282.19 acres of aestivation habitat in the form of grasslands and other habitats supporting populations of burrowing animals such as California ground squirrels and pocket gophers. To meet the 2:1 preservation requirement set forth in the above mitigation measure the project applicant may identify additional or alternative parcels similar to those identified in Tables 3.4-2 and 3.4-3.			
Impact #3.4.1e – Impacts to the Western Spadefoot	Mitigation Measure #3.4.1e: To reduce impacts to western spadefoots to a level that is <i>less than significant</i>, the following measures shall be implemented: 1. The western spadefoot utilizes the same habitats as the California tiger salamander for breeding and aestivation (i.e., the western spadefoot breeds in vernal pools and aestivates in rodent burrows of surrounding grasslands). Therefore, implementation of mitigation measures for the California tiger salamander (Mitigation Measures 3.4.1d) would reduce the impact to the western spadefoot to a <i>less than significant level</i>.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.1g –Impacts to Burrowing Owls	Mitigation Measure #3.4.1g: The following measures shall be implemented to ensure that impacts to the burrowing owl are <i>less than significant</i>: 1. A pre-construction survey shall be conducted on the Specific Plan Site and on the Depot Parcel for ground nesting raptors, including burrowing owls, within 14 to 30 days prior to initiation of site grading activities. If the grading activities are implemented in phases, then so shall the surveys be conducted in phases. If more than 30 days lapse between the time of the preconstruction survey (s) and the start of ground-disturbing activities, another preconstruction survey must be completed. This process should be repeated until the habitat is converted (e.g., graded and developed). The survey shall be completed in accordance with the survey requirements detailed in the CDFG's October 17, 1995 <i>Staff Report on Burrowing Owl Mitigation</i>. 2. If burrowing owls are identified onsite or within the area of influence of the project site (within 4,000 <u>250</u> feet of the project site), during surveys required in mitigation measure 3.4.1g (1) above, an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the required mitigation site shall be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be 2 x 6.5 = 13 acres provided that no more	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the preconstruction survey, then the mitigation requirement shall be 3 x 6.5 = 19.5 acres). Two natural or artificial nest burrows shall be provided on the mitigation site for each burrow in the project area that shall be rendered biologically unstable. 3. If burrowing owls are present on the site and require relocation, an upland mitigation site for burrowing owls shall be designated as provided for in item 2 above. This site may be located within the on-site open space area or it may be located off site. The mitigation site must consist of grassland habitat, contain small mammals (or other prey), and ground squirrel burrows. Habitat protected for the CTS (see mitigation measure #3.4.1e) may be sufficiently suitable. The mitigation site must be approved by the California Department of Fish and Game. The area shall be preserved in perpetuity as wildlife habitat through a conservation easement that designates the California Department of Fish and Game, or any other qualified conservation organization as the Grantee of the easement. The mitigation area need not be identified prior to finding burrowing owls on the Site, however advance planning would reduce the potential for construction delays. 4. If a Conservation Easement is established for burrowing owl mitigation onsite, the project applicant shall provide the Grantee of the easement with an endowment to cover the management of the Conservation Easement within six months of breaking ground on the project site. The endowment amount necessary for the conservation easement shall be established after negotiations between the			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	applicant, easement holder/land trust, and the regulatory agencies. The management fund shall be provided by the project applicant to the Grantee of the Conservation Easement within six months of breaking ground on the project site. 5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to be engaged in nesting behavior, a fenced 500 <u>250</u> foot buffer would be required between the nest site(s) (i.e., the active burrow(s)) and any earth-moving activity or other disturbance on the project site. This 500 <u>250</u> foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a <u>160</u> foot buffer area will be established. <u>If construction activities require the removal of an active den, the occupying burrowing owls and must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity shall be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring shall be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as</u>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	required in item 6 below. 6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring shall be conducted by a qualified biologist provided by the project applicant. <u>Monitoring may be suspended or discontinued if, in the opinion of the qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading.</u> Monthly reports of monitoring activities shall be submitted by the biologist to the project applicant, the County of Fresno, and the California Department of Fish and Game. A final report of all monitoring application shall be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.			
Impact #3.4.1h – Impacts to the American Badger	Mitigation Measure #3.4.1h: The following measures shall be implemented to ensure that impacts to American badgers are <i>less than significant</i>: 1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground disturbing activities) are phased, then so shall the pre-construction surveys be phased. 2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. Dens must be replaced at a ratio of 2 artificial den for each natural dens removed. Replacement dens may be constructed within grassland habitat on-site, within the open space, conservation area. Replacement dens shall consist of 6 inch diameter plastic corrugated sewer pipe cut to a 6 foot length. One end of the pipe shall be buried no deeper than 2 feet and no less than 1 foot below grade. The other end of the pipe shall remain above ground. Dirt shall be mounded above the pipe to a depth of at least 1 foot above grade, with the opening exposed. If a badger is found during construction on the site, a qualified biologist with the appropriate permits shall trap the badger and physically relocate it to the onsite undisturbed open space. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den. 3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s). 4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunset to			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	sunrise) should be prohibited, unless: a. The construction area is appropriately fenced to exclude American badgers. Appropriate fencing would consist of a 4-foot chain-link fence or similar material (e.g., 2-inch mesh stock fence) buried at least 6 inches below grade. b. The area within any such fence should be inspected by a qualified biologist for badger dens, all dens must be removed, and the site determined to be uninhabited by American badgers prior to initiation of construction. 5. Off-road construction traffic outside of designated construction areas shall be prohibited. 6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor. 7. <u>In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.</u> 7g. American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped. 89. During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site. 910. No firearms shall be allowed on the project site during construction activities. 40. A representative should be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure an American badger, or who finds a dead, injured or entrapped individual. The representative's name and telephone number should be provided to the CDFG. 41. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	12. Any contractor, employee(s), or other personnel who inadvertently kills or injures an American badger should immediately report the incident to their representative. This representative should contact the CDFG immediately in the case of a dead, injured or entrapped American badger. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.			
Impact #3.4.1i –Impacts to nesting raptors	Mitigation Measure #3.4.1i: To protect breeding raptors, the following measures shall be implemented: 1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys shall be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a 4,000 300 foot area of influence surrounding the Site. <u>Suitable nesting sites in the Specific Plan area are extremely limited; surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified biologist.</u> If construction begins between September 2 to February 28, nest surveys shall not be required since this is outside the typical breeding period for raptors. 2. If nesting raptors are identified during the surveys on the project site <u>or within the 300 foot areas of influence</u>, a 300-foot radius buffer around the nest tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

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	may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer. 3. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers shall no longer be needed and can be removed, and monitoring can be terminated.			
Impact #3.4.1j – Impacts to common and special status nesting birds	Mitigation Measure #3.4.1j: To protect common and special status nesting birds, the following measures shall be implemented: 1. A nesting bird survey shall be conducted prior to commencing with construction work (including site grading and vegetation removal) if that work would commence between March 15th and August 31st. The nesting bird survey shall be conducted no greater than 30 days prior to commencement of work, nor sooner than 14 days prior to commencement of work.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	If the construction activities are conducted in phases, then so shall the survey be conducted in phases. 2. If special status birds are identified nesting on the construction area or within a 250 foot area of influence, a 150-foot non-disturbance radius around the nest must be fenced using orange plastic construction fencing or rope and stake fencing as previously described (this fencing requirement shall not replace or be constructed in lieu of fencing discussed above for impacts to nesting raptors). No construction or earth-moving activity shall occur within the 150-foot buffer until it is determined by a qualified biologist that the nest is no longer occupied and young have fledged (that is, left the nest and attained sufficient flight skills to avoid project construction activities). This typically occurs by July 1st, but the date may vary, and would need to be confirmed by a qualified biologist. Similarly, the qualified biologist could modify the size of the buffer based upon site conditions and the bird's apparent acclimation to human activities. 3. If non-special status birds are identified nesting in any tree or shrub proposed for removal, tree removal would have to be postponed until it is determined by a qualified biologist that the young have fledged and have attained sufficient flight skills to leave the project site. Typically, most passerine birds can be expected to complete nesting by July 1st, with young attaining sufficient flight skills by this date that are sufficient for young to avoid project construction zones. Unless otherwise prescribed for special status bird species, upon completion of nesting no further protection or mitigation measures would be warranted for nesting birds. The mitigation measure shall be implemented by the project			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	applicant and the construction contractor. 4. Results of the surveys and monitoring shall be provided in monthly monitoring reports submitted to the project applicant, County of Fresno, and the California Department of Fish and Game.			
Impact #3.4.2 – Impact of Friant Ranch Specific Plan development (including wastewater treatment plant and disposal) to riparian habitat or other sensitive natural communities	Mitigation Measure #3.4.2: The following measure shall be implemented to reduce impacts to the northern hardpan vernal pool sensitive natural community to a level that is less than significant: 1. Implementation of mitigation for federally protected wetlands and jurisdictional Waters (Mitigation Measure #3.4.3) shall ensure the long-term conservation of northern hardpan vernal pools in the region. That measure provides for the acquisition, preservation, and management of large patches of vernal pool and grassland habitats in the project region.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction
Impact #3.4.3 – Impact of Friant Ranch Specific Plan development (including wastewater treatment plant and disposal) to federally protected wetlands and other waters	Mitigation Measure #3.4.3a: The following measures shall be implemented to reduce impacts to wetlands and other waters to a level that is less than significant: 1. Mitigation measures for vernal pool fairy shrimp and California tiger salamanders (mitigation measures 3.4.1c and 3.4.1d) are designed to ensure the long-term conservation of wetlands and other waters in the region. Implementation of these measures shall result in the preservation under conservation easement of wetlands and other waters. For example, mitigation parcels currently under evaluation to meet mitigation measures for vernal pool fairy shrimp and CTS would result in preservation of 22.67 acres of wetlands on-site and up to 60.30 acres off-site (Tables 3.4-5 and 3.4-6), for a combined total of 82.97 acres.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	As can be seen in these tables (Tables 3.4-5 and 3.4-6), the preservation under conservation easement of wetlands and other waters pursuant to mitigation measures for vernal pool and Conservancy-fairy shrimp and CTS could achieve preservation ratios of: ▪ Wetland Channels: 1 acre of disturbed habitat to every 11.1 acres of preserved habitat; ▪ Vernal Swales: 1 acre of disturbed habitat to every 3.7 acres of preserved habitat; ▪ Vernal Pools: 1 acre of disturbed habitat to every 13.6 acres of preserved habitat; 2. Prior to the issuance of a grading permit, the project applicant shall create/restore wetlands to compensate for any wetlands and other water bodies subject to the jurisdiction of the USACE that are directly and permanently disturbed by grading and construction associated with the project. The creation/restoration of such wetlands and other waters shall be at a ratio of one acre of created/restored wetlands and other jurisdictional waters for each acre of jurisdictional wetlands and other waters directly and permanently disturbed by grading and construction associated with the project development. Mitigation measure for vernal pool fairy shrimp (mitigation measure 3.4.1c) provides specifically for the creation/restoration of vernal pool habitat. This mitigation measure provides for the creation/restoration of wetlands and other waters such as wetland and non-wetland channels and vernal swales. Creation/restoration of wetland habitat and other water bodies shall be accomplished by one or a combination of the following two mitigation alternatives:			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	a. <u>Off-Site Creation/Restoration.</u> The Project applicant shall conserve through acquisition or conservation easement, off-site lands suitable for the creation/restoration of wetlands and other water bodies in Fresno, Madera, or Merced County. Such lands shall have the following characteristics: natural undisturbed native wetlands and habitat suitable for threatened and endangered plant and animal species shall be absent (i.e., these lands shall have been previously disturbed by farming, or some other intensive human use); native wetlands and/or other water bodies once occurred on these lands naturally; the soils and hydrology of these lands are suitable for the creation of naturally occurring wetlands and other water bodies; and the natural topography has not been eliminated through land leveling. Topographic depressions, swales and naturalistic drainage channels shall be created/restored on these lands according to a “mitigation and monitoring plan” prepared by a qualified biologist. These engineered features must be inundated and/or experience soil saturation for a duration sufficient to naturally support hydrophytic vegetation native to wetlands of the region. All engineered wetlands and other water bodies shall be revegetated with native hydrophytic species. The wetland creation/restoration plan prepared by the biologist shall provide for long-term management of the mitigation site, mitigation objectives by which the success of the mitigation can be measured, and a monitoring plan for determining the success of the mitigation. The components of this mitigation and monitoring plan shall be consistent with standard USACE guidelines.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	b. Purchase of Wetland Creation Credits from a Conservation Bank. The Project applicant shall pay the market rate for Wetland Creation Credits at a 1:1 ratio from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Site.			
Impact #3.4.3b – Impacts to water quality in seasonal creeks, reservoirs, and other downstream waters	Mitigation Measure #3.4.3b: To ensure protection of water quality in seasonal creeks, reservoirs, and other downstream waters, the following measures shall be implemented: 1. Prior to the onset of construction, an erosion control plan shall be prepared by a qualified engineer consistent with the requirements of a Fresno County grading permit and a General Construction Permit (an NPDES permit issued by the Regional Water Quality Control Board for projects in which one or more acres of land are graded). Typically, specified erosion control measures must be implemented prior to the onset of the rainy season. The project site must then be monitored periodically throughout the rainy season to ensure that the erosion control measures are successfully preventing on-site erosion and the associated deposition of sediment off the project site. Elements of this plan would address both the potential for soil erosion and non-point source pollution. At a minimum, elements of an erosion control plan typically include: a. Protection of exposed graded slopes from sheet, rill and gully erosion. Such protection could be in the form of erosion control fabric, hydromulch containing the seed of native soil-binding plants, straw mechanically imbedded in exposed soils, or some combination of the three.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	b. Protection of natural drainage channels from sedimentation. Hay bale check dams should be installed below graded areas so that any sediment carried by surface runoff is intercepted and retained behind the check dams before it can enter the creek. c. Use of best management practices (BMPs) to control soil erosion and non-point source pollution. BMPs may include measures in <u>4a</u> and <u>2b</u> above, but they may include any number of additional measures appropriate for this particular project site and this particular project, including grease traps in parking lots, landscape management practices to reduce the use of pesticides and herbicides, the discharge of stormwater runoff from “hardscapes” into grassy swales, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc. 2. Where possible, project construction should be confined to the dry season, when the chance for significant rainfall and stormwater runoff is very low. Construction during the spring, summer, and fall shall not eliminate the need to implement erosion control measures described in mitigation measures above, but shall ensure that the threat of soil erosion has been minimized to the maximum extent possible. 3. All post-construction runoff shall be routed through a system of grease traps, stormwater retention/detention basins, and bio-filtration swales to ensure that water quality of on-site and off-site wetlands, creeks and rivers are maintained at roughly pre-project levels.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.5 – Consistency of the Friant Ranch Specific Plan with local policies or ordinances protecting biological resources	Mitigation Measure #3.4.5: To ensure that the Friant Ranch Specific Plan is consistent with Local Policies or Ordinances that Protect Biological Resources, the following shall be implemented: Mitigation Measures #3.4.1c and #3.4.1d shall be implemented to preserve pools as breeding habitat and open space for aestivation habitat for tiger salamanders and western spadefoots, through a combination of on-site and off-site conservation easements. These measures shall also serve to maintain buffer zones around wetland features, preserve vernal pool vegetation, maintain habitat functions and values and control siltation and pollutant entry into these habitats. Implementation of Mitigation Measure 3.4.3a would create/restore wetland habitats to preserve the “no net loss” policy of the ACOE, and mitigate for the loss of wildlife habitat. Implementation of Mitigation Measure 3.4.3b establishes best management practices for preventing impacts to waters via pollutants, siltation, etc. Along with mitigation measures prescribed in Chapter 3.8 of this EIR, “Hydrology and Water Quality”, the mitigation measures just described shall ensure consistency with local ordinances and policies, including the County General Plan Policies. Moreover a considerable amount of additional wildlife habitats and wetlands would be preserved off-site incidental to the mitigation measures required for project impacts to California tiger salamanders.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction
Impact #3.4.7 - Potential biological impacts resulting from the transport and treatment of water	Mitigation Measure #3.4.7: Because the treatment facility is located immediately adjacent to the Friant Ranch Specific Plan Area, and potential impacts associated with its expansion are treated at a project level, all potential impacts and mitigation measures which would apply to construction associated with increasing treatment capacity would be covered by impact and mitigation measures #'s 3.4.1 to 3.4.6 of this DEIR. Similarly, potential impacts to biological	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	resources resulting from construction of on-site conveyance systems, which would be needed to transport the treated water to end users, are covered by impacts and mitigation #'s 3.4.1 through 3.4.6 (for areas within the Friant Ranch Specific plan Site) and #'s 3.4.9 through 3.4.14 (for areas within the Friant Community Plan Area). No additional mitigation measures are warranted.			
Impact #3.4.9 – Impacts of the Friant Community Plan to Candidate, Sensitive, or Special status Species				
Impact #3.4.9a - Swales and depressions Vernal Pools and swales in the Friant Community Plan Area potentially contain spiny-sepaled button celery. Projects within the Area have the potential to eliminate this species through grading and construction activities.	Mitigation Measure # 3.4.9a: To ensure that there is no take of spiny-sepaled button celery, the following measures shall be implemented. 1. Prior to the issuance of a grading permit within the Existing Friant Community Plan Area, a biological survey shall be conducted on the project site during the appropriate phenological period for spiny-sepaled button celery. This period generally occurs between April 1 and May 31, but this species persists and is identifiable through July of most years. <u>Surveys need only be conducted within vernal pools and swales capable of supporting this species.</u> 2. If spiny-sepaled button celery is not present, no further action is warranted. If spiny-sepaled button-celery is found to occur on a project site, then the following actions shall be taken. a. Any population of spiny-sepaled button celery shall be completely avoided by grading and construction activities and there shall be no	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	modifications to existing land management practices, or b. If any population of spiny-sepaled button celery cannot be avoided, then the project proponent must: Compensate for the loss of spiny-sepaled button celery at a ratio of 3 acres for each 1 acre of take, either through implementation of a conservation agreement or through purchase of conservation credits in an approved mitigation bank.			
Impact #3.4.9b – Impacts to vernal pool fairy shrimp	Mitigation Measure #3.4.9b: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are <i>less than significant</i>. 1. Prior to issuance of a grading permit, the project proponent must ensure that a qualified biologist conduct a survey for wet areas <u>ephemeral pools</u> which potentially support vernal pool fairy shrimp. That survey must be conducted during the wet season (October through April), and immediately after a substantial rainfall event (of 0.5 inches of rainfall or more). If <u>ephemeral pool</u> habitat is found on the project site that is suitable for supporting vernal pool fairy shrimp, then the project applicant must ensure that a qualified biologist implement a standard vernal pool fairy shrimp protocol survey. <u>Alternatively, the project applicant could assume presence of the vernal pool fairy shrimp and implement the provisions listed in a-d below.</u> If vernal pool fairy shrimp or other sensitive vernal pool invertebrates are not found <u>during protocol surveys</u>, then no other actions are warranted. If vernal pool fairy shrimp are found, then the following measures shall be implemented:	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	a. The Project shall avoid vernal pool fairy shrimp to the maximum extent feasible. b. Prior to the issuance of a grading permit the project applicant shall compensate for the loss of occupied ephemeral pool habitat through the conservation of vernal pool habitat at a ratio of two acres of conservation for each acre of such habitat directly and permanently disturbed by grading. Conservation of occupied ephemeral pool habitat shall be accomplished by placing a conservation easement on existing pools, either on-site or off-site, or by purchasing credits in an approved conservation bank that has the Existing Friant Community Plan Area within its service boundaries. c. A Section 10(a) 1b permit for take must be acquired from the United States Fish and Wildlife Service, or a Section 7 consultation must be conducted, whichever is appropriate. d. Prior to issuance of a grading permit for a project site, a Drainage Plan shall be prepared for the site. Elements of this plan shall include: ▪ Design plans to ensure that winter stormwater runoff into open space areas of the project site shall mimic to the maximum extent possible pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved ephemeral pools shall be roughly equivalent to pre-project conditions. ▪ All runoff originating in developed areas of the site shall pass through retention basins,			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	bio-filtration swales, or both, which shall act together as stormwater filters such that water quality shall not be significantly reduced from pre-project conditions, and ▪ Irrigation runoff from landscaped areas shall be routed away from ephemeral pool habitats during the summer and fall to ensure that the hydrology of these habitats mimics pre-project conditions.			
Impact #3.4.9c - Impacts to the Valley elderberry longhorn beetle	Mitigation Measure #3.4.9c: The following measures shall be implemented to ensure that impacts to the Valley elderberry longhorn beetle are at levels that are less than significant. 1. Prior to issuance of a grading permit, the project proponent must ensure that a qualified biologist conduct a survey for elderberry bushes. If elderberry bushes with stem diameters of 1 inch or greater are found on or within 100 feet of the project site, then standard stem counts and searches for sign (e.g., exit holes) of the Valley elderberry beetles must be conducted. 2. If elderberry bushes do not occur on or within 100 feet of the project site, then no further actions are warranted. 3. If elderberry bushes are found on or within 100 feet of the project site, then the following measures shall be implemented: a. For those bushes in which the beetle does not occur, construction within the 100 foot buffer area shall be allowed, provided that:	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	▪ A letter of concurrence shall be obtained from the United States Fish and Wildlife Service authorizing construction within the buffer area. ▪ A biologist is present on-site during construction within the 100 foot buffer area to monitor construction activities and ensure that there are no impacts to the elderberry bushes. ▪ Restoration of habitat within the 100 foot buffer area occurs once construction is complete, except in those instances where permanent facilities are constructed. The applicant must provide a written description to the USFWS of how the buffer areas are to be restored, protected, and maintained after construction is completed. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment). ▪ All areas to be avoided during construction activities shall be fenced and flagged. In areas where encroachment on the 100-foot buffer has been approved by the Service, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant. ▪ Erect signs every 50 feet along the edge of the avoidance area with the following			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction. ▪ A qualified biologist shall conduct a training program for all construction contractors that shall be working on the project to inform workers of the need to avoid damaging elderberry plants and the possible penalties for not complying with these requirements. The training program must include information on the status of the beetle and the need to protect its elderberry host plant. ▪ No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant. ▪ Other protection measures and replacement of elderberry bushes, when applicable, are implemented as outlines in <i>Conservation Guidelines for the Valley Elderberry Longhorn Beetle</i> (USFWS 1999, Appendix H), b. For each bush in which the Valley elderberry longhorn beetle is found, the 100 foot buffer area shall be observed during the activity			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	period of the Valley elderberry longhorn beetle (from April to July). Construction activities may occur within the 100 foot buffer area during other periods provided the mitigation measures outlined above are implemented and restoration within the buffer area is completed by beetle emergence (April). c. If elderberry bushes that contain elderberry longhorn beetles cannot be avoided and must be removed, then: ▪ Compensation for the loss of elderberry beetles must be accomplished through replanting of elderberries and other native plant species at ratios provided in <i>Conservation Guidelines for the Valley Elderberry Longhorn Beetle</i> (USFWS 1999, Appendix H), and ▪ A Section 10(a) 1B permit for take must be acquired from the United States Fish and Wildlife Service or a Section 7 consultation must be conducted. If the elderberry longhorn beetle is de-listed by the United States Fish and Wildlife Service prior to implementation of the Project, then these measures need not apply.			
Impact #3.4.9d – Impacts to the California tiger salamander	Mitigation Measure #3.4.9d: The following measures shall be implemented to ensure that impacts to the California tiger salamander are at levels that are less than significant: 1. Prior to issuance of a grading permit, the Applicant shall provide sufficient documentation that determines whether the site contains wetlands that	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	could potentially support breeding California tiger salamanders. If so, the project proponent must ensure that a qualified biologist conduct a survey for wetlands which potentially support breeding California tiger salamanders. That survey must be conducted during the wet season (October through April), and immediately after a substantial rainfall event (of 0.5 inches of rainfall or more). 2. If wetlands are found on a project site that are suitable for supporting breeding California tiger salamanders, then the project applicant must either presume presence in all wetlands onsite and mitigate as prescribed in section 3(a) through (d) below as if breeding California tiger salamanders were found or ensure that a qualified biologist implement a standard California tiger salamander protocol survey (see Appendix I, California Tiger Salamander Protocol Survey). 3. If pools containing breeding California tiger salamanders are found, then the following measures shall be implemented: a. The Project shall avoid California tiger salamanders to the maximum extent feasible. b. Prior to the issuance of a grading permit the project applicant shall compensate for the loss of occupied ephemeral pool habitat through the conservation of suitable ephemeral pool habitat at a ratio of two acres of conservation for each acre of such habitat directly and permanently disturbed by grading. Conservation of suitable ephemeral pool habitat shall be accomplished by placing a conservation easement on existing pools, either on-site or off-site, or by purchasing credits in an approved conservation			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	bank that has the Friant Community Plan Area within its service boundaries. c. A Section 10(a) 1b permit for take must be acquired from the United States Fish and Wildlife Service, or a Section 7 consultation must be conducted. A 2080 or 2081 Management Agreement with the California Department of Fish and Game may also be needed if the California tiger salamander is listed as a State threatened or endangered species prior to development. d. Prior to issuance of a grading permit for the project site, a Drainage Plan shall be prepared for the site. Elements of this plan shall include: ▪ Design plans to ensure that winter stormwater runoff into open space areas of the project site shall mimic to the maximum extent possible pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved vernal pools shall be roughly equivalent to pre-project conditions, ▪ All runoff originating in developed areas of the site shall pass through retention basins, bio-filtration swales, or both, which shall act together as stormwater filters such that water quality shall not be significantly reduced from pre-project conditions, and ▪ Irrigation runoff from landscaped areas shall be routed away from vernal pool habitats during the summer and fall to ensure that the hydrology of these habitats			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	mimics pre-project conditions, 4. If grassland habitat is present on a project site that is capable of supporting aestivating California tiger salamanders (as determined by a qualified biologist), then compensation for the loss of aestivation habitat shall occur prior to issuance of a grading permit. Compensation shall be provided at a ratio of 0.5 acres for each 1 acre removed. Compensation shall be provided by establishing a permanent conservation easement on on-site or off-site grassland habitat that supports aestivating California tiger salamanders or by purchasing credits in an established California tiger salamander Conservation Bank that includes the Friant Community plan within its service area.			
Impact #3.4.9e – Impacts to the Western spadefoot	Mitigation Measure #3.4.9e: To reduce impacts to western spadefoots to a level that is less than significant, the following measures shall be implemented: 1. The western spadefoot utilizes the same habitats as the California tiger salamander for breeding and aestivation (ie, the western spadefoot breeds in vernal pools and aestivates in rodent burrows of surrounding grasslands). Therefore, implementation of mitigation measures for the California tiger salamander (Mitigation Measures 3.4.9d) would reduce the impact to the western spadefoot to a less than significant level.			
Impact #3.4.9f - Impacts to the western pond turtle	Mitigation Measure #3.4.9f: The following measures shall be implemented to ensure that impacts to the western pond turtle are at levels that are less than significant: 1. Projects within the Existing Friant Community Plan	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Area shall maintain a 100 foot construction setback area from the Ordinary High Water Mark of the San Joaquin River (including any backwaters) and from the Ordinary High Water Mark of Lost Lake to protect potential basking sites and upland aestivation sites for the western pond turtle. 2. Projects exceeding one acre in size within the Existing Friant Community Plan Area shall be required to implement a stormwater pollution prevention plan and implement other protective measures as required in mitigation measure 3.4.11b for the protection of downstream water quality.			
Impact #3.4.9g- Impacts to Swainson's hawks	Mitigation Measure #3.4.9g: The following measures shall be implemented to ensure that impacts to breeding and foraging Swainson's hawks are less than significant: 1. Prior to the issuance of any grading permits exceeding 5 acres in the southern half of the Existing Friant Community Plan Area (exclusive of the Friant Specific Plan Area, and the Depot Parcel, Beck Property, and Water Treatment Plant and associated pumping facilities), a qualified biologist shall survey the site for Swainson's hawks. The survey area shall encompass all trees within 0.5 mile of the individual project site. Several projects proposed for construction within a single nesting period may use the results from a single survey, provided the surveyed is conducted within 0.5 mile or more from all individual project boundaries. The survey shall consist of: a. All trees within the survey area suitable for nesting by hawks shall be inspected by a qualified biologist	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	b. Survey periods and survey lengths shall be: ▪ Period I. January-March 20. All trees shall be inspected at least once during this period to locate potential nests. The survey(s) may be conducted throughout daylight hours. ▪ Period II. March 20 to April 5. Survey sunrise to 10:00 a.m. and 4:00 p.m. to sunset. Three complete surveys are recommended within this period to locate hawks preparing to nest. ▪ Period III. April 5 to April 20. Survey sunrise to 12:00 p.m. and 4:30 p.m. to Sunset. Three surveys within this period recommended within this period to locate hawks preparing to nest. ▪ Period IV. April 21 to June 10. Monitor known nest sites only. ▪ Period V. June 10 to July 30 (post-fledging). Survey sunrise to 12:00 p.m. and 14:00 p.m. to sunset. 2. If Swainson's hawks are not found to nest within the survey area, then no further action is warranted. 3. If Swainson's hawks are found to nest within the survey area then the following measures shall be implemented: a. Foraging habitat shall be replaced at a ratio of 1 acre of grassland habitat known to provide foraging habitat for Swainson's hawk for each 1 acre of grassland habitat subject to grading			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	and construction within the Community Plan Area. b. If construction is to occur within the breeding period for Swainson's hawk (15 February to 15 September), then a 2,500 foot radius no construction area is to be installed around each active Swainson's hawk nesting site. If a construction area falls within this nesting site, construction must be delayed until the young have fledged (left the nest). The 2,500 foot radius no construction zone may be reduced in size. A qualified biologist must conduct construction monitoring on a daily basis, inspect the nest on a daily basis, and ensure that construction activities do not disrupt breeding behaviors. In no case shall the no construction zone be reduced to less than 500 feet. c. Take of active or inactive Swainson's hawk nests shall be prohibited within the Existing Community Plan Area.			
Impact #3.4.9h –Impacts to burrowing owls	Mitigation Measure #3.4.9h – The following measures shall be implemented to ensure that impacts to the burrowing owl are less than significant: 1. A pre-construction survey shall be conducted for ground nesting raptors, including burrowing owls, within 14 to 30 days prior to initiation of site grading activities. If the grading activities are implemented in phases, then so shall the surveys be conducted in phases. If more than 30 days lapse between the time of the preconstruction survey (s) and the start of ground-disturbing activities, another preconstruction survey must be completed. This process should be repeated until the habitat is converted (e.g., graded and developed). The survey	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	shall be completed in accordance with the survey requirements detailed in the CDFG's October 17, 1995 <i>Staff Report on Burrowing Owl Mitigation</i>. 2. If burrowing owls are identified onsite or within the area of influence of the project site (within 4,000 <u>250</u> feet of the project site), an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the required mitigation site shall be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be $2 \times 6.5 = 13$ acres provided that no more than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the preconstruction survey, then the mitigation requirement shall be $3 \times 6.5 = 19.5$ acres). Two natural or artificial nest burrows shall be provided on the mitigation site for each burrow in the project area that shall be rendered biologically unstable. 3. If burrowing owls are present on the site and require relocation, an upland mitigation site for burrowing owls shall be designated as provided for in item 2 above. This site may be located within the on-site open space area or it may be located off site. The mitigation site must consist of grassland habitat, contain small mammals (or other prey), and ground squirrel burrows. The mitigation site must be			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	approved by the California Department of Fish and Game. The area shall be preserved in perpetuity as wildlife habitat through a conservation easement that designates the California Department of Fish and Game, or any other qualified conservation organization as the Grantee of the easement. The mitigation area need not be identified prior to finding burrowing owls on the site, however advance planning would reduce the potential for construction delays. 4. If a Conservation Easement is established for burrowing owl mitigation, an endowment to cover the management of the area must be provided. The management fund shall be provided by the project applicant to the Grantee of the Conservation Easement within six months of breaking ground on the project site. 5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to be engaged in nesting behavior, a fenced 500<u>250</u> foot buffer would be required between the nest site(s) (i.e., the active burrow(s)) and any earth-moving activity or other disturbance on the project site. This 500<u>250</u> foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a <u>160 foot buffer area will be established.</u> and <u>If construction activities require the removal of an active den, the occupying burrowing owls must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation</u>			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity shall be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring shall be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as required in item 6 below. 6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring shall be conducted by a qualified biologist provided by the project applicant. <u>Monitoring may be suspended or discontinued if, in the opinion of a qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading.</u> Monthly reports of monitoring activities shall be submitted by the biologist to the project applicant, the County of Fresno, and the California Department of Fish and Game. A final report of all monitoring application shall be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.			
Impact #3.4.9i –Impacts to other nesting raptors	Mitigation Measure #3.4.9i: To protect breeding raptors, the following measures shall be implemented: The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys shall be conducted 30 days prior to the start of construction for the project.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a 1,000 foot area of influence surrounding the Site. If construction begins between September 2 to February 28, nest surveys shall not be required since this is outside the typical breeding period for raptors. 1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys will be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a 4,000 300 foot area of influence surrounding the Site. If construction begins between September 2 to February 28, nest surveys will not be required since this is outside the typical breeding period for raptors. <u>Surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified biologist.</u> 42. If nesting raptors are identified during the surveys on the project site or within the 300 foot areas of influence, a 300-foot radius buffer around the nest tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer. 23. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can be terminated.			
Impact #3.4.9j – Impacts to common and special status nesting birds	Mitigation Measure #3.4.9j: To protect common and special status nesting birds, the following measures shall be implemented: 1. A nesting bird survey shall be conducted prior to commencing construction work (including site grading and vegetation removal) if that work would commence between March 15th and August 31st. The nesting bird survey shall be conducted no greater than 30 days prior to commencement of work, nor sooner than 14 days prior to commencement of work. If the construction activities are conducted in phases, then so shall the survey be conducted in phases. 2. If special status birds are identified nesting on the construction area or within a 250 foot area of influence, a 150-foot non-disturbance radius around the nest must be fenced using orange plastic construction fencing or rope and stake fencing as	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	previously described (this fencing requirement shall not replace or be constructed in lieu of fencing discussed above for impacts to nesting raptors). No construction or earth-moving activity shall occur within the 150-foot buffer until it is determined by a qualified biologist that the nest is no longer occupied and young have fledged (that is, left the nest and attained sufficient flight skills to avoid project construction activities). This typically occurs by July 1st, but the date may vary, and would need to be confirmed by a qualified biologist. Similarly, the qualified biologist could modify the size of the buffer based upon site conditions and the bird's apparent acclimation to human activities. 3. If non-special status birds are identified nesting in any tree or shrub proposed for removal, tree removal would have to be postponed until it is determined by a qualified biologist that the young have fledged and have attained sufficient flight skills to leave the project site. Typically, most passerine birds can be expected to complete nesting by July 1st, with young attaining sufficient flight skills by this date that are sufficient for young to avoid project construction zones. Unless otherwise prescribed for special status bird species, upon completion of nesting no further protection or mitigation measures would be warranted for nesting birds. The mitigation measure shall be implemented by the project applicant and the construction contractor. 4. Results of the surveys and monitoring shall be provided in monthly monitoring reports submitted to the project applicant, County of Fresno, and the California Department of Fish and Game.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.9k. – Impacts to the American Badger	Mitigation Measure #3.4.9k: The following measures shall be implemented to ensure that impacts to American badgers are <i>less than significant</i>: 1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground disturbing activities) are phased, then so shall the pre-construction surveys be phased. 2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy. All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. Dens must be replaced at a ratio of 2 artificial den for each natural dens removed. Replacement dens may be constructed within grassland habitat on-site, within the open space, conservation area. Replacement dens shall consist of 6 inch diameter plastic corrugated sewer pipe cut to a 6 foot length. One end of the pipe shall be buried no deeper than 2 feet and no less than 1 foot below grade. The other end of the pipe shall remain above ground. Dirt shall be mounded above the pipe to a depth of at least 1 foot above grade, with the opening exposed. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den. 3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s). 4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunrise to sunset) should be prohibited, unless: a. The construction area is appropriately fenced to exclude American badgers. Appropriate fencing would consist of a 4-foot chain link fence or similar material (e.g., 2-inch mesh stock fence) buried at least 6 inches below grade. b. The area within any such fence should be inspected by a qualified biologist for badger dens, all dens must be removed, and the site determined to be uninhabited by American badgers prior to initiation of construction. 5. Off-road construction traffic outside of designated construction areas shall be prohibited. 6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor. <u>7.</u> In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the <u>California Department of Fish and Game</u> should be contacted for advice. <u>78.</u> American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped. <u>89.</u> During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site. <u>910.</u> No firearms shall be allowed on the project site during construction activities.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	10. A representative should be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure an American badger, or who finds a dead, injured or entrapped individual. The representative's name and telephone number should be provided to the CDFG. 11. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice. 12. Any contractor, employee(s), or other personnel who inadvertently kills or injures an American badger should immediately report the incident to their representative. This representative should contact the CDFG immediately in the case of a dead, injured or entrapped American badger. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.			
Impact #3.4.9I – Impacts to the pallid bat and western mastiff bat	Mitigation Measure # 3.4.9I: Implementation of the following measures shall reduce impacts to the pallid bat and the western mastiff bat to levels that are less than significant: 1. Prior to the removal of trees or the demolition of buildings, a qualified biologist shall conduct a pre-construction survey between 14 and 30 days prior to activities, to inspect buildings and trees for the presence of bats. If pallid bats or western mastiff bats are identified to be roosting in the trees or structures, those trees or structures shall not be removed until:	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	a. Permanent, elevated bat houses have been installed outside of, but near the construction area. Placement and height shall be determined by a qualified biologist, but the height of bat house shall be at least 15 feet. Bat houses shall be multi-chambered and be purchased or constructed to the specifications provided in Appendix J (bat house design). The number of bat houses required shall be dependant upon the size and number of colonies present, but at least 1 bat house shall be installed for each pair of bats (if occurring individually) or each colony of bats found. b. Bats have been passively relocated from the tree or structure by progressively boarding up any entrances at night while bats are foraging away from the tree or structure. Relocation of bats may not be performed during the breeding season (March 1 to September 15).			
Impact #3.4.10 – Impacts to riparian habitat or other sensitive natural communities within the Existing Friant Community Plan Area	Mitigation Measure #3.4.10: The following measure shall be implemented to reduce impacts to riparian habitats and other sensitive natural communities to a level that is less than significant: 1. The distribution of riparian habitats and other sensitive natural communities within the Existing Friant Community Plan Area shall be mapped prior to issuance of any grading permit. All mapping shall be accomplished using high resolution aerial photographs (1 meter accuracy or better) and be verified by ground inspections using sub-meter GPS. The final map of the distribution of these habitat types shall be rendered using GIS at sub-meter accuracy. All riparian areas and other sensitive natural communities shall be avoided by	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	construction activities, including grading, unless the following measures are implemented prior to site grading: a. The following measures shall be conducted prior to removal of riparian habitat or other sensitive natural community: ▪ A Stream Alteration Agreement (SAA) must be obtained prior to removal of riparian habitat, unless it is determined by the California Department of Fish and Game that SAA is not necessary. ▪ For each 1 acre of riparian habitat or other sensitive natural community removed, a total of 3 acres of in-kind habitat shall be acquired by fee title, placed into a permanent conservation easement, and a management endowment provided. Any riparian habitat acquired must be located along the San Joaquin River in Fresno or Madera Counties. ▪ Temporary disturbance to riparian habitat may be mitigated by restoration. A restoration plan must be prepared in cooperation with the California Department of Fish and Game and a SAA must be obtained if required by the California Department of Fish and Game.			
Impact #3.4.11 – Impacts to federally protected wetlands and other waters within the Existing Friant Community Plan Area	Mitigation Measure #3.4.11a: The following measures shall be implemented to reduce impacts to wetlands and other waters to a level that is <i>less than significant</i>: 1. Prior to issuing a grading permit for a project within the Existing Friant Community Plan Area, a survey	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	for potential wetlands shall be conducted. If potential wetlands are present, a wetland delineation to ACOE standards shall be conducted for the project site. Either a single wetland delineation can be prepared for the entire Existing Community Plan Area, or individual delineations can be prepared for each project. Regardless, the USACE must verify the delineation(s) and, if necessary, appropriate Clean Water Act 401 and 404 permits be obtained. 2. Prior to the issuance of a grading permit in areas containing jurisdictional wetlands the project applicant shall acquire, or purchase and donate a conservation easement on, suitable off-site lands in Fresno and/or Madera County for the creation/restoration of wetlands and other waters to compensate for any wetlands and other water bodies subject to the jurisdiction of the USACE that are directly and permanently disturbed by grading and construction associated with the project. The creation/restoration of such wetlands and other waters shall be at a ratio of one acre of created/restored wetlands and other jurisdictional waters for each acre of jurisdictional wetlands and other waters directly and permanently disturbed by grading and construction associated with the project development. Creation/restoration of wetland habitat and other water bodies shall be accomplished by one or a combination of the following two mitigation alternatives: a. <u>Off-Site Creation/Restoration.</u> The Project applicant shall conserve through acquisition or conservation easement, off-site lands suitable for the creation/restoration of wetlands and other water bodies in Fresno, Madera, or Merced County. Such lands shall have the following characteristics: natural undisturbed			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	native wetlands and habitat suitable for threatened and endangered plant and animal species shall be absent (i.e., these lands shall have been previously disturbed by farming, or some other intensive human use); native wetlands and/or other water bodies once occurred on these lands naturally; the soils and hydrology of these lands are suitable for the creation of naturally occurring wetlands and other water bodies; and the natural topography has not been eliminated through land leveling. Topographic depressions, swales and naturalistic drainage channels shall be created/restored on these lands according to a “mitigation and monitoring plan” prepared by a qualified biologist. These engineered features must be inundated and/or experience soil saturation for a duration sufficient to naturally support hydrophytic vegetation native to wetlands of the region. All engineered wetlands and other water bodies shall be revegetated with native hydrophytic species. The wetland creation/restoration plan prepared by the biologist shall provide for long-term management of the mitigation site, mitigation objectives by which the success of the mitigation can be measured, and a monitoring plan for determining the success of the mitigation. The components of this mitigation and monitoring plan shall be consistent with standard USACE guidelines. b. Purchase of Wetland Creation Credits from a Conservation Bank. The Project applicant shall pay the market rate for Wetland Creation Credits at a 1:1 ratio from a Conservation Bank whose service area includes the Friant Community Plan Area.			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.4.11b - Impacts to water quality in seasonal creeks, reservoirs, and other downstream waters	Mitigation Measure #3.4.11b: To ensure protection of water quality in the San Joaquin River and other downstream waters, the following measures shall be implemented: 1. Prior to the onset of construction which would disturb one acre or more, an erosion control plan shall be prepared by a qualified engineer consistent with the requirements of a Fresno County grading permit and a General Construction Permit (an NPDES permit issued by the Regional Water Quality Control Board for projects in which one or more acres of land are graded). Typically, specified erosion control measures must be implemented prior to the onset of the rainy season. Each project site must then be monitored periodically throughout the rainy season to ensure that the erosion control measures are successfully preventing on-site erosion and the associated deposition of sediment off the project site. Elements of this plan would address both the potential for soil erosion and non-point source pollution. At a minimum, elements of an erosion control plan typically include: a. Protection of exposed graded slopes from sheet, rill and gully erosion. Such protection could be in the form of erosion control fabric, hydromulch containing the seed of native soil-binding plants, straw mechanically imbedded in exposed soils, or some combination of the three. b. Protection of natural drainage channels from sedimentation. Hay bale check dams should be installed below graded areas so that any sediment carried by surface runoff is intercepted and retained behind the check dams before it can enter the creek.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	c. Use of best management practices (BMPs) to control soil erosion and non-point source pollution. BMPs may include measures in 1 and 2 above, but they may include any number of additional measures appropriate for this particular project site and this particular project, including grease traps in parking lots, landscape management practices to reduce the use of pesticides and herbicides, the discharge of stormwater runoff from “hardscapes” into grassy swales, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc. 2. Where possible, project construction should be confined to the dry season, when the chance for significant rainfall and stormwater runoff is very low. Construction during the spring, summer, and fall shall not eliminate the need to implement erosion control measures described in mitigation measures above, but shall ensure that the threat of soil erosion has been minimized to the maximum extent possible. 3. All post-construction runoff shall be routed through a system of grease traps, stormwater retention/detention basins, and bio-filtration swales to ensure that water quality of on-site and off-site wetlands, creeks and rivers are maintained at roughly pre-project levels.			
Impact #3.4.12 – Impacts to Fish or Wildlife Movement Corridors within the Existing Friant Community Plan Area	Mitigation Measure #3.4.12: Implementation of mitigation measures 3.4.10, 3.4.11a and 3.4.11b shall ensure that the riparian zone around the San Joaquin River and water quality in the San Joaquin River are maintained at level that are appropriate for fish and wildlife migratory movements. No other mitigation	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife <u>Fresno County</u>	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	measures are warranted.			
Impact #3.4.13 – Consistency with local policies or ordinances protecting biological resources within the Friant Community Plan Area	Mitigation Measure #3.4.13a: Mitigation Measures to Ensure Consistency with Local Policies or Ordinances Protecting Biological Resources: Implementation of mitigation measures 3.4.9a through 3.4.9l shall compensate for potential loss of foraging and/or breeding habitat for special status plant and wildlife species. Mitigation Measures #3.4.10, #3.4.11a and #3.4.11b provide for protection and compensation of riparian and wetland habitats potentially affected by projects within the Existing Friant Community Plan Area, and mitigation for potential impacts to water quality downstream of projects. These measures shall also serve to maintain habitat functions and values in riparian and wetland areas and control siltation and pollutant entry into these habitats. Along with mitigation measures prescribed in Chapter 3.8 of this EIR, “Hydrology and Water Quality”, the mitigation measures just described shall ensure consistency with local ordinances and policies, including the County General Plan Policies.	Applicant	California Dept. of Fish & Game and U.S. Fish & Wildlife Fresno County	Prior to construction
	Mitigation Measure #3.4.13a: Implementation of the various mitigation measures described in the preceding paragraph required for projects within the Existing Friant Community Plan Area shall ensure compliance with County General Plan Policies.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.4.13b: To ensure compliance with State and local ordinances protecting oak trees and oak woodland habitat, the following measure shall be implemented: <u>Replanting of individual oak trees removed: To compensate for individual oak trees removed by project construction, oaks will be replanted at a ratio of 1:2 for every oak removed, or compensation will be in the form</u>	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	of contribution of funds to the Oak Woodlands Conservation Fund.(Section 1363 of the Fish and Game Code), or some combination of these.			
Impact #3.5.1 – Substantial Adverse Changes in the Significance of Historical and/ or Archaeological Resources and Destruction of Unique Paleontological Resources	Mitigation Measure #3.5.1a: Given that excavation is ultimately destructive and avoidance is generally the preferred alternative and consistent with Fresno County General Plan policy, the preferred mitigation is that the significant cultural resource site (CA-FRE-2653) be placed within a development exclusion zone, thus avoiding impacts to the significant cultural resource site (CA-FRE-2653). Subsurface testing suggests that the cultural deposit is contained within a limited area, which roughly coincides with the identified midden deposit and the area of bedrock milling features. Prior to issuance of a grading permit affecting the area surrounding the significant cultural resource site (CA-FRE-2653), the developer shall do one of the following: 3.5.1a(1): Retain a qualified archaeologist to identify and mark the boundaries of the cultural deposit so that it is avoided during construction. The significant cultural resource site (CA-FRE-2653) shall be included within a designed open space within the Friant Ranch Specific Plan Area, which may include interpretive information regarding the archaeological site; or 3.5.1a(2): If avoidance of the significant cultural resource site (CA-FRE-2653) through design, during construction activities, and long-term protection are not feasible, then treatment of significant effects on the site(s) shall be accomplished through a program of controlled data recovery. A qualified archaeologist shall meet at the site and review the development plans vis-à-vis the significant cultural resource site (CA-FRE-2653) area and put together a data recovery plan (Phase III) to recover the information that would be lost as a result of Project development. The archaeologist shall excavate	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	the significant cultural resource site (CA-FRE-2653) and recover the materials that would otherwise be destroyed. The bedrock milling features shall be thoroughly documented; therefore any adverse impacts as a result of disturbance to these features would be mitigated. Such work is designed to compensate for the impacts of the Project by collecting a representative sample of the cultural remains and other data that would otherwise be destroyed.			
	Mitigation Measure #3.5.1b: A qualified archaeologist and a member of the Table Mountain Rancheria <u>Dumna Wo-Wah Tribal Government</u> shall be retained by the developer to monitor construction activities around the significant cultural resource site (CA-FRE-2653) to ensure that there is no impact to any significant cultural resource. Prior to construction, the developer shall consult with a designated representative of the Table Mountain Rancheria <u>Dumna Wo-Wah Tribal Government</u> on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.5.1c: Cultural resource sites protected pursuant to mitigation measure 3.5.1a(1) shall be protected after development from vandalism, illicit excavation or artifact collection. The County shall discuss measures for long-term protection with the Table Mountain Rancheria <u>Dumna Wo-Wah Tribal Government</u> , and an appropriate plan for permanent protection of the resource shall be instituted by the developer prior to issuance of building permits for the Friant Ranch Specific Plan. The final plan could include any or all of the following: permanent fencing; funding for permanent maintenance of the fencing; annual or semi-annual monitoring by archaeologists and/or by the Table Mountain Rancheria <u>Dumna Wo-Wah Tribal</u>	Applicant	Fresno County	Prior to construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Government with reports filed with the County and other agencies; acquisition of the site by a group such as the Archaeological Conservancy.			
	Mitigation Measure #3.5.1d: During construction within the Friant Ranch Specific Plan Area, protected cultural resource sites (including CA-FRE-2651, -2652, -2653) shall be protected from vandalism, illicit excavation or artifact collection, or inadvertent direct impact. This may be accomplished in part through the installation of orange protective fencing prior to initiation of any construction activities within 200 feet of the site area.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.5.1e: If unknown cultural resources are discovered during Project construction, all work in the area of the find shall cease, and a qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and	Applicant	Fresno County	Prior to construction During construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Fresno County.			
	Mitigation Measure #3.5.1f: Construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the Project Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any construction within the Project area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a <u>Dumna Wo-Wah Tribal Government Monitor</u> has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.	Applicant	Fresno County	Prior to construction
	Mitigation Measure #3.5.1g: If unknown cultural resources are discovered during future development in the existing Friant Community Plan Area, including the Depot parcel, all work in the area of the find shall cease, and a qualified archaeologist and a <u>Dumna Wo-Wah Tribal Government Monitor</u> shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with	Applicant	Fresno County	Prior to and during construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.			
	Mitigation Measure #3.5.1h: Future construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the existing Friant Community Plan Area (other than Friant Depot Parcel and Friant Ranch Specific Plan Area), and shall be instructed in the identification of artifacts, bone and other potential resources. For any future construction within the existing Friant Community Plan Area (other than Friant Depot Parcel and Friant Ranch Specific Plan Area), all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a <u>Dumna Wo-Wah Tribal Government Monitor</u> has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.	Applicant	Fresno County	Prior to construction
Impact #3.5.2 – Disturbance of Human Remains	Mitigation Measure #3.5.2: If human remains are encountered during Project construction, all work shall cease within 50 feet of the find and the Fresno County Coroner's Office shall be contacted and procedures implemented pursuant to California Public Resources Code Section 5097 et seq. and California Health and Safety Code Sections 7050.5, 7051, and 7054 with respect to treatment and removal, Native American involvement, burial treatment, and re-burial, if necessary.	Applicant	Fresno County	Prior to and during construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.7.6 – Emergency Preparedness	Mitigation Measure #3.7.6a: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a Community Facilities District shall be formed to provide funding for additional fire protection services in the Project Area sufficient to satisfy the standards set forth in the Fresno County Health and Safety Element.	Applicant	Fresno County	Prior to issuance of a building permit
	Mitigation Measure #3.7.6b: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD shall be established to provide the funding necessary to maintain adequate law enforcement staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.	Applicant	Fresno County	Prior to issuance of a building permit
Impact #3.8.3 – Alteration of the Existing Drainage Pattern and Stormwater Drainage Capacity	Mitigation Measure #3.8.3a: Storm drain design for the Friant Ranch Specific Plan portion of the Project shall be in accordance with approved LID management practices, as recommended in the Friant Ranch IMP and its appendices. The suggested management practices include but are not limited to the following: - LID IMPs: a) Bioretention (Rain Gardens) – A practice using landscaped areas on individual lots to hold and infiltrate stormwater. b) Dry Well – Small excavated trenches backfilled with stone, designed to hold and slowly release rooftop runoff. c) Filter/Buffer Strip – Bands of close-growing	Applicant	Fresno County	Prior to issuance of building permit

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	vegetation, usually grass, planted between pollutant source areas and a downstream receiving water body. d) Swales – Two types of swales may be used. Grass swales provide both quantity (volume) and quality control by facilitating stormwater infiltration. Wet swales use residence time and natural growth to reduce peak discharge and provide water quality treatment before discharge to a downstream location. e) Infiltration Trench – An excavated trench that has been backfilled with stone to form a subsurface basin. Stormwater runoff is diverted into the trench and is stored until it can be infiltrated into the soil. f) Pervious Concrete – A special structural concrete without fine aggregates. This creates 15 to 30 percent voids, allowing water to pass through to a gravel layer and the native soil underneath while maintaining the structural strength of standard concrete pavement. Pervious concrete also provides demonstrable water quality treatment to the waters passing through its structure. 2. Inlet and Outlet Structures: Inlet and Outlet Structures shall be a type and configuration rated to accept the SDMP design flow at the inlet and outlet locations shown on the SDMP. 3. Pipelines:			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Storm drain pipeline design shall conform to the Storm Drain Master Plan (SDMP). Pipeline soffits shall be designed a minimum of one (1) foot below the hydraulic grade line (HGL) or to the soffit control elevation shown in the hydraulic calculations. The design of the storm drain pipeline below the HGL insures full pipe flow and reduces the chance of water seal breaks in the pipe and other hydraulic inefficiencies during pipeline use. Design of pipeline below the soffit control elevation insures proper pipeline performance in sections of the pipe where flow is in the open channel condition due to steep grade construction. 4. Culverts and Open Channels: Culverts and open channels shall be designed to the standards of the Federal Highway Administration Hydraulic Design of Highway Culverts (HDS-5, September 2001 or current) and the Fresno County Design Standards. The culverts and channels shall be designed to convey the critical storm event for the Friant Ranch project. 5. Detention & Retention Basins: Detention and Retention basin design calculations and minimum basin geometries are provided in Appendix A of the IMP (see Appendix N). The basin geometry for each watershed differs depending on many factors, including the contributing drainage area and the design flow volume. Retention basins are designed to maintain the predevelopment runoff volume by storing the peak storm runoff above a base flow; retention basins in this case have also been sized to provide the storage volume necessary to give the detention			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	time required for water quality control. Detention basin storage is designed to maintain the predevelopment peak runoff rate while capturing all runoff above that amount. Conceptual basin locations are shown in the SDMP. These locations have been selected to work with the existing ground topography and the overall master-planned drainage concept. Exact basin locations shall be determined by the developer, after precise site layouts are determined. The basins shall be permitted to shift, so long as the function provided for in the SDMP is maintained, or appropriate modifications are made to the SDMP as discussed above. Prior to issuance of a grading permit for the Friant Ranch Specific Plan, the Fresno County Engineering Department shall review the project detention and retention basin designs for conformance with the basin calculations and conformance with the basin design guidelines provided in the Friant Ranch IMP.			
Impact #3.10.1 – Exposure to Excessive Noise Levels or Vibration	Mitigation Measure #3.10.1a: 1. Prior to issuance of any grading permit for new public and private development proposals within the Friant Community Plan Area, the County shall review the proposal to determine conformance with the policies of the Fresno County General Plan and the Friant Community Plan. 2. Where the development of any future project within the Friant Community Plan Area (other than the Friant Ranch Specific Plan Area and Depot Parcel) may result in noise sensitive land uses being	Applicant	Fresno County	Prior to and during construction

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	exposed to existing or projected future noise levels exceeding the levels specified by the policies of the General Plan and Community Plan, the County shall require that an acoustical analysis be submitted as part of the entitlement application that designates that adequate noise mitigation is included in the project design to comply with County standards. 3. Prior to issuance of a grading permit for proposed development within the Friant Community Plan Area (other than the Friant Ranch Specific Plan Area and Depot Parcel), site-specific acoustical analyses shall be conducted to determine setbacks and any other feasible mitigation measures (e.g. berms, site design, location of structures, noise walls/barriers) required to reduce traffic noise to levels that meet County design standards and comply with the Fresno County Noise Ordinance.			
Impact #3.10.2 – Construction Noise	Mitigation Measure #3.10.2a: Construction projects and any other noise generators shall be regulated by the standards identified in Chapter 8.40 of the Fresno County Ordinance Code.	Applicant	Fresno County	On going
	Mitigation Measure #3.10.2b: Effective mufflers shall be fitted to gas- and diesel-powered equipment to reduce noise levels as much as practicable.	Applicant	Fresno County	On going
	Mitigation Measure #3.10.2c: All construction activities shall be limited to the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 7:00 a.m. to 5:00 p.m., Saturday and Sunday.	Applicant	Fresno County	On going
Impact #3.12.1 – Increased Demand for Fire Protection Services and Personnel	Mitigation Measure #3.12.1: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD shall be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific	Applicant	Fresno County	Prior to issuance of building permit

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-H.2, PF-H.5 and PF-H.8. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.			
Impact #3.12.2 – Increased Demand for Law Enforcement Services	Mitigation Measure #3.12.2: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD shall be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.	Applicant	Fresno County	Prior to issuance of building permit
Impact #3.13-1 (TR-20): The Project shall will cause the level of service to fall below the minimum acceptable level of service at the intersection of Friant Road and the Site Access north of Lost Lake Road. This is a significant impact.	Mitigation Measure #3.13-1 (TR-20): The Project shall construct traffic signals at the intersection of Friant Road and the Site Access intersection north of Lost Lake Road prior to construction of the 201 st residential unit and prior to the construction of any commercial/office aspects of the Project if an engineering study indicates that the signals are warranted at that time. The applicant shall utilize the services of a traffic engineer to determine if traffic signals are warranted based on CMUTCD traffic signal warrants. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director.	Applicant	Fresno County	The applicant shall post the funds required for the signal prior to by construction of the 201 st residential unit; and prior to the construction of any commercial/office aspects of the Project if an engineering study indicates that the signals are warranted at that time. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
				install traffic signals at the intersection when they are warranted at the discretion of the Director. but shall not be required to construct the signal until signal warrants are met.
Impact #3.13-2 (TR-6): The Project shall will cause the level of service to fall below the minimum acceptable level of service at the intersection of Friant Road and Lost Lake Road. This is a significant impact.	Mitigation Measure #3.13-2 (TR-6): The Project shall construct traffic signals at the intersection of Friant Road and Lost Lake Road prior to construction of the 201 st residential unit and prior to the construction of any commercial/office aspects of the Project if an engineering study indicates that signals are warranted at that time. The applicant shall utilize the services of a traffic engineer to determine if traffic signals are warranted based on CMUTCD traffic signal warrants. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director.	Applicant	Fresno County	The applicant shall post the funds required for the signal prior to by construction of the 201 st residential unit and prior to construction of any commercial/office aspects of the Project if an engineering study indicates that the signals are warranted at that time. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director. but shall not be required to construct the signal until signal warrants are met.
Impact #3.13-3: The Project shall will contribute to the following deficiencies to Caltrans intersections:	Mitigation Measure #3.13-3: Prior to issuance of a building permit, the applicant shall contribute to its pro rata share of the cost of future off-site traffic improvements to Caltrans intersections through payment of a per trip fee to Caltrans. If Caltrans has not			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	established a per trip fee prior to issuance of a building permit, the applicant shall contribute a fair share fee to the County for the identified improvements based on the then-current estimated traffic volume attributable to the Project. <u>If the Measure C Regional Transportation Mitigation Fee program establishes a fair share fee for an intersection(s) identified above, the applicant may satisfy this mitigation requirement through payment of said fee. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The traffic improvements and current Caltrans fees or estimated percentage of the 2030 cumulative traffic volume are as follows:</u>			
Impact #3.13-3a (TR-1): The Project shall will exacerbate anticipated delays and a cumulative LOS that shall will fall below the minimum acceptable LOS in the 2030 condition without the Project at the intersection of SR 41 and Road 145 under the 2030 cumulative condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-3a (TR-1): The intersection of SR 41 and Road 145 should be converted to an interchange by the year 2030. Caltrans has not established a set fee for this intersection at this time. <u>For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-4922) is 3.2%.</u>	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-3b (TR-2): The Project shall will exacerbate existing delays and an existing LOS already below the minimum acceptable LOS at the intersection of SR 41 and Avenue 12, and is expected to exacerbate a cumulative LOS that shall will fall below the acceptable LOS in the anticipated 2030 cumulative condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This shall result in an individually and cumulatively significant impact.	Mitigation Measure #3.13-3b (TR-2): The intersection of SR 41 and Avenue 12 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small <u>total peak hour traffic volume</u> . The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. Caltrans has not established a set fee for this intersection at this time. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-49-22) is 0.5%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-3c (TR-3): The Project shall will exacerbate an existing LOS already below the minimum acceptable LOS at the intersection of SR 41 and Avenue 15, and is expected to exacerbate a cumulative LOS that shall will fall below the acceptable LOS in the anticipated 2030 cumulative condition without the Project. The Project's contribution to	Mitigation Measure #3.13-3c (TR-3): The intersection of SR 41 and Avenue 15 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. Caltrans has not established a set fee for this intersection at this time. For those improvements to Caltrans roadways that fall within	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
the anticipated cumulative condition is cumulatively considerable. This shall result in an individually and cumulatively significant impact.	Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-49-22) is 0.8 %. Caltrans has not established a set fee for this intersection at this time.			
Impact #3.13-3d (TR-11): The Project shall will exacerbate a cumulative LOS anticipated to fall below the minimum acceptable LOS in the 2030 cumulative condition without the Project at the intersection of Friant Road and the SR 41 northbound off ramp. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-3d (TR-11): The intersection of Friant Road and the State Route 41 northbound offramp is expected to operate at LOS C with the addition of a fifth westbound through lane. It is contemplated that a future Measure C Regional Transportation Mitigation Fee program may include mitigation for this intersection. Caltrans typically collects per-trip fees for this interchange as follows: ▪ Widen Friant Road under SR 41 with four additional lanes, \$900 per trip; ▪ SR 41 northbound on ramp from eastbound Friant Road: additional ramp lane and auxiliary lane, \$757 per trip; and ▪ SR 41 northbound on ramp from westbound Friant Road: additional ramp lane and auxiliary lane, \$1,300 per trip.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-3e (TR-12): The Project shall exacerbate delays under existing conditions, and shall will exacerbate anticipated delays and unacceptable LOS in the cumulative 2030 No Project condition at the intersection of Friant Road and SR 41 southbound off	Mitigation Measure #3.13-3e (TR-12): The intersection of Friant Road and the State Route 41 southbound offramp is expected to operate at LOS C with the addition of a second southbound left-turn lane and a second southbound right-turn lane. It is contemplated that a future Measure C Regional Transportation Mitigation Fee program may include mitigation for this intersection. Caltrans typically collects per-trip fees for this interchange as follows: ▪ Widen Friant Road under SR 41 with four additional	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
ramp. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. The Project shall have an individually and cumulatively significant impact on this intersection. This is a significant impact	- lanes, \$900 per trip; - SR 41 southbound on ramp from westbound Friant Road: additional ramp lane and auxiliary lane, \$1,200 per trip; - SR 41 southbound on ramp from eastbound Friant Road: additional ramp lane and auxiliary lane, \$1,200 per trip; and - SR 41 southbound off ramp to Friant Road: additional ramp lane and auxiliary lane, \$834 per trip.			
Impact #3.13-4: The Project shall will contribute to the following deficiencies to Madera County intersections and roadways:	Mitigation Measure #3.13-4: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements necessary to accommodate the 2030 cumulative condition through payment of a fair share fee to Fresno County and/or Madera County as appropriate. The traffic improvements and, where an improvement is identified, the estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-49 <u>22</u> and 3.13- 2023) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-4a (TR-4): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition at the intersection of Road 145 and Road 206. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13.4a (TR-4): The intersection of Road 145 and Road 206 shall will require signalization with two northbound left-turn lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 7.2 %.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13.4b (TR-34): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition on the Madera County segment of Road 206, <u>including the bridge, west of Friant Road.</u> The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13.4b (TR-34): The Madera County segment of Road 206, <u>including the bridge, west of Friant Road</u> should be widened to four lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5: The Project shall will contribute to the following deficiencies to Fresno County* intersections and roadways:	Mitigation Measure #3.13-5: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and, where an improvement is identified, the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-49 22 and 3.13-20 23) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5a (TR-5): The Project shall will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS at the intersection of Friant	Mitigation Measure #3.13-5a (TR-5): The intersection of Friant Road and North Fork Road (Road 206) should be signalized to achieve an acceptable level of service (LOS C). The ultimate lane configurations required are as follows: Northbound: two left-turn lanes and two through lanes with a shared right turn Southbound: one left-turn lane, two through lanes, and one right-turn lane	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Road and North Fork Road (Road 206) under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively significant impact.	Eastbound: two left-turn lanes, one through lane, and two right-turn lanes Westbound: one left-turn lane and one shared through/right-turn lane The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 17.2%. This signalization shall also provide an opportunity to satisfy the Friant Community Plan Policy 1.6 which states, "<i>Identify key locations for safe pedestrian access across Friant Road and install crosswalks, signage, lighting, traffic signals, and/or pedestrian signals, as warranted.</i>"			
Impact #3.13-5b (TR-6): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS at the intersection of Friant Road and Lost Lake Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. However,	Mitigation Measure #3.13-5b (TR-6): No additional mitigation required. See Mitigation Measure 3.13-1.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
mitigation measure 3.13-1a requires the applicant to construct the requisite improvement. Construction of the intersection shall will achieve a LOS B with the cumulative condition plus Project and thus reduce the Project's contribution to less than cumulatively considerable. This is a less-than-significant impact.				
Impact #3.13-5c (TR-7): The Project shall will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that shall <u>will</u> fall below the minimum acceptable LOS at the intersection of Friant Road and Shallow Willow Avenue under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively significant impact.	Mitigation Measure #3.13-5c (TR-7): Signalization of the intersection of Friant Road and Shallow Willow Avenue to achieve an acceptable level of service (LOS B). The ultimate lane configurations required are as follows: Northbound: one left-turn lane (protected), two through lanes, and one right-turn lane Southbound: two left-turn lanes (protected), two through lanes with a shared right turn Eastbound: one shared lane (permissive) Westbound: one shared left-turn/through lane (permissive) and one right-turn lane The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 29.6%.			
Impact #3.13-5d (TR-13): The Project shall <u>will</u> exacerbate a cumulative LOS that shall <u>will</u> fall below the minimum acceptable LOS at the intersection of Millerton Road and Winchell Cove Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-5d (TR-13): Signalization of Millerton Road and Winchell Cove Road and widening of Millerton Road to four lanes at <u>this intersection</u> is needed to achieve appropriate levels of service to accommodate the 2030 cumulative condition plus the Project. Mitigation Measure 3.13-5n requires <u>payment of a fair share fee for the widening of Millerton Road between North Fork Road (Road 206) and Sky Harbour Road.</u> The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-49 <u>22</u> and 3.13-20) is 3.3%. The Measure C Tier 2 Rural project plans to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road. However, the Tier 2 projects are not yet funded.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5e (TR-14): The Project shall <u>will</u> exacerbate a cumulative LOS that shall <u>will</u> fall below the minimum acceptable LOS at the intersection of Millerton Road and Brighton Crest Drive under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-5e (TR-14): The intersection of Millerton Road and Brighton Crest Drive should be signalized and Millerton Road should be widened to four lanes to accommodate the 2030 cumulative condition plus Project. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 3.7%. The Measure C Tier 2 Rural project plans to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road. However, the Tier 2 projects are not yet funded.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-5f (TR-15): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS at the intersection of Millerton Road and Sky Harbour Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-5f (TR-15): The intersection of Millerton Road and Sky Harbour Road should be signalized and Millerton Road should be widened to four lanes to provide an acceptable level of service (LOS A) under the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 2.9%. The Measure C Tier 2 Rural project plans to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road. However, the Tier 2 projects are not yet funded.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5g (TR-16): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS at the intersection of Millerton Road and Table Mountain Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-5g (TR-16): The intersection of Millerton Road and Table Mountain Road should be signalized and Millerton Road should be widened to four lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 2.1%.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5h (TR-17): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS at the	Mitigation Measure #3.13-5h (TR-17): The intersection of Millerton Road and Auberry Road should be signalized. The intersection shall will likely require either two northbound left turn lanes on Millerton Road or an extended single left-turn lane to accommodate queues up to approximately 600 feet in length in the	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
intersection of Millerton Road and Auberry Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	ultimate condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 1.8%.			
Impact #3.13-5i (TR-18): The Project shall <u>will</u> exacerbate a cumulative LOS that shall <u>will</u> fall below the minimum acceptable LOS at the intersection of Copper Avenue and Auberry Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact. (County of Fresno jurisdiction, City of Fresno Sphere of Influence)	Mitigation Measure #3.13-5i (TR-18): The intersection of Copper Avenue and Auberry Road should be signalized to provide an acceptable level of service (LOS B) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22 is 0.7%. The ultimate lane configurations required are as follows: Southbound: one left-turn lane and one right-turn lane Eastbound: two left-turn lanes and two through lanes Westbound: two through lanes with a shared right turn.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-5j (TR-21): The Project shall <u>will</u> exacerbate a cumulative LOS that shall <u>will</u> fall below the minimum acceptable LOS at the intersection of Shallow Willow and Copper Avenues under the 2030	Mitigation Measure #3.13-5j (TR-21): The intersection of Shallow Willow and Copper Avenues should be signalized to provide an acceptable level of service (LOS D) under the 2030 condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 10.6%. The additional lanes on Shallow Willow Avenue are included in the Measure C Tier 1 Urban project to widen Shallow Willow Avenue to six lanes between Copper Avenue	Applicant	Fresno County	As determined by Fresno County when signal warrants are met

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact. (County of Fresno jurisdiction, City of Fresno Sphere of Influence)	and Barstow Avenue.			
Impact #3.13-5k (TR-27): The Project shall will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS under the 2030 no Project condition at the following County of Fresno segments of Friant Road: ▪ Between North Fork Road (Road 206) and Parker Avenue; ▪ Between Parker and Granite Avenues; ▪ Between Granite and Root Avenues; and ▪ Between Root Avenue and Lost Lake Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable.	Mitigation Measure #3.13-5k (TR-27): None feasible. Friant Road between North Fork Road (Road 206) and Lost Lake Road requires six lanes to achieve an acceptable LOS (LOS C or better). Widening this segment of Friant Road to six lanes is not feasible due to the physical constraints of the adjacent land uses and the Fresno County General Plan policy that prohibits six lane rural roadways. Although the Measure C Tier 1 Rural project widening Friant Road to four lanes between Copper Avenue and Millerton shall will partially mitigate this impact, the impact shall will remain significant and unavoidable.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
This is an individually and cumulatively significant impact.				
Impact #3.13-5I (TR-30): The Project shall <u>will</u> exacerbate a cumulative LOS that shall <u>will</u> fall below the minimum acceptable LOS under the 2030 no Project condition on Shallow <u>Willow</u> Avenue between Friant Road and Silaxo Avenue. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-5I (TR-30): Shallow <u>Willow</u> Avenue should be widened to four lanes between Friant Road and Silaxo Avenue to provide an acceptable level of service (LOS B) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 18.9%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5m (TR-31): The Project shall <u>will</u> exacerbate a cumulative LOS that shall <u>will</u> fall below the minimum acceptable LOS under the 2030 no Project condition on Shallow <u>Willow</u> Avenue between Silaxo Avenue and Copper Avenue. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-5m (TR-31): Shallow <u>Willow</u> Avenue should be widened to four lanes between Silaxo Avenue and Copper Avenue to provide an acceptable level of service (LOS B or better) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 18.9%.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-5n (TR-33): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS under the 2030 no Project condition on Millerton Road at the following locations: - Between North Fork Road (Road 206) and Winchell Cove Road; - Between Winchell Cove Road and Brighton Crest Drive; - Between Brighton Crest Drive and Sky Harbour Road; - Between Sky Harbour Road and Table Mountain Road; - Between Table Mountain Road and Auberry Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. These are significant impacts.	Mitigation Measure #3.13-5n (TR-33): Millerton Road should be widened to four lanes between Road 206 and Sky Harbour Road to provide LOS C or better. The Measure C Tier 2 Rural project to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road would mitigate a portion of the impact. However, the Tier 2 projects are not yet funded. <u>The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Road 206 to Winchell Cove is 4.8%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Winchell Cove to Brighton Crest is 4.0%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Brighton Crest to Sky Harbour is 3.2%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Sky Harbour to Table Mountain is 2.4%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Table Mountain to Auberry is 2.0%.</u>	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-5o (TR-34): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum	Mitigation Measure #3.13-5o (TR-34): Road 206, including the bridge, west of Friant Road for the Fresno County segment should be widened to four lanes to provide an acceptable level of service (LOS C or better) under the 2030 cumulative condition. The estimated	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
acceptable LOS in the anticipated 2030 No Project condition on the Fresno County segment of Road 206, including the bridge, west of Friant Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. <u>This is a significant impact.</u>	percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.			
Impact #3.13-5p (TR-35): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable level of service in the anticipated 2030 no Project condition at the intersection of Friant Road and Parker Avenue. <u>However, traffic signal warrants on Parker Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered "adverse but not significant" if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. As such, the Project's</u>	Mitigation Measure #3.13-5p (TR-35): None feasible. Peak-hour traffic signal warrants for Parker Avenue are not expected to be satisfied at the intersection. The County may consider constructing a median to prevent left turns from Parker Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants on Parker Avenue are not satisfied and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact shall will remain adverse but not significant .	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
contribution to the anticipated cumulative condition is <u>adverse but not significant</u> . This is a significant impact.				
Impact #3.13-5q (TR-36): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable level of service in the anticipated 2030 no Project condition at the intersection of Friant Road and Granite Avenue. However, traffic signal warrants on Granite Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. As such, The Project’s contribution to the anticipated cumulative condition is <u>adverse but not significant</u> . cumulatively considerable.	Mitigation Measure #3.13-5q (TR-36): None feasible. Peak-hour traffic signal warrants are not expected to be satisfied at the intersection on Granite Avenue. The County may consider constructing a median to prevent left turns from Granite Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants are not satisfied on Granite Avenue and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact shall will remain <i>adverse but not significant</i> .	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
This is a significant impact.				
Impact #3.13-5r (TR-37): The Project shall will exacerbate a cumulative LOS that shall will fall below the minimum acceptable level of service in the anticipated 2030 #No Project condition at the intersection of Friant Road and Root Avenue. However, traffic signal warrants on Root Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. As such, the Project’s contribution to the anticipated cumulative condition is adverse but not significant. This is a significant impact. *Fresno County roadways and intersections that also fall within the jurisdictions of City of Fresno and City	Mitigation Measure #3.13-5r (TR-37): None feasible. Peak-hour traffic signal warrants on Root Avenue are not expected to be satisfied at the intersection. The County may consider constructing a median to prevent left turns from Root Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants on Root Avenue are not satisfied and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact shall will remain adverse but not significant	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
of Clovis are addressed in Impact # 3.13-6 and 3.13-7.				
Impact #3.13-6: The Project shall will contribute to the following deficiencies to City of Fresno* roadways and intersections:	Mitigation Measure #3.13-6: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22 49 and 3.13-23 49) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-6a (TR-8): The Project shall will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that shall will fall below the minimum acceptable LOS under the 2030 no Project condition at the intersection of Friant Road and Shepherd Avenue. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively significant impact.	Mitigation Measure #3.13-6a (TR-8): The intersection of Friant Road and Shepherd Avenue should be provided with a second northbound right-turn lane in addition to the funded third westbound left-turn lane and third southbound through lane to achieve an acceptable level of service (LOS C). The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22 49 and 3.13-23 49) is 6.3%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-6b (TR-9): The Project shall will exacerbate existing delays and an existing LOS	Mitigation Measure #3.13-6b (TR-9): None feasible. The intersection of Friant Road and Audubon Drive is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
already below the minimum acceptable LOS at the intersection of Friant Road and Audobon Drive, and is expected to exacerbate anticipated delays and a cumulative LOS that shall will fall below the acceptable LOS even without the Project under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This shall result in an individually and cumulatively significant impact.	City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is significant and unavoidable.			
Impact #3.13-6c (TR-10): The Project shall will exacerbate delays and a cumulative LOS that shall will fall below the minimum acceptable LOS under the 2030 no Project condition at the intersection of Friant Road and Fresno Street. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-6c (TR-10): None feasible. The intersection of Friant Road and Fresno Street is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is significant and unavoidable.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-6d (TR-19): The Project shall will exacerbate an existing LOS already below the minimum acceptable LOS at the intersection of Audobon Drive and Nees Avenue, and is expected to exacerbate delays and a cumulative LOS that shall will fall below the acceptable LOS even without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively significant impact.	Mitigation Measure #3.13-6d (TR-19): The intersection of Nees Avenue and Audubon Drive should be signalized with two eastbound left-turn lanes to provide an acceptable level of service (LOS D) under the existing and the 2030 cumulative condition. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for improvements at this intersection, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct this major improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-19 and 3.13-20 3.13-22) is 2.0%. The intersection is funded by the City of Fresno Traffic Signal Mitigation Impact Fee.	Applicant	Fresno County	As determined by Fresno County when signal warrants are met
Impact #3.13-6e (TR-28): The Project shall will contribute to an unacceptable LOS on the City of Fresno segment of Friant Road between Champlain Avenue and Ft. Washington Road shall will require six lanes to provide an acceptable level of service (LOS D or better) under the 2030 cumulative condition. The City of Fresno has planned for this improvement in its capital improvement program and its current citywide traffic fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 14.7%.	Mitigation Measure #3.13-6e (TR-28): Friant Road between Champlain Avenue and Ft. Washington Road shall will require six lanes to provide an acceptable level of service (LOS D or better) under the 2030 cumulative condition. The City of Fresno has planned for this improvement in its capital improvement program and its current citywide traffic fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 14.7%.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-6f (TR-29): The Project shall will contribute to an existing and cumulative LOS already below the minimum acceptable LOS on the following City of Fresno segments of Friant Road: - Between Shepherd Avenue and Audubon Drive. - Between Audubon Drive and Fresno Street; and - Between Fresno Street and SR 41. These are significant impacts.	Mitigation Measure #3.13-6f (TR-29): None feasible. The City of Fresno General Plan identifies the need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue to accommodate the anticipated cumulative conditions due to regional growth and accepts LOS F with six lanes since additional widening is not feasible due to physical constraints associated with the adjacent land uses. This condition, as already contemplated and accepted in the City of Fresno General Plan, is significant and unavoidable.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7: The Project shall will contribute to the following deficiencies to intersections and roadways within the shared jurisdiction of City of Clovis and City of Fresno:	Mitigation Measure #3.13-7: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and, where an improvement is identified, the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-2219 and 3.13-2320) are as follows:	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7a (TR-22): The Project shall will exacerbate existing and anticipated future delays and shall will contribute to a cumulative level of	Mitigation Measure #3.13-7a (TR-22): None feasible. The intersection of Shallow Willow Avenue and Nees Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. This impact is significant and unavoidable.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
service below the minimum acceptable level of service at the intersection of Shallow Willow Avenue and Nees Avenue in the 2030 plus project condition. The Project's contribution to the anticipated 2030 cumulative condition is cumulatively considerable. This is a significant impact (County of Fresno, City of Fresno, City of Clovis jurisdiction)				
Impact #3.13-7b (TR-23): The Project shall will exacerbate anticipated delays and contribute to a cumulative level of service that shall will fall below the minimum acceptable level of service at the intersection of Shallow Willow Avenue and Herndon Avenue in the 2030 plus project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	Mitigation Measure #3.13-7b (TR-23): None feasible. The intersection of Shallow Willow Avenue and Herndon Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Herndon Avenue and accepts LOS F with six lanes since additional widening is not feasible. This impact is significant and unavoidable .	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7c (TR-24): The Project shall will exacerbate anticipated	Mitigation Measure #3.13-7c (TR-24): None feasible. The intersection of Shallow Willow Avenue and Sierra Avenue is planned to be constructed to the largest	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
delays and a cumulative level of service that shall will fall below the minimum acceptable level of service at the intersection of Shallow Willow Avenue and Sierra Avenue in the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a significant impact.	reasonable configuration and no further intersection improvements are feasible. Therefore, this impact is significant and unavoidable.			
Impact #3.13-7d (TR-25): The Project shall will exacerbate existing delays, and shall will exacerbate anticipated delays and a cumulative level of service below the minimum acceptable level of service at the intersection of Shallow Willow Avenue and Bullard Avenue under the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This shall result in an individually and cumulatively significant impact.	Mitigation Measure #3.13-7d (TR-25): None feasible. The intersection of Shallow Willow Avenue and Bullard Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. Therefore, this impact is significant and unavoidable.	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Impact #3.13-7e (TR-26): The Project shall will exacerbate existing delays at the intersection of Shallow Willow Avenue and Barstow Avenue. The Project shall will also exacerbate anticipated delays and a cumulative level of service that shall will fall below the minimum acceptable level of service at the intersection of Shallow Willow Avenue and Barstow Avenue in the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This shall result in an individually and cumulatively significant impact.	Mitigation Measure #3.13-7e (TR-26): The intersection of Shallow Willow Avenue and Barstow Avenue should be widened to the following lane configurations to provide an acceptable level of service (LOS D) in the 2030 cumulative condition. ▪ Northbound: two left-turn lanes, three through lanes, one right-turn lane ▪ Southbound: two left-turn lanes, three through lanes, one right-turn lane ▪ Eastbound: one left-turn lane, two through lanes, and two right-turn lanes ▪ Westbound: one left-turn lane and two through lanes with a shared right turn. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 1.0%.	Applicant	Fresno County	As determined by Fresno County
Impact #3.13-7f (TR-32): The Project shall will exacerbate a cumulative LOS that falls below the minimum acceptable level of service under the 2030 condition without the Project on Shallow Willow Avenue at the following locations: ▪ Between Alluvial and	Mitigation Measure #3.13-7f (TR-32): None feasible. The City of Fresno General Plan identifies the ultimate need for six lanes on Shallow Willow Avenue between Alluvial and Barstow Avenues and accepts LOS E. The City of Clovis requires LOS D. A width of six lanes is typically considered the maximum width for roadways in Fresno even when additional lanes are warranted (for example, Herndon Avenue and Friant Avenue are limited to six lanes even where the ultimate mitigation requires more lanes). The proposed Project does not create the need for additional lanes. The Project's share of this cumulative impact is considered to be significant	Applicant	Fresno County	As determined by Fresno County

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
Herndon Avenues; - Between Herndon and Sierra Avenues; - Between Sierra and Bullard Avenues; and - Between Bullard and Barstow Avenues. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. These are significant impacts.	<i>and unavoidable.</i>			
Impact #3.14.1 –Water Supply	Mitigation Measure #3.14.1: Prior to recordation of any final subdivision map within the Friant Community Plan area, inclusive of the Friant Ranch Specific Plan, a water transfer agreement to serve the proposed development shall be approved by the USBR, WWD 18 and/or the LTRID as appropriate. Approval and execution of the water transfer agreement for the full project water amount shall be required prior to approval of any land use entitlements.	Applicant	Fresno County	Prior to recordation of a final subdivision map
Impact #3.14.3 – Inadequate Wastewater Treatment Capacity and Facilities	Mitigation Measure #3.14.3a: All new development in the Friant Community Plan area, inclusive of the Friant Ranch Specific Plan, shall comply with Fresno County General Plan policy PF-D.2, which requires that any new community sewer and wastewater treatment facilities serving residential subdivisions be owned and maintained by a County Service Area or other public entity approved by the County, such as Waterworks District No. 18.	Applicant	Fresno County	Prior to development
	Mitigation Measure #3.14.3b: Adequately sized on-site collection facilities, including lift stations, shall be installed for each subdivision in the Project <u>Project Specific Plan</u>	Applicant	Fresno County	Prior to issuance of building permits

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	area concurrent with road construction for individual subdivisions. A “backbone” conveyance system sufficient to serve each subdivision shall be installed prior to issuance of building permits for that subdivision.			
	Mitigation Measure #3.14.3c: Wastewater collection, treatment and disposal of the Friant Ranch Specific Plan Area shall adhere to Section VI of the Friant Ranch Infrastructure Master Plan. The applicant and/or WWD 18 must demonstrate adherence to Section VI of the Friant Ranch Infrastructure Master Plan prior to issuance of an occupancy permit for development within the Friant Ranch Specific Plan Area.	Applicant	Fresno County	Prior to issuance of occupancy permit
	Mitigation Measure #3.14.3d: Commitments from the wastewater treatment provider to receive anticipated flows from the Friant Ranch Specific Plan Area and Millerton Lake Village Mobile Home Park at the WWTP shall be secured by Fresno County prior to County approval of improvement plans for wastewater collection and transmission infrastructure.	Applicant	Fresno County	Prior to approval of improvement plans
	Mitigation Measure #3.14.3e: Prior to issuance of building permits for each increment of new development within the Project Area, the County shall confirm that all necessary permits (e.g., NPDES) are in place for the WWTP to discharge additional treated effluent in the amounts associated with new development. This shall include a determination that development timing shall not impede other development for which entitlements have been issued.	Applicant	Fresno County	Prior to issuance of building permits
	Mitigation Measure #3.14.3f: Prior to approval of improvement plants and wastewater collection and infrastructure, the applicant must demonstrate to the County that on- and off-site sewer pipelines shall have watertight joints and be in accordance with design standards adopted by Fresno County in order to	Applicant	Fresno County	Prior to approval of improvement plans

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	minimize the potential for accidental discharge.			
	Mitigation Measure #3.14.3g: The design plans for the WWTP shall incorporate appropriate and cost-effective odor and noise reduction measures as described in the <u>Infrastructure Master Plan</u> , to the satisfaction of the Fresno County Public Works and Planning Department prior to issuance of the conditional use permit for the WWTP.	Applicant	Fresno County	Prior to issuance of CUP for the WWTP
Impact #3.14.6 – Compliance with Federal, State, and Local Solid Waste Regulations	Mitigation Measure #3.14.6a: Contractors shall be required to provide on-site separation of construction debris to assure a minimum 50% diversion of this material from the landfill.	Applicant	Fresno County	On going
	Mitigation Measure #3.14.6b: A source-separated green waste program shall be implemented within the project area, subject to review and approval by the Fresno County Department of Public Works and Planning, Resources and Parks Division.	Applicant	Fresno County	On going
Impact #3.14.7 – Development of the Community Plan area shall increase the demand for electricity and natural gas and shall result in the need to construct new infrastructure to serve the Community Plan area	Mitigation Measure #3.14.7a: The Specific Plan applicants and subsequent developers within the Community Plan area shall work closely with PG&E or other utility provider to ensure that development of electrical and natural <u>or propane</u> gas infrastructure with the capacity to service the <u>proposed development</u> entire Community Plan area is located and provided concurrently with roadway construction and in accordance with PUC regulations. The applicant(s) shall grant all necessary easements for installation of electrical and natural/ <u>propane</u> gas facilities, including utility easements along existing and future on-site arterial roads for the development of area-wide utility corridors. Coordination with PG&E and/or alternative providers shall occur, and any required agreements shall be established prior to recordation of the first <u>a final</u> subdivision map.	Applicant	Fresno County	On going

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.14.7b: Implement Mitigation Measure 3.3.2 as set forth in Section 3.3 of this Draft EIR.	Applicant	Fresno County	See mitigation for specific time span
Impact #3.14.15.1 – Development of the Project could potentially result in a cumulatively considerable incremental contribution to the significant cumulative impact of global climate change	Mitigation Measure #3.15.1a: The applicant shall select and locate trees carefully to protect buildings from energy consuming environmental conditions, and to shade paved areas. Trees selected to shade paved areas should be species that shall shade 25% of the paved area within 20 years.	Applicant	Fresno County	Prior to development
	Mitigation Measure #3.15.1b: The applicant shall distribute a tree planting informational packet to help project area residents understand their options for planting trees that can absorb carbon dioxide.	Applicant	Fresno County	Prior to resident occupancy
	Mitigation Measure #3.15.1c: Prioritized parking within commercial and retail areas shall be given to electric vehicles, hybrid vehicles, and alternative fuel vehicles.	Applicant	Fresno County	Prior to resident occupancy
	Mitigation Measure #3.15.1d: Promote passive solar building design and landscaping conducive to passive solar energy use. The County shall utilize the following <u>guidelines during review of future project-specific submittals for non-residential development within the Specific Plan area and the Community Plan boundary:</u> Equip HVAC units with a PremAir or similar catalyst system, if reasonably available and economically feasible at the time building permits are issued. Catalyst systems are considered feasible <u>if the additional cost is less than 10% of the base HVAC unit cost; and</u>	Applicant	Fresno County	Prior to resident occupancy

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Install two 110/208 volt power outlets for every two loading docks.			
	Mitigation Measure #3.15.1e: Develop walking trails throughout the Friant Ranch Specific Plan Area in accordance with the plan	Applicant	Fresno County	Prior to resident occupancy
	Mitigation Measure #3.15.1f: Implement the following measures as determined appropriate by the County in consultation with the SJVAPCD: Fund Transportation Control Measures (TCM's) program: transit, bicycle, pedestrian, traffic flow improvements, transportation system management, rideshare, telecommuting, video conferencing, etc. This plan shall provide for eventual public transit and implementation of trip reduction strategies that coordinate with surrounding areas. A Transportation Management Association (TMA) shall be established that shall be funded by the developer and all businesses located within the Specific Plan area. The TCM plan shall be updated annually by TMA staff to demonstrate compliance with all air quality requirements, and to incorporate the latest state-of-the-art techniques and strategies to reduce emissions. - Establish paving guidelines that encourage businesses, if feasible, to pave all privately-owned parking areas with a substance with reflective attributes (albedo = 0.30 or better) similar to Portland cement concrete. The use of a paving substance with reflective attributes similar to Portland Cement concrete is considered feasible under this measure if the additional cost is less than 10% of the cost of applying a standard asphalt product; and,	Applicant	Fresno County/SJVAPCD	Prior to development

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	Mitigation Measure #3.15.1g: The following measures shall be used singularly or in combination to accomplish an overall reduction of 10 to 20% in residential energy consumption relative to the requirements of the 2008 State of California Title 24: ▪ Prior to issuance of an occupancy permit, the applicant shall demonstrate the use of air conditioning systems that are more efficient than Title 24 requirements; ▪ In marketing materials associated with any project within the Friant Community Plan Area, the applicant shall encourage the use of high-efficiency heating and other appliances, such as water heaters, cooking equipment, refrigerators, and furnaces; ▪ Encourage photovoltaic rooftop energy systems in community buildings and larger commercial buildings. ▪ Prior to issuance of an occupancy permit, the applicant shall establish tree-planting guidelines that require residents to plant trees to shade buildings primarily on the west and south sides of the buildings. Use of deciduous trees (to allow solar gain during the winter) and direct shading of air conditioning systems shall be included in the guidelines. ▪ As required by the Friant Specific Plan, prohibit any wood-burning fireplaces, woodstoves, or similar wood-burning devices. This prohibition shall be included in any CC&Rs that are established.	Applicant	Fresno County	Prior to issuance of occupancy permit
	Mitigation Measure #3.15.1h: The following measures shall be used to demonstrate sustainable building practices and lessen the impact on Greenhouse Gases.:	Applicant	Fresno County/SJVAPCD	Prior to issuance of occupancy permit

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	▪ Provide parks and open space throughout the residential developments as required by the Friant Ranch Specific Plan; ▪ Prior to issuance of an occupancy permit, all non-residential projects within the Community Plan Area shall demonstrate that bicycle racks shall be provided. ▪ Prior to issuance of an occupancy permit, all apartment complexes or condominiums without garages within the Community Plan Area shall demonstrate that at least two Class I bicycle storage spaces per unit shall be provided; ▪ As required by the Friant Community Plan Update and Friant Ranch Specific Plan, residential neighborhoods shall be interconnected, with easy access to commercial and recreational land uses. ▪ Prior to issuance of an occupancy permit within the Friant Ranch Specific Plan area, the applicant shall create informational materials informing occupants of: - o The alternative travel amenities provided, including ridesharing and public transit availability schedules. - o The Community Plan's pedestrian, bicycle, and equestrian paths to community centers, shopping areas, employment areas, schools, parks, and recreation areas; - o The SJVAPCD programs to reduce county-wide emissions. ▪ Any new park areas within the Community Plan Area shall include: - o Bicycle racks at all appropriate locations; and			

Impact Number	Mitigation Measures	Implementation	Monitoring	Time Span
	- o A community notice board and information kiosk with information about community events, ride sharing, and commute alternatives. ▪ Provide a community notice board and information kiosk with information about community events, ride-sharing, and commute alternatives.			

CHAPTER TWO – PROJECT DESCRIPTION

2.1 Project Summary

The County of Fresno is the Lead Agency for the preparation of this Program/Project EIR for the Friant Community Plan Update, Friant Redevelopment Plan Amendment, Friant Ranch Specific Plan, and related actions described in section 2.4 below (collectively referred to herein as the “Project”).

2.2 Project Location

Figure 2-1 shows the regional location of the Project Area. The white numbers on the map represent state highways. Figure 2-2 shows a vicinity map for the Project. The Project Area lies on the eastern side of the San Joaquin Valley. The San Joaquin Valley is bordered on the east by the Sierra Nevada Mountains, on the west by the South Coast Ranges, and on the far south by the Tehachapi Range. The Project Area is located in and on lands adjacent to the unincorporated community of Friant in north-central Fresno County, north of the cities of Fresno and Clovis. The Project Area is just east of the San Joaquin River, which forms the western boundary between Fresno and Madera Counties in this portion of Fresno County.

- The Project involves the following property: Figure 2-3 shows an aerial photo for the expanded boundaries of the proposed Friant Community Plan Update (“Proposed Community Plan Area”). Figure 2-4 identifies the lands currently included within the boundaries of the 1983 Friant Community Plan. For purposes of this EIR, the lands within the 1983 Friant Community Plan are referred to herein as the “Existing Friant Community Plan Area.” The Friant Community Plan Update proposes to expand the Existing Friant Community Plan Area boundaries to encompass a total area of approximately 1,804 acres.
- Figure 2-3 shows an aerial photo ~~for the expanded boundaries~~ of the Friant Ranch Specific Plan boundaries (“Specific Plan Area”). Figures 2-2 and 2-3, identify the approximately 942.2 acres proposed for development through the Friant Ranch Specific Plan. The Specific Plan Area is located approximately nine miles north of the Fresno City limits and 21 miles east of the City of Madera. Portions of the Specific Plan Area are already within the existing Community Plan Area identified in Figure 2-4. The Friant Community Plan Update will expand the Friant Community Plan boundary to include the remaining Specific Plan Area.

- The Depot Parcel, which is within the Existing Community Plan Area and is owned by an affiliate of the Project applicant, is located on the east side of Friant Road, just below the intersection with Road 206 and above Bugg Street. Figure 2-4a shows the Depot Parcel.¹
- The existing Redevelopment Project Plan area (“Redevelopment Plan Area”), as shown in Figure 2-5, is located within the western portion of the Community Plan area and is bordered by the San Joaquin River to the west, Lost Lake Regional Park to the south, and the Friant Dam and Millerton Lake to the north. The eastern border extends slightly beyond Burroughs Avenue and Bluewater Bay and encompasses a portion of the Specific Plan Area. The Project does not propose to change the boundaries of the Friant Redevelopment Plan Area. ~~The proposed expanded Water Treatment Facility will affect previously disturbed lands under and immediately surrounding the existing Water Works District 18 Water Treatment Facility within the Existing Friant Community Plan Area.~~
- The proposed expanded Water Treatment Facility will affect previously disturbed lands under and immediately surrounding the existing Water Works District 18 Water Treatment Facility within the Existing Friant Community Plan Area.
- The proposed water transfer between Water Works District 18 (Figure 2-10) and Lower Tule River Irrigation District (Figure 2-11) will benefit lands within the Proposed Community Plan Area and indirectly affect lands within the Lower Tule River Irrigation District in Tulare County that currently use the water subject to the proposed transfer.

2.3 Surrounding Land Uses

The Project Area is in central Fresno County, north of the cities of Fresno and Clovis. The Existing Community Plan Area is bounded by the San Joaquin River and Madera County to the west, Friant Dam and Millerton Lake to the north, open space land to the south, and the Friant-Kern Canal to the east.

The Specific Plan Area is bounded by residential single-family homes to the north, Friant Road to the west, and vacant open space to the south and east beyond the Friant-Kern Canal, which

¹ ~~The recorded size of the parcel (APN 300-010-03S) is 12.75 acres. The recorded size of the entire APN 300-010-03S is 12.75 acres. The north section of APN 300-010-03S is already developed (1.963 acres) as commercial, portions of APN 300-010-03S are comprised of access roadways (0.635 acres), and the southern part is included in the Specific Plan Area and is currently designated in the 1983 Community Plan as Highway Commercial and already zoned s General Commercial District (C-6) (2.30 acres). widening has been approved and construction was in progress as of the issuance of the NOP and circulation of this EIR). The “Depot Parcel”, which comprises the middle section of APN 300-010-03S (7.85 acres), is designated Low Density Residential and is zoned as Single Family Residential—Agricultural District (R-A). The middle section will be reduced to approximately 6.75 acres with the widening of Friant Road (based on Fresno County’s adopted road widening plan). The recorded size of the entire APN 300-200-20S is 11.48 acres. The north section (1.72 acres) is already in commercial use. Portions of the parcel (0.54 acres) are dedicated to access roadways. A portion of the Depot Parcel, which comprises the middle section of APN 300-200-20S is 6.82 acres. The recorded size of the entire APN 300-200-02 is 0.37 acres. The middle section of APN 300-200-20S and APN 300-200-02 is designated Low Density Residential and is zoned as Single Family Residential—Agricultural District (R-A). The southern section of APN 300-200-20S (2.30 acres), which is located within the Friant Ranch Specific Plan Area, is designated for Highway Commercial and zoned as General Commercial District (C-6). For purposes of this EIR, the middle 6.82 acres of APN 300-200-20S and the 0.37 acre APN 300-200-02 for a total acreage of 7.19 acres is referred to as the “Depot Parcel”.~~

runs along the eastern edge of the Specific Plan Area. The Specific Plan Area is in the vicinity of several neighborhoods within the Existing Community Plan Area. Nearby developments include but are not limited to Millerton New Town which is still being entitled (although some areas have been graded, significant portions of the proposed development are not yet under construction), Brighton Crest (with approximately 80 of the 420 approved lots built at this time) and Table Mountain Casino which is already built. (Please see Chapter Five – Cumulative Impacts for more information about regional developments.)



FIGURE
2 – 4a

DEPOT PARCEL LOCATION MAP



The Friant Ranch Specific Plan incorporates two active adult recreation centers, approximately 15 miles of trails and parkways, approximately 20 acres of parks and public open space areas, approximately 92 acres of landscaped slopes, and approximately 275 acres of conservation open space areas (including 245 acres of undisturbed open space and 30 acres of revegetated open space slopes). The Specific Plan development will require a number of additional actions, which are analyzed in this EIR, including but not limited to a water transfer agreement for 2,000 acre-feet of water annually between Lower Tule River Irrigation District and Fresno County Waterworks District No. 18 (WWD #18), Regional Water Quality Control Board permits for irrigation with treated effluent of Specific Plan landscaping and off-site disposal of treated effluent on suitable nearby lands such as the Beck Property² (identified in Figure 2-6) and/or Lost Lake Park (and, if sufficient winter land disposal areas are not available, seasonal discharge to the San Joaquin River), United States Army Corps of Engineers and Regional Water Quality Control Board permits for dredge and fill of wetlands, Endangered Species Act and California Endangered Species Act compliance through United States Fish and Wildlife Service, United States National Marine Fisheries Service, and California Department of Fish and Game, replacement of the current wastewater treatment plant servicing the Millerton Lake Village Mobile Home Park, construction of a new water treatment plant, annexation of Friant Ranch Specific Plan Area into Fresno County Waterworks District No. 18, and various agreements and permits related to the water treatment plant and wastewater treatment plant infrastructure and operation. The Project also includes the adoption of a new zoning ordinance for the Friant Ranch Specific Plan Area.

As noted above in the Friant Community Plan discussion, the Project also includes a land use designation change for the middle 6.8275 acres of APN 300-010-03S-300-200-20S and the 0.37 acres of APN 300-200-02 for a total of 7.91 acres (this middle portion of APN 300-010-03S-300-200-20S and APN 300-200-02 is referred to herein as the “Depot Parcel”), which is within the Existing Friant Community Plan Area, from Low Density Residential to Highway Commercial.²³

² The Beck Property is the former 150-acre CEMEX gravel extraction facility south and east of Lost Lake Park. It consists of highly disturbed agricultural lands and an aggregate mining quarry. One existing residence, associated outbuildings, parking areas, and landscaping currently occupy 3-4 acres of the Beck Property in its southeast corner. The mining pit at the north end of the property will be used as an effluent storage pond for seasonal irrigation of the remaining irrigable lands on the Beck Property. A maximum of approximately 100 days of effluent will be stored. A pipeline from the wastewater treatment plant to the Beck Property would be constructed within disturbed areas directly adjacent to existing roadways. Prior to disposal at the Beck Property, the effluent will be treated to a level that is consistent with Title 22 requirements for the unrestricted use of recycled water. Recycled water from the WWTP will be applied to irrigate the Beck Property at agronomic rates.

^{3 2} The recorded size of the entire APN 300-010-03S-300-200-20S is 12.75 11.48 acres. The north section (1.72963 acres) is already in commercial use. Portions of the parcel (0.54 acres) Depot Parcel (0.635 acres) are dedicated to access roadways. A portion of The Depot Parcel, which comprises the middle section of APN 300-200-02 is 6.82 acres. The recorded size of the entire APN 300-200-20S is 0.37 acres. The middle section of APN 300-200-20S and APN 300-200-02 (7.85 acres), is designated Low Density Residential and is zoned as Single Family Residential—Agricultural District (R-A). The middle section will be reduced to approximately 6.75 acres with the widening of Friant Road (based on Fresno County’s adopted road widening plan). The southern section of APN 300-200-20S (2.30 acres), which is located within the Friant Ranch Specific Plan Area, is designated for Highway Commercial and zoned as General Commercial District (C-6). For purposes of this EIR, the middle 6.8275 acres of APN 300-010-03S-300-200-20S and the 0.37 acre APN 300-200-02 for a total acreage of 7.19 acres is referred to as the “Depot Parcel”.

The Project also includes a corresponding zone change for the Depot Parcel from Single Family Residential—Agricultural District (R-A) to General Commercial District (C-6). The Specific Plan Area is planned as an active adult community and will qualify for the exemption³⁴ as a community for age 55 and older persons based on the Fair Housing Amendments Act of 1988, and the Housing for Older Persons Act of 1995: Final Rule (Department of Housing and Urban Development: 24 CFR Part 100) and California Government Code section 65008(a)(1)(B).

³⁴ The applicant has provided information and a legal opinion to show that age-restricted units within the Friant Ranch Specific Plan Area are exempt from the general ban on discrimination in housing based upon familial status.

- Change the land use designations for the Specific Plan Area to Medium Density Residential, Medium High Density Residential, Community Commercial, Open Space, and Public Facilities. The current land use designations for the Specific Plan Area include Agriculture, Medium Density Residential, and Highway Commercial.
- Change the land use designation for the Depot Parcel from Low Density Residential to Highway Commercial.
- ~~Establish development standards to accommodate proposed development within the Specific Plan Area.~~

b. Friant Community Plan Update

The Project includes updating the Friant Community Plan (Community Plan). The Friant Community Plan was first adopted on September 1, 1964 and subsequently amended in 1976, 1978 and 1983. Figure 2-7 shows the proposed Community Plan map.

The Community Plan is Fresno County's adopted statement of policy for the growth and improvement for the community of Friant. The Community Plan area is bounded by the San Joaquin River and Madera County to the west, Friant Dam and Millerton Lake to the north, open space land to the south, and the Friant-Kern Canal to the east. Friant and Millerton Roads provide access to surrounding communities in Fresno County, while North Fork Road/Road 206 provides access to Madera County. The proposed Community Plan area will encompass approximately 1,804 acres. The Community Plan establishes planning goals and policies to guide development of this growing small town, consistent with the Fresno County General Plan goals to create a recreational hub within the Friant area.

The Community Plan Update designates appropriate areas for agricultural, residential (Low Density, Medium Density and Medium High Density), commercial (Highway, Special and Community), recreational, public facilities and open space uses. The Community Plan Update also recommends road and other infrastructure (water, sewer and storm drainage) improvements. In addition, the Community Plan Update identifies the goals and policies designed to guide land use planning, expand the community's tourism resources, expand community services and provide a guiding framework for future development, while conserving environmental resources and natural habitat.

The Community Plan Update includes goals, policies, implementation programs, transportation, infrastructure and trails, public facilities and services, and environmental resource management. The Community Plan Update maintains the existing designations for all lands outside of the new Friant Ranch Specific Plan Area, except for the Friant Depot Parcel (Figure 2-7 identifies the Depot Parcel change from Low Density Residential to Highway Commercial). The Community Plan Update includes a Community Map, an Implementation Program, and the following five elements:

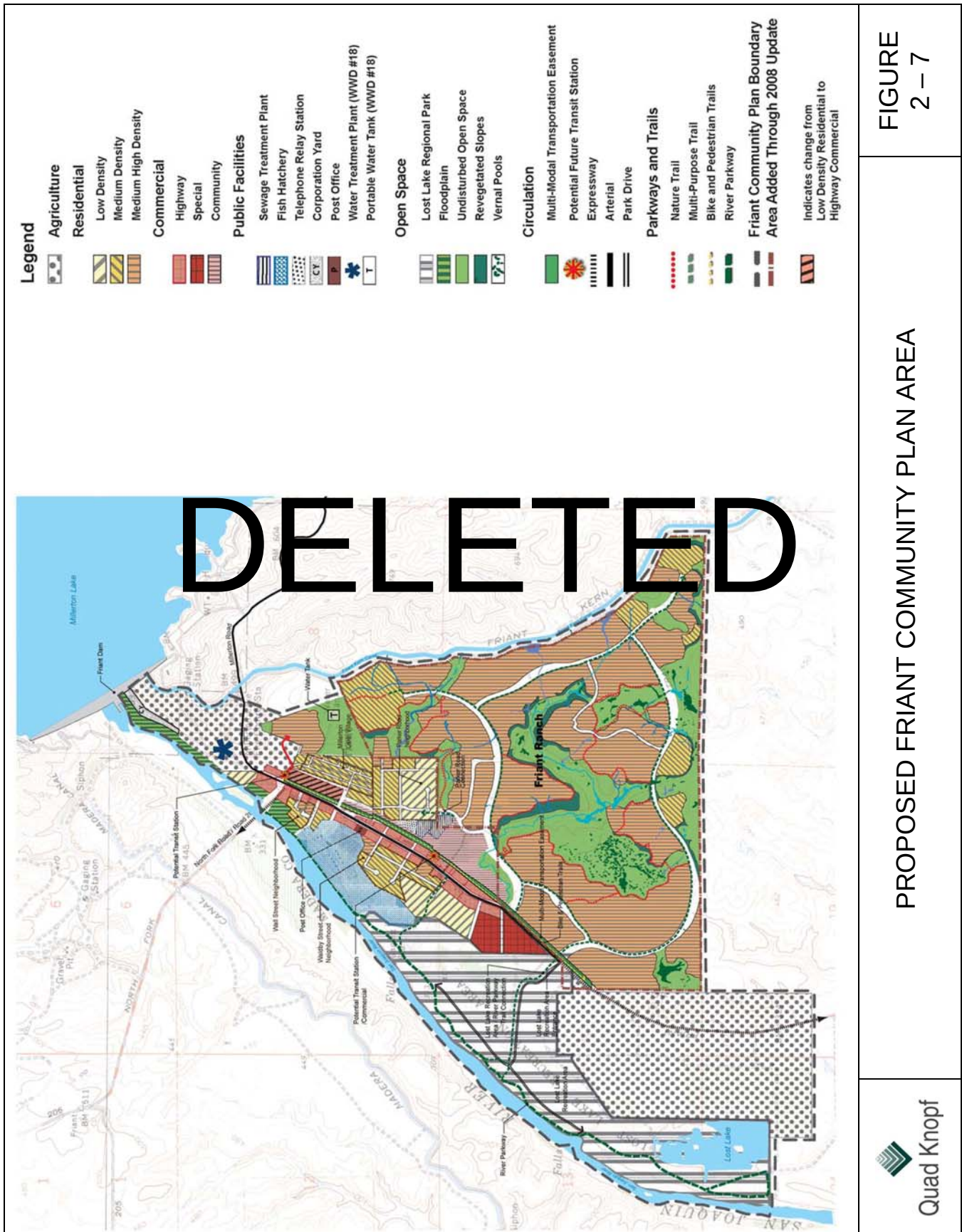


FIGURE
2 – 7

PROPOSED FRIANT COMMUNITY PLAN AREA



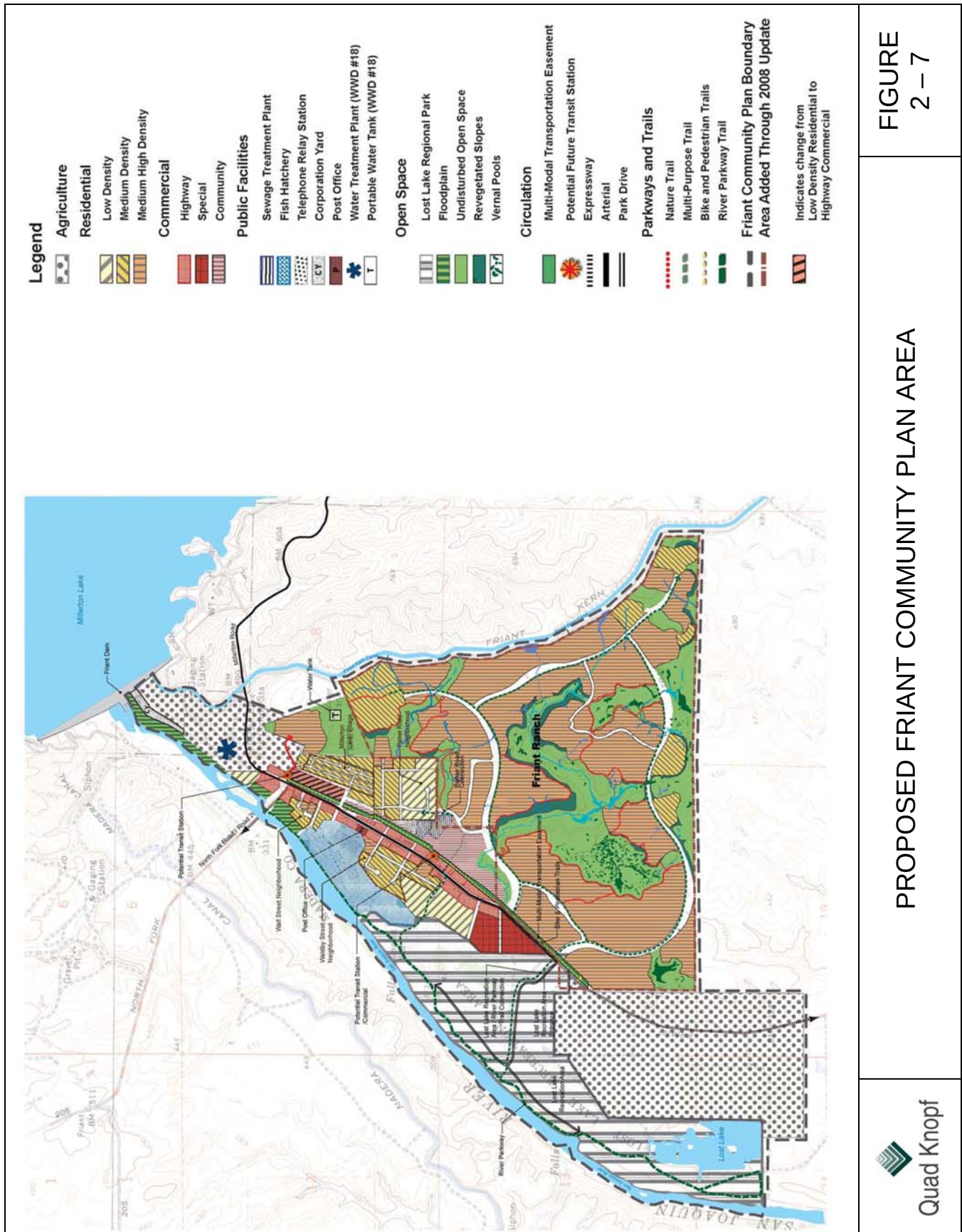


FIGURE
2 – 7

PROPOSED FRIANT COMMUNITY PLAN AREA

Phase 4. Phase 4 includes the construction of up to 625 residential homes and park land located in the eastern portion of the Specific Plan Area.

Phase 5. The final phase (Phase 5) will occur in the southeastern portion of the Specific Plan Area with up to 502 residential homes and park land.

d. Friant Redevelopment Plan Amendment

The County proposes, through and in coordination with the Fresno County Redevelopment Agency, to amend the Redevelopment Plan to extend the timeframe for implementation of improvement projects identified within the Friant Redevelopment Plan, which are planned for the benefit of the existing community of Friant. The Redevelopment Plan Amendment also proposes to delete the commercial standards set forth in the 1992 Redevelopment Plan.

e. Zoning Changes

The County will process and consider the following zoning change applications pertaining to the Project:

- Amendment to Text Application No. ~~3754363~~. Application to create new zone districts for the Specific Plan Area. The creation and application of new zone districts will change the zoning designations for the Friant Ranch Specific Plan Area to new designations that relate back to the Fresno County zoning designations for Community Shopping Center District (C-2), Single-Family Residential (R-1), Low Density Multi-Family Residential District (R-2), Recreational District (R-E), and Open Space Conservation District (O). The current zoning designation for the majority of the Specific Plan Area is Exclusive Agriculture (AE-20 and AE-40), however, approximately 20 acres are zoned Trailer Park-conditional (TP-C), approximately 15 acres are zoned Trailer Park (TP), approximately 4 acres are zoned commercial (C-6), and approximately 2.5 acres are zoned residential (R-A and R-1).
- Amendment Application No. ~~3693715~~. Application to change zoning on the Depot Parcel, identified in Figure 2-4, from Single-Family Residential Agricultural District (R-A) to Commercial (C-1). The Depot Parcel is approximately 7.85 acres, which will be reduced to approximately 6.75 acres with the widening of Friant Road.

f. Development Agreement

The County will process a development agreement for the Project in accordance with the Fresno County Development Agreement guidelines and the California Government Code Sections 65864-65869.5.

d. Conditional Use Permits

The County will consider issuance of conditional use permits for: (1) the wastewater treatment plant serving the Specific Plan Area and related use of treated wastewater for irrigation of Lost Lake Park and/or other land disposal sites; and (2) the active adult recreation centers.

e. Subsequent Actions

The development of the Specific Plan Area will likely include the processing of tentative maps, parcel maps, site plans, grading permits, building permits, and an agreement to accommodate discharge of treated effluent on County lands within Lost Lake Park.

2. Water Works District No. 18

The applicant proposes to pursue annexation of the Specific Plan Area into the service area of the existing County Water Works District No. 18 (WWD #18) or any successor agency thereof. The preferred option for water and wastewater services, and potentially lighting services, is to include the Specific Plan Area within the WWD #18 service area and designate the Specific Plan Area as a separate zone of benefit within WWD #18 to appropriately allocate service costs. As part of the development Project, the applicant proposes to provide and finance an expansion to the existing WWD #18 water treatment plant and a new tertiary level wastewater treatment plants sufficient to provide capacity for WWD #18 to serve the population at full build out within the Specific Plan Area and the current and planned future uses within the Existing Community Plan Area. The anticipated actions of WWD #18 are:

a. Approve Change in Water Supply, Stormwater Lighting, and Wastewater Service Area/Annexation

Figure 2-10 identifies the proposed area of inclusion into WWD #18's boundaries for water supply, stormwater lighting, and wastewater service.

b. Approve and Execute a Water Transfer Agreement with the Lower Tule River Irrigation District

c. Designate a Separate Zone of Benefit for the Friant Ranch Specific Plan Area

d. Approve and Execute a Utility Service Agreement for the Friant Ranch Specific Plan Area

e. Issue a Will-Serve Letter for the Friant Ranch Specific Plan Area

3. Lower Tule River Irrigation District

The Lower Tule River Irrigation District (LTRID) has provided a notice of intent to enter into a long-term water transfer with WWD #18 for 2,000 acre feet of water annually to serve the Specific Plan uses (see Figure 2-11 for District boundaries). To effectuate this long-term transfer of Central Valley Project (CVP) Friant Division water to WWD #18, the following action would be taken by LTRID (or, if deemed necessary in the planning process, an alternative water purveyor able and willing to transfer Central Valley Project Friant Division water supplies):

a. Approve Water Transfer Agreement with WWD #18

The proposed transfer is for up to 2,000 acre-feet annually of LTRID's U.S. Bureau of Reclamation (USBR) contract water supply. The proposed transfer commits to providing the contracted amount of water supply to the Project for so long as LTRID has a right to receive USBR water, including the current USBR contract that expires in 2026 with provision for renewal, and any renewal or conversion thereof. ~~term is to run for the balance of the existing term of LTRID's long-term contract.~~ One renewal of the LTRID's contract is required in accordance with federal law and additional renewals of said contract are anticipated. This transfer, likewise, is anticipated to be renewed on terms mutually agreeable to the parties for subsequent periods consistent with multiple renewals of LTRID's contract. The transferred water will be delivered from the Millerton Lake Reservoir at existing diversion points at Friant Dam into an existing pipeline owned by USBR, for delivery to treatment facilities owned by WWD #18 for treatment and subsequent delivery through new and existing distribution system of WWD #18. No other CVP facilities will be utilized in the delivery of the transferred water. The volume of annual transferred water supply is less than one percent of LTRID's annual contract entitlement.

To make up to 2,000 acre-feet of its CVP contract water supply available to WWD #18 each year, LTRID will utilize its new water distribution facilities (Tule River Intertie) that allow LTRID to divert to groundwater recharge either by direct or "in-lieu" recharge methods, additional water held under LTRID's rights to Tule River water. The additional water so recharged will become available to the LTRID's water users and pumped to meet consumptive crop demands under their rights to groundwater as overlying landowners, offsetting the District's need to provide an equivalent amount of LTRID's annual CVP surface water supplies (thus freeing up water that can be transferred to WWD #18). The Tule River Intertie construction underwent independent environmental analysis pursuant to CEQA, copies of which can be obtained from LTRID.

The physical facilities associated with the Tule River Intertie are composed of three connected pieces: the Tule River Diversion Rehabilitation, the Wood Central Ditch Modification, and the construction of the Intertie Canal. The Tule River Intertie facilities provide for improved delivery of Tule River water and the construction of a new canal that increases the District's ability to deliver Tule River water to lands served by the Tipton Canal (LTRID Canal #2), Poplar Ditch and the Casa Blanca Canal (LTRID Canal #1).

3. Central Valley Regional Water Quality Control Board and State Water Resources Control Board

The following actions of the Central Valley Regional Water Quality Control Board (RWQCB) and/or the State Water Resources Control Board will be required for the proposed development at the Project site:

- a. Adopt Waste Discharge Requirements for Land Disposal of Treated Effluent
- b. Adopt Water Reclamation Requirements for Land Disposal of Treated Effluent

- c. Adopt National Pollutant Discharge Elimination Permit for any Discharge of Treated Effluent to San Joaquin River
- d. Issue Clean Water Act Section 401 Certification
- e. Action on Notice of Intent to Dredge and Fill Isolated Wetlands
- f. Accept Notice of Intent for Coverage Under General Stormwater Permit for Construction Activities

5. Fresno Local Agency Formation Commission

The Fresno Local Agency Formation Commission (LAFCo) will review and process the appropriate reorganization necessary to annex the lands identified on Figure 2-10 into the appropriate wastewater and water supply, and others as appropriate, service areas of WWD #18. This action may involve some reorganization between WWD #18 and County Service Area 44 (CSA 44). Figure 2-10 identifies the proposed area of inclusion into WWD #18's boundaries.

LAFCo will conduct a Municipal Service Review and likely require the following actions to approve the proposed development:

- a. Take Appropriate Action to Effectuate Inclusion of the Friant Ranch Specific Plan Area into WWD #18 Wastewater Treatment, Lighting, and Water Supply Service Area, Including Expansion of the Sphere of Influence and Annexation
- b. To the Extent Deemed Appropriate by the County and LAFCo, Take Appropriate Action to Effectuate Inclusion of Other Lands within the Friant Community Plan Area into WWD #18 Wastewater Treatment, Lighting, and Water Supply Service Area
- c. To the Extent Deemed Appropriate by CSA 44 and LAFCo, Take Appropriate Action to Expand Lighting Service Area of CSA 44 to Include the Friant Ranch Specific Plan Area
- d. Take Appropriate Actions to Add Wastewater Services to the Active Powers of WWD #18

6. California Department of Public Health

The following actions of the California Department of Public Health will be required for the proposed wastewater disposal and water treatment for the Project:

- a. Approve Engineering Report for the Water Treatment Plant
- b. Issue Report of Wastewater Reclamation

7. County Service Area 44

The following actions of CSA 44 may be required to facilitate the proposed wastewater, water supply, and lighting services for the Project:

- Fresno County
- Fresno County Fire Protection District
- Fresno County Water Works District No. 18
- Lower Tule River Irrigation District
- County Service Area 44
- Fresno Local Agency Formation Commission
- San Joaquin Valley Air Pollution Control District
- California Department of Transportation
- California Department of Fish and Game
- California Department of Public Health
- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- United States Department of the Interior, Bureau of Reclamation
- United States Environmental Protection Agency
- Central Valley Regional Water Quality Control Board
- State Water Resources Control Board

If Fresno County approves the proposed Project, subsequent actions, permits, and approvals will be necessary for project implementation. Upon certification, this EIR may be used for evaluation of actions including, but not necessarily limited to, those identified within Chapter 4 of this EIR.

Policy OS-L.4 The County shall require proposed new development along designated scenic roadways within urban areas and unincorporated communities to underground utility lines on and adjacent to the site of proposed development or, when this is infeasible, to contribute their fair share of funding for future undergrounding.

Policy Consistency

The Friant Ranch Specific Plan site comprises natural vegetation and hillsides. The Project proposes development designed in a way that facilitates conservation of the natural foothill character of the Friant Ranch Specific Plan site with preservation of central canyons and vista and view corridors with an open space commitment of over one third of the Friant Ranch Specific Plan acreage.

Consistent with Policy OS-K.4, the Friant Ranch Specific Plan provides for an appropriate setback from the 900-foot length of frontage abutting the Friant Road scenic highway corridor (which runs from City of Fresno to Lost Lake Road). As identified in Specific Plan Figure 26 2-6, the Friant Ranch Specific Plan grading plan provides for more than 200-foot buffer for the majority of the scenic road frontage. Modification to the 200-foot buffer is appropriate for a small portion of that road frontage (225 feet) because the topographic and vegetative characteristics provide screening of buildings and parking areas from the right-of-way and the property dimensions, as they relate to the newly widened Friant Road allow for 175-foot, rather than 200-foot, setback. (General Plan Policy OS-K.4.)

The Friant Community Plan Update proposes the following policies to preserve and protect scenic resources consistent with the General Plan:

Friant Community Plan Update

Policy 5.1 Preserve areas with scenic qualities and natural beauty in open space or as farmland, where feasible.

Policy 5.2 Encourage development within Friant Ranch to preserve existing scenic resources in open space, including natural drainage ways and vernal pools.

Policy 5.3 Work with federal, state, regional, and other appropriate public agencies, non-profit organizations, and landowners to conserve, protect, and enhance natural resources in the Community Plan area.

Policy 5.4 Protect “dark skies” by ensuring light and glare is minimized by using low-level lighting.

The Specific Plan proposes the following policies that assure consistency with the General Plan policies:



Looking north towards the dam from Friant Ranch



Looking northwest along the Friant-Kern Canal
from the project site's eastern boundary



Looking west from Friant Ranch



**VIEWS FROM THE FRIANT RANCH SPECIFIC PLAN
AREA/COMMUNITY PLAN AND VICINITY #1**

**Figure
3.1 - 1**



Looking north along Friant Road
from the existing Community Plan southern boundary



Looking east from the center of the south boundary
of the existing Community Plan area



Looking north from the center of the south boundary
of the existing Community Plan area



VIEWS FROM THE FRIANT RANCH SPECIFIC PLAN
AREA/COMMUNITY PLAN AND VICINITY #2

Figure
3.1 - 2



Looking west at Lost Lake Park from Friant Road.



Looking north toward Friant Dam.



Looking south toward Friant Ranch from the project's northern boundary.



VIEWS FROM THE FRIANT RANCH SPECIFIC PLAN
AREA/COMMUNITY PLAN AND VICINITY #3

Figure
3.1 - 3

Conclusion: Development of the Project in compliance with the goals, policies and community design guidelines of the Friant Community Plan Update and Friant Ranch Specific Plan will preserve areas with scenic qualities and natural beauty, integrate new homes into the natural open space and rolling hillsides, and include landscaping that complements the open space areas and rural setting. As designed, the Project will not have a substantially adverse effect on a scenic vista. The potential impact to visual resources is *less than significant*.

Mitigation Measures: No mitigation measures are required.

**Impact #3.1.2 – Scenic Resources within a State Designated Scenic Highway or County Designated Scenic Road
[Evaluation Criteria (b)]**

A portion of the Project (900 feet of Friant Ranch Specific Plan frontage) abuts the segment of Friant road that is designated scenic highway. The Project does not propose any new uses that would substantially obstruct scenic views of the surrounding foothills or mountains along this scenic highway corridor.

There are no visible trees, rock outcroppings or historic buildings within the Project Area that are visible from the designated scenic highway (Friant Road from the City of Fresno to Lost Lake Park) and would be substantially damaged as a result of the Project. The more intense commercial uses are located along Friant Road, outside of the Scenic Highway corridor. The majority of outlying portions of the Friant Ranch Specific Plan Area, which fall within the Scenic Highway corridor, are made up of low intensity uses including low and medium density residential and parks/parkways, and open space areas which would not obstruct views (see Figures 2-3, 2-4, and 2-7, and 2-8).

Conclusion: Development of the Project in compliance with the goals, policies and community design guidelines of the Friant Community Plan Update and Friant Ranch Specific Plan will preserve areas with scenic qualities and natural beauty, integrate new homes into the natural open space and rolling hillsides, and include landscaping that compliments the open space areas and rural setting not substantially damage scenic resources. The potential impact to visual resources is *less than significant*.

Mitigation Measures: No mitigation measures are required.

**Impact #3.1.3 – Introduction of New Sources of Light and Glare and Increased Lighting on the Night Sky as a Result of the Project
[Evaluation Criteria (d)]**

The growth as a result of the Project will increase urban development, which may increase light and glare impacts. Common sources of light and glare are advertising signs, streetlights, and light or reflective surfaces of buildings.

Lighting for parking areas, pathways and buildings has the potential to create light pollution in the vicinity of the Project Area, especially in the Friant Ranch Specific Plan residential areas and

Village Core. Light pollution is a potential impact from the operation of any light source at night. Proper light shields, lighting design, and landscaping will be used in the Friant Ranch Specific Plan Area to reduce light pollution generated from lighting by blocking the conveyance of light upwards. The result is that the lights are not visible from above, and do not add ambient light to the nighttime sky. Trails in natural open areas (nature trails) of the Friant Ranch Specific Plan will not have night lighting in order to promote nocturnal movement of animals. (Proposed Specific Plan Policy 5.111.)

Interior lighting at night has the potential to create a source of light spillage onto adjacent development and roadways. Proper light shields, lighting design, landscaping and certain building materials can be used to reduce light spillage from Project structures. The result is a reduction in the amount of light spillage that occurs from the interior of buildings.

Light reflecting off surfaces during daylight hours has the potential to create a source of glare in the vicinity of the Project. Glare reducing materials are needed to reduce the impact of glare from reflective surfaces such as windows and other building materials. The result of these design measures is that glare is less visible from adjacent development and roadways.

The Friant Ranch Specific Plan includes installation and operation of outdoor security lighting throughout parking areas, and on the exterior of buildings. Light production will also occur from within buildings which will be visible from adjacent areas through windows and glass doors. Depending on the building materials used for commercial buildings, this could have the potential to create glare.

Signs will not be internally lighted, except within the Village Center, where internally lighted signs are permitted, but not required. When externally lighted, the Friant Ranch Specific Plan requires the signs to be lighted by hidden or screened light sources. ~~(Reference pertinent policy.)~~

Policy 5.111 of the Friant Ranch Specific Plan requires that the developer provide multi-purpose trails with pedestrian-scaled lighting that is appropriately shielded to minimize light pollution and excessive glare. Lighting nature trails is prohibited.

The Friant Community Plan requires that project applicants protect “dark skies” by ensuring light and glare is minimized by using low-level lighting. (Proposed Specific Plan Policy 5.4.)

Pump stations and similar facilities proposed within the Project Area are also a potential source of light and glare.

Conclusion: This Project will create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. This impact is considered ***potentially significant*** and the following mitigation measures are required to address Project impacts.

Mitigation Measure #3.1.3a: Prior to issuance of any discretionary permit necessary for development within the Project Area, a lighting plan shall be prepared and submitted to Fresno County for approval in conjunction with the permit applications related to such development.

The Fresno County General Plan characterizes the soils in the Friant area as excessively drained to somewhat poorly drained soils of recent alluvial fans and floodplains. Figure 3.2-1 illustrates the types and locations of the soils in the Project Area.

As shown in Figure 3.2-2, the farmland classifications in the Project Area include: Prime Farmland, Farmland of Local Importance, and Grazing land.

Williamson Act

The California Land Conservation Act (Williamson Act) was established in 1965 to protect agricultural lands from conversion to non-agricultural use. Owners of land placed under Williamson Act contract ~~receive~~ pay lower property tax rates, ~~but must keep in exchange for keeping the land in agricultural production or related use. during 10-year contracts that are~~ Contracts are automatically renewed annually, and are in effect for an on-going each subsequent year (after the initial 10-year period) unless a notice of non-renewal is filed. Figure 3.2-3 shows parcels under Williamson Act contract in the Project vicinity. As shown by Figure 3.2-3 no parcels within the Project Area are under Williamson Act contract.

Farmland Security Zone

A Farmland Security Zone (FSZ) contract is a contract between a private landowner and a county that enforceably restricts land to agricultural or open space uses. The minimum initial term is 20 years. Like a Williamson Act contract, FSZ contracts renew annually unless either party files a “notice of nonrenewal.” There are no lands under FSZ contract within the Project Area or vicinity. The nearest FSZ contracted lands (non-prime agricultural lands) are approximately four miles to the east.

Fresno County Zoning

The existing zoning designations for the Friant Community Plan Area include (reference Figure 3.2-4): TP (Trailer Park); R-E (Recreational District); R-A (Single-Family Residential Agricultural District); R-2 and R-2-A (Low Density Multifamily Residential); R-1 and R-1-B (Single-Family Residential, 12,000); C-R (Commercial Recreation); C-6 (General Commercial); AL-20 (Limited Agriculture); and A-~~e~~C (Agricultural Commercial Center).

The current zoning designation for the majority of the Friant Ranch Specific Plan Area is Exclusive Agriculture (AE-20 and AE-40), however, approximately 20 acres are zoned Trailer Park-conditional (TP-C), approximately 15 acres are zoned Trailer Park (TP), approximately 4 acres are zoned commercial (C-6), and approximately 2.5 acres are zoned residential (R-A and R-1)

The Depot Parcel ~~from~~ is zoned Single-Family Residential Agricultural District (R-A).

Policy Consistency

The Friant Community Plan Update and Friant Ranch Specific Plan are consistent with Policies LU-A.1 and LU-A.12 in that growth is being directed in an area that does not include valuable agricultural land and where public facilities and infrastructure are available or can be expanded. This Community Plan is consistent with the County's General Plan objective to limit urban encroachment into Prime Agricultural Lands and to concentrate new development in existing communities such as Friant. The Draft Friant Community Plan includes the following policies to preserve prime agricultural land within the Friant Community Plan Area:

- Policy 11.1 To the extent practicable, direct urban growth away from prime agricultural land.*
- Policy 11.2 Encourage growth on non-prime agricultural land in close proximity to existing development or with potential connectivity to existing public facilities and infrastructure.*
- Policy 11.3 Encourage agricultural activities related to the production of food and fiber within the Friant Community Plan Area and support uses incidental and secondary to the on-site agricultural operation.*
- Policy 11.4 Maintain appropriate buffers between prime agricultural lands and new growth within the Friant Community Plan Area.*

3.2.2 PHYSICAL SETTING

Fresno County produces many different crops and is considered one of the most diverse and productive farming areas in the world. Though there is some agricultural land in the Friant Community Plan area, it provides very little economic base for the Friant community. According to the California Department of Conservation, there are three types of farmland categories in the Project Area boundary (see Figure 3.2-2): Grazing Lands throughout the Friant Ranch Specific Plan Area, Prime Farmland and Farmland of Local Importance within the Friant Community Plan Area to the southwest of Friant Ranch, and a small piece of land designated as Farmland of Statewide Importance within the Friant Community Plan Area to the southwest of Friant Ranch, ~~which is not utilized for agriculture. In fact, this Prime Farmland within the Friant Community Plan Area to the southwest of Friant Ranch, including the small piece of land designated as Farmland of Statewide Importance, is subject to sand and gravel excavation which will effectively negate the Prime and Statewide Important Farmland designations.~~ Farmland of Local Importance is located just south of the Friant Community Plan Area along Friant Road.

Much of the land surrounding the Project Area is used for agriculture, primarily grazing. The two agricultural zoned areas located within the Community Plan Area (not including the Friant Ranch Specific Plan Area) are situated at either end of Friant Road: one at the southwestern portion of the Friant Community Plan Area adjacent to Lost Lake and the Lost Lake Recreation Area and the other at the northern end of the Friant Community Plan Area, just south of Friant Dam. As noted above, neither agricultural zoned area is currently being used for agricultural

Impact #3.2.2 – Conflict with Agricultural Zoning or Williamson Act Contracts [Evaluation Criteria (b)]

Figure 3.2-4 shows existing zoning designations for parcels within and surrounding the Project Area. The amount of land currently zoned for agriculture within the Project Area, is approximately 1,328 acres. The Project retains approximately 428 acres of land zoned for agriculture within the combined Friant Community Plan and Friant Ranch Specific Plan Project Area. The amount of land zoned for agriculture within the Friant Ranch Specific Plan Area is approximately 900 acres. The Project proposes to change the Agricultural zoning for approximately 900 acres of agriculturally zoned property (AE-20 and AL-20) within the Friant Ranch Specific Plan Area and for 6.75 acres of Single Family Residential – Agricultural District (R-A) zoning for the Depot Parcel. The proposed residential and commercial uses within the Friant Ranch Specific Plan Area and Depot Property conflict with the existing agricultural zoning for approximately 606 acres within the Friant Ranch Specific Plan and Depot Property Area. The proposed 275 acres of undisturbed and revegetated open space within the Friant Ranch Specific Plan Area required by mitigation measures 3.4.1b and 3.4.1c will be managed in perpetuity through a grazing management plan, which will ensure that cattle grazing continue on the property. The Friant Ranch Specific Plan proposes a green belt system that is largely focused on the edge of development to minimize impacts to these important natural areas. The natural open space edge condition proposed by the Friant Ranch Specific Plan includes the use of appropriate buffers such as slopes and landscaping between the open space preserve and the development areas. As such, the proposed open space will not conflict with the existing agricultural zoning designations for the approximately 275 acres proposed for preservation as undisturbed and revegetated open space with grazing management.

There is no land within the Project Area that is currently under Williamson Act or Farmland Security Zone contract.

The proposed development in the Project Area will be subject to the County's Right-to-Farm Ordinance; however, this may not eliminate complaints or conflicts with surrounding lands under Williamson Act contract and/or zoned for agriculture. There are parcels comprising non-prime farmland adjacent and to the east of the Friant Ranch Specific Plan Area (reference Figure 3.2-3) that are under Williamson Act contract and zoned for agriculture. These parcels are used for grazing and are physically divided from the Friant Ranch Specific Plan Area by the Friant-Kern Canal. Policy 11:4 of the Draft Friant Community Plan requires any new development within the Project Area to maintain appropriate buffers between prime agricultural lands and new growth within the Friant Community Plan Area. These buffers will ensure that development within the Project Area does not conflict with agricultural zoning designations and Williamson Act contracts on nearby lands.

Conclusion: The proposed Project includes redesignation of approximately 900 acres of grazing land within the Friant Ranch Specific Plan Area that is currently zoned for agriculture, and 6.75 acres of land within the Depot Parcel that is currently zoned as Single Family Residential - Agricultural District. The proposed residential and commercial uses on approximately 600 acres of those lands will conflict with the existing agricultural zoning and result in for agriculture is a

significant and unavoidable impact. ~~The proposed residential and commercial uses on approximately 600 acres of those lands will conflict with the existing agricultural zoning.~~

consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. The GAMAQI contains the following applicable components:

- Criteria and thresholds for determining whether a project may have a significant adverse air quality impact;
- Specific procedures and modeling protocols for quantifying and analyzing air quality impacts;
- Methods available to mitigate air quality impacts; and
- Information for use in air quality assessments and EIR's that will be updated more frequently such as air quality data, regulatory setting, climate, topography, etc.

ISR- Indirect Source Review

As population continues to grow and more vehicles are put on the roads, the air quality will continue to become an issue due to the increase in exhaust emissions. The San Joaquin Valley has always put in efforts to improve air quality in the basin. One such effort was the adoption of Rule 9510 and Rule 3180, which were put forth by the SJVAPCD to mitigate construction, area, and operational emissions that are created from development.

The ISR Rule ([Rule 9510](#)) and the Administrative ISR Fee Rule ([Rule 3180](#)) are the result of state requirements outlined in the California Health and Safety Code, Section 40604 and the SIP. The District's SIP commitments are contained in the District's 2003 PM₁₀ Plan and Extreme Ozone Attainment Demonstration Plan (Plans), which identify the need to reduce PM₁₀ and NO_x in order to reach the ambient air-pollution standards on schedule. The Plans identify growth and reductions in multiple source categories. The Plans quantify the reduction from current District rules and proposed rules, as well as state and federal regulations, and then model future emissions to determine if the District may reach attainment for applicable pollutants (<http://www.valleyair.org/ISR/ISROverview.htm>).

This new rule applies to new developments that are over a certain threshold size. Any of the following projects require an application to be submitted ~~unless the projects have mitigated emissions of less than two tons per year each of NO_x and PM₁₀.~~ Projects that are at least:

- 50 residential units;
- 2,000 square feet of commercial space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of medical or recreational space;
- 25,000 square feet of light industrial space;
- 39,000 square feet of general office space;
- 100,000 square feet of heavy industrial space; and
- Or, 9,000 square feet of any land use not identified above.

The following thresholds of significant are based on the quantitative and qualitative criteria recommended by SJVAPCD. For purposes of this EIR, the Project would have significant adverse air quality impacts if it would do any of the following:

- Projects that emit ozone precursor (ROG and NO_x) air pollutants in excess of 10 tons/year;
- Projects that emit CO air pollutants in excess of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for 1 hour;
- Projects that emit PM₁₀ air pollutants in excess of 15 tons/year (no standard for PM_{2.5}) and do not incorporate into project design or implement during project construction all dust (PM₁₀ and PM_{2.5}) control measures in compliance with the requirements of Regulation VIII-Fugitive Dust Prohibition and implementation of all other appropriate SJVAPCD recommended control measures (set forth in Tables 3.3-9, 3.3-10, and 3.3-11 herein);
- Any project with the potential to expose sensitive receptors or the general public to substantial levels of toxic air contaminants; and
- Any odor impacts to local residents and/or complaints from neighbors.

3.3.4 IMPACT ANALYSIS

~~The impact analysis is divided up into several sections because portions of the project have proposed development and other portions do not have development proposed at this time. to reflect that this EIR provides a project level analysis for the Friant Ranch Specific Plan and Depot Parcel and a programmatic level for the Community Plan Area outside of the Friant Ranch Specific Plan Area and excluding the Depot Parcel, for which no changes are proposed from the prior Community Plan and for which no specific development has been proposed. The analysis is broken up into two different project areas and then further broken down into between the short-term construction emissions and the long-term, ongoing area/operational phases emissions. The two project areas are~~ The analysis considers construction impacts for the Friant Ranch Specific Plan Area and the Depot Parcel (but not the remainder of the Community Plan Area because there is no specific development presently proposed and no way to estimate anticipated equipment or timing for any future construction at this stage of the programmatic analysis). The analysis considers operational/area emissions for the entire Project Area and the Community Plan Update area outside of the Friant Ranch SP area.

This section identifies and discusses the environmental impacts resulting from the proposed project and suggests mitigation measures to reduce the level of impacts. The proposed plan will affect air quality during both construction and operational phases. Construction activities will result in criteria pollutant emissions through earthmoving activities, application of architectural coatings, and vehicle and equipment exhaust emissions. The proposed project operations would result in criteria pollutant emissions primarily from vehicular sources; however landscape maintenance equipment, residential heating sources, and other miscellaneous activities would also generate pollutant emissions.

This section will analyze the impacts from a local and regional standpoint. The section ~~will be quantifying~~ quantifies the construction emissions of the Specific Plan Area and Depot Parcel and relates the detailed project level effects to the significance criteria to determine the impact significance. The section also provides a hypothetical build out scenario for the Community Plan ~~Update Area outside of the Friant Ranch and Specific Plan Area conditions and relating the projects~~ through use of a worst-case scenario based on the greatest allowable uses allowed for the respective land use designations, and relates the effects of such scenario to the significance criteria to determine a worst case impact significance for operational/area emissions. Emissions that consist of mobile and stationary sources during construction and eventual operation were estimated using URBEMIS 2007, Version 9.2.4, (Rimpo and Associates, 2007). The Friant Ranch Specific Plan will be broken up into five separate phases, which will be evaluated accordingly. The construction will be evaluated and analyzed for the five different Specific Plan phases, since the project is not being completely built out all at once. The area and operational analysis will include an overall evaluation of the Specific Plan development in full operation. The Community Plan area outside of the Friant Ranch Specific Plan Area, with exception of the Depot Parcel project, is not being evaluated for construction emissions because no development is presently proposed for those parcels and there exists uncertainty about the equipment required for or timing of construction of future projects. A hypothetical build out scenario has been analyzed for the potential operational and area emissions based on the allowable uses under the land use designations at a general program level for the remainder of the Community Plan Area. Notably, the existing Community Plan designations for those parcels are not changing. Future development within the Community Plan Area (outside of the Specific Plan Area and the Depot Parcel) will be subject to additional detailed project level construction and operational/area air quality analysis at the time individual projects are proposed.

Impact #3.3.1 – Construction Impacts for the development of the Friant Ranch Specific Plan (5 phases) and Community Plan Update Carbon Monoxide (CO), Reactive Organic Gases (ROG), Nitrogen Oxide (NOx), Particulate Matter (PM₁₀), & Fine Particulate Matter (PM_{2.5}))

[Evaluation Criteria (a), (b), (c), (d)]

Although the impacts from construction related air pollutant emissions are temporary in duration, such emissions can become a significant air quality impact. Construction activities such as grading, excavation, building construction, and paving can generate substantial amounts of air pollution. Emissions from construction equipment engines also contribute to elevated concentrations of PM₁₀, PM_{2.5}, and CO, as well as ROGs and NOx.

Sensitive construction related emission receptors in the vicinity of the project site are minimal at present and consist primarily of single family residential properties. Construction related emission concentrations that could affect these residences would primarily be mobile sources of toxic air contaminants which are not subject to the regulations of the SJVAPCD.

In 1998, the California Air Resources Board (CARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines. The greatest diesel particulate risks from construction activities are generally associated with locations where diesel engines are allowed to idle for extended periods of time.

The potential impacts to sensitive receptors from the idling of diesel powered trucks and equipment would be less than significant because the majority of these trucks are subject to State of California – Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

The purpose of the airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This regulation applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are, or must be, licensed for operation on highways. The regulation applies to vehicles based inside and outside of the State of California. Effective February 1, 2005, all applicable diesel powered vehicle operators must not idle the vehicle's primary diesel engine for greater than five minutes at any location. The potential for sensitive receptors to be impacted by substantial diesel truck generated pollutant concentrations near construction sites is less than significant due to compliance with State of California – Title 13, Section 2485- Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

In addition to trucks, several pieces of diesel-powered heavy equipment will operate during the construction of the Friant Ranch Specific Plan. Site preparation activity emissions have been estimated based on the maximum fleet recommended by the SJVAPCD. Exhaust and fugitive dust emissions will be generated by construction activities in the Specific Plan area, such as excavation and grading, construction vehicle traffic, wind blowing over exposed earth, construction workers traveling to and from the construction sites, heavy-duty construction equipment operation, and application of architectural coatings.

Dust from construction activities can cause impacts both locally and regionally. The dry climate of the area during the summer months, combined with regional fine, silty soils, create a high potential for dust generation. Increased dustfall and locally elevated PM₁₀ levels near the construction activity are expected. Depending on the weather, soil conditions, the amount of activity taking place at any one time, and the nature of dust control efforts, these impacts could significantly affect existing land uses near the Specific Plan area. The construction portions of this project will be analyzed in phases, since the construction for the entire Specific Plan area will not be built out all at one time. A quantitative approach as well as qualitative approach will be applied for analysis of the construction emissions.

Construction emissions estimates for the proposed Specific Plan were calculated using the URBEMIS computer program, version 9.2.4 (Rimpo and Associates, 2007) and incorporated into this EIR as Appendix C. Based on the output of the URBEMIS program, the project will produce the emissions shown in Tables 3.3-3 through 3.3-7. The trips/day results have been assigned per a traffic study conducted by Peters Engineering and is provided in Appendix D. The traffic study will provide a more accurate reading for traffic trips than the defaults programmed into URBEMIS.

The mitigation measures and tables below describe two different mitigation options for several of the construction phases. Option 1 provides mitigation measures available to lower the construction emissions to below the SJVAPCD threshold standards. Option 2 (enhanced mitigation) displays increased mitigation reduction possible with higher amounts of construction equipment modifications. This includes greater percentage reduction features than Option 1. When Option 1 mitigates the phased emission activities below the legal threshold, the Option 2 is not required unless agreed upon by local agency and developer. In phases 1 and 2 the Option 2

mitigation measures are required because the unmitigated emissions are too high to mitigate below the threshold.

Phase 1: The following construction fleet calculations were collected through URBEMIS 9.2.4.

Phase 1 consists of:

- 230 Dwelling units of low rise apartments, which are calculated at 6.59 trips/day;
- 83 Dwelling units of attached senior adult housing at 3.48 trips/day; and
- 251 Dwelling units of detached senior adult housing at 3.71 trips/day.

The construction fleet for Phase 1 consists of the following equipment:

Mass Grading

- 1 Excavator (168 hp) operating at a 0.57 load factor for 8 hours/day;
- 1 Grader (174 hp) operation at a 0.61 load factor for 8 hours/day;
- 1 Rubber Tired Dozer (357 hp) operating at a 0.55 load factor for 8 hours/day;
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours/day; and
- 1 Water Truck (189 hp) operating at a 0.5 load factor for 8 hours/day.

Paving

- 1 Paver (100 hp) operating at a 0.62 load factor for 8 hours/day;
- 2 Paving Equipment (104 hp) operation at a 0.53 load factor for 6 hours/day; and
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours/day.

**Table 3.3-3
Construction Equipment Exhaust Emissions (Tons/Year): Phase 1**

	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated Conditions						
<i>Year 2010</i>	0.86	5.23	8.9	0.01	15.34	<u>3.34</u>
<i>Year 2011</i>	0.85	4.6	10.76	0.01	0.33	<u>.27</u>
<i>Year 2012</i>	6.25	4.57	10.30	0.01	0.33	<u>.27</u>
Total	7.96	14.4	29.96	0.03	16	<u>3.88</u>
Mitigated Conditions (Option 2)						
<i>Year 2010</i>	0.86	3.5	8.9	0.01	15.21	<u>3.14</u>
<i>Year 2011</i>	0.85	3.47	10.76	0.01	0.22	<u>.22</u>
<i>Year 2012</i>	3.82	3.39	10.30	0.01	0.23	<u>.22</u>
Total	5.53	10.36	29.96	0.03	15.66	<u>3.58</u>

Source: URBEMIS v.9.2.4

ROG = Reactive Organic Gases; NO_x = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide

PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns

Conclusion: Air pollutant emissions by construction activities associated with the first phase of development will degrade local air quality. The calculated emissions exceed SJVAPCD thresholds and the impact is *potentially significant* for Phase 1.

Mitigation Measures #3.3.1a: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 1:

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a ~~15%~~ 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.
5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.
8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.

15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Effectiveness of Mitigation: The mitigation measures above, which is a demonstration of Option 2 measures (enhanced mitigation measures) will help to reduce exhaust emissions but not below the SJVAPCD thresholds for Phase 1 of the Project. This phase of construction will be ***significant and unavoidable***.

Phase 2: The following construction fleet calculations were collected through URBEMIS 9.2.4.

Phase 2 consists of:

- 781 Dwelling units of detached senior adult housing at 3.71 trips/day.

The construction fleet for Phase 2 consists of the following equipment:

Mass Grading

- 1 Excavator (168 hp) operating at a 0.57 load factor for 8 hours/day;
- 1 Grader (174 hp) operation at a 0.61 load factor for 8 hours/day;
- 1 Rubber Tired Dozer (357 hp) operating at a 0.59 load factor for 8 hours/day;
- 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours/day;
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours/day; and
- 1 Water Truck (189 hp) operating at a 0.5 load factor for 8 hours/day.

Paving

- 1 Paver (100 hp) operating at a 0.62 load factor for 8 hours/day;
- 2 Paving Equipment (104 hp) operation at a 0.53 load factor for 8 hours/day; and
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours/day.

Building Construction

- 1 Crane (399 hp) operating at a 0.43 load factor for 7 hours/day;

- 3 Forklifts (145 hp) operation at a 0.3 load factor for 8 hours/day;
- 1 Generator Set (49 hp) operating at a 0.74 load factor for 8 hours/day;
- 3 Tractor/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours/day; and
- 1 Welder (45 hp) operating at a 0.45 load factor for 8 hours/day.

Conclusion: Air pollutant emissions by construction activities associated with the second phase of development will degrade local air quality. The calculated emissions exceed SJVAPCD thresholds and the impact is ***potentially significant*** for Phase 2.

Mitigation Measures #3.3.1b: To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 2:

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a 15%– 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.
5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.
8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.

13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.
15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Table 3.3-4
Construction Equipment Exhaust Emissions (Tons/Year): Phase 2

	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated Conditions						
Year 2011	1.23	8.24	12.92	0.01	45.38	<u>9.78</u>
Year 2012	1.02	5.07	16.97	0.02	0.38	<u>.30</u>
Year 2013	0.93	4.63	15.61	0.02	0.35	<u>.27</u>
Year 2014	11.42	4.66	14.79	0.02	0.36	<u>.28</u>
Year 2015	0	0.01	0.05	0	0	<u>0</u>
Total	14.6	22.61	60.34	0.07	46.47	<u>10.64</u>
Mitigated Conditions (Option 2)						
Year 2011	1.23	4.93	12.92	0.01	45.2	<u>9.78</u>
Year 2012	1.02	3.77	16.97	0.02	0.29	<u>.30</u>
Year 2013	0.93	3.41	15.61	0.02	0.27	<u>.27</u>
Year 2014	6.72	3.37	14.79	0.01	0.27	<u>.28</u>
Year 2015	0	0.01	0.05	0	0	<u>0</u>
Total	9.9	15.49	60.34	0.06	46.03	<u>10.64</u>

Source: URBEMIS v.9.2.4

ROG = Reactive Organic Gases; NOx = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide

PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns

Effectiveness of Mitigation: The mitigation measures above, which is a demonstration of Option 2 measures (enhanced mitigation measures) will help to reduce exhaust emissions but not

below the SJVAPCD thresholds for Phase 4 of the Project. This phase of construction will be ***significant and unavoidable***.

Phase 3: The following construction fleet calculations were collected through URBEMIS 9.2.4.

Phase 3 consists of:

- 524 Dwelling units of detached senior adult housing at 3.71 trips/day;
- 10,000 SF of designated high turnover restaurant business at 127.15 trips/day;
- 5,000 SF of fast-food with drive through at 496.12 trips/day;
- 10,000 SF of medical and dental offices at 36.13 trips/day; and
- 25,000 SF of general office at 11.01 trips/day.

The construction fleet for Phase 3 consists of the following equipment:

Mass Grading

- 1 Excavator (168 hp) operating at a 0.57 load factor for 8 hours/day;
- 1 Grader (174 hp) operation at a 0.61 load factor for 8 hours/day;
- 1 Rubber Tired Dozer (357 hp) operating at a 0.59 load factor for 8 hours/day;
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours/day;
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours/day; and
- 1 Water Truck (189 hp) operating at a 0.5 load factor for 8 hours/day.

Paving

- 1 Paver (100 hp) operating at a 0.62 load factor for 8 hours/day;
- 2 Paving Equipment (104 hp) operation at a 0.53 load factor for 8 hours/day; and
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours/day.

Building Construction

- 1 Crane (399 hp) operating at a 0.43 load factor for 7 hours/day;
- 3 Forklifts (145 hp) operation at a 0.3 load factor for 8 hours/day;
- 1 Generator Set (49 hp) operating at a 0.74 load factor for 8 hours/day;
- 3 Tractor/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours/day; and
- 1 Welder (45 hp) operating at a 0.45 load factor for 8 hours/day.

Conclusion: Air pollutant emissions by construction activities associated with the third phase of development will degrade local air quality. The calculated emissions exceed SJVAPCD thresholds and the impact is ***potentially significant*** for Phase 3.

**Table 3.3-5
Construction Equipment Exhaust Emissions (Tons/Year): Phase 3**

	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated Conditions						
Year 2013	0.87	5.47	9.23	0.01	23.63	<u>5.15</u>
Year 2014	0.71	3.64	10.54	0.01	0.27	<u>.21</u>
Year 2015	8.35	3.6	10.04	0.01	0.28	<u>.22</u>
Year 2016	0	0.01	0.03	0	0	<u>0</u>
Total	9.93	12.72	29.84	0.03	24.18	<u>5.58</u>
Mitigated below Threshold (Option 42)						
Year 2013	0.87	4.16	9.23	0.01	23.63	<u>5.03</u>
Year 2014	0.71	2.9	10.54	0.01	0.2	<u>.15</u>
Year 2015	8.35	2.86	10.04	0.01	0.2	<u>.15</u>
Year 2016	0	0.01	0.03	0	0	<u>0</u>
Total	9.93	9.93	29.84	0.03	24.03	<u>5.33</u>

ROG = Reactive Organic Gases; NO_x = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide
PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns
Source: URBEMIS v.9.2.4

Mitigation Measures #3.3.1c: To reduce emissions and thus reduce air quality impacts, the following Option 42 (enhanced mitigation) measures shall be implemented for Phase 3.

Option 1 mitigation measures:

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a ~~45%~~ 40% reduction in NO_x emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.
5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.

8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.
15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Effectiveness of Mitigation: Option 42 mitigation measures are presented above and are required to reduce emissions of the construction phase to under the SJVAPCD threshold and will result in a *less than significant impact with mitigation incorporated*.

Phase 4: The following construction fleet calculations were collected through URBEMIS 9.2.4.

Phase 4 consists of:

- 625 Dwelling units of detached senior adult housing at 3.71 trips/day;
- 50,000 SF of general office at 11.01 trips/day; and
- 50,000 SF of shopping center complex at 42.94 trips/day.

The construction fleet for Phase 4 consists of the following equipment:

Mass Grading

- 1 Excavator (168 hp) operating at a 0.57 load factor for 8 hours/day;
- 1 Grader (174 hp) operation at a 0.61 load factor for 8 hours/day;
- 1 Rubber Tired Dozer (357 hp) operating at a 0.59 load factor for 8 hours/day;
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours/day;
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours/day; and
- 1 Water Truck (189 hp) operating at a 0.5 load factor for 8 hours/day.

Paving

- 1 Paver (100 hp) operating at a 0.62 load factor for 8 hours/day;
- 2 Paving Equipment (104 hp) operation at a 0.53 load factor for 8 hours/day; and
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours/day.

Building Construction

- 1 Crane (399 hp) operating at a 0.43 load factor for 7 hours/day;
- 3 Forklifts (145 hp) operation at a 0.3 load factor for 8 hours/day;
- 1 Generator Set (49 hp) operating at a 0.74 load factor for 8 hours/day;
- 3 Tractor/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours/day; and
- 1 Welder (45 hp) operating at a 0.45 load factor for 8 hours/day.

**Table 3.3-6
Construction Equipment Exhaust Emissions (Tons/Year): Phase 4**

	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated						
Conditions						
<i>Year 2015</i>	0.78	4.77	9.18	0.01	28.49	<u>6.13</u>
<i>Year 2016</i>	0.64	3.22	10.67	0.02	0.26	<u>.19</u>
<i>Year 2017</i>	10.19	3.17	10.15	0.02	0.26	<u>.19</u>
Total	11.61	11.16	30	0.05	29.01	<u>6.51</u>
Mitigated below						
Threshold (Option 42)						
<i>Year 2015</i>	0.78	4.2	9.18	0.01	28.49	<u>6.04</u>
<i>Year 2016</i>	0.64	2.93	10.67	0.02	0.2	<u>.14</u>
<i>Year 2017</i>	8.29	2.85	10.15	0.02	0.2	<u>.14</u>
Total	9.71	9.98	30	0.05	28.89	<u>6.32</u>

ROG = Reactive Organic Gases; NO_x = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide
PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns
Source: URBEMIS v.9.2.4

Conclusion: Air pollutant emissions by construction activities associated with the fourth phase of development will degrade local air quality. The calculated emissions exceed SJVAPCD thresholds and the impact is considered **potentially significant** for Phase 4.

Mitigation Measure #3.3.1d: To reduce emissions and thus reduce air quality impacts, the following Option 42 (enhanced mitigation) measures shall be implemented for Phase 4.

~~Option 1 mitigation measures:~~

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a ~~15%–~~ 40% reduction in NOx emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.
5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.
8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.

15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Effectiveness of Mitigation: Option 42 mitigation measures above will reduce construction exhaust emissions below the SJVAPCD thresholds for Phase 4 of the Project and will result in a ***less than significant impact with mitigation incorporated.***

Phase 5: The following construction fleet calculations were collected through URBEMIS 9.2.4.

Phase 5 consists of:

- 502 Dwelling units of detached senior adult housing at 3.71 trips/day;
- 25,000 SF of general office at 11.01 trips/day; and
- 75,000 SF of shopping center complex at 42.94.

The construction fleet for Phase 5 consists of the following equipment:

Mass Grading

- 1 Excavator (168 hp) operating at a 0.57 load factor for 8 hours/day;
- 1 Grader (174 hp) operation at a 0.61 load factor for 8 hours/day;
- 1 Rubber Tired Dozer (357 hp) operating at a 0.59 load factor for 8 hours/day;
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours/day;
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours/day; and
- 1 Water Truck (189 hp) operating at a 0.5 load factor for 8 hours/day.

Paving

- 1 Paver (100 hp) operating at a 0.62 load factor for 8 hours/day;
- 2 Paving Equipment (104 hp) operation at a 0.53 load factor for 8 hours/day; and
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours/day.

Building Construction

- 1 Crane (399 hp) operating at a 0.43 load factor for 7 hours/day;
- 3 Forklifts (145 hp) operation at a 0.3 load factor for 8 hours/day;
- 1 Generator Set (49 hp) operating at a 0.74 load factor for 8 hours/day;

- 3 Tractor/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours/day; and
- 1 Welder (45 hp) operating at a 0.45 load factor for 8 hours/day.

**Table 3.3-7
Construction Equipment Exhaust Emissions (Tons/Year): Phase 5**

	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated						
Conditions						
Year 2017	0.62	3.79	6.94	0.01	22.81	<u>4.90</u>
Year 2018	0.48	2.45	7.79	0.01	0.2	<u>.15</u>
Year 2019	8.26	2.45	7.55	0.01	0.2	<u>.15</u>
Year 2020	0	0.1	0.03	0	0	<u>0</u>
Total	9.36	8.79	22.31	0.03	23.21	<u>5.20</u>
Mitigated below						
Conditions						
Threshold (Option 2)						
Year 2017	0.62	2.24	6.94	0.01	22.73	<u>4.83</u>
Year 2018	0.48	1.65	7.79	0.01	0.16	<u>.11</u>
Year 2019	4.77	1.63	7.55	0.01	0.16	<u>.11</u>
Year 2020	0	0.01	0.03	0	0	<u>0</u>
Total	5.87	5.53	22.31	0.03	23.05	<u>5.05</u>

ROG = Reactive Organic Gases; NO_x = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide
PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns
Source: URBEMIS v.9.2.4

Conclusion: Air pollutant emissions by construction activities associated with the fifth phase of development will degrade local air quality. However, the overall development in Phase 5 will be less than that of the previous 4 phases, which in return will have less of an air quality impact from construction. The calculated emissions for Phase 5 ~~do not~~ exceed SJVAPCD thresholds for PM₁₀ and the impact is considered **potentially significant** for Phase 5 ~~less than significant~~.

Mitigation Measures #3.3.1e: ~~No mitigation measures are required.~~ To reduce emissions and thus reduce air quality impacts, the following Option 2 (enhanced mitigation) measures shall be implemented for Phase 5:

1. The use of aqueous diesel fuel for the construction vehicles.
2. Use of diesel oxidation catalysts capable of a 40% reduction in NO_x emissions on all diesel equipment with the exception of cranes and forklifts which will require a 15% reduction in accordance with URBEMIS 9.2.4 (see Appendix C.)
3. Use of low-volatile organic compound paints capable of reducing ROG emissions by 45% compared to existing architectural coating rules.
4. All heavy-duty diesel trucks shall comply with EPA on-road PM emissions standards and be equipped with Best Available Control Technology (BACT) devices certified by CARB.

5. Idling restrictions (maximum 5 minutes) shall apply to construction equipment, when not in use.
6. Construction equipment shall incorporate, where feasible, emissions-savings technology such as hybrid drives and specific fuel economy standards.
7. Use of alternative fueled or catalyst equipped diesel construction equipment.
8. Operation of heavy duty equipment and/or the amount of equipment in use shall be limited to the minimum number of hours practicable each day.
9. To the extent practicable fossil-fueled construction equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).
10. Construction activities shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
11. Construction activity management shall be implemented as practicable (e.g., rescheduling activities to reduce short-term impacts).
12. During construction activity, traffic speeds on unpaved roads shall be limited to 15 mph.
13. During construction activity, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
14. During construction activity, wheel washers shall be installed for all exiting trucks, or wash off all trucks and equipment leaving the site.
15. During construction activity, wind breaks shall be installed at windward side(s) of construction areas.
16. During construction activity, excavation and grading activity shall be suspended when winds exceed 20 mph.
17. During construction activity, areas subject to excavation, grading, and other construction activity shall be limited at any one time.

Effectiveness of Mitigation: Option 2 mitigation measures above will reduce construction exhaust emissions below the SJVAPCD thresholds for Phase 5 of the Project and will result in a **less than significant impact with mitigation.**

Emission Receptors: Construction related sensitive receptors.

Sensitive construction related emission receptors in the vicinity of the project site are minimal at present and consist primarily of single family residential structures. Future development in accordance with the proposed Community Plan Update and Friant Specific Plan would result in a

gradual emergence of new sensitive construction related sensitive receptors. Construction related emission concentrations that could affect these future receptors would primarily be mobile sources of toxic air contaminants which are not subject to the regulations of the SJVAPCD.

Conclusion: The potential impacts to sensitive receptors from the idling of diesel powered trucks and equipment would be *less than significant* because the majority of the trucks are subject to State of California – Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

Mitigation Measures: No mitigation measures are required.

Depot Parcel: The following construction fleet calculations were collected through URBEMIS 9.2.4.

The Depot Parcel consists of:

- 73,508 SF of shopping center use at 42.94 trips/day per 1,000 SF.

The construction fleet for Phase 3 consists of the following equipment:

Mass Grading

- 1 Grader (174 hp) operation at a 0.61 load factor for 6 hours/day;
- 1 Rubber Tired Dozer (357 hp) operating at a 0.59 load factor for 6 hours/day;
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours/day; and

- 1 Water Truck (189 hp) operating at a 0.5 load factor for 8 hours/day.

Paving

- 1 Paver (100 hp) operating at a 0.62 load factor for 7 hours/day;
- 4 Cement and Mortar Mixers (10hp) operating at a .56 load factor for 6 hours per day; and
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours/day.

Building Construction

- 1 Crane (399 hp) operating at a 0.43 load factor for 4 hours/day;
- 2 Forklifts (145 hp) operation at a 0.3 load factor for 6 hours/day;
- 1 Generator Set (49 hp) operating at a 0.74 load factor for 8 hours/day; and
- 1 Tractor/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours/day.

Conclusion: Air pollutant emissions by construction activities associated with the Depot Parcel ~~third phase of~~ development will degrade local air quality, but to a level that is ***less than significant***.

Mitigation Measures: No mitigation is required.

**Table 3.3-8
Construction Equipment Exhaust Emissions (Tons/Year): Depot Parcel**

	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Unmitigated						
Conditions						
<i>Year 2020</i>	0.02	0.15	0.13	0	0.21	<u>.05</u>
<i>Year 2021</i>	0.81	0.37	0.52	0	0.08	<u>.03</u>
<i>Year 2022</i>	0.01	0.04	0.05	0	0	<u>0</u>
Total	0.84	0.56	0.7	0	0.29	<u>.08</u>

ROG = Reactive Organic Gases; NOx = Nitrogen Oxides; CO = Carbon Monoxide; SO₂=Sulfur Dioxide

PM₁₀ = Particulate Matter, 10 Microns; PM_{2.5} = Particulate Matter, 2.5 Microns

Source: URBEMIS v.9.2.4

Additional Project Requirements

For each phase of the Project, and in addition to the site-specific mitigation measures delineated for the Project, the applicant will be required to implement reasonably feasible management practices required by the San Joaquin Valley Air Pollution Control District, or any other federal or state air quality regulatory agency, for the purpose of mitigating any significant impacts from the emission of particulate matter, fine particulate matter, reactive organic gases, nitrogen oxide, and any other criteria air pollutant or precursor emanating from the construction of the Project.

~~Below is a list of several~~ Tables of 3.3-9, 3.3-10, and 3.3-11 contain construction control mitigation measures from the SJVAPCD.

The Community Plan Area

The Community Plan area outside of the Friant Ranch Specific Plan and inside the Community Plan Update Boundary is not being analyzed using URBEMIS, except for the Depot Parcel project, because the property does not currently have any types of development planned; however, when the properties do develop, the construction operations must not emit air pollutants above the SJVAPCD thresholds. If the future projects are analyzed and contain air pollutants above the SJVAPCD thresholds, then the implementation of either the mitigation measures provided above for Phases 1-4 of the Friant Ranch Specific Plan or other compatible mitigation measures that will bring the emissions below the SJVAPCD thresholds should occur.

Regulation VIII, by law, must be followed for all phases of the projects as iterated below.

The SJVAPCD has an applicable threshold of significance of 15 tons per year for PM₁₀ does not have a threshold for PM₁₀ but instead as well as requires a series of rules known as Regulation VIII as seen set forth in the tables listed below Table 3.3-9. The purpose of Regulation VIII (Table 3.3-9) is to reduce the amount of PM₁₀ entrained into the atmosphere as a result of emissions generated from anthropogenic fugitive dust sources. To date, SJVAPCD has not adopted a method for evaluating impacts associated with emissions of PM_{2.5}. However, because project-generated construction-related emissions of PM_{2.5}, by definition, would be a subset of PM₁₀ emissions, SJVAPCD-recommended methodologies and mitigation measures for PM₁₀ are also relevant to PM_{2.5} emissions. As explained in the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts*, Regulation VIII specifically addresses fugitive dust generated by construction related activities. Compliance with Regulation VIII does not constitute mitigation because it is already is required by law and for that reason it is not necessary to require compliance as a mitigation measure herein. Tables 3.3-10 and 3.3-11 contains the SJVAPCD's Enhanced and Additional Control Measures that will provide a greater degree of PM₁₀ particulate matter reduction than will compliance with Regulation VIII. The SJVAPCD significance threshold for construction dust impacts is based on the effectiveness of construction dust (i.e., PM_{2.5} and PM₁₀ controls). In accordance with the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts*, compliance with Regulation VIII and implementation of the appropriate Enhanced and Additional Control Measures (Tables 3.3-10 and 3.3-11) constitute significant mitigation to reduce particulate matter impacts to a level considered less-than-significant. Notably, however, the URBEMIS model does not provide a method by which to quantify dust reductions resulting from these measures. As such, the mitigated conditions emissions estimates provided in Tables 3.3-3 through 3.3-7 do not reflect the anticipated reductions described in the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts* and relied on herein.

Conclusion: Project-generated, construction related emissions of criteria air pollutants will result in **significant and unavoidable** impacts on air quality. Even after application of all feasible mitigation measures, construction related emissions of ROG and NO_x emissions would exceed SJVAPCD's significance threshold of 10 tons per year. With respect to construction-related emissions of PM₁₀ and PM_{2.5}, the Project must adhere to the Regulation VIII-Fugitive Dust

Prohibition and Mitigation Measures 3.3.1a, 3.3.1b, 3.3.1c, 3.3.1d, and 3.3.1e, which require implementation of SJVAPCD-recommended control measures beyond compliance with Regulation VIII-Fugitive Dust Prohibition. As such, the potentially significant impacts from construction-related emissions of PM₁₀ and PM_{2.5} that could occur without the implementation of any dust control measures would be reduced to less than significant.

Impact #3.3.2 – Violation of Air Quality Standards by Area and Operational Emissions [Impact Evaluation Criteria (a), (b), (c), (d)]

Adoption of the proposed Community Plan Update and Friant Ranch Specific Plan will result in additional development and urbanization in the Friant Community, which would in turn increase criteria air pollutants in an area that is currently designated as a severe non-attainment area.

The URBEMIS software was used to estimate detailed project level area and operational emissions for the proposed Friant Ranch Specific Plan and Depot Parcel and to estimate general program level area and operational emissions for the future build-out of the ~~proposed~~ Community Plan Area (outside of the Specific Plan Area and Depot Parcel) (see Appendix C).

The results of the URBEMIS model for oOperational and Area emissions at build-out under the proposed Community Plan anticipated to result from the Project (reflecting the emissions anticipated for the entire Community Plan Area, including the Specific Plan Area and the Depot Parcel) are shown in Table 3.3-12. The Project emissions are estimated to be approximately 110 107 tons per year for ROG, 810 786 tons per year for CO, 1.6 1.56 tons per year for SO₂, 102 99 tons per year for NO_x, and 117 114 tons per year for PM₁₀, and 45 tons per year for PM_{2.5}.

Nearly all development projects in the San Joaquin Valley, from general plans to individual site plans, have the potential to generate pollutants that will reduce air quality or make it more difficult for state and national air quality standards to be attained. The SJVAPCD has prepared the Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) and Air Quality Element Guidelines as advisory documents that provide Lead Agencies with uniform procedures for addressing air quality in environmental documents.

Sensitive area and operational emission receptors in the vicinity of the project site are minimal at present and consist primarily of single family residential structures. Future development in accordance with the proposed Community Plan Update and Friant Specific Plan would include a variety of commercial uses and there is some uncertainty as to what pollutants will be introduced to the area that could affect sensitive receptors that may emerge in the future.

The proposed project would result in two new sources of toxic air contaminants, one mobile and one stationary. Mobile sources of toxic air contaminants are not subject to the regulations of the SJVAPCD, while stationary sources are subject to SJVAPCD regulations and must obtain a permit from the District.

In 1998, the California Air Resources Board (CARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines. The greatest diesel particulate risks from new development are generally associated with

stationary diesel engines and locations where diesel engines are allowed to idle for extended periods of time. Where air districts have developed guidelines for diesel risk assessments for CEQA documents, the identified situations requiring analysis are locations with extended truck idling (truck stops, warehouse/distribution centers, transit centers), and train idling.

The potential impacts to sensitive receptors from the idling of diesel powered trucks would be less than significant because the majority of these trucks are subject to State of California – Title 13, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

The purpose of the airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This regulation applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are, or must be, licensed for operation on highways. The regulation applies to vehicles based inside and outside of the State of California. Effective February 1, 2005, all applicable diesel powered vehicle operators must not idle the vehicle's primary diesel engine for greater than five minutes at any location. The regulations do include exceptions, however typical diesel powered trucks used for delivery of goods to retail locations would not be exempted from the regulations.

The potential for sensitive receptors to be impacted by substantial pollutant concentrations is **less than significant** due to compliance with State of California – Title 13, Section 2485- Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

STATIONARY SOURCE TOXIC AIR CONTAMINANTS FROM GASOLINE FUELING STATIONS

Future development in accordance with the proposed Community Plan Update and Friant Specific Plan may include one, or more, gasoline fueling stations. The exact location of the facilities is unknown, but would most likely be within areas designated for future commercial uses. Gasoline stations are a source of gasoline vapors that would include Toxic Air Contaminants (TACs) such as benzene. Gasoline vapors are released during the filling of both the stationary underground storage tanks and the transfer from those underground tanks to individual vehicles. Small amounts of gasoline vapor (a reactive organic gas) escape to the atmosphere at filling stations due to loading loss, breathing loss, refueling loss and spillage. The rate of allowable emission, for stations with CARB Phase I and Phase II emission controls and vent valves (as required by SJVAPCD permit requirements) is 1.269 pounds per thousand gallons.¹

The SJVAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline dispensing facilities that require all new facilities to install and maintain CARB Certified Vapor Recovery Systems. Primary applicable SJVAPCD regulations are Rule 3:3, "Gasoline Loading, Transfer and Dispensing" and Rule 2:1, New Source Review". As a source of TACs, a gasoline fuelling station is subject to the SJVAPCD's toxic risk screening and risk management procedures.

¹ California Air Pollution Control Officers Association (CAPCOA), *Gasoline Service Station Industry-wide Risk Assessment Guidelines*, December 1997.

Table 3.3-12
Air Quality Emissions in Tons/Year (Unmitigated)
Friant Ranch Specific Plan, and Friant Community Plan
Remainder (Worst-Case Scenario for Future Build-Out)

	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Friant Ranch Specific Plan						
2020 Conditions						
<i>Area</i>	39.99	9.52	138.6	0.4	20.2	<u>19.45</u>
<i>Operational</i>	17.03	21.37	157.45	0.25	21.62	<u>4.79</u>
Total (A)	57.02	30.89	296.05	0.65	41.82	<u>24.24</u>
Community Plan: Area outside Friant Specific Plan (includes Depot Parcel) Future Conditions						
<u>Depot Parcel Only</u>						
<i>Area</i>	<u>0.10</u>	<u>0.13</u>	<u>0.25</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
<i>Operational</i>	<u>2.18</u>	<u>3.53</u>	<u>24.65</u>	<u>0.04</u>	<u>3.66</u>	<u>0.81</u>
Subtotal (B)	<u>2.28</u>	<u>3.66</u>	<u>24.90</u>	<u>0.04</u>	<u>3.66</u>	<u>0.81</u>
<u>Community Plan Remainder</u>						
<i>Area</i>	<u>9.85</u>	<u>3.65</u>	<u>38.74</u>	<u>0.11</u>	<u>5.47</u>	<u>5.26</u>
<i>Operational</i>	<u>40.37</u>	<u>63.99</u>	<u>450.84</u>	<u>0.80</u>	<u>66.43</u>	<u>14.66</u>
Subtotal (C)	<u>50.22</u>	<u>67.64</u>	<u>489.58</u>	<u>0.91</u>	<u>71.90</u>	<u>19.92</u>
Future Conditions (<u>Depot Parcel + Community Plan Remainder</u>)						
<i>Area</i>	9.95	3.78	38.99	0.11	5.47	<u>5.26</u>
<i>Operational</i>	42.55	67.52	475.49	0.84	70.09	<u>15.47</u>
Total (B+C)	52.50	71.30	514.48	.95	75.56	<u>20.73</u>
Project Total (A+B+C)	190.52	102.19	810.53	1.6	117.38	<u>44.97</u>
	<u>109.52</u>					

Source: URBEMIS 9.2.4

*Note: Represents worst case scenario without any mitigation

Proposed Goals and Policies related to Air Quality:

Friant Ranch Specific Plan:

Goals: *Provide diverse housing types and designs that accommodate varying lifestyles and income levels of Active Adults (55+).*

Conceive a roadway network that accommodates both traditional and alternative modes of transportation, but not limited to, nature and multi-purpose trail systems, bicycle lanes and pathways and travel lanes for Neighborhood Electric Vehicles (NEV's).

Dedicate over one third of the Friant Ranch Specific Plan Area as open space in the form of parks, parkways, landscaped slopes, undisturbed open space and revegetated open space slopes.

Provide a comprehensive on-site trail system accessible to the public.

Provide opportunities for parks, parkways and landscape slopes within residential, commercial and public areas.

Policies: *Require that residential development within the Medium Density Residential and Medium High Density Residential areas include neighborhood parks and parkways, at a rate of 5 to 8 acres per 1,000 dwelling units.*

Encourage the use of domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.

Facilitate the use of green building standards and Leadership in Energy and Environmental Design (LEED) in both private and public projects, where feasible.

Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements, as appropriate.

Support sustainable building practices that integrate building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment, where feasible.

Encourage the use of domestic and commercial solar energy in the Friant Community Plan Area in an effort to conserve fossil fuels and improve air quality.

Conclusion: The Friant Ranch Specific Plan and Community Plan Update propose to add land for residential, public facilities, commercial uses, public and open space and park uses. The primary source of emissions is from vehicular traffic. Sensitive area and operational emission receptors in the vicinity of the project site are minimal at present and consist primarily of single family residential structures. Future development in accordance with the proposed Community Plan Update and Friant Specific Plan would include a variety of commercial uses and there is some uncertainty as to what pollutants will be introduced to the area that could affect sensitive receptors that may emerge in the future. The proposed project would result in two new sources of toxic air contaminants, one mobile and one stationary. Mobile sources of toxic air contaminants are not subject to the regulations of the SJVAPCD, while stationary sources are subject to SJVAPCD regulations and must obtain a permit from the District.

The impact will be lessened by policies of the proposed Specific Plan and Community Plan, as mentioned above, which will promote the use of alternative transportation, air quality mitigation for new developments, and strategies to minimize the number and length of vehicle trips. However, there are no known additional feasible mitigation measures which will reduce the impact to a less than significant level. These projects will create a **significant** impact in regards to the area and operational emission content. While the following mitigation measures won't reduce the impact to a less than significant level, they are included to reduce air quality impacts as a result of the proposed project.

Mitigation Measure #3.3.2: Implementation of the following mitigation measures will substantially reduce air quality impacts related to human activity within the entire Project area, but not to a level that is less than significant:

The following guidelines shall be used by the County during review of future project- specific submittals for non-residential development within the Specific Plan area and within the

Community Plan boundary in order to reduce generation of air pollutants with intent that specified measures be required where feasible and appropriate:

- *Trees shall be carefully selected and located to protect building(s) from energy consuming environmental conditions, and to shade paved areas. Trees selected to shade paved areas should be varieties that will shade 25% of the paved area within 20 years;*
- *Equip HVAC units with a PremAir or similar catalyst system, if reasonably available and economically feasible at the time building permits are issued. Catalyst systems are considered feasible if the additional cost is less than 10% of the base HVAC unit cost;*

- *Install two 110/208 volt power outlets for every two loading docks.*

Implement the following, or equivalent measures, as determined by the County in consultation with the APCD:

The following measures shall be used singularly or in combination to accomplish an overall reduction of 10 to 20% in residential energy consumption relative to the requirements of the 2008 State of California Title 24:

- *Use of air conditioning systems that are more efficient than the 2008 Title 24 requirements;*
- *Use of high-efficiency heating and other appliances, such as water heaters, cooking equipment, refrigerators, and furnaces;*
- *Establishment of tree-planting guidelines that require residents to plant trees to shade buildings primarily on the west and south sides of the buildings. Use of deciduous trees (to allow solar gain during the winter) and direct shading of air conditioning systems shall be included in the guidelines; and*
- *Establish paving guidelines that encourage businesses, if feasible, to pave all privately-owned parking areas with a substance with reflective attributes (albedo = 0.30 or better) similar to Portland cement concrete. The use of a paving substance with reflective attributes similar to Portland cement concrete is considered feasible under this measure if the additional cost is less than 10% of the cost of applying a standard asphalt product.*

Bicycle usage shall be promoted by requiring the following:

- *All non-residential projects shall provide bicycle lockers and/or racks; and*
- *All apartment complexes or condominiums without garages shall provide at least two Class I bicycle storage spaces per unit.*

Transportation related mitigation measures (Extended Conditions of approval):

- *Commute options: to inform Specific Plan area occupants of the alternative travel amenities provided, including ridesharing and public transit availability/schedules;*
- *Maps showing the Community Plan's pedestrian, bicycle, and equestrian paths to community centers, shopping areas, employment areas, schools, parks, and recreation areas; and*
- *Information regarding SJVAPCD programs to reduce county-wide emissions.*

The County and SJVAPCD may substitute different air pollution control measures for individual projects, that are equally effective or superior to those proposed herein, as new technology and/or

other feasible measures become available in the course of build-out within the Friant Community Plan boundary.

Effectiveness of Mitigation: The above mitigation measures would reduce project air quality impacts, but not below the SJVAPCD thresholds of significance; therefore, project impacts on air quality would be *significant and unavoidable*.

Impact #3.3.3 – Project could cause objectionable odors and the potential for odor complaints

[Evaluation Criteria (e)]

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or federal air quality regulations, the SJVAPCD has no rules or standards related to odor emissions, other than its nuisance rule. Any actions related to odors are based on citizen complaints to local governments and the SJVAPCD.

Construction activity will require the operation of equipment which may generate exhaust from either gasoline or diesel fuel. Construction of new buildings will also require the application of architectural coatings and the paving of roads which would generate odors from materials such as paints and asphalt. These odors are of a temporary or short-term nature and quickly disperse into the surrounding atmosphere.

Future residential development will also involve minor, odor-generating activities, such as backyard barbeque smoke, garden equipment exhaust, and the application of exterior paint for home improvement activities. These types of odors are typical of most residential communities and are not considered significant generators of odor impacts.

As discussed at page 3-364 of the DEIR, “[i]n accordance with requirements set forth in the Friant Ranch Infrastructure Master Plan, the [proposed wastewater treatment] plant shall incorporate an aerated biological process known as a Membrane Bio-reactor (MBR) design, satisfactory to the Regional Water Quality Control Board and other jurisdictional agencies. That process will be fully enclosed within a building, facilitating odor control and reducing the aesthetic impacts of the treatment facility upon the surrounding developed area.” The MBR treatment plant is a robust wastewater treatment facility with features designed to provide reliable and efficient wastewater treatment and reclamation. Unlike older, less efficient odor producing wastewater treatment plants, the MBR systems have minimal impact because they minimize odor through covered headworks and treatment basins and produce treated wastewater that meets stringent discharge requirements. Further, as discussed at page 3-368 of the DEIR, “The design plans for the WWTP will incorporate appropriate and cost-effective odor and noise reduction measures, to the satisfaction of Fresno County; [t]he WWTP will be located at the northwesterly corner of the Specific Plan area, separated from residential development by both roads and open spaces, to minimize both the aesthetic impacts of the treatment facility and the potential for odor impacts within the Project; and [t]he design of the WWTP will minimize production of odor by enclosing most odor sources and providing careful control of the process to maximize treatment efficiencies and minimize the chances of odor or process upset[; and] [d]etailed designs will be brought forward for review by County and RWQCB staff subsequent

to Project entitlement.” Mitigation Measure #3.14.3g of the EIR requires that the design plans for the WWTP incorporate appropriate and cost-effective odor and noise reduction measures, to the satisfaction of the Fresno County Planning and Public Works Departments, prior to issuance of the conditional use permit for the wastewater treatment plant.

The proposed plant will be located in an area that is buffered from planned residential areas. Further, even if the proposed MBR treatment plant is located within the windshed of proposed residences, the technology employed in the design and operation of the proposed on-site MBR treatment plant will result in minimal odor release into the atmosphere as there will be no odor generating exposed treatment processes at the plant.

Additionally, the proposed wastewater treatment system will be subject to review and permit approval by the Regional Water Quality Control Board (RWQCB). Should the RWQCB find it necessary to require odor scrubbers, the applicant will be required to install them at the facility.

Conclusion: The Project will not cause objectionable odors or related complaints. The majority of the odors resulting from the project area will be temporary or short-term and will not be a permanent nuisance. ~~therefore, the impact is considered less than significant.~~ Furthermore, the use of the closed MBR treatment plant and compliance with the requirements of Mitigation Measure #3.14.3g of this EIR as well as any necessary RWQCB requirements pertaining to the reduction of odor will result in a **less than significant** impact.

Mitigation Measure: No mitigation measures are required.

3.4 Biological Resources

INTRODUCTION

This section of the DEIR identifies the significant biological resources occurring on and near the Friant Ranch Specific Plan Area and the Friant Community Plan Area including wetlands, sensitive plant communities, special status plants, and special status animals. The potential effects on those resources are addressed at a project level for the Friant Ranch Specific Plan Area, herein also referred to as the Friant Ranch Site, Specific Plan Site, or Site. See Chapter 1.1 of this DEIR for a description of Specific Plan actions. Mitigation measures are presented that will reduce impacts to a degree that is less than significant.

Although the Friant Community Plan includes the Specific Plan Site for planning purposes, the information on biological resources, analysis of impacts, and mitigation measures are presented separately for each. It follows that the Community Plan Area and Specific Plan Site must be separated into distinct entities. Therefore, in this section the Community Plan Area is considered to be exclusive of the Specific Plan Site, except where specifically indicated. This reduced Community Plan Area is herein referred to as the Existing Community Plan Area. The potential effects on biological resources are addressed at a programmatic level for the Existing Friant

Community Plan Area, with three exceptions. The Beck Property, the Water Treatment Facility (and associated pumping station), and the Depot parcel are contained within the Existing Friant Community Plan Area, but are addressed at a project level because upgrades to those facilities are associated with the Friant Ranch Specific Plan. Although these three areas are technically within the Existing Friant Ranch Community Plan Area, they are grouped with the discussions of the Specific Plan Site because of their close association with that project and because of the similar project-level analysis.

The information contained in this DEIR is primarily based upon a biological evaluation of the Specific Plan Site that was conducted by Live Oak and Associates (LOA 2007) and subsequent biological evaluations by Live Oaks Associates on the Beck Property, the Water Treatment Facility site, and the Depot parcel. This DEIR is also based upon information contained in an analysis of cumulative impacts (LOA 2008) and site visits to the Specific Plan Site and Existing Community Plan Area by Quad Knopf biologists. The biological evaluation of the Specific Plan Site prepared by LOA is included as Appendix E. Other investigations and documents of prime importance that were used in the preparation of this DEIR are a wetlands delineation and report that was prepared for the Specific Plan Site (Identification of Waters of the U.S., Appendix F), an evaluation of the effects of the Friant Ranch Wastewater Treatment Plant on the San Joaquin River (RBI 2008, Appendix G, Final Friant Ranch Aquatic Species Assessment), the Friant Ranch Specific Plan (EDAW 2008a), Friant Community Plan (EDAW 2008b), a water supply assessment (Provost and Prichard Engineering Group, Inc. 2008, Appendix B), and a water quality impact assessment (Provost and Prichard Engineering Group, Inc. 2007, Appendix L). Other pertinent information was gathered from standard sources including the California Natural Diversity Database (CDFG 2008a), the California Native Plant Society rare plant inventory database (CNPS 2008), the National Wetland Inventory on-line database (USFWS 2008a), and California Department of Fish and Game and United States Fish and Wildlife sensitive species lists (CDFG 2008a and b, USFWS 2008b). Information from these other standard sources was used to verify and update information contained in the project specific studies and reports.

3.4.1 REGULATORY SETTING

This section provides a discussion of those laws and regulations that protect wetlands and native wildlife, fish, and plants.

Federal Endangered Species Act

The primary focus of the Federal Endangered Species Act (FESA) of 1973 is that all federal agencies must seek to conserve threatened and endangered species through their actions. FESA has been amended several times to correct perceived and real shortcomings. FESA contains four key sections. Section 4 (16 USCA §1533) outlines the procedure for listing endangered plants and wildlife. Section 7 (§1536) imposes limits on the actions of federal agencies that might impact listed species. Section 9 (§1538) prohibits the unauthorized “taking” of a listed species by anyone, including private individuals, and State and local agencies. Section 10 provides a process allowing for the legal take of threatened and endangered species by non-federal parties. The FESA is enforced by the United States Fish and Wildlife Service and the National Marine Fisheries Service (NMFS).

Section 3.14, this DEIR. Habitats within these areas are highly disturbed and are composed primarily of ruderal, highly disturbed, and weedy vegetation or are completely devoid of vegetation.

~~As depicted in Figure 2-7, The Water Treatment Plant is located within and associated Water Pumping Station straddles the boundary between the Existing Friant Community Plan Area, just northwest of and the Friant Ranch Specific Plan Area, in the northwest portion of the Specific Plan Area. The portions of these proposed facilities that occur on the Existing Community Plan Area are within ruderal, disturbed, and degraded lands. ; The portions of pumping and delivery these facilities that occur within the Specific Plan Area are in rolling topography vegetated with non-native grassland and located within habitat that is likely to contain sensitive biological resources.~~

Existing Friant Community Plan Area

The Friant Community Plan Area is approximately 1,800 acres in size (which includes the Friant Ranch Specific Plan Site). The Community Plan Area is bounded by the San Joaquin River and Madera County to the west, Friant Dam and Millerton Lake to the north, and the Friant-Kern Canal to the east (see Figure 3.4-2). Friant Road crosses the Community Plan Area from the southwest to northeast. The Friant Community Plan Area contains residential and commercial developments, agricultural lands, and public recreational facilities and open space. Primary public facilities within the Community Plan Area include Lost Lake Recreational Area and portions of the San Joaquin River. The Existing Friant Community Plan Area is predominantly residential and commercial development, but also includes Lost Lake Recreational Area and portions of the San Joaquin River.

Much of the native habitat in the Existing Community Plan Area (that area exclusive of the Friant Ranch Specific Plan Site) has been disturbed by various types and levels of development and commercial activities, but there are some areas that retain natural landscapes and provide valuable habitat for plant and wildlife species. The most important areas of natural vegetative communities within the Existing Friant Community Plan Area are the San Joaquin River and Lost Lake State Recreation Area. These areas contain extensive stands of riparian woodlands and grasslands. Most of the grassland habitats in the Existing Friant Community Plan Area, including those within the Lost Lake State Recreation Area, are degraded from past and present disturbances associated with urban development and aggregate mining. Restoration of the San Joaquin River and the establishment of the San Joaquin River Parkway are of regional importance.

Occurrences of Significant Biological Resources

The central and southern San Joaquin Valley historically supported a diverse assemblage of natural vegetation communities and plant and animal species. Conversion of large expanses of native plant communities to agricultural, urban, oil field, and associated infrastructure developments have resulted in many natural communities and species becoming endangered, threatened, rare, or otherwise considered sensitive. This section provides an overview of the sensitive natural communities, special status plants, special status wildlife and other significant

biological resources that occur on or near the Friant Ranch Specific Plan Site and Existing Friant Community Plan Area.

Sensitive natural communities and wetlands

There are six sensitive natural communities which occur in the Friant region that could potentially occur on the Friant Ranch Specific Plan Site and within the Existing Friant Community Plan Area (Table 3.4-1). Only Great Valley Mixed Riparian Forest occurs within the Existing Community Plan Area. Only the Northern Hardpan Vernal Pool natural community occurs in the Friant Ranch Specific Plan Area. The Depot Parcel, Water Treatment Plant Site, and Beck Property do not support sensitive natural communities. These communities are absent because soils and other conditions (e.g., water availability, slope aspect) are not suitable or because prior disturbance has eliminated these communities.

The Northern Hardpan Vernal pool natural community, consisting of expanses of interconnected and individual vernal pools, is located throughout the Specific Plan Site (LOA 2007 and LOA 2009). Seasonal wetlands occur on approximately 35 acres of the site and include northern hardpan vernal pools, wetland swales, and wetland channels. Many of these hydrologic features form an interconnected network of wetland drainages and seasonal pools that are concentrated in specific locations of the Site. Many, but not all of these features connect directly to the San Joaquin River (LOA 2007). These wetlands provide habitat for a variety of special status species. The Depot Parcel, ~~Wastewater~~ Water Treatment Plant Site, and Beck Property do not contain Northern Hardpan Vernal Pools.

The Existing Friant Ranch Community Plan Area is not likely to contain Northern Hardpan Vernal Pools although there are some areas of man-made depressional features in the Lost Lake Recreation Area. These features can fill with rainwater in winter months, but are not likely to support vernal pool plant species. There are expanses of Great Valley Mixed Riparian Forest located along the San Joaquin River and at Lost Lake State Recreation Area.

Special Status Plants

There are 17 special status plant species which occur in the Friant region that could potentially occur within the Friant Ranch Specific Plan and Existing Friant Community Plan areas (Table 3.4-1). These plants occur in a variety of habitats including chaparral, valley and foothill grasslands, vernal pools, and cismontane woodlands. Four of these species are known within a five kilometer distance of the project site (Figure 3.4-4).

Two species of special status plants, succulent owl's clover and Hartweg's golden sunburst, occur on the Friant Ranch Specific Plan Site. All other special status plant species are deemed absent because suitable habitat does not occur, there are no historic records of the plants existing on the site, and because field surveys in 1994, 1995, and in the spring 2006 and 2007 failed to locate any additional special status plants. One additional special status plant, the spiny-sepaed button celery is known from a historic California Natural Database Record occurring on the Existing Friant Ranch Community Plan Area. The specific distributions of these species on the Specific Plan Site and within the Existing Community Plan Area are:

Scientific Name	Common Name	Status	Habitat Requirements	Probability of Occurrence on the Friant Ranch Specific Plan Area (and Beck Property, Depot Parcel, and Water Treatment Plant site)	Probability of Occurrence within the Existing Friant Community Plan Area (outside of the Specific Plan area)
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	1B.2	This plant occurs in shallow, standing, fresh water and sluggish waterways within marshes, swamps, ponds, vernal pools and lakes, reservoirs, sloughs, ditches, canals, streams and rivers.	the Water Treatment Plant site, and the Beck Property. Absent. The Specific Plan Site, the Depot Parcel, the Wastewater <u>Water Treatment Plant</u> Site , and the Beck Property do not contain suitable habitat to support this species.	Community Plan Area. Possible. The Existing Community Plan Area contains some habitat for this species, particularly in slow moving portions and backwaters of the San Joaquin River. Lost Lake does not appear to contain appropriate habitat.
<i>Tropidocarpum capparideum</i>	caper-fruited tropidocarpum	CR, 1B.1	This plant occurs in valley and foothill grassland habitat. There is one record from Fresno County (Fresno North Quadrangle), but the last known sighting of this species was near Mount Diablo in 1957, until it was rediscovered in 2000 at Fort Hunter Liggett.	Absent. This species was not observed on the Specific Plan Site, the Depot Parcel, the Water Treatment Plant site or the Beck Parcel during field surveys in 1994, 1995 or in 2006 and 2007. Furthermore, this plant is presumed to be extirpated from the one historically known location in Fresno County.	Unlikely. The only habitat within the Existing Community Plan Area that could support this species is highly degraded.
<i>Tuctoria greenei</i>	Greene's tuctoria	FE, 1B.1	Greene's tuctoria occurs in small or shallow vernal pools or the early drying sections of large, deep vernal pools in the Central Valley.	Absent. Although habitat suitable for this species exists within the Specific Plan Site, it was not observed during field surveys in 1994, 1995 or in 2006 and 2007. The Beck Property, the Depot Parcel and the Water Treatment	Absent. No suitable habitat hat could support this species exists within the Existing Community Plan Area.7

Hartweg's golden sunburst (Psuedobahia hartwegii)

Four populations of Hartweg's golden sunburst were found on the Friant Ranch Specific Plan Area by Live Oak Associates (LOA) (Figure 3.4-5, LOA 2007). A fifth population is shown on Figure 3.4-5, which is from CNDDDB records. This additional population was not found at the time of the LOA surveys. The largest population mapped by LOA is on a hill where an existing water tank for the community of Friant is located. A portion of this population (approximately 1.45 acres) has been protected by a conservation easement held by the Sierra Foothill Conservancy (LOA 2007). This easement protects the largest and densest part of this population, but portions of the population remain unprotected. The other populations were observed in three locations in the southern portion of the Specific Plan Area. The aggregate area of these small sub-populations is 677 square feet or 0.016 acre (LOA 2007).

Hartweg's golden sunburst is not known to occur within the Depot Parcel, ~~Wastewater~~ Water Treatment Plant Site, Beck Property, or within the Existing Community Plan Area. This species is closely associated with gentle slopes and soils derived from a volcanic origin, which are typically not present in the Existing Community Plan Area. Hence, it is unlikely that this plant occurs in the lower elevations and disturbed grasslands found in the Existing Community Plan Area.

Succulent owl's clover (Castilleja campestris ssp. succulenta)

Students and faculty from California State University, Fresno surveyed the vernal pools on the project site for vernal pool plants and invertebrates in 1991, at which time succulent owl's-clover was documented in two pools located adjacent to the main drainage passing through the center of the Specific Plan Area (LOA 2007). The succulent owl's clover observed in the two vernal pools by the Fresno State students was observed again during the 1995 survey (LOA 2007). Succulent owl's clover is also known to occur in other localities within five kilometers of the Specific Plan Area and the Existing Community Plan Area (see Figure 3.4-3).

Succulent owl's clover is not known from within the Existing Community Plan Area, however, it is known from the Specific Plan Area (see Figures 3.4-4 and 3.4-5). Depressional features in the Lost Lake of the Community Plan area are not suitable habitat for this species. No suitable habitat for this species is found on the Depot Parcel, the ~~Wastewater~~ Water Treatment Plant ~~s~~Site or the Beck Property.

Spiny-sepaed button celery (Eryngium spinosepalum)

The spiny-sepaed button celery has not been observed on the Specific Plan Site during various surveys; it is unlikely but possible that it occurs there (LOA 2007). This plant is unlikely to be present within the Depot Parcel, Wastewater Treatment Plant Site, and the Beck Property. Spiny-sepaed button celery is known from one California Natural Diversity Database record from 1928 within the Existing Community Plan Area (see Figure 3.4-4 and Figure 3.4-5). This record is an approximate location, with the large bubble on Figure 3.4-4 representing a location accuracy of 1 mile. This recorded population was not observed by Live Oak biologists during any of their floristic surveys (LOA 2007) and it may not be extant. However, this species may occur within ephemeral pools and swales within the Existing Community Plan Area. Past and present

disturbances within the Existing Community Plan Area may reduce the potential for this species to occur, but it sometimes persists even in relatively disturbed situations (e.g., areas intensively grazed by cattle), and it is not an obligate ephemeral pool species. No suitable habitat for this species is found on the Depot Parcel, the Wastewater Treatment Plant site, or the Beck Property.

Special Status Wildlife

There are 27 special status wildlife species which occur in the Friant region that could potentially occur on the Friant Ranch Specific Plan Site and within the Existing Friant Community Plan Area (Table 3.4-1). Many of the special status wildlife species known from the region can be summarily dismissed due to the absence of habitats near Friant that could support these species. However, other special status wildlife species exist in the vicinity of the Friant Ranch Specific Plan Site and the Existing Community Plan Area, which could be affected.

Only the California tiger salamander, vernal pool fairy shrimp, and western spadefoot have been previously recorded by the California Natural Diversity Database (CDFG 2008a) within five kilometers of the Friant Specific Plan Site and Existing Community Plan Area (Figure 3.4-6). Seven special status wildlife species were observed on or adjacent to the Specific Plan Site during the field surveys; the vernal pool fairy shrimp, California tiger salamander, western spadefoot, tricolored blackbird, golden eagle, burrowing owl, and Swainson's hawk. These and other species may occur within the Existing Friant Community Plan Area including the Valley elderberry longhorn beetle, Kern Brook lamprey, and western pond turtle.

These species are separated by taxonomic group and discussed below. Similarly, other species which are not present, but which could none-the less be affected are discussed (e.g., the Chinook salmon and Central Valley steelhead). In some cases, those species which do not occur are also discussed because an explanation of their absence is beneficial.

Special Status Invertebrates

Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp occur in many of the ephemeral pools which are located throughout much of the Friant Ranch Specific Plan Site (LOA 2007). Vernal pool fairy shrimp also have been located adjacent to the site along the easement of the Friant-Kern Canal and the property located to the south. Suitable habitat for this species does not exist within the Depot Parcel, Wastewater Treatment Plant Site, or the Beck Property (LOA 2009), but may exist in other portions of the Existing Community Plan Area.

Valley Elderberry Longhorn Beetle

There are no elderberry bushes within the Depot Parcel, Beck Property, and Water Treatment Plan Site, thus which are required habitat for the Valley elderberry longhorn beetles would be absent from those areas, on the Friant Specific Plan Site. Accordingly, elderberry beetles are absent from the Site. There are no elderberry bushes within the Depot Parcel and Wastewater Treatment Plant Site, thus Valley elderberry beetles would be absent from those areas. The Valley elderberry

longhorn beetle may occur in elderberry bushes that are potentially present within the Existing Community Plan Area. The occurrence of elderberry bushes would be, especially likely in the Great Valley Mixed Riparian Forest located along the San Joaquin River.

Conservancy fairy shrimp and vernal pool tadpole shrimp

The conservancy fairy shrimp is considered absent from the Friant Specific Plan Site, the Depot Parcel, the Wastewater Treatment Plant Site, the Beck Property, and the Existing Community Plan Area because these sites are not within the known range of this species. The vernal pool tadpole shrimp is considered absent from these areas because it has not been found during extensive surveys of the Specific Plan Site and within other properties in the vicinity.

Special Status Fish

Kern brook lamprey

There are no records in the CNDDB for the Kern brook lamprey on the Friant Ranch Specific Plan Site (Figure 3.4-6). However, Kern brook lampreys are known to exist in the San Joaquin River and the Friant-Kern Canal (Brown and Moyle 1987, 1992, 1993). Suitable habitat for this species does not occur on the Friant Specific Plan Site, Depot Parcel, Wastewater Treatment Plant Site, or Beck Property, but it has been reported to exist in the San Joaquin River within the Existing Friant Community Plan Area.

Hardhead

In the San Joaquin drainage, populations of hardhead are scattered in the tributary streams, but are absent from the valley reaches of the San Joaquin River (Moyle and Nichols 1973, Saiki 1984, Brown and Moyle 1987). This species is not expected to be present in the San Joaquin River below Friant Dam. This fish is absent from all project components.

Chinook Salmon

Chinook salmon are an anadromous fish once occurring in the San Joaquin River and its tributaries. In fact, the San Joaquin River supported the southernmost run of Chinook salmon in the United States. Chinook salmon are born in freshwater, immigrate to the ocean where they spend most of their adult lives, and then return to freshwater rivers and streams to spawn. Salmon runs in the Central Valley were historically among the largest on the Pacific Coast. Habitat conditions suitable for spawning include water depths ranging from a few inches to several feet, velocities ranging from one to 2.6 feet per second, water temperatures that generally remain below 65 degrees Fahrenheit, and coarse gravels for spawning.

Historically, two runs were known from the San Joaquin River, a spring run that occurred between the months of April and June, and a fall run that Moyle (2002) divides into a fall run and late fall run, both of which occur in the early to late fall as the name of the run suggests. Friant Dam, which was constructed between 1939 and 1941, served as an insurmountable barrier to upstream movement, and diversions from the Dam into the Friant-Kern and Madera Canals dried up much of the river for much of the year between Gravelly Ford and the river's

Golden eagle

The closest known record of a golden eagle is approximately 11 miles northeast of the Friant Community Plan Area (CNDDDB 2008a). Suitable nesting habitat for the golden eagle does not occur on the Friant Ranch Specific Plan Site, but a golden eagle was observed foraging on the site in 1995 (LOA 2007). Nesting habitat is present within the Friant Community Plan Area, particularly within the Great Valley Mixed Riparian Forest along the San Joaquin River. Potential nesting habitat also is present in the vicinity of the Community Plan Area, including in the wooded foothills surrounding Millerton Lake. No nesting or roosting habitat for this species is found on the Depot Parcel, the Wastewater Treatment Plant site, or the Beck Property.

Tricolored blackbirds

Tricolored blackbirds are known to forage on the Friant Ranch Specific Plan Site, but suitable breeding areas are not present (LOA 2007). Suitable breeding habitat does occur at small, scattered locations within the Friant-Kern Canal easement, to the east of the Site. Suitable breeding and foraging habitat is present at Lost Lake Park and suitable grassland foraging habitat is present within the existing Friant Community Plan Area.

Other special status birds

The Live Oak Associates biological evaluation (LOA 2007) also included evaluations of the horned lark, merlin, and prairie falcon. These species have been removed from the list of California Species of Special Concern and are not addressed in this EIR.

Mammals

American Badger

The closest known record for an American badger is approximately 6 miles north of the Friant Community Plan Area (CNDDDB 2008). American badgers were not observed on the Friant Ranch Specific Plan Site during field surveys, but badgers and badger dens have been observed south of the Specific Plan Site and directly to the north within the Community Plan Area (LOA 2007). ~~Denning and foraging habitat exists on the Friant Specific Plan Site, the Beck Property, the Depot Parcel and the Wastewater Treatment Plant site, and in other portions of the Friant Community Plan Area. The Depot Parcel, the Water Treatment Plant site and the Beck Property do not contain habitat suitable to support this species. It is reasonable to assume that American badgers are occasional to frequent visitors.~~

Pallid bat

The closest known record for the pallid bat is approximately 6 miles northwest of the Friant Community Plan Area (CNDDDB 2008). Although foraging habitat exists on the Friant Ranch Specific Plan Site, the Depot Parcel, the ~~Wastewater~~ Water Treatment Plant site, and the Beck Property, suitable roosting habitat is not present. It is likely that the pallid bat forages over the Specific Plan Site and the other listed project components from time to time, but it would not be a resident. The Friant Community Plan Area contains trees and buildings that are suitable

roosting habitat. Foraging habitat is also present. This species is likely to be present, at least seasonally, on the Community Plan Area.

Western mastiff bat

The closest known record for the western mastiff bat is approximately 3 miles northwest of the Friant Community Plan Area (CNDDDB 2008). Foraging habitat exists on the Specific Plan Site, the Depot Parcel, the ~~Wastewater~~ Water Treatment Plant site, and the Beck Property, but there is no roosting habitat. Accordingly, this bat is a transient forager on the site, but not a resident. The Friant Community Plan Areas contains both foraging and roosting habitat, especially within the Great Valley Mixed Riparian Forest along the San Joaquin River. This bat would be expected as a resident within the Friant Community Plan Area.

San Joaquin kit fox

There is a single record for the San Joaquin kit fox from within the Friant Community Plan Area (Figure 3.4-6). All other records are from the valley floor to the west of the area, near Highway 99 and the San Joaquin River. Many recent surveys on the Specific Plan Site and other sites near Friant have failed to locate any evidence that San Joaquin kit foxes are present in the vicinity. Accordingly, it is unlikely that San Joaquin kit foxes inhabit the Friant Ranch Specific Plan Site, the Depot Parcel, the ~~Wastewater~~ Water Treatment Plant site, the Beck Property, or other portions of the Friant Community Plan Area.

Designated Critical Habitat

There is no designated Critical Habitat located within the Friant Community Plan Area. The project area is located outside, and approximately 350 feet to the west, of critical habitat designated for the California tiger salamander.

Water Transfers

The water supplies for the 2,000 acre feet transfer will be made available in part through the operation of LTRID's Tule River Intertie project, which is currently under construction. The Intertie project was evaluated under a separate CEQA process and, with mitigation measures developed for the intertie project, will result in no significant impacts to biological resources. See the section below which addresses project impacts for more complete analysis of potential impacts due to water transfers.

Potential Wildlife Movement Corridors and Linkages

There are no designated wildlife movement corridors or linkages within the Friant Community Plan Area or the Friant Ranch Specific Plan Site. The Friant Community Plan Area does, however, contain the San Joaquin River and associated Great Valley Mixed Riparian Forest habitat. The river and riparian corridor provide the opportunity the east-west movements for a variety of wildlife. Fish, amphibians, reptiles, birds, and mammals are all expected to use this area as a movement corridor.

Conclusion: Although direct impacts to this species are not expected to occur, indirect and *significant* impacts may occur through degradation of water quality in occupied wetlands and through changes in land management practices.

Mitigation Measure #3.4.1a: To ensure that indirect impacts to succulent owls clover will be less than significant; the following mitigation measures will be implemented:

1. The wetlands on the Friant Ranch Specific Plan Site that contain succulent owls clover will be maintained as undisturbed open space, as required in mitigation measure 3.4.1c(4).
2. Prior to issuance of a grading permit that would result in activities affecting the succulent owls clover, a Land Management Plan will be prepared for the open space that exists on the Specific Plan Site. That Land Management Plan will include continued management by cattle grazing and will:
 - be developed in cooperation with the California Department of Fish and Game and the United States Fish and Wildlife Service;
 - describe management goals and objectives;
 - include provisions for monitoring existing populations of protected biological resources (including succulent owls clover);
 - include the use of adaptive management to ensure that results of the monitoring efforts are incorporated into management actions, and follow the management goals and objectives; and
 - identify remedial actions and alternatives for protection (which may include off-site compensation) if management fails to protect on-site resources to the level established for each resource.

Effectiveness of Mitigation: Implementation of Mitigation Measure #3.4.1a will reduce the level of impacts to succulent owls clover to a level that is *less than significant*.

Mitigation Measure # 3.4.1a(1): The Specific Plan applicant will pay the market rate for 0.5 acres of succulent owl's clover creation/restoration credits from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Area.

Effectiveness of Mitigation: Implementation of Mitigation Measure #3.4.1a(1) will further ensure that the level of impacts to succulent owls clover will be *less than significant*.

Impact #3.4.1b – Impacts to Hartweg's golden sunburst

All of two populations and a portion of a third population of Hartweg's golden sunburst are located within the development footprint of the Friant Ranch Specific Plan. The combined area which will be subject to loss is approximately 0.02 acres, or approximately 1.4% of the on-

site area that is occupied by this species as mapped by Live Oak Associates. Most of the largest onsite population is currently preserved under a conservation easement held by the Sierra Foothill Conservancy. Additional areas contiguous with that population will be preserved as “undisturbed open space”. Upon Project completion, approximately 1.45 acres occupied by this species will be in undisturbed and permanently preserved open space.

Conclusion: The loss of 0.02 acres of Hartweg's golden sunburst is considered a *significant* adverse environmental impact of the project. Furthermore, project impacts to this species would be subject to provisions of the state and federal endangered species acts.

Mitigation Measure #3.4.1b: The following measures will be implemented to reduce the level of impacts to Hartweg's golden sunburst to a level that is less than significant.

- ~~1. In the spring preceding project construction, pre-construction surveys for this species will be conducted to locate any populations not already documented. These surveys will be conducted during the flowering period of this plant (March to May).~~
21. Prior to the issuance of a grading permit that would result in activities affecting the Hartweg's golden sunburst populations, the on-site open space which contains the species will be protected in perpetuity through a conservation easement to be held by a non-profit land trust.
32. The designated open space will be managed to preserve in perpetuity the populations of Hartweg's golden sunburst. Prior to issuance of a grading permit that would result in activities affecting the Hartweg's golden sunburst, a Land Management Plan will be prepared (see mitigation measure #3.4-1a2) that will include the protection of the golden sunburst population from human foot traffic and off road vehicles by restricting access to open space through fencing and signage.
43. Prior to issuance of an occupancy permit, an informational brochure will be prepared that educates Friant Ranch Community members about the sensitivity of this species to human trampling, discouraging trespass into conserved open space.
54. Where avoidance is not possible, the project applicant will have a qualified biologist develop a Restoration Plan to salvage populations of Hartweg's golden sunburst located in proposed development areas that would be destroyed during construction activities. A draft of this plan will be submitted to the California Department of Fish and Game and the U.S. Fish and Wildlife Service for review, comment, and approval. The plan will be finalized and implemented by the project applicant prior to issuance of a grading permit for the areas inhabited by Hartweg's golden sunburst. Elements of the Restoration Plan shall include the collection of mature seed prior to natural dispersal (late April or early May), the storage of the seed in a cool dry location until the fall, and the dispersal of the seed onto proposed open space areas of the Site where suitable Rocklin soils are known to be present. The selected planting areas would be mapped using GIS, fenced to reduce grazing pressure, and monitored after planting for a minimum of four years during a 7 year monitoring period. An annual monitoring report will be prepared and submitted to CDFG and the USFWS. The salvage and relocation of this species will be considered successful when a self-sustaining population of Hartweg's golden sunburst has been established on approximately 0.06 acres of the designated open space (representing a 3:1 ratio).
65. The Restoration Plan described in number 5 above shall include alternatives or contingencies for ensuring that appropriate compensation for the loss of Hartweg's golden sunburst is met

(at a ratio of 3:1) should the initial relocation of the Hartweg's golden sunburst populations not meet established success criteria. These alternatives shall be approved by the CDFG and USFWS.

Effectiveness of Mitigation: Implementation of mitigation measures 3.4.1b will reduce impacts to Hartweg's golden sunburst to level that is *less than significant*.

Impact #3.4.1c – Impacts to vernal pool fairy shrimp

Vernal pool fairy shrimp have been documented in a number of vernal pools on the Friant Ranch Specific plan Site and are presumed present in most of the ephemeral pools on the site. The direct loss of vernal pool habitat from the Project will result in the take of an unknown number of vernal pool fairy shrimp.

Indirect impacts to vernal pool fairy shrimp may occur in those pools which would be preserved in undisturbed open space. Proposed development surrounding designated open space could result in the discharge of polluted water into pools. The hydrology could be altered by changes in drainage patterns, resulting in some vernal pools being de-watered. Additionally, any reduction in grazing could result in increased invasion by non-native plant species that could degrade ephemeral pool habitat through the build-up of thatch.

Conclusion: The likely mortality of vernal pool fairy shrimp from direct loss of habitat and the possible degradation of habitat in designated open space would constitute a *significant* adverse environmental impact of the project. Furthermore, project impact to this species would be subject to provisions of the federal Endangered Species Act.

Mitigation Measure #3.4.1c: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are less than significant.

1. The Project will avoid vernal pool fairy shrimp to the maximum extent feasible. The Friant Ranch Specific Plan has been designed to avoid the majority of vernal pools on the site. Of the 14.38 acres of vernal pool habitat identified on the project site, 12.09 acres of vernal pools will be protected within approximately 233 acres of designated undisturbed open space that will be placed under a conservation easement. The area of vernal pool fairy shrimp habitat to be protected within designated on-site open space will be at a ratio of 5 acres of protected vernal pool habitat for each acre of such habitat directly or permanently disturbed by grading and construction associated with the development of the project.
2. Prior to the issuance of a grading permit the project applicant will compensate for the loss of vernal pool habitat through the creation/restoration of additional vernal pool habitat at a ratio of one acre of creation/restoration for each acre of such habitat directly and permanently disturbed by grading and construction associated with the project development. Creation/restoration of vernal pool habitat will be accomplished by one or a combination of the following three mitigation alternatives:

- a. Off-Site Creation/Restoration. The project applicant will conserve through acquisition or conservation easement off-site lands suitable for vernal pool creation/restoration in Fresno, Madera, or Merced County. Such lands will consist of the following characteristics: natural undisturbed native wetlands and habitat suitable for threatened and endangered plant and animal species will be absent (i.e., these lands will have been previously disturbed by farming, or some other intensive use); vernal pools once occurred on these lands naturally; the underlying hardpan layer is still intact; and the natural topography has not been eliminated through land leveling. Topographic depressions will be created/restored on these lands according to a “mitigation and monitoring plan” prepared by a qualified biologist. The depressions will hold water for approximately three months of every year. When full, the depth of the filled pools will vary from 6 to 18 inches. The depressions will be revegetated with vernal pool species native to the area; soil collected from existing pools in the region will be distributed on the bottoms of the constructed pools in order to enhance the prospects for establishing vernal pool fairy shrimp populations. Efforts to establish fairy shrimp populations in the constructed pools will only occur after receiving formal authorization to do so from the USFWS, as required by law. The components of this mitigation and monitoring plan will be consistent with standard USACE guidelines.
 - b. Purchase of Vernal Pool Creation/Restoration Credits from a Conservation Bank. The project applicant will pay the market rate for Vernal Pool Creation/Restoration Credits at the stipulated 1:1 ratio from a Conservation Bank whose service area includes the Friant Ranch Specific Plan Area.
 - c. Payment into the Vernal Pool Fund. Should a conservation bank having vernal pool creation credits for sale not exist ~~south of the Fresno River in Fresno, Madera or Merced Counties~~, the project applicant will pay the going rate per acre into the Vernal Pool Fund managed by the Center for Natural Lands Management. These funds may only be used for the purchase of vernal pool creation credits in a local conservation bank.
3. The designated open space proposed for the project site will provide buffers of ~~100 to 450 feet~~ 75 feet or greater between developed areas of the project site and vernal pools, to reduce encroachment into pools by foot and off-road vehicle traffic.
 4. Prior to issuance of a grading permit for the project site, a Drainage Plan will be prepared for the undisturbed open space of the site. Elements of this plan will include:
 - a. Design plans to ensure that winter stormwater runoff into open space areas of the project site will mimic to the maximum extent feasible ~~possible~~ pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved vernal pools will be roughly equivalent to pre-project conditions.
 - b. All runoff originating in developed areas of the site will pass through retention basins, bio-filtration swales, or both, which will act together as stormwater filters such that water quality will not be significantly reduced from pre-project conditions.

Conclusion: Expected impacts to CTS inhabiting the project site would constitute a *significant* adverse environmental impact of the project. Project impact to this species would be subject to provisions of the federal Endangered Species Act and, ~~if listed by the Fish and Game Commission prior to project development,~~ the California Endangered Species Act.

Mitigation Measure #3.4.1d: The following measures will be implemented to ensure that impacts to the California tiger salamander are at levels that are *less than significant*.

1. The Project will be designed to avoid elimination of breeding and aestivation habitat to the maximum extent possible. The project applicant has designed the project to avoid a substantial amount of on-site habitats suitable for CTS. Of the 14.38 acres of on-site vernal pool habitat potentially used as breeding habitat by the CTS, 12.09 acres of vernal pools will be protected in designated undisturbed open space (Table 3.4-2). The area of California tiger salamander breeding habitat to be protected within designated open space will be at a ratio of 5 acres of protected vernal pool habitat for each acre of such habitat directly and permanently disturbed by grading and construction associated with project development. Of the 927.82 acres of potential aestivation habitat now present in the Specific Plan Area, approximately 233 acres of undisturbed aestivation habitat will be preserved within the proposed open space. An additional 30 acres of the site that are contiguous with undisturbed open space and that are to be temporarily disturbed by site grading will be restored to native vegetation and managed as part of the proposed open space area. Open space areas ~~and~~ with vernal pool complexes of the completed project, totaling 275.4 acres, will be linked to one another to facilitate the movements of CTS from one preserved habitat area to another, and linked to significant breeding and aestivation habitats on lands to the south of the Site.
2. Management of the undisturbed open space, as required in mitigation for vernal pool fairy shrimp set forth in mitigation measure 3.4.1c, will ensure that vernal pools protected in open space areas of the Site will continue to provide breeding habitat for CTS and that grasslands will continue to provide habitat for burrowing rodents, which create aestivation habitat for CTS.
3. Prior to issuance of a grading permit for all or any portion of the project site, the project applicant will preserve grassland habitats suitable for CTS aestivation under conservation easement at a minimum ratio of two acres of habitat preservation for every acre of such habitat directly or permanently disturbed by project grading and construction. Such preservation will include on-site (i.e., open space areas) and off-site habitat in Fresno, Madera and/or Merced ~~Madera~~ Counties ~~south of the Fresno River~~. Should the project be constructed in phases, preservation can be phased concurrent with development phases as long as the 2:1 ratio is met for the acreage subject to the grading permit.

At full buildout the project will eliminate approximately 694.5 acres of suitable on-site aestivation habitat. Under this mitigation measure, the applicant will preserve two times that amount of known and created CTS aestivation habitat on-site and off-site in suitable habitat located on other parcels within Fresno, Madera and Merced Counties. Parcels that could meet the requirements of this mitigation measure and are available for mitigation purposes

have been identified in Tables 3.4-2 and 3.4-3 and are further illustrated in Figure 3.4-7. These representative parcels provide up to 31.21 acres of breeding habitat in the form of vernal pools and 1,282.19 acres of aestivation habitat in the form of grasslands and other habitats supporting populations of burrowing animals such as California ground squirrels and pocket gophers. To meet the 2:1 preservation requirement set forth in the above mitigation measure the project applicant may identify additional or alternative parcels similar to those identified in Tables 3.4-2 and 3.4-3.

Table 3.4-2
On-Site CTS habitat to be Preserved and Managed Under Conservation Easement
on the Friant Ranch Specific Plan Site

Project Site	Vernal Pools (potential breeding habitat)	Grasslands, channels, vernal swales, non-wetland channels (potential aestivation habitat)	Total Area
Open Space Preserve (Site)	12.09 acres	233.31 acres	245.4 acres
Graded Slopes to be restored to native vegetation and managed as part of the Open Space Preserve	0.00 acres	30.00 acres	30.0 acres
Total	12.09 acres	263.31 acres	275.4 acres

Table 3.4-3
Off-Site CTS Habitat that Could be Preserved and Managed Under Conservation
Easement on Parcels Near the Friant Ranch Project

Project Site	Vernal Pools (potential breeding habitat)	Grasslands, channels, vernal swales, non-wetland channels (potential aestivation habitat)	Total Area
Open Space Preserve (east of Friant-Kern Canal)	0.04 acres	208.36 acres	208.4 acres
Open Space Preserve (Norhnberg Parcel)	15.37 acres	567.53 acres	582.9 acres
Open Space Preserve (Klein-Morgan Parcel)	3.71 acres	242.99 acres	246.7 acres
Total by Type of Habitat	19.12 acres	1,018.88 acres	1,038 acres

Effectiveness of Mitigation: Implementation of these mitigation measures would reduce impacts to regional CTS population(s) to a level that is *less than significant*.

Impact #3.4.1e – Impacts to the Western Spadefoot

The western spadefoot has been documented on the project site and occupies the same breeding and aestivation habitats as the California tiger salamander. The Project would result in the mortality of an unknown number of western spadefoots, and would permanently eliminate some of the breeding habitat and much of the aestivation habitat used by this species.

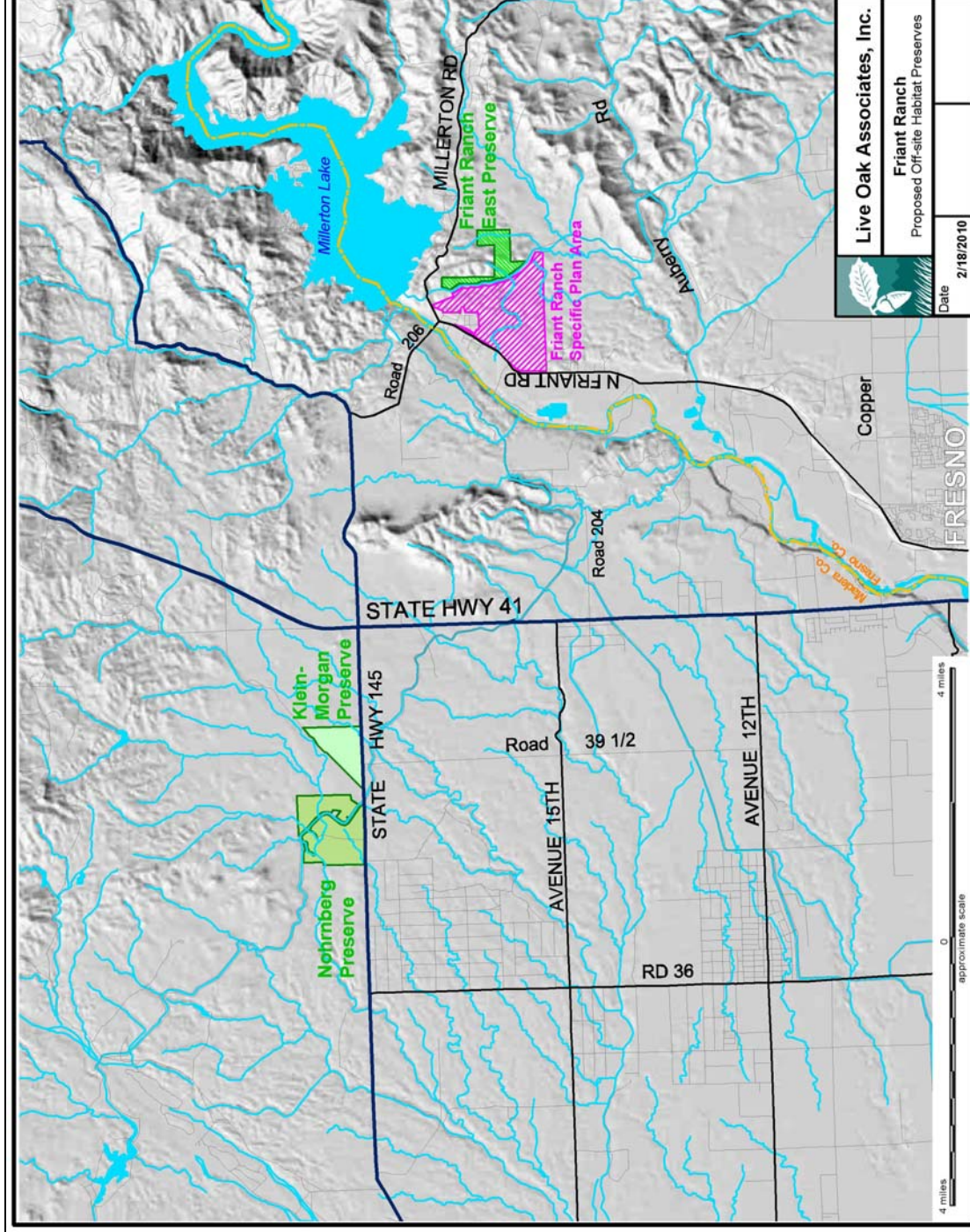


Figure
3.4-7

PROPOSED OFF-SITE HABITAT PRESERVES



Conclusion: Mortality to the western spadefoots would be a *significant* adverse environmental impact.

Mitigation Measure #3.4.1e: To reduce impacts to western spadefoots to a level that is *less than significant*, the following measures will be implemented:

1. The western spadefoot utilizes the same habitats as the California tiger salamander for breeding and aestivation (i.e., the western spadefoot breeds in vernal pools and aestivates in rodent burrows of surrounding grasslands). Therefore, implementation of mitigation measures for the California tiger salamander (Mitigation Measures 3.4.1d) would reduce the impact to the western spadefoot to a *less than significant level*.

Effectiveness of Mitigation: Implementation of mitigation measure 3.4.1e (by reference including mitigation measure 3.4.1d) would reduce impacts to regional population(s) of western spadefoots to a *less than significant level*.

Impact #3.4.1f - Impacts to Swainson's hawks

A Swainson's hawk was observed foraging on the Friant Ranch Specific Plan Site. Nesting Swainson's hawks were not observed on or near the Site. The Project would remove approximately ~~942.2 acres~~ 667 acres of Swainson's hawk foraging habitat.

Conclusion: The loss of foraging habitat would be *less than significant* in a regional context, particularly because Swainson's hawks are not known to nest within 5 miles of the project site and the only potentially available nesting location on the site are several power poles and a Fremont's cottonwood tree. Moreover, the Project conserves ~~460 acres~~ approximately 275 acres of foraging habitat onsite in a region where considerable foraging habitat exists.

Mitigation Measures: No mitigation measures are required.

Impact #3.4.1g –Impacts to Burrowing Owls

Burrowing owls are known to forage and may nest on the Friant Ranch Specific Plan Site. The loss of approximately ~~942.2 acres~~ 667 acres of foraging habitat would be a *significant* adverse impact. However, the project will conserve approximately ~~460 acres~~ 275 acres of potential foraging habitat on site and up to an additional 1,016 acres of off-site habitat could be protected as required in mitigation measure 3.4.1d.

Conclusion: The loss of burrowing owl foraging habitat would be fully mitigated and is *less than significant*. Because burrowing owls potentially nest on the Site and on the Depot Parcel, any disruption of breeding activities or take of individual birds would be a *significant* adverse impact.

Mitigation Measure #3.4.1g: The following measures will be implemented to ensure that impacts to the burrowing owl are *less than significant*.

1. A pre-construction survey shall be conducted on the Specific Plan Site and on the Depot Parcel for ground nesting raptors, including burrowing owls, within 14 to 30 days prior to

initiation of site grading activities. If the grading activities are implemented in phases, then so shall the surveys be conducted in phases. If more than 30 days lapse between the time of the preconstruction survey (s) and the start of ground-disturbing activities, another preconstruction survey must be completed. This process should be repeated until the habitat is converted (e.g., graded and developed). The survey shall be completed in accordance with the survey requirements detailed in the CDFG's October 17, 1995 *Staff Report on Burrowing Owl Mitigation*.

2. If burrowing owls are identified onsite or within the area of influence of the project site (within ~~1,000~~ 250 feet of the project site), during surveys required in mitigation measure 3.4.1g (1) above, an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the required mitigation site will be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be $2 \times 6.5 = 13$ acres provided that no more than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the preconstruction survey, then the mitigation requirement shall be $3 \times 6.5 = 19.5$ acres). Two natural or artificial nest burrows will be provided on the mitigation site for each burrow in the project area that will be rendered biologically unstable.
3. If burrowing owls are present on the site and require relocation, an upland mitigation site for burrowing owls shall be designated as provided for in item 2 above. This site may be located within the on-site open space area or it may be located off site. The mitigation site must consist of grassland habitat, contain small mammals (or other prey), and ground squirrel burrows. Habitat protected for the CTS (see mitigation measure #3.4.1e) may be sufficiently suitable. The mitigation site must be approved by the California Department of Fish and Game. The area shall be preserved in perpetuity as wildlife habitat through a conservation easement that designates the California Department of Fish and Game, or any other qualified conservation organization as the Grantee of the easement. The mitigation area need not be identified prior to finding burrowing owls on the Site, however advance planning would reduce the potential for construction delays.
4. If a Conservation Easement is established for burrowing owl mitigation onsite, the project applicant shall provide the Grantee of the easement with an endowment to cover the management of the Conservation Easement within six months of breaking ground on the project site. The endowment amount necessary for the conservation easement will be established after negotiations between the applicant, easement holder/land trust, and the regulatory agencies. The management fund shall be provided by the project applicant to the Grantee of the Conservation Easement within six months of breaking ground on the project site.
5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to be engaged in nesting behavior, a fenced ~~500~~ 250 foot buffer would be required between the nest site(s) (i.e., the active

burrow(s)) and any earth-moving activity or other disturbance on the project site. This ~~500~~ 250 foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a 160 foot buffer area will be established. If construction activities require the removal of an active den, the occupying burrowing owls and must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity will be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring will be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as required in item 6 below.

6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring will be conducted by a qualified biologist provided by the project applicant. Monitoring may be suspended or discontinued if, in the opinion of the qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading. Monthly reports of monitoring activities will be submitted by the biologist to the project applicant, the County of Fresno, and the California Department of Fish and Game. A final report of all monitoring application will be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.

Effectiveness of Mitigation: Implementation of mitigation measure 3.4.1g will reduce impacts to burrowing owls to a level that is *less than significant*.

Impact #3.4.1h – Impacts to the American Badger

American badgers are known to occur on lands adjacent to the Friant Ranch Specific Plan Site. The Site contains habitats similar habitats to those where badgers are known to occur and there are suitable den structures on the Site. Although no badgers have been identified on the Specific Plan Site, they are likely transient foragers on site and may also den on the site.

Conclusion: Mortalities to badgers caused by construction activities would be a *significant* adverse impact.

Mitigation Measure #3.4.1h: The following measures shall be implemented to ensure that impacts to American badgers are *less than significant*.

1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground disturbing activities) are phased, then so shall the pre-construction surveys be phased.

2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy. All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. ~~Dens must be replaced at a ratio of 2 artificial den for each natural dens removed. Replacement dens may be constructed within grassland habitat on site, within the open space, conservation area. Replacement dens shall consist of 6 inch diameter plastic corrugated sewer pipe cut to a 6 foot length. One end of the pipe shall be buried no deeper than 2 feet and no less than 1 foot below grade. The other end of the pipe shall remain above ground. Dirt shall be mounded above the pipe to a depth of at least 1 foot above grade, with the opening exposed. If a badger is found during construction on the site, a qualified biologist with the appropriate permits shall trap the badger and physically relocate it to the onsite undisturbed open space. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den.~~
3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s).
4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunset to sunrise) should be prohibited, ~~unless:~~
 - a. ~~The construction area is appropriately fenced to exclude American badgers. Appropriate fencing would consist of a 4 foot chain link fence or similar material (e.g., 2 inch mesh stock fence) buried at least 6 inches below grade.~~
 - b. ~~The area within any such fence should be inspected by a qualified biologist for badger dens, all dens must be removed, and the site determined to be uninhabited by American badgers prior to initiation of construction.~~
5. Off-road construction traffic outside of designated construction areas shall be prohibited.
6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor.
7. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise

trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.

78. American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped.
89. During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site.
910. No firearms shall be allowed on the project site during construction activities.
- ~~10. A representative should be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure an American badger, or who finds a dead, injured or entrapped individual. The representative's name and telephone number should be provided to the CDFG.~~
- ~~11. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.~~
- ~~12. Any contractor, employee(s), or other personnel who inadvertently kills or injures an American badger should immediately report the incident to their representative. This representative should contact the CDFG immediately in the case of a dead, injured or entrapped American badger. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.~~

Effectiveness of Mitigation: Implementation of mitigation measures 3.4.1h will reduce project impacts to American badgers to a level that is *less than significant*.

Impact #3.4.1i – Impacts to nesting raptors

The Friant Ranch Specific Plan Site provides nesting habitat for some ground nesting raptor species including the northern harrier, burrowing owls, and other ground nesting birds. There are also potential nesting structures on and near the Site that, if occupied by raptors could result in significant impacts. Although LOA did not identify nesting raptors on the Site, potential impacts to nesting raptors could result from the loss of nesting habitat, loss of foraging habitat, and disturbance to nearby nesting birds due to construction related disturbances (e.g., noise and

activity caused by site grading, road construction, installation of utilities, and installation of buildings). These disturbances could result in the disruption of breeding behaviors, abandonment of nest sites, disruption of feeding behaviors resulting in reproductive failure and/or abandonment of young and death of adults and/or young.

Conclusion: Breeding raptors on and within 1,000 feet of the Site would be at risk from construction related disturbances. These would be **significant** adverse project related impacts.

Mitigation Measure #3.4.1i: To protect breeding raptors, the following measures shall be implemented:

1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys will be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a ~~1,000~~ 300 foot area of influence surrounding the Site. Suitable nesting sites in the Specific Plan area are extremely limited; surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified biologist. If construction begins between September 2 to February 28, nest surveys will not be required since this is outside the typical breeding period for raptors.
2. If nesting raptors are identified during the surveys on the project site or within the 300 foot areas of influence, a 300-foot radius buffer around the nest tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer.
3. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can be terminated.

Effectiveness of Mitigation: The implementation of mitigation measure 3.4.1i would reduce impacts to nesting raptors to a level that is *less than significant*.

Impact #3.4.1j – Impacts to common and special status nesting birds

The grasslands of the Friant Ranch Specific Plan Site provide potential nesting habitat for common bird and special status bird species. Birds protected pursuant to the Migratory Bird Treaty Act of 1918 and California Department of Fish and Game Code §3503 and §3800 could nest on the Site and may be disturbed to an extent that eggs and/or young would be lost.

Conclusion: The removal of active birds nests and the disruption of breeding behaviors would be a *significant* adverse impact.

Mitigation Measure #3.4.1j: To protect common and special status nesting birds, the following measures shall be implemented:

Approximately 22.7 acres of the jurisdictional and isolated waters will be avoided by the project, resulting in Project impacts to jurisdictional and isolated waters totaling 12.33 acres (10.88 acres of jurisdictional wetlands and 1.45 acres of isolated wetlands will be impacted, Table 3.4-4).

Table 3.4-4
Impacts to Jurisdictional and Isolated Waters on the Friant Ranch Specific Plan Site

Project Site (acres)	Waters	Wetland Channel (acres)	Vernal Swale (acres)	Vernal Pools (acres)	Total Acreage of Waters Impacted
942.2	Jurisdictional	2.01	7.12	1.75	10.88
	Isolated	0.00	0.91	0.54	1.45
	Total	2.01	8.03	2.29	12.33

Conclusion: The loss of these jurisdictional and isolated waters constitutes a *significant* adverse environmental impact.

Mitigation Measure #3.4.3a: The following measures will be implemented to reduce impacts to wetlands and other waters to a level that is *less than significant*:

1. Mitigation measures for vernal pool fairy shrimp and California tiger salamanders (mitigation measures 3.4.1c and 3.4.1d) are designed to ensure the long-term conservation of wetlands and other waters in the region. Implementation of these measures will result in the preservation under conservation easement of wetlands and other waters. For example, mitigation parcels currently under evaluation to meet mitigation measures for vernal pool fairy shrimp and CTS would result in preservation of 22.67 acres of wetlands on-site and up to 60.30 acres off-site (Tables 3.4-5 and 3.4-6), for a combined total of 82.97 acres.

Table 3.4-5
Wetlands and Other Waters to be Preserved and Managed Within the Friant Ranch Specific Plan Site

Project Site	Waters	Wetland Channel (acres)	Vernal Swale (acres)	Vernal Pools (acres)	Total Acreage of Waters Preserved
Open Space Preserve	Jurisdictional	6.23	4.31	9.93	20.47
	Isolated	0.00	0.04	2.16	2.20
	Total	6.23	4.35	12.09	22.67

As can be seen in these tables (Tables 3.4-5 and 3.4-6), the preservation under conservation easement of wetlands and other waters pursuant to mitigation measures for vernal pool and ~~Conservancy fairy shrimp and~~ CTS could achieve preservation ratios of:

- **Wetland Channels:** 1 acre of disturbed habitat to every 11.1 acres of preserved habitat;
- **Vernal Swales:** 1 acre of disturbed habitat to every 3.7 acres of preserved habitat; and
- **Vernal Pools:** 1 acre of disturbed habitat to every 13.6 acres of preserved habitat.

control measures are successfully preventing on-site erosion and the associated deposition of sediment off the project site. Elements of this plan would address both the potential for soil erosion and non-point source pollution. At a minimum, elements of an erosion control plan typically include:

- a. Protection of exposed graded slopes from sheet, rill and gully erosion. Such protection could be in the form of erosion control fabric, hydromulch containing the seed of native soil-binding plants, straw mechanically imbedded in exposed soils, or some combination of the three.
 - b. Protection of natural drainage channels from sedimentation. Hay bale check dams should be installed below graded areas so that any sediment carried by surface runoff is intercepted and retained behind the check dams before it can enter the creek.
 - c. Use of best management practices (BMPs) to control soil erosion and non-point source pollution. BMPs may include measures in 4a and 2b above, but they may include any number of additional measures appropriate for this particular project site and this particular project, including grease traps in parking lots, landscape management practices to reduce the use of pesticides and herbicides, the discharge of stormwater runoff from “hardscapes” into grassy swales, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.
2. Where possible, project construction should be confined to the dry season, when the chance for significant rainfall and stormwater runoff is very low. Construction during the spring, summer, and fall will not eliminate the need to implement erosion control measures described in mitigation measures above, but will ensure that the threat of soil erosion has been minimized to the maximum extent possible.
 3. All post-construction runoff will be routed through a system of grease traps, stormwater retention/detention basins, and bio-filtration swales to ensure that water quality of on-site and off-site wetlands, creeks and rivers are maintained at roughly pre-project levels.

Effectiveness of Mitigation: Compliance with these mitigation measures would reduce impacts to the quality of stormwater runoff leaving the project site to a ***less than significant level***.

Potential impacts to water quality related to wastewater disposal and storm water runoff are addressed in Chapter 3.8, Hydrology and Water Quality. No further mitigation measures are warranted.

Impact #3.4.4 – Impacts of Friant Ranch Specific Plan development (including wastewater treatment plant and disposal) to fish or wildlife movement corridors
[Evaluation Criteria d]

The Friant Ranch Specific Plan Area is surrounded by Friant Road to the west and the concrete-lined Friant-Kern Canal to the east. The existing community of Friant is directly to the north of the Site. Friant Road is a heavily traveled two lane road that creates a significant hazard to

Intertie project was evaluated under a separate CEQA process and, with mitigation measures developed for the Intertie project, will result in no significant impacts to biological resources. This water distribution facility allows LTRID to divert Tule River water to groundwater recharge either by direct or in lieu recharge methods. The additional water so recharged will become available to LTRID water users and pumped to meet consumptive crop demands under their rights to groundwater as overlying landowners, offsetting the District's need to provide an equivalent amount of LTRID's annual CVP surface water supplies (thus freeing up water that can be transferred to WWD 18 to serve the Project). This transfer will not affect the amount of stored water diverted from the San Joaquin River at Friant Dam; however, 2,000 acre-feet of water that were previously sent down the Friant Kern Canal to LTRID will now be taken out at the dam and conveyed to WWD 18's treatment plant. The change in conveyance of this 2,000 acre-feet of water will not cause significant impacts to biological resources. As noted above, the loss of 2,000 acre-feet from the CVP Friant Division within the LTRID boundaries will be made up through the operation of the Intertie and anticipated groundwater recharge program. This change in surface water supplies within the LTRID boundaries will not cause significant impacts to biological resources within LTRID boundaries.

The Tule River Intertie construction underwent independent environmental analysis pursuant to CEQA. The species addressed in the biological report for that project (Vanherweig 2007) included assessments of:

- blunt-nosed leopard lizard (State and federally endangered);
- burrowing owl (State Species of Special Concern);
- San Joaquin antelope ground squirrel (State threatened);
- Tipton kangaroo rat (State and federally endangered);
- San Joaquin pocket mouse (State Species of Special Concern);
- American badger (State species of Special Concern);and
- San Joaquin kit fox (State endangered and federally threatened).

The potential impacts associated with the water transfers for the Friant Community Plan are composed of two separate, but integrated issues:

- impacts associated with transport of water from the Friant –Kern Canal to WWD-18, the treatment of that water for domestic use, and on-site transportation of the treated water; and
- impacts associated with replacement of the transferred water including potential changes in land use and the construction of new facilities for the transfer of water.

Impact #3.4.7 - Potential biological impacts resulting from the transport and treatment of water

The physical transfer of water from the ~~Friant Kern Canal~~ Friant Dam to the existing WWD-18 treatment facility will be through an existing United States Bureau of Reclamation owned 24 inch pipeline. No additional facilities for the transfer will be constructed. The transport of water from the Friant-Kern Canal to the WWD-18 treatment facility will **not result in significant impacts** to biological resources. Upgrades to the treatment facility may be needed to process the additional 2,000 acre feet of annually delivered water. Increasing the capacity of WWD-18

facility may require construction operations, and plans have been made for expansion of the facility. Construction activities at WWD-18 would **not have significant impacts** to sensitive wildlife species or result in loss of sensitive species habitat, because that area does not support sensitive biological resources, with the possible exception of potential aestivation habitat for California tiger salamanders.

Mitigation Measure #3.4.7: Because the treatment facility is located immediately adjacent to the Friant Ranch Specific Plan Area, and potential impacts associated with its expansion are treated at a project level, all potential impacts and mitigation measures which would apply to construction associated with increasing treatment capacity would be covered by impact and mitigation measures #'s 3.4.1 to 3.4.6 of this DEIR. Similarly, potential impacts to biological resources resulting from construction of on-site conveyance systems, which would be needed to transport the treated water to end users, are covered by impacts and mitigation #'s 3.4.1 through 3.4.6 (for areas within the Friant Ranch Specific plan Site) and #'s 3.4.9 through 3.4.14 (for areas within the Friant Community Plan Area). No additional mitigation measures are warranted.

Effectiveness of Mitigation: Implementation of mitigation measure 3.4.7 (and by reference 3.4.1 through 3.4.6) will reduce impacts of on-site water transfers and possible expansion of the WWD-18 treatment facility to levels that are **less than significant**.

Impact #3.4.8 - Biological impacts associated with replacement of transferred water

The replacement of transferred water within the Lower Tule River Irrigation District will occur through construction of the Tule River Intertie Project.

Conclusion: The Tule River Intertie project was evaluated under a separate CEQA process and, with mitigation measures developed for that project, biological impacts associated with replacement of transferred water will result in **no impacts** to biological resources. No additional biological mitigations measures are warranted.

Mitigation Measures: No mitigation measures are required.

Impact Analysis and Mitigation Measures for the Existing Friant Community Plan Area

The Existing Friant Community Plan Area has been evaluated for the presence of biological resources during reconnaissance level surveys conducted by Live Oak Associates and Quad Knopf biologists. Quad Knopf biologists visited the site on 27 July 2008. Specific descriptions and extent of individual projects within the Community Plan Area (other than the Friant Ranch Specific Plan, ~~and Friant Depot Parcel~~, Beck Property, and Water Treatment Plant and associated pumping facilities) are not available, which dictates programmatic level impact evaluations.

Impact #3.4.9 – Impacts of the Friant Community Plan to Candidate, Sensitive, or Special status Species
[Evaluation Criteria a]

Impact #3.4.9a - ~~Swales and depressions~~ Vernal pools and swales in the Friant Community Plan Area potentially contain spiny-sepaled button celery. Projects within the Area have the potential to eliminate this species through grading and construction activities.

Conclusion: Removal of spiny-sepalled button celery would be a *potentially significant impact*.

Mitigation Measure #3.4.9a: To ensure that there is no take of spiny-sepaled button celery, the following measures will be implemented:

1. Prior to the issuance of a grading permit within the Existing Friant Community Plan Area, a biological survey will be conducted on the project site during the appropriate phonological period for spiny-sepaled button celery. This period generally occurs between April 1 and May 31, but this species persists and is identifiable through July of most years. Surveys need only be conducted within vernal pools and swales capable of supporting this species.
2. If spiny-sepaled button celery is not present, no further action is warranted. If spiny-sepaled button-celery is found to occur on a project site, then the following actions will be taken.
 - a. Any population of spiny-sepaled button celery will be completely avoided by grading and construction activities and there will be no modifications to existing land management practices; or
 - b. If any population of spiny-sepaled button celery cannot be avoided, then the project proponent must:
 - Compensate for the loss of spiny-sepaled button celery at a ratio of 3 acres for each 1 acre of take, either through implementation of a conservation agreement or through purchase of conservation credits in an approved mitigation bank.

Effectiveness of Mitigation: Implementation of mitigation measure 3.4.9a will ensure that impacts to spiny-sepaled button celery from projects within the Existing Friant Community Plan Area are *less than significant*.

Impact #3.4.9b – Impacts to vernal pool fairy shrimp

Vernal pool fairy shrimp are likely to occur in ephemeral pools, roadside ditches, and other seasonal water sources within portions of the Existing Friant Ranch Community Plan Area. The direct loss of ephemeral pool habitat may result in the take of an unknown number of vernal pool fairy shrimp. Direct mortalities to vernal pool fairy shrimp would be a *significant* adverse impact.

Indirect impacts to vernal pool fairy shrimp may also occur in those pools occurring within an off-site area of influence of any particular project. The area of influence would be variable depending upon surface topography and drainage patterns. Development could result in the discharge of polluted water into pools. The site-specific hydrology could be altered by changes in drainage patterns, resulting in some pools being de-watered.

Conclusion: The likely mortality of vernal pool fairy shrimp from direct loss of habitat and the possible degradation of habitat would constitute a **significant** adverse environmental impact. Furthermore, impacts to this species would be subject to provisions of the federal Endangered Species Act.

Mitigation Measure #3.4.9b: The following measures shall be implemented to ensure that impacts to vernal pool fairy shrimp are **less than significant**.

1. Prior to issuance of a grading permit, the project proponent must ensure that a qualified biologist conduct a survey for ~~wet areas~~ ephemeral pools which potentially support vernal pool fairy shrimp. That survey must be conducted during the wet season (October through April), and immediately after a substantial rainfall event (of 0.5 inches of rainfall or more). If ephemeral pool habitat is found on the project site that is suitable for supporting vernal pool fairy shrimp, then the project applicant must ensure that a qualified biologist implement a standard vernal pool fairy shrimp protocol survey. Alternatively, the project applicant could assume presence of the vernal pool fairy shrimp and implement the provisions listed in a-d below. If vernal pool fairy shrimp or other sensitive vernal pool invertebrates are not found during protocol surveys, then no other actions are warranted. If vernal pool fairy shrimp are found, then the following measures will be implemented:
 - a. The Project will avoid vernal pool fairy shrimp to the maximum extent feasible.
 - b. Prior to the issuance of a grading permit the project applicant will compensate for the loss of occupied ephemeral pool habitat through the conservation of vernal pool habitat at a ratio of two acres of conservation for each acre of such habitat directly and permanently disturbed by grading. Conservation of occupied ephemeral pool habitat will be accomplished by placing a conservation easement on existing pools, either on-site or off-site, or by purchasing credits in an approved conservation bank that has the Existing Friant Community Plan Area within its service boundaries.
 - c. A Section 10(a) 1b permit for take must be acquired from the United States Fish and Wildlife Service, or a Section 7 consultation must be conducted, whichever is appropriate.
 - d. Prior to issuance of a grading permit for a project site, a Drainage Plan will be prepared for the site. Elements of this plan will include:
 - Design plans to ensure that winter stormwater runoff into open space areas of the project site will mimic to the maximum extent possible pre-project conditions. Upon project completion, surface and subsurface flows of runoff to preserved ephemeral pools will be roughly equivalent to pre-project conditions;

measures as required in mitigation measure 3.4.11b for the protection of downstream water quality.

Effectiveness of Mitigation: Implementation mitigation measure 3.4.9f will ensure that the regional and local populations of western pond turtles will ***not be reduced to below self sustaining levels*** as a result of projects within the Existing Friant Community Plan Area. Thus the impacts will be ***less than significant***.

Impact #3.4.9g- Impacts to Swainson's hawks

A Swainson's hawk was observed foraging on the Friant Ranch Specific Plan Site and some foraging activity could occur within the Existing Friant Community Plan Area. However, the Community Plan Area (excluding the Specific Plan Site) experiences intense human activity which would likely reduce the occurrence of foraging in the area. The Great Valley Mixed Riparian Forest along the San Joaquin River is potential nesting habitat for Swainson's hawks. The removal of foraging habitat or the disruption of breeding activities caused by construction related activities would constitute a ***significant*** adverse environmental impact. Because much of the Existing Friant Community Plan Area are developed and densely-populated, potential impacts to Swainson's hawk associated with construction activities occurring within small parcels (especially those not directly adjacent to the San Joaquin River) would not likely affect Swainson's hawks.

Conclusion: Impacts to Swainson's hawks would be ***less than significant***, and no mitigation would be warranted. However, grading in areas greater than 5 acres in size, particularly in the Lost Lake area, may result in a ***potentially significant*** affect to Swainson's hawks. The following mitigation measures would reduce the potential for significant impacts to Swainson's hawks.

Mitigation Measure #3.4.9g: The following measures will be implemented to ensure that impacts to breeding and foraging Swainson's hawks are ***less than significant***:

1. Prior to the issuance of any grading permits exceeding 5 acres in the southern half of the Existing Friant Community Plan Area (exclusive of the Friant Specific Plan Area, ~~and the Depot Parcel, Beck Property, and Water Treatment Plant and associated pumping facilities~~), a qualified biologist shall survey the site for Swainson's hawks. The survey area will encompass all trees within 0.5 mile of the individual project site. Several projects proposed for construction within a single nesting period may use the results from a single survey, provided the surveyed is conducted within 0.5 mile or more from all individual project boundaries. The survey will consist of:
 - a. All trees within the survey area suitable for nesting by hawks shall be inspected by a qualified biologist.
 - b. Survey periods and survey lengths shall be:

present within the Existing Friant Community Plan Area, they would be potentially subject to direct mortality, disruption of breeding behaviors including nest abandonment, and loss of foraging habitat.

Conclusion: The loss of burrowing owl foraging habitat would constitute a **significant** adverse environmental impact. Any disruption of breeding activities or take of individual birds would be a **significant** adverse impact.

Mitigation Measure #3.4.9h – The following measures will be implemented to ensure that impacts to the burrowing owl are **less than significant**:

1. A pre-construction survey shall be conducted for ground nesting raptors, including burrowing owls, within 14 to 30 days prior to initiation of site grading activities. If the grading activities are implemented in phases, then so shall the surveys be conducted in phases. If more than 30 days lapse between the time of the preconstruction survey (s) and the start of ground-disturbing activities, another preconstruction survey must be completed. This process should be repeated until the habitat is converted (e.g., graded and developed). The survey shall be completed in accordance with the survey requirements detailed in the CDFG's October 17, 1995 *Staff Report on Burrowing Owl Mitigation*.
2. If burrowing owls are identified onsite or within the area of influence of the project site (within ~~1,000~~ 250 feet of the project site), an upland mitigation area for burrowing owls shall be established either on or offsite. The mitigation site must be determined to be suitable by a qualified biologist. The size of the required mitigation site will be based on the number of burrowing owls observed on the project site with a minimum of 6.5 acres preserved per pair of owls or single owl observed using the site. The number of owls for which mitigation is required shall be based on the combined results of the protocol-level survey and the preconstruction surveys (i.e., if two pairs of owls are observed on the project site during the protocol-level survey, the mitigation requirement shall be $2 \times 6.5 = 13$ acres provided that no more than two pairs of owls are observed during the preconstruction survey; if three pairs of owls are observed during the preconstruction survey, then the mitigation requirement shall be $3 \times 6.5 = 19.5$ acres). Two natural or artificial nest burrows will be provided on the mitigation site for each burrow in the project area that will be rendered biologically unstable.
3. If burrowing owls are present on the site and require relocation, an upland mitigation site for burrowing owls shall be designated as provided for in item 2 above. This site may be located within the on-site open space area or it may be located off site. The mitigation site must consist of grassland habitat, contain small mammals (or other prey), and ground squirrel burrows. The mitigation site must be approved by the California Department of Fish and Game. The area shall be preserved in perpetuity as wildlife habitat through a conservation easement that designates the California Department of Fish and Game, or any other qualified conservation organization as the Grantee of the easement. The mitigation area need not be identified prior to finding burrowing owls on the site, however advance planning would reduce the potential for construction delays.
4. If a Conservation Easement is established for burrowing owl mitigation, an endowment to cover the management of the area must be provided. The management fund shall be

provided by the project applicant to the Grantee of the Conservation Easement within six months of breaking ground on the project site.

5. If burrowing owls are present on the project site during the breeding season (peak of the breeding season is April 15 through July 15), and appear to be engaged in nesting behavior, a fenced ~~500~~250 foot buffer would be required between the nest site(s) (i.e., the active burrow(s)) and any earth-moving activity or other disturbance on the project site. This ~~500~~250 foot buffer could be removed once it is determined by a qualified biologist that the young have fledged. Typically, the young fledge by August 31st. This date may be earlier than August 31st, or later, and would have to be determined by a qualified biologist. If burrowing owls are present in the non-breeding season a 160 foot buffer area will be established, and If construction activities require the removal of an active den, the occupying burrowing owls must be passively relocated from the project site, as approved by the California Department of Fish and Game, passive relocation shall not commence until October 1st and must be completed by February 1st. After passive relocation, the project site and vicinity will be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to document where the relocated owls move and to ensure that the owls are not reoccupying the project site. A report detailing the results of the relocation and subsequent monitoring will be submitted to CDFG and the County within two months of the relocation. That report can be incorporated into the monthly monitoring reports as required in item 6 below.
6. Monitoring of the project site shall occur on a weekly basis to identify any burrowing owls that may move into the construction area. Monitoring will be conducted by a qualified biologist provided by the project applicant. Monitoring may be suspended or discontinued if, in the opinion of a qualified biologist, it is determined that suitable habitat for the burrowing owl is absent from the site following mass grading. Monthly reports of monitoring activities will be submitted by the biologist to the project applicant, the County of Fresno, and the California Department of Fish and Game. A final report of all monitoring application will be prepared by the biologist and submitted to the project applicant, the County of Fresno, and the California Department of Fish and Game within 90 days of project completion.

Effectiveness of Mitigation: Implementation of mitigation measure 3.4.9h will reduce impacts to burrowing owls to a level that is *less than significant*.

Impact #3.4.9i –Impacts to other nesting raptors

The Existing Friant Community Plan Area provides nesting habitat for some ground nesting raptor species including the northern harrier, burrowing owls, and other ground nesting birds. There are also potential nesting structures on and near the Area, particularly along the San Joaquin River. Potential impacts to nesting raptors could result from the loss of nesting habitat, loss of foraging habitat, and disturbance to nearby nesting birds due to construction related disturbances (e.g., noise and activity caused by site grading, road construction, installation of utilities, and installation of buildings). These disturbances could result in the disruption of breeding behaviors, abandonment of nest sites, disruption of feeding behaviors resulting in reproductive failure and/or abandonment of young and death of adults and/or young.

Conclusion: Breeding raptors on and within 1,000 feet of the Area would be at risk from construction related disturbances. These would constitute *significant* adverse project related impacts.

Mitigation Measure #3.4.9i: To protect breeding raptors, the following measures shall be implemented:

1. The typical breeding period for raptors is March 1 to September 1. If construction commences between March 1 and September 1, surveys will be conducted 30 days prior to the start of construction for the project. The raptor nesting surveys shall include examination of all trees and shrubs on the project site and within a ~~1,000~~ 300 foot area of influence surrounding the Site. If construction begins between September 2 to February 28, nest surveys will not be required since this is outside the typical breeding period for raptors. Surveys need only be performed in areas containing suitable nesting habitat as determined by a qualified biologist.
12. If nesting raptors are identified during the surveys on the project site or within the 300 foot areas of influence, a 300-foot radius buffer around the nest tree or shrub must be fenced with orange construction fencing or rope and flagging. If a nest site is on an adjacent property, the portion of the buffer that occurs on the Site shall be fenced with orange construction fencing. The 300-foot buffer may be reduced in size if a qualified biologist determines through monitoring that the nesting raptors are acclimated to people and disturbance, and otherwise would not be adversely affected by construction activities. The buffer areas shall not be reduced in size to less than a radius of 200 feet. When construction buffers are reduced in size, the biologist shall monitor distress levels of the nesting birds while the birds nest and construction persists. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the qualified biologist shall re-implement the full 300-foot buffer.
23. No construction or earth-moving activity shall occur within a non-disturbance buffer until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but September 1 is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, disturbance buffers will no longer be needed and can be removed, and monitoring can be terminated.

Effectiveness of Mitigation: The implementation of mitigation measure 3.4.9i would reduce impacts to nesting raptors to a level that is *less than significant*.

Impact #3.4.9j – Impacts to common and special status nesting birds

The grasslands, Great Valley Mixed Riparian Woodlands, and other wooded areas of the Existing Friant Community Plan Area provide potential nesting habitat for common bird and special status bird species. Birds protected pursuant to the Migratory Bird Treaty Act of 1918

and California Department of Fish and Game Code §3503 and §3800 could nest within the Area and may be disturbed to an extent that eggs and/or young would be lost.

capable of supporting American badgers.. Badgers are likely transient foragers on the Existing Community Plan Area , but may also den within the Area.

Conclusion: Mortalities to badgers caused by construction activities would be a *significant* adverse impact.

Mitigation Measure #3.4.9k: The following measures shall be implemented to ensure that impacts to American badgers are *less than significant*:

1. Pre-construction surveys shall be conducted in development zones no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, or any project activity likely to impact the American badger. If construction activities (including ground disturbing activities) are phased, then so shall the pre-construction surveys be phased.
2. If dens are found within the construction area and require removal, they shall be monitored for badger presence using a tracking medium or a video probe. Tracking medium must be monitored for 3 consecutive days to provide evidence of vacancy. All dens and burrows within the construction area and which contain badger sign must be hand excavated by a trained wildlife biologist. ~~Dens must be replaced at a ratio of 2 artificial den for each natural dens removed. Replacement dens may be constructed within grassland habitat on site, within the open space, conservation area. Replacement dens shall consist of 6 inch diameter plastic corrugated sewer pipe cut to a 6 foot length. One end of the pipe shall be buried no deeper than 2 feet and no less than 1 foot below grade. The other end of the pipe shall remain above ground. Dirt shall be mounded above the pipe to a depth of at least 1 foot above grade, with the opening exposed. If a den is found to be occupied by a badger, the den shall not be excavated until the badger is allowed to passively vacate the den.~~
3. If dens are located within 100 feet of construction areas, but not within construction areas, they shall not be removed. Instead, exclusion fencing shall be constructed around the den (s). The exclusion fencing shall consist of plastic construction fencing held in place by t-posts every 25 feet, or by a rope and flagging fence. The purpose of the fencing is to exclude construction activities occurring near the den (s).
4. Project-related vehicles shall observe a 20-mph speed limit while on the project site, except on County roads and State and Federal highways. This is particularly important at night (between sunset and sunrise) when American badgers are most active. Construction activities at night (sunrise to sunset) should be prohibited, ~~unless:~~
 - a. ~~The construction area is appropriately fenced to exclude American badgers. Appropriate fencing would consist of a 4 foot chain link fence or similar material (e.g., 2 inch mesh stock fence) buried at least 6 inches below grade.~~
 - b. ~~The area within any such fence should be inspected by a qualified biologist for badger dens, all dens must be removed, and the site determined to be uninhabited by American badgers prior to initiation of construction.~~

5. Off-road construction traffic outside of designated construction areas shall be prohibited.
6. To prevent inadvertent entrapment of American badgers or other animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals by a qualified biologist or trained monitor.
7. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.
78. American badgers are attracted to den-like structures such as pipes and may enter stored pipe, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored in an unfenced storage yard (see item 4a and b above for appropriate fencing and clearance conditions) for one or more overnight periods should be thoroughly inspected for American badgers before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. Inspections may be conducted by a qualified biologist or trained monitor. If necessary, and under the direct supervision of a biologist, a pipe inhabited by a badger may be moved once to remove it from the path of construction activity, until the animal has escaped.
89. During construction, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site.
910. No firearms shall be allowed on the project site during construction activities.
- ~~10. A representative should be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure an American badger, or who finds a dead, injured or entrapped individual. The representative's name and telephone number should be provided to the CDFG.~~
- ~~11. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. If an entrapped animal is incapable of escaping or is otherwise trapped for an excess of 12 hours, the California Department of Fish and Game should be contacted for advice.~~
- ~~12. Any contractor, employee(s), or other personnel who inadvertently kills or injures an American badger should immediately report the incident to their representative. This representative should contact the CDFG immediately in the case of a dead, injured or entrapped American badger. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.~~

Effectiveness of Mitigation: Implementation of mitigation measures 3.4.9k will reduce project impacts to American badgers to a level that is ***less than significant***.

- a. Protection of exposed graded slopes from sheet, rill and gully erosion. Such protection could be in the form of erosion control fabric, hydromulch containing the seed of native soil-binding plants, straw mechanically imbedded in exposed soils, or some combination of the three.
 - b. Protection of natural drainage channels from sedimentation. ~~Hay bale check dams should be installed below graded areas so that any sediment carried by surface runoff is intercepted and retained behind the check dams before it can enter the creek.~~
 - c. Use of best management practices (BMPs) to control soil erosion and non-point source pollution. BMPs may include measures in 1 and 2 above, but they may include any number of additional measures appropriate for this particular project site and this particular project, including grease traps in parking lots, landscape management practices to reduce the use of pesticides and herbicides, the discharge of stormwater runoff from “hardscapes” into grassy swales, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.
2. Where possible, project construction should be confined to the dry season, when the chance for significant rainfall and stormwater runoff is very low. Construction during the spring, summer, and fall will not eliminate the need to implement erosion control measures described in mitigation measures above, but will ensure that the threat of soil erosion has been minimized to the maximum extent possible.
 3. All post-construction runoff will be routed through a system of grease traps, stormwater retention/detention basins, and bio-filtration swales to ensure that water quality of on-site and off-site wetlands, creeks and rivers are maintained at roughly pre-project levels.

Effectiveness of Mitigation: Compliance with these mitigation measures would reduce impacts to the quality of stormwater runoff leaving each project site to a ***less than significant level***.

Impact #3.4.12 – Impacts to Fish or Wildlife Movement Corridors within the Existing Friant Community Plan Area
[Evaluation Criteria d]

The only substantial fish and wildlife movement corridor through the Existing Friant Community Plan Area is the San Joaquin River and associated riparian habitat zone. Terrestrial species can move from upstream areas around Millerton Lake to downstream habitats that are preserved as part of the San Joaquin River Parkway. Development of lands near the River corridor would not significantly affect fish and wildlife movement in the region.

Conclusion: Degradation of the riparian habitat corridor could obstruct wildlife movements and result in ***significant*** adverse environmental impacts.

Mitigation Measure #3.4.12: Implementation of mitigation measures 3.4.10, 3.4.11a and 3.4.11b will ensure that the riparian zone around the San Joaquin River and water quality in the

3.5 Cultural Resources

INTRODUCTION

This section evaluates the potential impact of the Project on cultural resources (“cultural resources” herein refers to any tangible or observable evidence of past human activity, regardless of significance, found in direct association with a geographic location, including tangible properties possessing intangible traditional cultural values, including archaeological, paleontological, and historical resources). Phase I and II studies have been conducted within the Friant Ranch Specific Plan Area, (including analysis of the Beck Property) as documented in the reports entitled *An Update of Wren's 1992 Archaeological Survey of the Bigelow Property (Friant Ranch), Friant, Fresno County, California* (Roper 2008) and the *Phase Two Archaeological Testing and Evaluation of Prehistoric Site CA-FRE-2653, Friant, Fresno County, California* (Sierra Valley Cultural Planning, May 2008) and the Addendum to the aforementioned report dated June 2009. Detailed surveys have not been conducted for all vacant lands within the existing Community Plan ~~are~~ Area and are therefore analyzed at a programmatic level. This section also contains a discussion of the regulatory context for the Project.

The 2008 study conducted by Roper within the Friant Ranch Specific Plan Area resulted in the re-recording of three prehistoric period resources and two historic period resources. These resources have been evaluated under the significance criteria identified below. The only significant cultural resource discovered in the Friant Ranch Specific Plan is a prehistoric period site CA-FRE2653. Figure 3.5-1 shows the location of each potential cultural resources site.

This analysis also addresses the potential for other cultural resources to be present within the Project Area, including prehistoric and historic period archaeological resources, as well as potential effects of the Project on these resources.

Significant Cultural Resources

Virtually any physical evidence of past human activity can be considered a cultural resource, although not all such resources are considered to be significant. They often provide the only means of reconstructing the human history of a given site or region, particularly where there is no written history of that area or that period. Consequently, their significance is judged largely in terms of their historical or archaeological interpretive values. Along with research values, cultural resources can be significant, in part, for their aesthetic, educational, cultural and religious values.

Once a cultural resource is evaluated, if it is found to be significant, it is then called a historic property under federal law, or a historical resource under California law, depending on whether federal and/or state regulations apply. For purposes of this analysis, significant cultural resources include: (1) any historical resource (or historic property) that meets the criteria for listing on the National Register of Historic Places or the California Register of Historical Resources; (2) a resource that is included in a local register of historical resources; (3) any unique archaeological resource; or (4) any other resource that the County deems to be a historical resource as defined in Public Resource Code sections 5020.1(j) and 5024.1. Under state and federal law, this analysis need not consider impacts to insignificant cultural resources.

milling features. Prior to issuance of a grading permit affecting the area surrounding the significant cultural resource site (CA-FRE-2653), the developer shall do one of the following:

3.5.1a(1): Retain a qualified archaeologist to identify and mark the boundaries of the cultural deposit so that it is avoided during construction. The significant cultural resource site (CA-FRE-2653) shall be included within a designed open space within the Friant Ranch Specific Plan Area, which may include interpretive information regarding the archaeological site; or

3.5.1a(2): If avoidance of the significant cultural resource site (CA-FRE-2653) through design, during construction activities, and long-term protection are not feasible, then treatment of significant effects on the site(s) shall be accomplished through a program of controlled data recovery. A qualified archaeologist shall meet at the site and review the development plans vis-à-vis the significant cultural resource site (CA-FRE-2653) area and put together a data recovery plan (Phase III) to recover the information that would be lost as a result of Project development. The archaeologist shall excavate the significant cultural resource site (CA-FRE-2653) and recover the materials that would otherwise be destroyed. The bedrock milling features will be thoroughly documented; therefore any adverse impacts as a result of disturbance to these features would be mitigated. Such work is designed to compensate for the impacts of the Project by collecting a representative sample of the cultural remains and other data that would otherwise be destroyed.

Mitigation Measure #3.5.1b: A qualified archaeologist and a member of the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government shall be retained by the developer to monitor construction activities around the significant cultural resource site (CA-FRE-2653) to ensure that there is no impact to any significant cultural resource. Prior to construction, the developer shall consult with a designated representative of the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.

Mitigation Measure #3.5.1c: Cultural resource sites protected pursuant to mitigation measure 3.5.1a(1) shall be protected after development from vandalism, illicit excavation or artifact collection. The County shall discuss measures for long-term protection with the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government, and an appropriate plan for permanent protection of the resource shall be instituted by the developer prior to issuance of building permits for the Friant Ranch Specific Plan. The final plan could include any or all of the following: permanent fencing; funding for permanent maintenance of the fencing; annual or semi-annual monitoring by archaeologists and/or by the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government with reports filed with the County and other agencies; acquisition of the site by a group such as the Archaeological Conservancy.

Mitigation Measure #3.5.1d: During construction within the Friant Ranch Specific Plan Area, protected cultural resource sites (including CA-FRE-2651, -2652, -2653) shall be protected from vandalism, illicit excavation or artifact collection, or inadvertent direct impact. This may be accomplished in part through the installation of orange protective fencing prior to initiation of any construction activities within 200 feet of the site area.

Mitigation Measure #3.5.1e: If unknown cultural resources are discovered during Project construction, all work in the area of the find shall cease, and a qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.

Mitigation Measure #3.5.1f: Construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the Project Area, and shall be instructed in the identification of artifacts, bone and other potential resources. For any construction within the Project area, all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Mitigation Measure #3.5.1g: If unknown cultural resources are discovered during future development in the existing Friant Community Plan Area, including the Depot parcel, all work in the area of the find shall cease, and a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor shall be retained by the developer, and approved by the County, to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological or paleontological resources are discovered during earth moving activities, all construction activities within 50 feet of the find shall cease until the archaeologist evaluates the significance of the resource. In the absence of a determination, all archaeological and paleontological resources shall be considered significant. If the resource is determined to be significant, the archaeologist, as appropriate, shall prepare a research design for recovery of the resource in consultation with SHPO that satisfies the requirements of Public Resources Code Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the developer shall submit the report to the regional office of the California Historical Resources Information System and Fresno County.

Mitigation Measure #3.5.1h: Future construction personnel shall be informed of the potential for encountering significant archaeological or paleontological resources within the existing Friant Community Plan Area (other than Friant Depot Parcel and Friant Ranch Specific Plan Area), and shall be instructed in the identification of artifacts, bone and other potential resources. For any future construction within the existing Friant Community Plan Area (other than Friant

Depot Parcel and Friant Ranch Specific Plan Area), all construction personnel shall be informed of the need to stop work on the construction site until a qualified archaeologist and a Dumna Wo-Wah Tribal Government Monitor has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel shall also be informed that unauthorized collection of cultural resources is prohibited.

Effectiveness of Mitigation: Implementation of the mitigation measures above will reduce the potential impacts to cultural resources to a *less than significant level*.

Impact #3.5.2 – Disturbance of Human Remains [Evaluation Criteria (d)]

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 et seq. of the California Public Resources Code and Sections 7050.5, 7051, and 7054 of the California Health and Safety Code. Disturbing human remains could violate these provisions, as well as destroy the resource.

Human remains may be present at the significant cultural resource site (CA-FRe-2653), and it is possible that historic period or prehistoric period interments are present elsewhere in the Project Area. If the significant cultural resource site (CA-FRE-2653) is protected as described in the mitigation measures above, then there should be no impact to human remains. If human remains are found outside of the significant cultural resource site (CA-FRE-2653), potential significant impacts related to the inadvertent discovery may result unless mitigated.

Mitigation Measure 3.5.1b, set forth above, provides for consultation with the ~~Table Mountain Rancheria~~ Dumna Wo-Wah Tribal Government to ensure that appropriate steps are taken in the event human remains are inadvertently discovered during construction activities.

Conclusion: Construction activities under the Project could result in the disturbance of human remains. This impact is *potentially significant* and the following mitigation measure is required to address the impact.

Mitigation Measure #3.5.2: If human remains are encountered during Project construction, all work shall cease within 50 feet of the find and the Fresno County Coroner's Office shall be contacted and procedures implemented pursuant to California Public Resources Code Section 5097 et seq. and California Health and Safety Code Sections 7050.5, 7051, and 7054 with respect to treatment and removal, Native American involvement, burial treatment, and re-burial, if necessary.

Effectiveness of Mitigation: Implementation of the mitigation measure above will reduce the potential impact to a *less than significant level*.

Impact #3.7.8 – Exposure to Hazardous Conditions **[Evaluation Criteria (i)]**

Proximity of the proposed project to the Friant-Kern Canal and potentially abandoned water wells could pose a hazard to future Friant Community Plan area residents. Public access to the Friant-Kern Canal is precluded by installation of appropriate barriers and fencing. Abandoned wells will be sealed as legally required.

Conclusion: Installation of appropriate barriers and fencing along the Friant-Kern Canal and compliance with provisions of law pertaining to well abandonment will reduce this potential impact to a *less than significant* level.

Mitigation Measures: No mitigation measures are required.

3.8 Hydrology and Water Quality

INTRODUCTION

This section discusses those aspects of the Project that have the potential to impact existing hydrology and water quality in the Project area during and after implementation of the Project. Issues such as storm water drainage, groundwater depletion and recharge, water quality, waste water treatment, waste water effluent disposal and flooding are discussed in this section. The adequacy of the proposed Project water supply and related effects of any change in hydrology (i.e., snowpack and rainfall) due to climate change are addressed in section 3.15 Greenhouse Gas Emissions and Global Climate Change.

3.8.1 REGULATORY SETTING

Federal Water Pollution Control Act (Clean Water Act)

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. The Act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff.

CWA Section 402 regulates point source discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program. In California, the State Water Resources Control Board (SWRCB) oversees the NPDES program, which is administered by the Regional Water Quality Control Boards (RWQCBs). The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits. The Project proposes to collect and treat wastewater from the new development at a new wastewater treatment facility that will be constructed near the project boundaries.

Section 402(p) of the CWA establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES permit program. Section 402(p) requires that stormwater associated with municipal and industrial activities that discharge either directly to surface waters or indirectly through separate municipal storm sewers be regulated by a NPDES

permit. In 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting storm water discharges from industrial sites (including construction sites that disturb five acres or more) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain individual storm water permits. On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II, requiring permits for storm water discharges from “regulated Small MS4s” and from construction sites disturbing between one and five acres of land. In California, regulated Small MS4s are subject to a General NPDES permit adopted by the SWRCB (Water Quality Order No. 2003-0005-DWQ (General Permit for Small MS4s)). An entity subject to the General Permit includes a Small MS4 automatically designated by U.S. EPA pursuant to 40 CFR section 122.32(a)(1) because it is located within an urbanized area defined by the Bureau of the Census; or, because it has been so designated by the SWRCB or RWQCB after consideration of a number of factors including high population density, high growth or growth potential, interconnection to permitted MS4,

published regulations that govern the quality of recycled water and the purposes for which it may be used (22 C.C.R. §§ 60301 et seq.). All recycled water uses are subject to water reclamation requirements issued by the RWQCB and are required to comply with recycled water use criteria established by DPH.

Federal Emergency Management Agency

Special Flood Hazard Areas (SFHA) are determined by the Federal Emergency Management Agency (FEMA), which creates Flood Insurance Rate Maps (FIRMs) designating SFHAs, commonly referred to as “flood plains.” These maps assist local jurisdictions in mitigating flooding hazards through land use planning and building permit requirements. To address the need for insurance to cover flooding issues, FEMA administers the National Flood Insurance Administration (NFIA) program. The NFIA program provides federal flood insurance and federally financed loans for property owners in flood prone areas. To qualify for federal flood insurance, the County must identify flood hazard areas and implement a system of protective controls. According to ~~FEMA FIRM number 06019C1030F, dated July 19, 2001~~ FEMA FIRM number 06019C1030h, dated February 18, 2009, there is one large vernal pool located in the southwestern corner of Friant Ranch which is shown to be within the Zone A, 100-year flood boundary (reference Figure 3.8-1). The 100-year floodplain is the area that has a one-percent chance of being flooded in any given year. Much of the area along the San Joaquin River, west of Friant Road and within the Community Plan boundary, is also within the 100-year flood boundary Zone A and Zone AE designations.

United States Bureau of Reclamation

The United States Bureau of Reclamation (USBR) is the sole source State of California water right permit holder for the stored San Joaquin River water impounded by, diverted, and released from Friant Dam. USBR provides service contracts for use of stored water from the CVP Friant Division to the 31 water agencies designated as CVP Friant Division “long-term contractors.” USBR has existing long-term service contracts with WWD #18 and LTRID.

Each of the separate renewal contracts expires on February 28, 2026, with one 25-year renewal provision. If a USBR contractor wishes to renew its respective contract pursuant to the 25-year renewal provision beyond the current expiration date, the contractor must submit a formal written request to the Secretary of the Interior two years prior to the date of expiration. In addition, each USBR contractor must also comply with certain conditions, such as: prepare a water conservation plan, implement the plan, operate and maintain all water measuring devices, use contract water supply in a reasonable and beneficial manner.

treatment system is owned and operated by Fresno County Service Area #44 and needs replacement due to operational dysfunction and capacity constraints. Currently, the lack of a wastewater treatment plant hinders economic development in the Friant Redevelopment Area.

Stormwater

Much of the highland area east of the Friant Ranch Specific Plan Area, east of the Friant-Kern Canal, drains naturally through the Project Area. Two existing drainage areas east of the canal cross under the canal in culverts and enter the Project Area at the Friant Ranch Specific Plan site. The largest of the drainage areas skirts the most southeasterly edge of Friant Ranch Specific Plan Area along the west side of the canal and continues on to the adjoining property to the south. The other drainage area enters the central portions of the Friant Ranch Specific Plan site, passes through natural swales and exits along the property's western edge as the drainage continues to flow toward and eventually into the San Joaquin River. Stormwater in the remaining Friant Community Plan Area including the Lost Lake Recreation Area is conveyed via storm drain outlets and culverts which ultimately drain into the San Joaquin River.

Flooding

The natural slope of the land within the Project Area is toward the San Joaquin River, which naturally minimizes flooding and facilitates drainage. Portions of Lost Lake Recreation Area are subject to intermittent flooding by the river during heavy rainfall conditions, particularly in the winter and spring months. Some localized drainage difficulties exist within the existing Friant Community Plan Area where the streets are not paved. Figure 3.8-1 portrays the Special Flood Hazard Areas within the project vicinity.

The Lost Lake Recreation Area is located within the Community Plan Area on the eastern bank of the San Joaquin River, just west of Friant Road. The park is made up of approximately 273 acres. A Reclaimed water is planned to be used to irrigate a portion of Lost Lake Park may be irrigated with reclaimed water from the Project, at the request of Fresno County, to enhance the existing recreational area. This use of reclaimed water for irrigation of Lost Lake Park will be carried out in phases, as reclaimed effluent volume increases with project build-out. The preferred option for effluent disposal is at the Beck Property, located south and east of Lost Lake Park. Except for a small strip of non-irrigable land (40 feet wide) abutting the river at the south end of the Beck Property (see Figure 2-6), the Beck Property is situated more than 700 feet from the 100-year flood plain associated with the San Joaquin River.

3.8.3 IMPACT EVALUATION CRITERIA

The following thresholds of significance are based on Appendix G of the 2008 CEQA Guidelines. For purposes of this EIR, a project will normally have significant adverse impacts associated with hydrology, flooding and/or water quality if it would do any of the following:

- a) Violate any water quality standards or waste discharge requirements.*
- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local*

groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

substantially contribute to significant adverse impacts to one or more beneficial uses. The 23 constituents of concern from both sources are shown below in Table 3.8-6.

Table 3.8-6
Constituents of Concern for
Proposed WWTP Effluent

4,4'-DDD
4,4'-DDE
4,4'-DDT
Aluminum
Cadmium
Chlordane
Copper
Dissolved Oxygen
Endosulfan I
Endosulfan II
Heptachlor epoxide
Lead
Nickel
Polychlorinated biphenyls 1016
Polychlorinated biphenyls 1221
Polychlorinated biphenyls 1260
Silver
Temperature
Turbidity
Whole effluent toxicity, acute
Zinc
Electrical Conductivity

Source: Friant Ranch WWTP Aquatic Biological Resources
Assessment, Robertson-Bryan, Inc., 2008.

According to the Water Quality Assessment, although the proposed discharge of effluent to the San Joaquin River will significantly lower existing high quality water for copper, zinc and EC, ~~the proposed such river discharge~~ is not expected to cause or contribute to a violation of applicable water quality criteria or objectives in the receiving water. Further, based on the surface water dilution analysis, the proposed discharge of effluent is not expected to otherwise substantially degrade existing water quality because the proposed discharge of effluent will not cause or substantially contribute to significant adverse impacts to one or more beneficial uses. For all other identified constituents of concern, the proposed effluent discharge will not significantly lower existing high quality waters (groundwater and surface water), and the proposed effluent quality is expected to be below all other applicable water quality criteria and/or objectives.

The Aquatic Assessment conducted separate impact assessments for all of the constituents of concern identified in Table 3.8-6 except for electrical conductivity. Electrical conductivity was not assessed as part of the Aquatic Assessment because it is not a constituent of concern for aquatic life. According to the Aquatic Assessment, aluminum, cadmium, copper, dissolved oxygen, lead, nickel, silver, temperature, turbidity, whole effluent toxicity (acute and chronic), and zinc would all have a less-than-significant impact on the fish and aquatic resources of the San Joaquin River because the proposed discharge of effluent is not expected to cause or

Irrigating portions of the Project and surrounding areas such as Lost Lake Park using reclaimed water will be just one of many tools employed to achieve conjunctive reuse of treated effluent and help maintain a balance of water supply and demand in the Project area.

Nothing in the Friant Ranch Infrastructure Master Plan shall be construed as requiring exclusive use of reclaimed water for irrigation of any or all of the open spaces within the Project Area, but to the maximum extent lawful and practical, wastewater effluent produced during the irrigation season shall be conjunctively reused either as reclaimed water or for landscape irrigation.

Use of reclaimed water will not create any significant stormwater impacts to land adjacent to the irrigation areas or to the San Joaquin River. RWQCB restrictions against applying treated effluent 24 hours before or after rain will minimize the potential impact of stormwater carrying pollutants from onsite landscaping, the Beck Property, Lost Lake Park, or other similarly situated properties used for disposing effluent, to adjacent lands or the San Joaquin River. Stormwater impacts related to the use of treated effluent to irrigate onsite landscaping, the Beck Property, Lost Lake Park, or other similarly situated properties is are less than significant.

Wetlands

It is anticipated that the proposed fill of jurisdictional wetlands and drainage areas draining east-west and to the south of the Project site will require permits under Section 404 of the Clean Water Act prior to grading of the site. The applicant has met with the Army Corps of Engineers to discuss the phased grading limits that contribute flows to the corresponding streams and obtain the necessary permits as part of the design development phase of the Project. The applicant has filed a Clean Water Act 404 permit application with the Army Corps of Engineers. The Central Valley Regional Water Quality Control Board will consider a Clean Water Act section 401 certification of the federal permitting action to ensure that the effects on wetlands will not violate State water quality standards.

Seasonal wetlands occur on approximately 35 acres of the site and include northern hardpan vernal pools, wetland swales, and wetland channels (LOA 2007). None of these wetlands connect directly to the San Joaquin River, but instead form an interconnected network of wetland drainages and vernal pools (LOA 2007). Proposed development will result in the direct loss of approximately 2.3 acres of the 14.38 acres of vernal pools on the Project site.

The Project has been designed to avoid the majority of vernal pools on the Project site. Of the 14.38 acres of vernal pool habitat identified on the Project site, 12.1 acres of vernal pools will be protected within ~~249.8~~ 245 acres of designated undisturbed open space that will be placed under a conservation easement.

Section 3.4, Biological Resources, includes mitigation measures (#3.4-1b) to reduce the potential impacts to vernal pools to a less than significant level. The LID approach as noted previously will maintain stormwater runoff at pre-Project flow levels. The Project impact to wetlands/vernal pools will be less than significant.

Conclusion: The Project is not expected to cause or contribute to any violation of applicable water quality standards or substantially degrade existing water quality. Compliance with existing local, State and federal regulations, including the specific water quality standards set forth in the Tulare Lake Basin Plan and the Sacramento-San Joaquin Basin Plan, and adherence to the Fresno County General Plan policies, design of the proposed tertiary treatment wastewater facility, LID BMP's for stormwater as well as the policies described in the proposed Community Plan Update and Specific Plan will reduce this impact to a *less than significant* level.

Mitigation Measures: Mitigation Measures 3.8.3, ~~3.4.4~~, 3.4.3b, 3.4.1c and 3.14.3a-i will further reduce potential impacts to water quality degradation to a less than significant level. No additional mitigation measures are required.

Impact #3.8.2 – Depletion of Groundwater or Interference with Groundwater Recharge [Evaluation Criteria (b)]

As discussed in Section Five of the Water Supply Assessment (WSA) attached hereto as Appendix B, the Project will not rely on groundwater resources within the Friant Community Plan Area as the water supply for the Project development. WWD #18 also does not utilize groundwater supplies to serve existing users within the Friant Community, which is known as the “Western Service Area.” However, WWD #18 plans to use separate infrastructure to serve groundwater supplies to Mira Bella (which is outside the Friant Community and referred to as WWD 18’s “Eastern Service Area”). Additionally, nine individual residences within the Friant community rely on private groundwater wells. The Project will not change the amount of groundwater used in or out of the Project area and thus will have no effect on depletion of groundwater resources. Refer to Section 3.14 for a full discussion on Water Supply.

The WSA prepared for the Project (approved and adopted by Fresno County Waterworks District #18, Resolution 08-02) ~~prepared for the Project~~ (attached hereto as Appendix B) discusses the estimated water demands and proposed water sources for the Friant Ranch Specific Plan, in addition to existing and planned future uses for the remaining land within WWD #18 (i.e., the existing Friant Community Plan Area). According to the WSA, the Friant Ranch Specific Plan’s estimated average annual demand of 1,471 af (which is further explained in section 3.14 Utilities) will be met with the following water supplies:

Long-term surface water availability for Friant Ranch is derived from an agreement in principle between WWD #18 and the Lower Tule River Irrigation District (LTRID) for 2,000 af per year of Class 1 supply from the Central Valley Project (CVP), Friant Division under a USBR contract with LTRID. Upon completion of environmental review and USBR approvals, LTRID and WWD #18 will consider authorization of the formal agreement to memorialize the water transfer (Water Supply Agreement). To make up to 2,000 acre feet of its CVP contract water supply available to WWD 18 for the Project each year, LTRID will utilize its new water distribution facilities, the Tule River Intertie, to divert Tule River water supplies to groundwater recharge either by direct or in-lieu recharge. The Tule River Intertie was subject to separate environmental review and was still under construction when this Draft EIR was drafted. This recharge operation, and subsequent use of Tule River supplies

conformance with the basin calculations and conformance with the basin design guidelines provided in the Friant Ranch IMP.

Effectiveness of Mitigation: Implementation of the above mitigation measures will reduce the impact to a *less than significant* level.

Impact #3.8.4 – Placement of Housing or Other Improvements Within a 100-year Flood Hazard Area
[Evaluation Criteria (g) and (h)]

According to ~~FEMA map number 0619C1030F, dated July 19, 2001~~ FEMA FIRM number 06019C1030H, dated February 18, 2009, only a portion of the Friant Community Plan Area along the San Joaquin River, west of Friant Road, and the playa pool at the southwest corner of the Specific Plan area, are within the 100-year flood zone (reference Figure 3.8-1). The areas located within the 100-year flood zone are not being developed or altered from their existing state. Therefore, the Project will not result in a significant increase in exposure of the public to flood hazards defined by FEMA.

According to ~~FEMA map number 0619C1030F, dated July 19, 2001~~ FEMA FIRM number 06019C1030H, dated February 18, 2009, there is one large vernal pool located in the southwestern corner of the Friant Ranch Specific Plan area which is listed within the Zone A, 100-year flood boundary (reference Figure 3.8-1). This area is not proposed for development and will be left in its natural state pursuant to mitigation measure 3.4.1b in Section 3.4 Biological Resources.

Conclusion: The Project will have a *no impact* with regard to placing structures in a 100-year flood hazard area.

Mitigation Measures: No mitigation measures are required.

Impact #3.8.5 – Seiche, Tsunami, Mudflow, or Flooding as a Result of Dam Failure
[Evaluation Criteria (i) and (j)]

The Project Area is not located near a body of water which could generate seiche or tsunami effects. Site topography, as described in the physical setting section, would not result in mudflow events.

Friant Dam and Millerton Lake are located just north of the Project site. An inundation study completed in 1997 by the USBR redefined a worst-case scenario dam break of Friant Dam to include inundation of a significant portion of the City of Fresno and a much larger portion of Fresno County than previously described. In addition, failure of upstream dams on Shaver Lake, Edison, Huntington, Florence, and Mammoth Pool could contribute to flooding conditions on Millerton Lake and subsequently the San Joaquin River if downstream dam capacity is exceeded. According to Figure 9-8 (Figure 3.8-3 of this Draft EIR) of the Fresno County General Plan Background Report, only the portion of the Project Area along the San Joaquin River, west of Friant Road, would be subject to inundation as a result of the failure of Friant Dam. The majority of this land is currently used for recreation purposes and is not proposed for development by the Project.

- a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).*
- b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.*
- c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.*

As noted above, a significant impact on population and housing does nothing itself to result in significant adverse environmental impacts, but may cause physical changes that result in significant adverse environmental impacts. For purposes of this analysis, impacts on population and housing criterion (a) were considered significant if they would result in significant impacts from unplanned growth. Other potential adverse physical changes that could result from the Project's effect on population and housing are evaluated in the other resource-specific sections of this EIR.

3.11.4 IMPACT ANALYSIS

Impact #3.11.1 – Induce Substantial Population Growth [Evaluation Criteria (a)]

Project implementation will have a direct, ~~growth-inducing~~ impact on the area's population and housing stock by facilitating the development of up to 2,996 new households within the Friant Ranch Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area. Friant Ranch will be developed in five phases over a 10-year period. Because the majority of housing units will be occupied by individuals age 55 and over, it is expected that the average household size will be less than Friant's average household size of 2.27. According to the 2001 American Housing Survey by the U.S. Census, the combined demographic for the 55-64 and 65-74 age categories average 1.9 persons per dwelling unit. Thus, the 2,776 age restricted units within the Friant Ranch Specific Plan Area are expected to average at 1.9 persons per dwelling unit. The Friant area is presently rural in character, and the change in population and housing resulting from the Project will be substantial.

As noted above in the thresholds of significance, the primary concern with a significant change in population and housing is whether the change will result in a significant impact associated with unplanned growth. In addition to environmental impacts, unplanned growth can have other deleterious effects, by thwarting the implementation of General Plan and other applicable policies designed to ensure orderly development, or by occurring at a rate that would outpace the availability of essential public services. The Project includes policies and guidelines to control and direct growth in a well-planned manner, thus ensuring that such growth would be compatible with existing and future uses and with the General Plan policies related to growth, would provide needed housing and facilities for a growing segment of the population and would improve jobs and housing opportunities in the community.

The Project is consistent with Goal H-E of the County's Housing Element in that the Project will provide an adequate supply of housing and supportive services for persons with special needs such as persons age 55 years and older. The Project is consistent with policies H-C.1, H-C.2 and H-D.3 in that the Project will provide a full range of quality housing that allows residents access to safe and affordable housing while preserving the character and integrity of existing neighborhoods; will include higher housing densities; and promotes mixed-use development where housing is located adjacent to jobs, services and shopping. The Project is consistent with Policy H-C.6 in that the Friant Community Plan is being updated. The Project is consistent with Fresno County General Plan Land Use Element Policy LU-G.23 in that the necessary public services can be provided in the Project area. ~~The Project will induce substantial population growth in the area, both directly and indirectly, however, not at a rate considered substantial enough to result in a significant environmental impact.~~

Not including the Friant Ranch Specific Plan Area, the majority of land designated residential in the Community Plan Area boundary is built out. The few remaining vacant parcels will be built dependent upon market conditions and need. The U.S. Census shows that Friant's population in 2000 was 519, total households were 226, and total housing units were 236. Vacant housing units in 2000 ~~was~~ were 10 units. The development of those 10 units would result in an increase of approximately 23 persons to the community of Friant. There are approximately 18 acres of Low Density, five acres of Medium Density, and eight acres of Medium High Density designated land in the Friant Community Plan Area that is vacant and available for development. The total number of units (.80 net density to account for right of way) which could be built is approximately 17 Low Density units, 29 Medium Density units and 116 Medium High Density units. At 2.27 persons per household, the total number of additional persons in the Friant Community Plan Area could be 367.

Much of the commercial frontage property on Friant Road is currently either vacant or under utilized. These parcels will develop dependent upon market conditions and need. The majority of land west of Friant Road within the Community Plan Area is designated Agriculture and Open Space and not subject to development.

The redevelopment of properties in the 597-acre Friant Redevelopment Area within the Community Plan Area is subject to available funding sources. The Friant Redevelopment Implementation Plan for the years 2005 – 2009 contains as a primary program, "the design and construction of a sewage treatment and collection system for the commercial strip along Friant Road and for new and existing residential development within the Community of Friant." These improvements have not yet been implemented due to lack of funding sources.

The Friant Ranch portion of the Project will bring new commercial uses into the area that will create new employment opportunities within the Project Area. The jobs created by the commercial areas could be filled by people already living in the area and future residents and would not substantially induce additional population growth. Buildout of the remaining Friant Community Plan Area would also result in new employment opportunities as a good amount of the properties fronting onto Friant Road are vacant, so the potential for new development is available. It is unknown what future uses would develop in Friant and the timing of those future

uses, therefore, it is speculative as to the number of employees that would be generated and when.

The Project will induce population growth in the Friant area, both directly and indirectly. However, the Specific Plan includes policies that will ensure that development does not occur before necessary public services are available, and development is not expected to occur at a rate considered substantial enough to result in any significant adverse impact. The Project's potential impact on growth outside of the Project area is very limited: existing services are generally adequate to serve the Project and its future residents, and new jobs that might be created by the Project can be filled by the existing job-seeking population in the greater Fresno-Madera County area, which has relatively high levels of unemployment. The Project would not extend or result in the creation of new services that would facilitate growth beyond the Project.

Conclusion: Implementation of the Friant Ranch Specific Plan will induce substantial population and housing growth ~~have a direct, growth inducing impact on the area's population and housing stock~~ by facilitating the development of up to 2,996 new households within the Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area. The proposed Project will considerably-accelerate projected population growth within the Friant Community Plan Area, although not at a rate that would be expected to result in any significant adverse impact related to unplanned growth. The Project is consistent with, and promotes, all relevant General Plan land use planning policies and will not have any adverse impact relating to unplanned growth. While the change in population and housing is substantial, because it will not result in any adverse impacts from unplanned growth, the impact is not considered to be adverse. This impact is *less than significant*. ~~and is considered a *significant impact*.~~

Mitigation Measures: No mitigation measures are required. ~~available to reduce this impact to a less than significant level.~~

Impact #3.11.2 – Housing and Population Displacement [Evaluation Criteria (b) and (c)]

Implementation of the Project, including development of vacant parcels in the Friant Community Plan Area and potential development/redevelopment of areas within the Friant Redevelopment Area, would not displace substantial numbers of existing housing or people. In fact, a considerable number of existing structures within the Redevelopment Plan Area are currently underutilized. The Redevelopment Plan amendments will not result in displacement but rather seeks to extend the Redevelopment Plan twenty years in hopes that it will generate redevelopment funding to provide additional infrastructure to support the existing community. The majority of development under the Project will occur in the Friant Ranch Specific Plan Area and include active adult single family homes, multi-family and live/work homes, an active adult recreation center, undisturbed open space, parks and parkways, and a wastewater treatment system. The Friant Ranch Specific Plan development will not displace or replace any existing housing within the Friant Redevelopment Area.

Conclusion: Implementation of the proposed Project would result in ***no impact*** in terms of the displacement of substantial numbers of existing housing units or people.

Mitigation Measures: No mitigation measures are required.

3.12 Public Services and Recreation

INTRODUCTION

This section presents information on existing public services in the Project vicinity, including fire and police protection, schools, and parks and recreation, and describes the potential environmental effects of the Project related to the provision of these services.

3.12.1 REGULATORY SETTING

Fire Protection

Regulations and standards pertaining to fire protection are contained in the adopted portions of the Uniform Fire Code, the Uniform Building Code and standards set by the National Fire Protection Association (NFPA). Applicable planning goals and policies of the Fresno County General Plan relating to fire protection are identified below.

Fresno County General Plan

Goal PF-H To ensure the prompt and efficient provision of fire and emergency medical facility and service needs, to protect residents of and visitors to Fresno County from injury and loss of life, and to protect property from fire.

Policy PF-H.1 The County shall work cooperatively with local fire protection districts to ensure the provision of effective fire and emergency medical services to unincorporated areas within the county.

Policy PF-H.2 Prior to the approval of development projects, the County shall determine the need for fire protection services. New development in unincorporated areas of the County shall not be approved unless adequate fire protection facilities are provided.

Law Enforcement

The Fresno County Sheriff's Department polices the County's unincorporated areas, which are divided among three service zones. Friant is located within Area II, and is served by field training officers, deputies, and detectives. Area II is headquartered in the City of Fresno, approximately 20 miles southeast of Friant. The Sheriff's Department utilizes community oriented policing in Area II, which entails community oriented governing and monthly meetings where residents address problems related to crime and the quality of life. A substation for Area II is planned for in the Millerton New Town Specific Plan Area approximately 3 miles east of the Community of Friant at the intersection of Millerton and Winchell Cove Roads.

Public Schools

Educational services for the Project area are provided by the CUSD. Students in Friant attend Liberty Elementary School (K-6), Kastner Intermediate School (7-8), and Clovis West High School (9-12). It should be noted that Clovis Unified School District has also recently purchased a site for an elementary school in Millerton New Town in the vicinity of the Friant Community. Table 3.12-1 shows student enrollment for Liberty Elementary, Kastner Intermediate and Clovis West High for school years 2001-02 and 2006-07. Student enrollment at each of the schools decreased between 2001-02 and 2006-07.

Table 3.12-1
School Enrollment & Percentage Change
Liberty, Kastner & Clovis West, 01-02 & 06-07

	2001-02	2008-09	%	2009-10	%	Capacity
	Enrollment	Enrollment	Change	Enrollment	Change	
Liberty Elementary	570	540	-5%	530	-2%	648
Kastner Intermediate	1,527	1,205	-21%	1,156	-4%	1,331
Clovis West High	2,877	2,546	-12%	2,442	-4%	2,769

Source: Education Data Partnership, www.ed-data.k12.ca.us and Clovis Unified School District (2002-2010 Data)

By way of comparison, Table 3.12-2 shows CUSD's total enrollment from 1996-97 to 2008-09. The District's student enrollment increased 18 percent (6,837 students) during that period. The two tables below indicate that while Liberty, Kastner and Clovis West's enrollment has been declining, CUSD's overall enrollment has been increasing.

Parks and Recreation

Fresno County has a variety of recreational opportunities that are not only scenic and functional, but also involve significant natural resources. The primary responsibility of the Fresno County Parks Division is to provide, develop, and maintain regional parks and landscaped areas. Regional recreational facilities maintained by the Division in the Project Area include the Lost Lake Recreation Area along the San Joaquin River just below Friant Dam.

Recreation

The following thresholds of significance are based on Appendix G of the 2008 CEQA Guidelines. For purposes of this EIR, the Project may have a significant adverse impact on recreation if it would do any of the following:

- a) *Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- b) *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

3.12.4 IMPACT ANALYSIS

Impact #3.12.1 – Increased Demand for Fire Protection Services and Personnel [Evaluation Criteria (a) i)]

Development of the Project will increase the demand for fire protection services in Friant, which will result in the need for the ~~CDF~~ CFD, which provides fire protection in Friant, to hire more personnel and purchase additional equipment.

The community of Friant is mostly built out; therefore, most of the growth associated with the proposed Project will come from Friant Ranch. However, the Friant Community Plan Area does have the following available vacant land: 18 acres of Low Density; five acres of Medium Density, eight acres of Medium High Density, 31 acres of Highway Commercial and 17 acres of Special Commercial. At build-out, Friant Ranch will include 2,996 total housing units and 250,000 square feet of retail, office, medical, social gathering, light rail, and mixed-use space.

The Draft Friant Community Plan Update includes the following goal and policies to ensure that adequate fire protection is maintained in the Project area.

Goal 6: Support law enforcement, emergency response, and fire protection that respond to the needs of Friant.

Policy 6.1: Ensure that new development does not create a burden on adequate levels of law enforcement services, emergency response services, and fire protection services.

Policy 6.2: The County shall require that adequate police and fire protection be provided to all existing Friant Community residents.

The Draft Friant Ranch Specific Plan states that the Plan will be reviewed to ensure that the development design or fair share costs will adequately fund any additional facility or personnel needed to maintain the fire emergency response time and ISO ratings established in the Fresno County General Plan. Mitigation measure 3.7.6a ensures that the Project will be consistent with General Plan Policy PF-H.1 and PF-H.2 by requiring formation of a CFD to fund additional fire protection personnel and equipment for ~~CDF~~ the Fire District.

The Project is consistent with Fresno County General Plan Policy PF-H.5 in that the Project will be designed to maximize safety and minimize fire hazard risks by requiring all commercial facilities be equipped with fire sprinklers and by prohibiting wood burning fire places in residential homes. The proximity of the ~~CFD~~ fire station will ensure that the Friant Ranch Specific Plan complies with Fresno County General Plan Policy PF-H.8, which calls for an average first alarm response time to emergency calls of 15 minutes in suburban areas such as Friant. The County has determined that adequate fire protection facilities will be available to serve the Friant Ranch Specific Plan Area pursuant to Policy PF-H.2.

Consistent with Section 3.7 Hazards, all major subdivisions shall have a minimum of two (2) points of ingress and egress to allow for emergency access; and the County shall refer development proposals in the unincorporated county to the appropriate local fire agencies for review of compliance with fire safety standards.

Conclusion: Adherence to the existing goal and policies of the Fresno County General Plan and the goals and policies proposed by the Community Plan Update and Specific Plan, and the formation of a CFD consistent with the Friant Ranch Specific Plan and the following mitigation measure, will ensure that additional fire protection services and personnel are provided and that new development will not proceed until sufficient fire protection services are ensured.

Mitigation Measure #3.12.1: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD will be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-H.2, PF-H.5 and PF-H.8. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.

Effectiveness of Mitigation: Implementation of Mitigation Measure #3.12.1 will result in a *less than significant* impact. The funding made available through Mitigation Measure #3.12.1 will ensure that the Project Area maintains acceptable fire protection services and response times for fire protection.

Impact #3.12.2 – Increased Demand for Law Enforcement Services [Evaluation Criteria (a) ii)]

Development of the proposed Project will increase the demand for law enforcement services in Friant. This could require the Fresno County Sheriff's Department, which provides law enforcement protection in Friant, to hire more personnel and purchase additional equipment. Friant is located in the Sheriff's Department Patrol Area II, and is served by field training officers, deputies and detectives. Area II headquarters is located in Fresno, approximately 20 miles southeast of Friant.

The Existing Friant Community Plan Area is mostly built out, therefore, most of the growth associated with the proposed Project will come from Friant Ranch. However, the Friant Community Plan Area does have the following available vacant land: 18 acres of Low Density;

five acres of Medium Density, eight acres of Medium High Density, 31 acres of Highway Commercial and 17 acres of Special Commercial. At build-out, Friant Ranch will include 2,996 total housing units and 250,000 square feet of retail, office, medical, social gathering, light rail, and mixed-use space.

The goal and policies proposed in the Draft Friant Community Plan Update (described previously in Impact #3.12.1) also apply to law enforcement. The Friant Ranch Specific Plan development will require an expansion or rehabilitation of police facilities and personnel in order to achieve the County required staffing ratio of two sworn officers per 1,000 residents (Fresno County General Plan Policy PF-G.2) and to maintain a reasonable emergency response time.

Consistent with Section 3.7 Hazards, all major subdivisions shall have a minimum of two (2) points of ingress and egress to allow for emergency access.

Conclusion: Adherence to the goal and policies proposed in the Draft Community Plan Update will ensure that adequate law enforcement protection is provided to serve future residents of the Existing Friant Community Plan Area, not including Friant Ranch, because the area is mostly built-out with few remaining vacant parcels left to build on.

The Friant Ranch Specific Plan development would have a ***potentially significant*** impact on law enforcement. The following mitigation measure will ensure that the Project impact is less than significant.

Mitigation Measure #3.12.2: Prior to issuance of a building permit for construction within the Friant Ranch Specific Plan Area, a CFD will be established to provide the funding necessary to maintain adequate staffing and facilities to serve the Friant Ranch Specific Plan Area consistent with the standards set forth in the Fresno County General Plan policy PF-G.2 and PF-G.4. The CFD shall be structured to provide initial capital contribution through a per-unit fee and thereafter impose a special tax assessment within the CFD boundaries to fund ongoing operations and maintenance.

Effectiveness of Mitigation: Implementation of Mitigation Measure #3.12.2 will result in a ***less than significant*** impact. The funding made available through Mitigation Measure #3.12.2 will ensure that the Project Area maintains acceptable service ratios (2 sworn officers per 1,000 residents) and response times for law enforcement.

Impact #3.12.3 – Increased Demand on Public Schools [Evaluation Criteria (a) iii)]

The number of students to be generated from a proposed project is determined by the number of proposed residential units multiplied by student generation rates of the local school district. Since most of the Friant community is built out and approximately 2,766 of the proposed 2,996 total units within the Friant Ranch Specific Plan are for active adults (age 55+), the proposed Project will not generate many new students. There are approximately 18 acres of Low Density, five acres of Medium Density, and eight acres of Medium High Density designated land in the Friant Community Plan Area that is vacant and available for development. The total number of

units (.80 net density to account for right of way) which could be built is approximately 17 Low Density units, 29 Medium Density units and 116 Medium High Density units. Using ~~a student generation rates provided by the District in March of 2010 that vary by school location and housing type (single-family or multiple-family units), of 0.661 students/household~~, this could equate to ~~107 72 grade K-6 students, 20 grade 7 and 8 students, and 30 grade 9 through 12 students additional students~~ in the Friant Community Plan Area.

Several Fresno County General Plan policies noted previously would ensure that adequate school facilities and funding are provided to serve projected student growth associated with new development. Consistent with policies PF-I.3, PF-I.5, and PF-I.7 the Friant Ranch Specific Plan Area does not include any school sites because it was determined that an age-restricted community will not generate enough students to require a school site in the Specific Plan Area.

The project is within the Clovis Unified School District (CUSD) and their current fees are \$0.47/sq. ft. for commercial/industrial buildings and \$3.263.23/sq. ft. for residential buildings. ~~However, Government Code 65995.1 limits school fees assessed against age restricted 55+ developments to the maximum rate allowable for commercial/industrial buildings, which is currently \$0.47/sq.ft. pursuant to government Code section 65995(b) and (c). Development within the Project Area will be subject to CUSD school fees in accordance with Government Code 65995.1. The Clovis Unified School District exempts school fees assessed against age restricted 55+ developments when the property owner enters into a Secured Agreement with the District, provides evidence of the entitlements required for senior housing, and a statement of the restrictions on occupancy applicable in the development. Should a residence be later converted to non-age restricted housing, developer fees for the School District would be assessed at the rate in effect at the time of conversion, prior to release of the lien.~~

Conclusion: Because the majority of new housing units are for age 55 and over adults, the Project will not result in the generation of many students. Using a student generation rate of 0.661 students/household, the non-age qualifying multifamily homes (230) in Friant Ranch could result in 152 students at build-out and the remaining Friant Community Plan Area could result in 107 additional students if built-out. Additionally, adherence to the Fresno County General Plan policies, and the payment of CUSD school impact fees, will ensure that adequate school facilities and funding are available. The impact is *less than significant*.

Mitigation Measures: No mitigation measures are required.

Impact #3.12.4– Increased Demand on Parks and Recreation [Evaluation Criteria (a) iv), (b), (c)]

Implementation of the Project will result in an increase in population and subsequently an increased need for open space, parks and recreation facilities within the Project Area. If the passive and active recreational needs of existing and future residents are not met, then this could be a potentially significant impact.

The Project will include 942.2 total acres, of which 20.8 acres will be for two active adult recreation centers; 245.4 acres for undisturbed open space; and 30.0 acres devoted to revegetated open space slopes.

Policy OS-H.2 of the Fresno County General Plan states that “the County shall strive to maintain a standard of five (5) to eight (8) acres of County-owned improved parkland per one thousand (1,000) residents in the unincorporated areas”. Since most of the community of Friant is built out the majority of new development associated with the Project will come from Friant Ranch. The Friant Community Plan Area does have the following available vacant land: 18 acres of Low

The Project is consistent with Fresno County General Plan policies OS-H.9, OS-I.2, OS-I.4, OS-I.2, OS-I.8, OS-I.11, and OS-I.16 in that the Friant Ranch Specific Plan requires recreational trails for pedestrians and bicyclists and open space in the Friant-Millerton area; will provide adequate right-of-ways for designated trails or bikeways; and provide recreation trails in foothill developments.

Conclusion: The current County-owned improved parkland (Lost Lake Park) exceeds the County's per population ratio within the Friant Community (after full build out under the Friant Community Plan Update and Friant Ranch Specific Plan) than the County policy, and the Project-specific parkland dedication for the Friant Ranch Specific Plan exceeds the Quimby Act ratio of 3 acres to 1,000 residents. Therefore, the impact is *less than significant*.

3.13 Transportation/Traffic

INTRODUCTION

The Project would cause an increase in traffic that will affect circulation conditions on the local and regional roadway network. The Transportation Element of the Draft Friant Community Plan addresses established and planned roadways, bicycle and trail routes, alternative modes of transportation, pedestrian facilities, and the potential for light rail transit. The Transportation Element is consistent with the Fresno County General Plan. The Draft Friant Ranch Specific Plan focuses on creating a community circulation network that moves people efficiently and safely throughout Friant Ranch, whether by automobile, bicycle, foot, or by Neighborhood Electric Vehicle (NEV).

A Traffic Impact Study (TIS) – Proposed Friant Ranch Project (Peters Engineering Group, ~~June~~ October 2009, reference Appendix D of this ~~Draft~~ EIR) was prepared to study the potential traffic impacts related to development in the Friant Ranch Specific Plan Area and the Friant Depot Parcel. The TIS does not address Project impacts related to the remaining portion of the Friant Community Plan Area, as future projects in the remaining portion of the Community Plan Area will be subject to site specific traffic analysis (as required by Fresno County guidelines). Except for the proposed land uses for the Friant Ranch Specific Plan Area and the Friant Depot Parcel, analyzed within the TIS, the Friant Community Plan Update does not make any changes to the existing land use designations within the Friant Community Plan Area or specifically propose any development therein. Additional discussions are included related to transit facilities, bicycle facilities, pedestrian facilities, and regional transportation concepts that are not yet planned and funded. This section summarizes key elements of the TIS as well as key Draft Friant Community Plan transportation and circulation policies that will promote long-term efficient circulation operations.

This section includes three parts: (1) The Regulatory Setting describes the applicable transportation policies (including County General Plan policies), standards and regulations that apply to the Project Area. (2) The Physical Setting describes the existing transportation system and relevant characteristics of the Project Area. (3) The third part analyzes the impacts and identifies specific proposed mitigation measures.

Table 3.13-1
Intersection Analysis Summary – Existing Conditions

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour		
		LOS	Delay (sec)	Peak Hour Warrant	LOS	Delay (sec)	Peak Hour Warrant
Road 145 / SR 41	Signal	B	14.7	n/r	B	18.7	n/r
Road 145 / Road 206	TWS	A	7.1	n/r	A	7.4	n/r
SR 41 / Avenue 15	OWS	E	42.6	2/2	F	81.7	2/2
SR 41 / Avenue 12	Signal	C	31.9	n/r	D	45.2	n/r
Friant Road / Road 206	TWS	B	14.7	n/r	C	17.4	n/r
Friant Road / Parker	OWS	B	10.6	n/r	B	11.8	n/r
Friant Road / Granite	OWS	B	10.0	n/r	B	10.9	n/r
Friant Road / Root	OWS	A	9.7	n/r	B	12.1	n/r
Friant Road / Lost Lake	OWS	B	11.1	n/r	B	13.2	n/r
Friant / Willow	TWS	B	13.8	n/r	C	16.1	n/r
Friant / Copper River Entrance	Signal	A	3.9	n/r	A	4.8	n/r
Friant / Copper	Signal	A	7.8	n/r	A	7.0	n/r
Friant / Lakeview Drive	Signal	A	8.5	n/r	A	7.3	n/r
Friant / Champlain	Signal	A	7.7	n/r	A	6.7	n/r
Friant / Fort Washington	Signal	B	13.7	n/r	B	12.3	n/r
Friant / Shepherd	Signal	C	30.1	n/r	D	36.2	n/r
Friant / Audubon Drive	Signal	B	19.7	n/r	E	56.2	n/r
Friant / Fresno	Signal	C	25.2	n/r	C	27.8	n/r
Friant / SR 41 NB Off-ramp	Signal	B	16.6	n/r	B	17.6	n/r
Friant / SR 41 SB Off-ramp	Signal	C	29.6	n/r	B	13.1	n/r
Blackstone / Nees	Signal	E	70.3	n/r	D	43.6	n/r
Herndon / Blackstone	Signal	CF⁽¹⁾⁽²⁾	21.1⁽¹⁾	n/r	CF⁽¹⁾⁽²⁾	27.0⁽¹⁾	n/r
Fresno Street / Nees	Signal	C	26.4	n/r	C	27.3	n/r
Millerton / Winchell Cove	OWS	A	9.0	n/r	B	12.9	n/r
Millerton / Brighton Crest	OWS	B	10.9	n/r	B	11.1	n/r
Millerton / Sky Harbour Road	OWS	B	11.0	n/r	B	12.9	n/r
Millerton / Table Mountain	OWS	A	9.7	n/r	A	9.9	n/r
Millerton Road / Auberry Road	OWS	B	12.2	n/r	B	12.4	n/r
Auberry Road / Copper Avenue	OWS	B	12.9	n/r	B	14.9	n/r
Audubon / Nees	OWS	E	47.2	2/2	E	39.1	2/2
Palm / Nees	Signal	B	16.1	n/r	C	23.2	n/r
Palm / Herndon	Signal	D	40.1	n/r	F	97.0	n/r
Willow / Copper	AWS	B	10.8	n/r	B	10.4	n/r
Willow / International	Signal	B	18.2	n/r	B	15.4	n/r
Willow / Behymer	Signal	B	18.5	n/r	B	18.6	n/r
Willow / Perrin	OWS	C	22.2	n/r	C	22.4	n/r
Willow / Shepherd	AWS	F	92.5	2/2	F	138.6	2/2
Willow / Teague	Signal	B	16.4	n/r	B	15.9	n/r
Willow / Nees	Signal	D	37.8	n/r	D	46.8	n/r
Willow / Alluvial	Signal	C	21.3	n/r	C	27.6	n/r
Willow / Herndon	Signal	C	32.0	n/r	D	38.9	n/r
Willow / Sierra	Signal	B	11.5	n/r	B	12.1	n/r
Willow / Bullard	Signal	D	35.9	n/r	D	41.1	n/r
Willow / Barstow	Signal	B	17.9	n/r	C	28.8	n/r
Herndon / SR 41 SB Off-ramp	Signal	A	6.3	n/r	A	5.1	n/r
Herndon / SR 41 NB Off-ramp	Signal	C	23.2	n/r	C	24.1	n/r

NOTES:

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

⁽²⁾ Consistent with 2025 Constrained Conditions as identified in the City of Fresno Master EIR.

Existing-Conditions Queuing Analysis

The results of the existing-conditions queuing analyses are summarized in Table 3.13-2. Calculated 95th-percentile queues exceeding the storage capacity are identified in bold type.

Table 3.13-2
Queuing Analysis Summary – Existing Conditions

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Road 145 / SR 41	Storage Length	-	35	-	35	530	485	490	420
	A.M. Peak	62	33	27	18	25	70	43	228
	P.M. Peak	125	29	23	97	72	265	42	142
SR 41 / Avenue 12	Storage Length	-	-	-	90	635	150	200	180
	A.M. Peak	38	234	13	5	415	7	7	27
	P.M. Peak	129	36	39	5	682	12	14	27
Friant / Copper River Entrance	Storage Length	-	-	215	215	-	230	250	-
	A.M. Peak	-	-	6	6	-	13	9	-
	P.M. Peak	-	-	11	7	-	10	10	-
Friant / Copper	Storage Length	-	-	250	295	-	200	235	-
	A.M. Peak	-	-	42	8	-	22	8	-
	P.M. Peak	-	-	26	12	-	29	7	-
Friant / Lakeview Drive	Storage Length	-	-	235	-	250	200	250	50
	A.M. Peak	9	9	71	6	14	17	5	5
	P.M. Peak	12	12	50	0	11	26	10	59
Friant / Champlain	Storage Length	-	-	-	-	245	255	230	-
	A.M. Peak	-	-	31	14	3	23	25	-
	P.M. Peak	-	-	28	20	0	25	28	-
Friant / Fort Washington	Storage Length	-	-	125	125	230	200	280	100
	A.M. Peak	16	16	192	15	28	56	19	5
	P.M. Peak	19	19	132	16	29	67	14	3
Friant / Shepherd	Storage Length	-	-	-	225	200	390	245	-
	A.M. Peak	-	-	653	21	6	10	24	-
	P.M. Peak	-	-	228	21	0	1,094	25	-
Friant / Audubon Drive	Storage Length	195	220	245	80	240	195	235	190
	A.M. Peak	130	27	79	35	32	28	54	140
	P.M. Peak	525	134	125	241	98	220	54	113
Friant / Fresno	Storage Length	245	200	250	200	255	195	190	195
	A.M. Peak	160	63	115	14	95	36	10	38
	P.M. Peak	66	83	108	16	196	96	65	98
Friant / SR 41 NB Off-ramp	Storage Length	-	-	-	-	760	760	-	-
	A.M. Peak	-	219	-	-	143	315	-	-
	P.M. Peak	-	2	-	-	128	363	-	-
Friant / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	265	265
	A.M. Peak	-	-	-	-	-	-	639	704
	P.M. Peak	-	-	-	-	-	-	265	245
Blackstone / Nees	Storage Length	245	200	250	200	250	145	265	140
	A.M. Peak	305	39	100	96	52	30	163	1,218
	P.M. Peak	338	43	137	168	93	72	219	253
Herndon / Blackstone	Storage Length	250	200	260	105	265	175	245	180
	A.M. Peak	65	37	47	71 ⁽¹⁾	45	41	84	49
	P.M. Peak	78	122	81	96 ⁽¹⁾	108	33	159	192
Fresno Street / Nees	Storage Length	240	205	245	200	245	200	240	175
	A.M. Peak	42	32	120	40	108	51	84	42
	P.M. Peak	86	45	86	34	131	89	80	32

Table 3.13-2
Queuing Analysis Summary – Existing Conditions (Continued)

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Palm / Nees	Storage Length	95	95	-	205	260	355	140	-
	A.M. Peak	11	15	442	21	81	14	23	27
	P.M. Peak	93	18	448	7	143	46	96	51
Palm / Herndon	Storage Length	255	205	245	185	100	250	245	230
	A.M. Peak	449	48	151	292	91	67	103	418
	P.M. Peak	544	29	149	124	102	56	163	963
Willow / International	Storage Length	245	-	120	-	245	80	245	220
	A.M. Peak	21	23	22	134	53	6	36	19
	P.M. Peak	16	26	19	67	23	8	18	16
Willow / Behymer	Storage Length	245	-	90	-	255	-	255	-
	A.M. Peak	35	28	23	103	59	253	29	16
	P.M. Peak	29	28	35	113	77	184	36	17
Willow / Teague	Storage Length	245	135	245	-	250	45	175	50
	A.M. Peak	12	49	39	78	39	30	31	16
	P.M. Peak	20	43	24	71	87	44	29	16
Willow / Nees	Storage Length	285	-	165	235	300	70	225	225
	A.M. Peak	26	427	104	30	215	38	180	23
	P.M. Peak	40	609	129	32	502	83	279	45
Willow / Alluvial	Storage Length	90	50	205	50	300	50	255	235
	A.M. Peak	58	41	128	49	115	40	55	23
	P.M. Peak	114	62	138	50	313	92	71	21
Willow / Herndon	Storage Length	255	255	305	120	315	185	255	110
	A.M. Peak	89	62	41	55	229	20	77	74
	P.M. Peak	169	194	84	91	252	36	79	49
Willow / Sierra	Storage Length	95	-	150	95	255	75	260	75
	A.M. Peak	18	102	52	36	31	11	43	11
	P.M. Peak	23	69	48	35	34	17	115	10
Willow / Bullard	Storage Length	250	-	265	-	270	135	225	135
	A.M. Peak	81	282	90	435	282	23	383	41
	P.M. Peak	202	442	69	406	268	33	327	30
Willow / Barstow	Storage Length	155	-	190	50	245	75	235	140
	A.M. Peak	11	50	185	42	50	22	62	15
	P.M. Peak	60	253	188	32	59	62	262	17
Herndon / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	285	285
	A.M. Peak	-	-	-	8	-	-	201	83
	P.M. Peak	-	-	-	6	-	-	168	75
Herndon / SR 41 NB Off-ramp	Storage Length	-	-	-	-	-	205	-	-
	A.M. Peak	-	0	-	-	462	528	-	-
	P.M. Peak	-	8	-	-	436	473	-	-

NOTES:

EBL=East Bound Left; EBR=East Bound Right; WBL=West Bound Left; etc.

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

Existing Conditions Road Segment Analyses

The results of the existing-conditions road segment analyses are summarized in Table 3.13-3. Deficiencies are identified in bold type.

- Palm and Herndon Avenues; and
- Willow and Shepherd Avenues.

The following intersections currently exhibit calculated 95th-percentile queues that exceed storage capacity:

- SR 41 and Avenue 12: northbound left-turn;
- Friant Road and Ft. Washington Road: westbound left-turn;
- Friant Road and Audubon Drive: eastbound left-turn;
- Friant Road and the SR 41 southbound off ramp: southbound left-turn;
- Blackstone and Nees Avenues: eastbound left-turn;
- Palm and Herndon Avenues: eastbound left-turn ;
- Willow and Nees Avenues: northbound and southbound left-turns;
- Willow and Alluvial Avenues: eastbound and northbound left-turns;
- Willow and Bullard Avenues: northbound and southbound left-turns; and
- Willow and Barstow Avenues: southbound left-turn.

The following road segments currently operate at substandard levels of service:

- Friant Road between Shepherd Avenue and Audubon Drive; and
- Willow Avenue between Nees and Alluvial Avenues.

Transit service is deficient, and bus service is not provided to the Friant area.

Aviation and Rail

There is no air transportation service in the Friant area. The Fresno Yosemite International airport provides the nearest commercial freight and passenger service, as well as a full range of general aviation services. There are no railroad operations in the Friant vicinity. There is however, an existing railroad right-of-way that parallels the east side of Friant Road.

Gateways and Scenic Corridors

There are no designated gateways or scenic corridors identified in the Friant area. Friant Road from the City of Fresno limits to Lost Lake Road is listed as a Fresno County Designated Scenic Roadway per Policy OS-I.1. There are no State Highways in the Friant area. State Route 41 (SR 41) is located five miles southwest of Friant and SR 99 is 18 miles west of Friant. SR 99 provides for regional movement and inter-regional access through the Central Valley from Bakersfield to Sacramento.

Traffic Impact Study, Scenarios, Level of Service and Methodology

Traffic Impact Study Scenarios

The analyses in the TIS were performed in general conformance with the Caltrans Guide for the Preparation of Traffic Impact Studies dated December 2002. The TIS analyzes Existing, Existing Plus Project, Cumulative (2030) No Project, and Cumulative (2030) Plus Project Conditions. The TIS also includes an assessment of intermediate years, that analyze year 1, year 5, and year

10 project scenarios, which were utilized in the development of mitigation measures (reference Appendix D for complete text). However, for the purposes of the Draft EIR, peak hour analysis and mitigation of identified impacts is included for the following project scenarios:

- Existing Conditions;
- Existing Plus Project Conditions;
- Cumulative (2030) No Project Conditions; and
- Cumulative (2030) Plus Project Conditions.

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m.

For ease of reference, the traffic impacts and mitigation measures discussed in this Chapter 3.13 include references to the traffic impact study conclusions. See “(TR-)” reference after each impact and mitigation measure discussed herein.

Level of Service

The Transportation Research Board Highway Capacity Manual, 2000, (HCM) defines LOS as a qualitative measure describing operational characteristics within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. LOS characteristics for both unsignalized and signalized intersections are presented in Tables 3.13-4 and 3.13-5. LOS characteristics for road segments are presented in Table 3.13-6.

**Table 3.13-4
LOS Characteristics for Unsignalized Intersections**

Level of Service	Description	Average Vehicle Delay (seconds)
A	Little or no delay.	0-10
B	Short delays.	>10-15
C	Average delays.	>15-25
D	Long delays.	>25-35
E	Very long delays.	>35-50
F	Extremely long delays.	>50

Reference: *Highway Capacity Manual*, Transportation Research Board

**Table 3.13-5
LOS Characteristics for Signalized Intersections**

Level of Service	Description	Average Vehicle Delay (seconds)
A	Extremely favorable progression. Most vehicles arrive during green phase. Many vehicles do not stop.	≤10
B	Good progression.	>10-20
C	Fair progression. Significant number of vehicles stopped. Some queues do not clear.	>20-35

Level of Service	Description	Average Vehicle Delay (seconds)
D	Noticeable congestion. Many vehicles stop. Individual cycle failures are noticeable. Queues often do not clear.	>35-55
E	Poor progression. Individual cycle failures are frequent. Queues frequently do not clear.	>55-80
F	Poor progression. Oversaturation. Many individual cycle failures and queues not cleared.	>80

Reference: *Highway Capacity Manual*, Transportation Research Board

Table 3.13-13
Intersection Analysis Summary – Existing-Plus-Project Conditions

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour		
		LOS	Delay (sec)	Peak Hour Warrant	LOS	Delay (sec)	Peak Hour Warrant
Road 145 / SR 41	Signal	B	17.0	n/r	C	21.6	n/r
Road 145 / Road 206	TWS	A	8.7	n/r	A	9.3	n/r
SR 41 / Avenue 15	OWS	E	48.4	2/2	F	96.4	2/2
SR 41 / Avenue 12	Signal	C	31.6	n/r	D	52.9	n/r
Friant Road / Road 206	TWS	E	38.7	1/1	F	331.2	2/2
Friant Road / Parker	OWS	B	12.5	n/r	B	14.0	n/r
Friant Road / Granite	OWS	B	12.3	n/r	C	15.4	n/r
Friant Road / Root	OWS	B	11.5	n/r	C	16.7	n/r
Friant Road / Lost Lake	OWS	F	295.7	2/2	F	*	2/2
Friant / Willow	TWS	F	101.6	2/2	F	200.5	2/2
Friant / Copper River Entrance	Signal	A	3.5	n/r	A	4.4	n/r
Friant / Copper	Signal	A	7.3	n/r	A	6.4	n/r
Friant / Lakeview Drive	Signal	A	8.2	n/r	A	6.9	n/r
Friant / Champlain	Signal	A	6.5	n/r	A	6.7	n/r
Friant / Fort Washington	Signal	B	15.2	n/r	B	15.0	n/r
Friant / Shepherd	Signal	D	36.8	n/r	E	63.9	n/r
Friant / Audubon Drive	Signal	C	21.8	n/r	E	74.3	n/r
Friant / Fresno	Signal	C	25.6	n/r	C	32.7	n/r
Friant / SR 41 NB Off-ramp	Signal	C	20.4	n/r	C	21.6	n/r
Friant / SR 41 SB Off-ramp	Signal	C	29.4	n/r	B	12.2	n/r
Blackstone / Nees	Signal	E	70.7	n/r	D	44.9	n/r
Herndon / Blackstone	Signal	CF⁽¹⁾⁽²⁾	21.2⁽¹⁾	n/r	CF⁽¹⁾⁽²⁾	26.7⁽¹⁾	n/r
Fresno Street / Nees	Signal	C	26.5	n/r	C	27.4	n/r
Millerton / Winchell Cove	OWS	A	9.2	n/r	B	11.6	n/r
Millerton / Brighton Crest	OWS	B	11.5	n/r	B	12.0	n/r
Millerton / Sky Harbour Road	OWS	B	11.2	n/r	B	13.7	n/r
Millerton / Table Mountain	OWS	A	9.9	n/r	B	10.1	n/r
Millerton Road / Auberry Road	OWS	B	12.8	n/r	B	13.1	n/r
Auberry Road / Copper Avenue	OWS	B	13.2	n/r	C	15.6	n/r
Audubon / Nees	OWS	F	58.2	2/2	E	48.8	2/2
Palm / Nees	Signal	B	16.0	n/r	C	24.1	n/r
Palm / Herndon	Signal	D	40.6	n/r	F	101.4	n/r
Willow / Copper	AWS	C	18.6	n/r	C	23.3	n/r
Willow / International	Signal	B	19.3	n/r	B	13.5	n/r
Willow / Behymer	Signal	C	21.7	n/r	B	19.6	n/r
Willow / Perrin	OWS	E	44.3	2/2	E	47.2	2/2
Willow / Shepherd	AWS	F	191.2	2/2	F	266.6	2/2
Willow / Teague	Signal	B	16.7	n/r	B	16.5	n/r
Willow / Nees	Signal	D	44.9	n/r	E	56.3	n/r
Willow / Alluvial	Signal	C	22.5	n/r	C	32.0	n/r
Willow / Herndon	Signal	C	33.0	n/r	D	41.6	n/r
Willow / Sierra	Signal	B	11.3	n/r	B	12.2	n/r
Willow / Bullard	Signal	D	37.6	n/r	D	45.8	n/r
Willow / Barstow	Signal	B	18.0	n/r	C	28.9	n/r
Herndon / SR 41 SB Off-ramp	Signal	A	6.4	n/r	A	5.2	n/r
Herndon / SR 41 NB Off-ramp	Signal	C	23.2	n/r	C	24.0	n/r
Friant / Site Access	OWS	F	68.7	2/2	F	457.0	2/2

NOTES:

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

⁽²⁾ Consistent with 2025 Constrained Conditions as identified in the City of Fresno Master EIR.

Table 3.13-14
Queuing Analysis Summary – Existing-Plus-Project Conditions

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Road 145 / SR 41	Storage Length	-	35	-	35	530	485	490	420
	A.M. Peak	66	35	59	15	27	84	57	255
	P.M. Peak	135	34	63	63	77	317	62	160
SR 41 / Avenue 12	Storage Length	-	-	-	90	635	150	200	180
	A.M. Peak	45	225	13	5	419	7	7	30
	P.M. Peak	135	37	39	5	699	12	14	28
Friant / Copper River Entrance	Storage Length	-	-	215	215	-	230	250	-
	A.M. Peak	-	-	8	10	-	13	16	-
	P.M. Peak	-	-	14	12	-	10	18	-
Friant / Copper	Storage Length	-	-	250	295	-	200	235	-
	A.M. Peak	-	-	53	14	-	20	14	-
	P.M. Peak	-	-	34	19	-	27	12	-
Friant / Lakeview Drive	Storage Length	-	-	235	-	250	200	250	50
	A.M. Peak	10	10	86	7	16	16	8	6
	P.M. Peak	14	14	60	0	13	25	12	0
Friant / Champlain	Storage Length	-	-	-	-	245	255	230	-
	A.M. Peak	-	-	35	18	0	22	34	-
	P.M. Peak	-	-	31	25	0	24	39	-
Friant / Fort Washington	Storage Length	-	-	125	125	230	200	280	100
	A.M. Peak	15	15	200	18	29	56	25	5
	P.M. Peak	19	19	135	20	30	167	21	3
Friant / Shepherd	Storage Length	-	-	-	225	200	390	245	-
	A.M. Peak	-	-	793	48	0	32	62	-
	P.M. Peak	-	-	294	34	0	1,732	76	-
Friant / Audubon Drive	Storage Length	195	220	245	80	240	195	235	190
	A.M. Peak	167	29	89	39	37	31	62	174
	P.M. Peak	585	145	125	254	110	224	59	140
Friant / Fresno	Storage Length	245	200	250	200	255	195	190	195
	A.M. Peak	168	73	132	15	119	41	11	41
	P.M. Peak	67	87	117	16	210	105	66	105
Friant / SR 41 NB Off-ramp	Storage Length	-	-	-	-	760	760	-	-
	A.M. Peak	-	221	-	-	159	455	-	-
	P.M. Peak	-	1	-	-	126	495	-	-
Friant / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	265	265
	A.M. Peak	-	-	-	1	-	-	699	771
	P.M. Peak	-	-	-	339	-	-	264	245
Blackstone / Nees	Storage Length	245	200	250	200	250	145	265	140
	A.M. Peak	307	39	100	126	52	30	165	1,222
	P.M. Peak	340	43	137	173	93	72	223	256
Herndon / Blackstone	Storage Length	250	200	260	105	265	175	245	180
	A.M. Peak	67	38	47	72 ⁽¹⁾	45	41	84	49
	P.M. Peak	79	122	81	102 ⁽¹⁾	108	34	135	184
Fresno Street / Nees	Storage Length	240	205	245	200	245	200	240	175
	A.M. Peak	42	32	120	40	108	51	84	42
	P.M. Peak	87	44	86	34	131	90	80	32

Table 3.13-14 (Continued)
Queuing Analysis Summary – Existing-Plus-Project Conditions

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Palm / Nees	Storage Length	95	95	-	205	260	355	140	-
	A.M. Peak	11	15	467	21	81	15	23	27
	P.M. Peak	-	18	472	7	143	51	96	51
Palm / Herndon	Storage Length	255	205	245	185	100	250	245	230
	A.M. Peak	456	48	151	303	91	67	103	433
	P.M. Peak	565	30	149	124	102	56	163	991
Willow / International	Storage Length	245	-	120	-	245	80	245	220
	A.M. Peak	32	26	27	171	67	6	44	18
	P.M. Peak	26	30	23	87	29	8	23	17
Willow / Behymer	Storage Length	245	-	90	-	255	-	255	-
	A.M. Peak	38	28	23	103	59	436	29	16
	P.M. Peak	35	29	39	125	86	351	40	18
Willow / Teague	Storage Length	245	135	245	-	250	45	175	50
	A.M. Peak	15	52	42	86	42	36	34	18
	P.M. Peak	23	46	26	78	96	49	35	19
Willow / Nees	Storage Length	285	-	165	235	300	70	225	225
	A.M. Peak	34	495	122	33	230	56	145	28
	P.M. Peak	47	619	129	33	502	82	325	51
Willow / Alluvial	Storage Length	90	50	205	50	300	50	255	235
	A.M. Peak	66	41	130	52	117	45	80	25
	P.M. Peak	127	62	138	52	313	94	78	23
Willow / Herndon	Storage Length	255	255	305	120	315	185	255	110
	A.M. Peak	123	62	41	60	229	21	84	100
	P.M. Peak	188	195	84	103	252	37	86	67
Willow / Sierra	Storage Length	95	-	150	95	255	75	260	75
	A.M. Peak	18	102	52	36	31	11	43	12
	P.M. Peak	23	69	48	35	34	18	115	10
Willow / Bullard	Storage Length	250	-	265	-	270	135	225	135
	A.M. Peak	95	286	91	448	288	22	407	43
	P.M. Peak	235	442	69	412	268	34	342	34
Willow / Barstow	Storage Length	155	-	190	50	245	75	235	140
	A.M. Peak	12	50	188	43	51	22	64	15
	P.M. Peak	60	253	211	33	59	64	240	16
Herndon / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	285	285
	A.M. Peak	-	-	-	8	-	-	203	83
	P.M. Peak	-	-	-	6	-	-	172	74
Herndon / SR 41 NB Off-ramp	Storage Length	-	-	-	-	-	205	-	-
	A.M. Peak	-	0	-	-	462	528	-	-
	P.M. Peak	-	8	-	-	436	473	-	-

NOTE:

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

Table 3.13-16
Intersection Analysis Summary – 2030 No-Project Conditions

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour		
		LOS	Delay (sec)	Peak Hour Warrant	LOS	Delay (sec)	Peak Hour Warrant
Road 145 / SR 41	Signal	F	267.7	n/r	F	632.0	n/r
Road 145 / Road 206	TWS	F	116.7	2/2	F	198.7	2/2
SR 41 / Avenue 15	Int	-	-	n/r	-	-	n/r
SR 41 / Avenue 12	Int	-	-	n/r	-	-	n/r
Friant Road / Road 206	TWS	F	*	2/2	F	*	2/2
Friant Road / Parker	OWS	E	47.2	Not met	E	49.8	Not met
Friant Road / Granite	OWS	D	27.3	Not met	D	25.7	Not met
Friant Road / Root	OWS	D	32.2	Not met	F	63.4	Not met
Friant Road / Lost Lake	OWS	C	23.2	Not met	F	50.9	Not met
Friant / Willow	TWS	F	477.4	2/2	F	*	2/2
Friant / Copper River Entrance	Signal	A	6.9	n/r	A	9.6	n/r
Friant / Copper	Signal	B	10.0	n/r	A	9.9	n/r
Friant / Lakeview Drive	Signal	A	9.6	n/r	A	7.9	n/r
Friant / Champlain	Signal	A	8.4	n/r	A	9.6	n/r
Friant / Fort Washington	Signal	C	25.5	n/r	C	24.5	n/r
Friant / Shepherd	Signal	C	22.9	n/r	F	104.7	n/r
Friant / Audubon Drive	Signal	C	29.8	n/r	F	154.7	n/r
Friant / Fresno	Signal	D	37.7	n/r	F	139.0	n/r
Friant / SR 41 NB Off-ramp	Signal	D	40.9	n/r	D	45.5	n/r
Friant / SR 41 SB Off-ramp	Signal	F	101.6	n/r	B	16.6	n/r
Blackstone / Nees	Signal	F	126.1	n/r	F	91.2	n/r
Herndon / Blackstone	Signal	E ⁽¹⁾⁽²⁾	32.2 ⁽¹⁾	n/r	E ⁽¹⁾⁽²⁾	59.6 ⁽¹⁾	n/r
Fresno Street / Nees	Signal	D	45.9	n/r	E	76.3	n/r
Millerton / Winchell Cove	OWS	F	353.2	2/2	F	*	2/2
Millerton / Brighton Crest	OWS	D	30.5	Not met	F	58.4	2/2
Millerton / Sky Harbour Road	OWS	E	36.2	2/1	F	543.3	2/2
Millerton / Table Mountain	OWS	C	20.8	2/1	F	400.9	2/2
Millerton Road / Auberry Road	OWS	F	561.4	2/2	F	*	2/2
Auberry Road / Copper Avenue	OWS	F	825.6	2/2	F	*	2/2
Audubon / Nees	Signal	C	24.9	n/r	B	17.8	n/r
Palm / Nees	Signal	B	17.3	n/r	C	26.0	n/r
Palm / Herndon	Signal	E	71.4	n/r	F	179.7	n/r
Willow / Copper	Signal	C	20.3	n/r	C	22.0	n/r
Willow / International	Signal	B	18.5	n/r	B	16.1	n/r
Willow / Behymer	Signal	B	16.5	n/r	B	17.3	n/r
Willow / Perrin	Signal	B	16.1	n/r	B	17.0	n/r
Willow / Shepherd	Signal	C	25.4	n/r	C	32.4	n/r
Willow / Teague	Signal	C	20.9	n/r	C	22.9	n/r
Willow / Nees	Signal	C	27.9	n/r	D	51.5	n/r
Willow / Alluvial	Signal	C	27.0	n/r	D	48.1	n/r
Willow / Herndon	Signal	E	63.1	n/r	F	97.7	n/r
Willow / Sierra	Signal	C	24.3	n/r	F	179.8	n/r
Willow / Bullard	Signal	D	43.2	n/r	F	82.9	n/r
Willow / Barstow	Signal	D	51.1	n/r	F	155.8	n/r
Herndon / SR 41 SB Off-ramp	Signal	A	9.2	n/r	A	7.1	n/r
Herndon / SR 41 NB Off-ramp	Signal	E	69.2	n/r	F	80.8	n/r

NOTES:

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

⁽²⁾ Consistent with 2025 Constrained Conditions as identified in the City of Fresno Master EIR.

Table 3.13-17
Queuing Analysis Summary – 2030 No-Project Conditions

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Road 145 / SR 41	Storage Length	-	35	-	35	530	485	490	420
	A.M. Peak	192	199	1,671	587	96	921	517	902
	P.M. Peak	291	98	2,077	959	438	1,733	552	420
Friant / Copper River Entrance	Storage Length	-	-	215	215	-	230	250	-
	A.M. Peak	-	-	36	22	-	19	33	-
	P.M. Peak	-	-	31	32	-	15	74	-
Friant / Copper	Storage Length	-	-	250	295	-	200	235	-
	A.M. Peak	-	-	80	17	-	31	54	-
	P.M. Peak	-	-	66	35	-	36	43	-
Friant / Lakeview Drive	Storage Length	-	-	235		250	200	250	50
	A.M. Peak	16	16	113	10	18	19	10	6
	P.M. Peak	21	21	73	0	14	29	17	2
Friant / Champlain	Storage Length	-	-	-	-	245	255	230	-
	A.M. Peak	-	-	73	23	0	30	55	-
	P.M. Peak	-	-	70	34	0	30	66	-
Friant / Fort Washington	Storage Length	-	-	125	125	230	200	280	100
	A.M. Peak	18	18	269	38	36	58	107	5
	P.M. Peak	25	25	201	62	44	373	88	3
Friant / Shepherd	Storage Length	-	-	-	225	200	390	245	-
	A.M. Peak	-	-	443	25	0	80	42	-
	P.M. Peak	-	-	278	29	0	2,217	54	-
Friant / Audubon Drive	Storage Length	195	220	245	80	240	195	235	190
	A.M. Peak	237	36	132	44	56	50	79	307
	P.M. Peak	759	254	204	546	208	613	94	569
Friant / Fresno	Storage Length	245	200	250	200	255	195	190	195
	A.M. Peak	289	220	229	24	183	47	38	60
	P.M. Peak	87	176	260	39	520	483	205	284
Friant / SR 41 NB Off-ramp	Storage Length	-	-	-	-	760	760	-	-
	A.M. Peak	-	311	-	-	236	757	-	-
	P.M. Peak	-	0	-	-	180	641	-	-
Friant / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	265	265
	A.M. Peak	-	-	-	27	-	-	1,214	1,503
	P.M. Peak	-	-	-	381	-	-	380	494
Blackstone / Nees	Storage Length	245	200	250	200	250	145	265	140
	A.M. Peak	439	40	136	684	73	49	273	1,517
	P.M. Peak	523	86	321	746	188	402	453	610
Herndon / Blackstone	Storage Length	250	200	260	105	265	175	245	180
	A.M. Peak	138	69	127	261 ⁽¹⁾	80	50	171	77
	P.M. Peak	139	282	463	215 ⁽¹⁾	184	169	287	386
Fresno Street / Nees	Storage Length	240	205	245	200	245	200	240	175
	A.M. Peak	146	47	143	82	221	88	222	222
	P.M. Peak	498	101	181	129	298	222	231	272
Audubon / Nees	Storage Length	150	-	-	125	-	-	-	-
	A.M. Peak	122	-	-	57	-	-	-	683
	P.M. Peak	289	-	-	40	-	-	-	358

Table 3.13-17 (Continued)
Queuing Analysis Summary – 2030 No-Project Conditions

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Palm / Nees	Storage Length	95	95	-	205	260	355	140	-
	A.M. Peak	17	21	839	0	113	17	37	57
	P.M. Peak	6	25	574	1	220	103	170	96
Palm / Herndon	Storage Length	255	205	245	185	100	250	245	230
	A.M. Peak	539	70	266	386	167	114	129	689
	P.M. Peak	772	48	208	170	203	59	222	1,396
Willow / Copper	Storage Length	250	-	250	-	250	-	250	-
	A.M. Peak	49	50	89	34	53	36	79	42
	P.M. Peak	53	50	102	74	118	60	112	32
Willow / International	Storage Length	245	-	120	-	245	80	245	220
	A.M. Peak	47	57	22	25	99	13	41	37
	P.M. Peak	34	43	21	23	63	17	53	36
Willow / Behymer	Storage Length	245	-	90	-	255	-	255	-
	A.M. Peak	54	54	24	47	43	16	31	22
	P.M. Peak	43	36	32	53	76	23	51	23
Willow / Perrin	Storage Length	250	-	250	-	250	-	250	-
	A.M. Peak	63	51	41	25	50	27	36	46
	P.M. Peak	47	79	78	40	102	61	40	27
Willow / Shepherd	Storage Length	250	110	250	100	250	60	200	110
	A.M. Peak	179	53	22	49	119	20	128	164
	P.M. Peak	282	97	35	97	268	33	139	113
Willow / Teague	Storage Length	245	135	245	-	250	45	175	50
	A.M. Peak	25	117	115	35	62	45	42	26
	P.M. Peak	40	49	68	38	151	113	53	25
Willow / Nees	Storage Length	285	-	165	235	300	70	225	225
	A.M. Peak	78	89	69	46	151	61	92	42
	P.M. Peak	88	183	160	53	382	123	295	145
Willow / Alluvial	Storage Length	90	50	205	50	300	50	255	235
	A.M. Peak	45	119	110	57	140	54	49	36
	P.M. Peak	145	266	195	102	318	183	70	35
Willow / Herndon	Storage Length	255	255	305	120	315	185	255	110
	A.M. Peak	228	261	84	159	352	30	130	195
	P.M. Peak	383	309	133	258	407	100	258	204
Willow / Sierra	Storage Length	95	-	150	95	255	75	260	75
	A.M. Peak	37	-	133	75	179	31	105	27
	P.M. Peak	121	-	208	73	216	44	291	42
Willow / Bullard	Storage Length	250	-	265	-	270	135	225	135
	A.M. Peak	46	59	93	143	258	37	348	111
	P.M. Peak	160	545	174	736	196	159	358	81
Willow / Barstow	Storage Length	155	-	190	50	245	75	235	140
	A.M. Peak	50	-	374	128	567	61	153	137
	P.M. Peak	327	-	358	82	390	130	388	153
Herndon / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	285	285
	A.M. Peak	-	-	-	4	-	-	322	193
	P.M. Peak	-	-	-	0	-	-	282	177
Herndon / SR 41 NB Off-ramp	Storage Length	-	-	-	-	-	205	-	-
	A.M. Peak	-	0	-	-	894	972	-	-
	P.M. Peak	-	12	-	-	831	853	-	-

NOTE:

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

Table 3.13-19
Intersection Analysis Summary – 2030 With-Project Conditions

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour		
		LOS	Delay (sec)	Peak Hour Warrant	LOS	Delay (sec)	Peak Hour Warrant
Road 145 / SR 41	Signal	F	298.9	n/r	F	512.7	n/r
Road 145 / Road 206	TWS	F	403.6	2/2	F	603.8	2/2
SR 41 / Avenue 15	Int	-	-	n/r	-	-	n/r
SR 41 / Avenue 12	Int	-	-	n/r	-	-	n/r
Friant Road / Road 206	TWS	F	*	2/2	F	*	2/2
Friant Road / Parker	OWS	F	75.4	Not met	F	84.0	Not met
Friant Road / Granite	OWS	E	41.1	Not met	F	52.6	Not met
Friant Road / Root	OWS	F	51.3	Not met	F	140.9	Not met
Friant Road / Lost Lake	OWS	F	*	2/2	F	*	2/2
Friant / Willow	TWS	F	*	2/2	F	*	2/2
Friant / Copper River Entrance	Signal	A	7.2	n/r	A	8.8	n/r
Friant / Copper	Signal	B	10.4	n/r	B	10.4	n/r
Friant / Lakeview Drive	Signal	B	10.0	n/r	A	8.1	n/r
Friant / Champlain	Signal	A	9.1	n/r	B	11.1	n/r
Friant / Fort Washington	Signal	C	29.6	n/r	C	30.7	n/r
Friant / Shepherd	Signal	C	26.6	n/r	F	116.7	n/r
Friant / Audubon Drive	Signal	C	33.1	n/r	F	174.3	n/r
Friant / Fresno	Signal	D	41.2	n/r	F	153.4	n/r
Friant / SR 41 NB Off-ramp	Signal	D	49.3	n/r	D	54.9	n/r
Friant / SR 41 SB Off-ramp	Signal	F	102.2	n/r	C	21.4	n/r
Blackstone / Nees	Signal	F	126.8	n/r	F	93.5	n/r
Herndon / Blackstone	Signal	EF ⁽¹⁾⁽²⁾	32.5 ⁽¹⁾	n/r	EF ⁽¹⁾⁽²⁾	59.8 ⁽¹⁾	n/r
Fresno Street / Nees	Signal	D	46.0	n/r	E	76.7	n/r
Millerton / Winchell Cove	OWS	F	454.5	2/2	F	*	2/2
Millerton / Brighton Crest	OWS	E	35.8	Not met	F	87.0	2/2
Millerton / Sky Harbour Road	OWS	E	39.6	2/1	F	650.2	2/2
Millerton / Table Mountain	OWS	C	21.6	2/1	F	453.5	2/2
Millerton Road / Auberry Road	OWS	F	641.6	2/2	F	*	2/2
Auberry Road / Copper Avenue	OWS	F	862.5	2/2	F	*	2/2
Audubon / Nees	Signal	C	24.7	n/r	C	25.5	n/r
Palm / Nees	Signal	C	21.5	n/r	E	58.6	n/r
Palm / Herndon	Signal	E	72.8	n/r	F	183.2	n/r
Willow / Copper	Signal	C	21.4	n/r	C	24.2	n/r
Willow / International	Signal	B	18.9	n/r	B	16.3	n/r
Willow / Behymer	Signal	B	17.0	n/r	B	17.5	n/r
Willow / Perrin	Signal	B	15.6	n/r	B	17.8	n/r
Willow / Shepherd	Signal	C	26.6	n/r	C	34.0	n/r
Willow / Teague	Signal	C	21.8	n/r	C	23.7	n/r
Willow / Nees	Signal	C	29.4	n/r	E	55.2	n/r
Willow / Alluvial	Signal	C	27.7	n/r	D	52.2	n/r
Willow / Herndon	Signal	E	67.7	n/r	F	102.9	n/r
Willow / Sierra	Signal	C	25.6	n/r	F	191.4	n/r
Willow / Bullard	Signal	D	44.3	n/r	F	87.2	n/r
Willow / Barstow	Signal	D	52.2	n/r	F	161.4	n/r
Herndon / SR 41 SB Off-ramp	Signal	A	9.3	n/r	A	7.3	n/r
Herndon / SR 41 NB Off-ramp	Signal	E	69.2	n/r	F	80.7	n/r
Friant / Site Access	OWS	F	*	2/2	F	*	2/2

NOTES:

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

⁽²⁾ Consistent with 2025 Constrained Conditions as identified in the City of Fresno Master EIR.

Year 2030 With-Project Conditions Queuing Analysis

The results of the year 2030 with-Project queuing analyses are summarized in Table 3.13-20. Project impacts are identified in bold type.

**Table 3.13-20
Queuing Analysis Summary – 2030 With-Project Conditions**

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Road 145 / SR 41	Storage Length	-	35	-	35	530	485	490	420
	A.M. Peak	151	205	1,663	716	96	977	561	964
	P.M. Peak	512	124	1,942	823	450	1,773	593	436
Friant / Copper River Entrance	Storage Length	-	-	215	215	-	230	250	-
	A.M. Peak	-	-	41	25	-	19	41	-
	P.M. Peak	-	-	37	37	-	14	95	-
Friant / Copper	Storage Length	-	-	250	295	-	200	235	-
	A.M. Peak	-	-	92	22	-	30	64	-
	P.M. Peak	-	-	67	37	-	36	47	-
Friant / Lakeview Drive	Storage Length	-	-	235		250	200	250	50
	A.M. Peak	16	16	113	10	18	19	11	6
	P.M. Peak	22	22	80	0	15	33	21	2
Friant / Champlain	Storage Length	-	-	-	-	245	255	230	-
	A.M. Peak	-	-	85	28	0	29	70	-
	P.M. Peak	-	-	79	40	0	37	86	-
Friant / Fort Washington	Storage Length	-	-	125	125	230	200	280	100
	A.M. Peak	20	20	313	56	40	82	135	5
	P.M. Peak	27	27	228	98	47	430	112	3
Friant / Shepherd	Storage Length	-	-	-	225	200	390	245	-
	A.M. Peak	-	-	455	33	0	140	64	-
	P.M. Peak	-	-	288	38	0	2,257	88	-
Friant / Audubon Drive	Storage Length	195	220	245	80	240	195	235	190
	A.M. Peak	260	36	132	46	56	51	82	342
	P.M. Peak	793	256	204	559	220	627	103	622
Friant / Fresno	Storage Length	245	200	250	200	255	195	190	195
	A.M. Peak	289	222	244	25	183	48	38	60
	P.M. Peak	87	180	267	40	520	495	205	285
Friant / SR 41 NB Off-ramp	Storage Length	-	-	-	-	760	760	-	-
	A.M. Peak	-	173	-	-	256	867	-	-
	P.M. Peak	-	0	-	-	219	821	-	-
Friant / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	265	265
	A.M. Peak	-	-	-	6	-	-	1,308	1,624
	P.M. Peak	-	-	-	550	-	-	458	550
Blackstone / Nees	Storage Length	245	200	250	200	250	145	265	140
	A.M. Peak	440	40	136	697	73	49	275	1,522
	P.M. Peak	526	86	321	754	188	412	457	613
Herndon / Blackstone	Storage Length	250	200	260	105	265	175	245	180
	A.M. Peak	140	69	128	265 ⁽¹⁾	80	50	172	77
	P.M. Peak	140	282	463	215 ⁽¹⁾	184	169	287	390
Fresno Street / Nees	Storage Length	240	205	245	200	245	200	240	175
	A.M. Peak	146	47	143	82	221	88	222	222
	P.M. Peak	498	101	181	129	298	222	231	272
Audubon / Nees	Storage Length	150	-	-	125	-	-	-	-
	A.M. Peak	118	-	-	53	-	-	-	734
	P.M. Peak	356	-	-	61	-	-	-	113

Table 3.13-20 (Continued)
Queuing Analysis Summary – 2030 With-Project Conditions

Signalized Intersection		EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Palm / Nees	Storage Length	95	95	-	205	260	355	140	-
	A.M. Peak	16	20	836	0	103	18	34	53
	P.M. Peak	7	26	709	1	140	127	189	121
Palm / Herndon	Storage Length	255	205	245	185	100	250	245	230
	A.M. Peak	570	84	275	450	186	104	136	699
	P.M. Peak	781	47	231	174	203	60	222	1,400
Willow / Copper	Storage Length	250	-	250	-	250	-	250	-
	A.M. Peak	55	53	98	37	58	35	88	47
	P.M. Peak	59	51	114	101	137	108	129	39
Willow / International	Storage Length	245	-	120	-	245	80	245	220
	A.M. Peak	52	59	23	26	106	13	44	37
	P.M. Peak	37	44	22	24	67	18	56	36
Willow / Behymer	Storage Length	245	-	90	-	255	-	255	-
	A.M. Peak	59	56	25	48	45	16	34	26
	P.M. Peak	48	37	34	54	80	25	53	25
Willow / Perrin	Storage Length	250	-	250	-	250	-	250	-
	A.M. Peak	67	51	42	24	51	27	36	51
	P.M. Peak	50	86	79	40	111	68	40	32
Willow / Shepherd	Storage Length	250	110	250	100	250	60	200	110
	A.M. Peak	188	53	22	50	119	20	132	173
	P.M. Peak	276	94	35	134	264	34	165	154
Willow / Teague	Storage Length	245	135	245	-	250	45	175	50
	A.M. Peak	28	120	115	35	65	49	43	29
	P.M. Peak	41	49	68	39	175	123	54	26
Willow / Nees	Storage Length	285	-	165	235	300	70	225	225
	A.M. Peak	82	89	69	47	151	62	92	43
	P.M. Peak	96	188	160	55	346	125	299	164
Willow / Alluvial	Storage Length	90	50	205	50	300	50	255	235
	A.M. Peak	48	122	110	58	152	60	59	36
	P.M. Peak	148	298	219	122	342	196	80	37
Willow / Herndon	Storage Length	255	255	305	120	315	185	255	110
	A.M. Peak	267	281	90	185	385	31	147	242
	P.M. Peak	412	298	133	277	407	101	283	242
Willow / Sierra	Storage Length	95	-	150	95	255	75	260	75
	A.M. Peak	37	-	133	78	179	30	124	27
	P.M. Peak	121	-	208	73	216	44	291	42
Willow / Bullard	Storage Length	250	-	265	-	270	135	225	135
	A.M. Peak	52	59	93	157	258	38	357	119
	P.M. Peak	178	545	174	762	196	160	367	89
Willow / Barstow	Storage Length	155	-	190	50	245	75	235	140
	A.M. Peak	50	295	374	128	567	62	156	139
	P.M. Peak	327	-	358	82	390	130	390	155
Herndon / SR 41 SB Off-ramp	Storage Length	-	-	-	-	-	-	285	285
	A.M. Peak	-	-	-	4	-	-	330	197
	P.M. Peak	-	-	-	0	-	-	284	176
Herndon / SR 41 NB Off-ramp	Storage Length	-	-	-	-	-	205	-	-
	A.M. Peak	-	0	-	-	894	972	-	-
	P.M. Peak	-	13	-	-	831	853	-	-

NOTE:

⁽¹⁾ LOS F Condition is due to queuing conditions that were observed in the field rather than the Synchro Intersection Capacity Analysis.

Friant Ranch Specific Plan Transportation Element

While the Friant Ranch Specific Plan does not include goals and policies specifically relating to traffic and circulation, it does include a Circulation Plan; street types and classifications; the accommodation of NEVs by providing special eight-foot travel lanes on primary roadways; and pedestrian circulation through a multitude of trails. A multi-modal transportation easement up to 20 feet in width is planned within an unused railroad easement that will include a multi-purpose trail and also reserve space for potential future transit stops.

Summary of Impacts and Mitigation Measures

The traffic impact study identified necessary improvements to ensure acceptable levels of service under the Existing-plus-Project and the Year 2030 plus Project scenarios. Tables 3.13-22 and 3.13-23 present a summary of the mitigations determined for each analysis scenario at the study intersections and road segments. The tables also present fair share percentages where applicable.

Funding for Transportation Projects

The County of Fresno has not established a fee program for transportation improvement projects. Historically, when a transportation need is identified by a traffic impact study for a specific development project, the County has collected a fair share of the cost of the required cumulative mitigation measure from the development project and other subsequent projects.

Where a fair share mitigation fee is identified in ~~the mitigation measures set forth in this DEIR,~~ the Board of Supervisors, pursuant to Ordinance Code Section 17.88, shall approve, by resolution or as part of a development agreement, a fair share fee for the Project applicant based on then-current calculations of the pro-rata share and costs for these improvements, with an inflation adjuster based on the Engineering News Record (ENR) 20 Cities Construction Cost Index. The Project applicant shall pay the fair share fee for applicable to each unit prior to issuance of a building permit for such unit.

The traffic impact study prepared for this EIR used the best information currently available to estimate the Project's traffic volume as a percentage of the future cumulative traffic volume at the intersections and roadways, as shown in Tables 3.13-22 and 3.13-23. If the identified improvements are subsequently constructed, provided for in any alternative funding program or required to be constructed as mitigation for another approved project, or if any other intensive land use projects are subsequently approved that will measurably affect the intersection operation, it is possible that the Project's fair share percentage would differ from the estimated percentage of the cumulative traffic volume shown in Tables 3.13-22 and 3.13-23 and/or that certain fair share fee payments required in this EIR upon issuance of any future building permits within the Specific Plan Area may not be appropriate or necessary in light of completed construction, alternative funding program(s), or obligations of another project to construct the identified improvement. As such, the Project applicant may request recalculation of the estimated percentages and improvement costs and/or review of the appropriateness or necessity of fair share requirements in conjunction with the review of a final map, tentative tract map, site plan review, or building permit application. The applicant shall be responsible for funding all costs associated with recalculating said percentages and improvement costs or reviewing the

appropriateness or necessity of fair share requirements, including preparation of any necessary updated traffic analysis.

For non-County roadway projects, the County shall release the appropriate fair share funds paid by the applicant to the appropriate jurisdiction in full or in part, as appropriate, upon receipt of notice of an established fair share program or construction invoices for the~~an~~ identified improvements within ten years of collection of fair share payments from the applicant for such improvement. ~~identified in the Mitigation Measures.~~

Other funding sources have been established for transportation improvement projects within the study area. The 2006 Measure C Extension Plan includes a half-cent sales tax throughout Fresno County for a 20-year extension period to fund freeway extensions, improve roads, and enhance public safety. Funding for the Regional Transportation Program Extension Projects comes from three sources:

- 50 percent from Measure C;
- 20 percent from the State Transportation Improvement Program (STIP); and
- 30 percent from the Regional Transportation Mitigation Fee Program (RTMF).

The following are projects included in the Measure C Extension within the Project study area:

- Tier 1 Urban Project: Widening of Willow Avenue to a six-lane divided road with retrofit of existing bike lanes between Barstow Avenue and Copper Avenue (expected to be complete between Shepherd and Herndon Avenues by approximately 2011 with signals at Shepherd Avenue; expected to be complete between Copper and Shepherd Avenues by approximately 2014 with signals at Perrin Avenue; sections south of Herndon Avenue not assumed to be complete until 2030). City of Fresno staff indicated that the intersection of Willow and Sierra Avenues will not be widened;
- Tier 1 Urban Project: Complete the widening of Herndon Avenue to a six-lane divided road with retrofit of existing bike lanes between SR 99 and DeWolf Avenue (expected to be complete by 2012);
- Tier 1 Rural Project: Widen Friant Road to a four-lane road between Copper Avenue and Millerton Road (already complete south of Lost Lake; expected to be complete to Road 206 by approximately 2010);
- Tier 2 Urban Project: Widen Friant Road to a six-lane divided road between Shepherd Avenue and Copper Avenue (not funded, no scheduled construction);
- Tier 2 Rural Project: Widen Millerton Road to a four-lane road between Friant Road and Sky Harbour Road (not funded, no scheduled construction).

The ~~adopted proposed~~ RTMF Program is summarized in a report entitled Fresno Regional Transportation Mitigation Fee Final Report dated August 2008 by PB Americas, Inc. The RTMF Program has ~~not yet been adopted by local jurisdictions, including Fresno County but is expected to be adopted by the County of Fresno based on information provided by County staff.~~ On September 24, 2009, the Fresno County Regional Transportation Mitigation Fee Agency was established to administer the program. The RTMF fee took effect January 1, 2010. In addition to mitigation measures identified in this EIR, the Project will be subject to the RTMF fee.

The City of Fresno has established a Traffic Signal Mitigation Impact Fee (TSMI) that funds known traffic signal improvements. The improvements are typically assumed to be constructed by the year 2025. Projects within the City of Fresno mitigate their fair share of cumulative impacts requiring traffic signals by paying into the fee program. The following projects are included in the TSMI fee:

- Friant Road / Willow Avenue (50 percent of traffic signals with dual lefts);
- Friant Road / Entrance to Copper River (traffic signals already constructed);

- Willow Avenue / Alluvial Avenue;
- Willow Avenue / Herndon Avenue;
- Willow Avenue / Sierra Avenue;
- Willow Avenue / Bullard Avenue; and
- Willow Avenue / Barstow Avenue.

The TIS and this EIR appropriately assumed that Measure C Tier 1 Urban project funding was available for all of the Willow Avenue improvements identified in the DEIR. In fact, *all* of the Willow Avenue improvements are scheduled to be completed by 2030 and nearly all such improvements are scheduled to be completed by 2014; several of these assumed 2030 improvements have already been completed. (See list of 2014 and completed improvements below.) According to the Fresno County Council of Government's (COG) 2011 Regional Transportation Plan as posted on the COG website, the City of Clovis has identified these improvements as funded through their fee program (along with the matching Measure C funds). The City of Clovis has committed to implement the construction plans using the Measure C funds awarded and has collected development fees pursuant to the City fee program (assessing development impact fees from development within City boundaries) in accordance with this commitment. There is no evidence to show that the City of Clovis fee program accounted for additional funding from development outside of the cities or that the Measure C commitments made by the City hinged upon receipt of development fees from out of City projects. As such, the proposed Willow Avenue improvements are reasonably foreseeable, and appropriately considered as part of the cumulative condition, because there is an actual plan in place with respect to construction of these improvements and the City has committed to implementing that plan.

With respect to the following City of Clovis roadway/intersection improvements, the planned City of Clovis improvements identified through Measure C (which the DEIR assumed complete prior to 2030) have been constructed:

- Willow / Shepherd intersection
- Willow / Nees intersection
- Willow / Herndon intersection
- Willow Avenue road segment -Teague to Nees
- Willow Avenue road segment - Alluvial to Herndon
- Willow Avenue road segment – Shepherd to Teague (except for a 270 foot portion for which improvements have not been completed)

According to the funding and progress schedule on the Measure C website, the following City of Clovis Tier 1 Measure C improvements are scheduled to be completed by 2014:

- Willow / Behymer intersection
- Willow / International intersection
- Willow / Perrin intersection
- Willow / Shepherd intersection

- Willow / Nees intersection
- Willow Avenue road segments – International to Shepherd
- Willow Avenue road segment – Nees to Alluvial

However, as a cautionary measure to address the unlikely event that the identified Measure C Tier 1 improvements are not in place by 2030 as assumed in this analysis, which finds no individually or cumulatively significant impacts of the Project at the following intersections/roadways, the conditions of approval for the Project shall require the applicant to pay to the County, prior to issuance of a building permit for development within the Specific Plan Area, a fair share of the then unfunded cost of the construction of the following City of Clovis improvements:

- Willow / Perrin intersection
- Willow Avenue road segment - Copper to International
- Willow Avenue road segment – International to Behymer
- Willow Avenue road segment – Behymer to Perrin
- Willow Avenue road segment – Perrin to Shepherd
- Willow Avenue road segment – Shepherd to Teague (improvements to the 270 foot portion of this segment that have not been constructed)
- Willow Avenue road segment – Nees to Alluvial

The County will calculate the fair share fee applicable to each Specific Plan unit based upon the current calculations of the unit's proportionate share of the remaining unfunded portion of the improvement at the time of building permit issuance. Alternatively, an appropriate fair share fee towards said unfunded portions of the improvement may be imposed through an agreement between the applicant and City of Clovis and made payable prior to issuance of a building permit by the County. However, if construction has commenced and complete funding allocated for these improvements at any time prior to or during the buildout of the Specific Plan Area, no fair share payment will be required for any subsequent building permit within the Specific Plan Area. If fair share fees for improvements within the City of Clovis are imposed by County ordinance, in lieu of an agreement between the applicant and City of Clovis, upon receipt of construction invoices for the identified improvements to these roadways within ten years of collection of fair share payments from the applicant for such improvement, the County shall release the fair share funds paid by the applicant to City of Clovis in full or in part, as appropriate.

The County of Madera has established a Road Impact Fee that allows development projects in the County of Madera to mitigate their fair share of cumulative impacts. The current fee provides funds for improvements identified within the Project study area along SR 41 and at the intersection of Road 145 and Road 206. The County is currently in the process of updating the fee. The improvements required to mitigate cumulative impacts are not considered to be fully funded under the existing fee. The County of Madera has authorized Table Mountain Rancheria to add a 2.2-mile section of Road 206 east of Road 145 and a 3.3-mile section of Road 145 east of SR 41 to the BIA Indian Reservation Road inventory system.

Impacts and Recommended Mitigation for Deficient Roadway Segments and Intersections Attributable Solely to the Project

Impact #3.13-1 (TR-20): The Project will cause the level of service to fall below the minimum acceptable level of service at the intersection of Friant Road and the Site Access north of Lost Lake Road. This is a ***significant impact***.

Mitigation Measure #3.13-1 (TR-20): The Project shall construct traffic signals at the intersection of Friant Road and the Site Access intersection north of Lost Lake Road prior to construction of the 201st residential unit and prior to the construction of any commercial/office aspects of the Project if an engineering study indicates that the signals are warranted at that time. The applicant shall utilize the services of a traffic engineer to determine if traffic signals are warranted based on CMUTCD traffic signal warrants. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director.

This signalization will also provide an opportunity to satisfy the Friant Community Plan Policy 1.6 which states, *"Identify key locations for safe pedestrian access across Friant Road and install crosswalks, signage, lighting, traffic signals, and/or pedestrian signals, as warranted."*

Effectiveness of Mitigation: With implementation of this mitigation the intersection will operate at LOS B and the impact will be reduced to ***less than significant***.

Impact #3.13-2 (TR-6): The Project will cause the level of service to fall below the minimum acceptable level of service at the intersection of Friant Road and Lost Lake Road. This is a ***significant impact***.

Mitigation Measure #3.13-2 (TR-6): The Project shall construct traffic signals at the intersection of Friant Road and Lost Lake Road prior to construction of the 201st residential unit and prior to the construction of any commercial/office aspects of the Project if an engineering study indicates that signals are warranted at that time. The applicant shall utilize the services of a traffic engineer to determine if traffic signals are warranted based on CMUTCD traffic signal warrants. If traffic signals are not warranted, then traffic signals shall not be installed and an engineering study shall be performed at the discretion of the Director prior to each subsequent interval of 200 dwelling units and prior to each phase of commercial construction. The Project shall install traffic signals at the intersection when they are warranted at the discretion of the Director.

Effectiveness of Mitigation: With implementation of this mitigation the intersection will operate at LOS B and the impact will be reduced to *less than significant*.

Impacts and Recommended Mitigation for Project's Contribution to Existing or Expected Deficiencies in Intersections and Roadway Segments

As noted in the discussion of existing conditions and Year 2030 no Project conditions above, regional growth in the Project vicinity has created, and is anticipated to create, deficiencies in the regional roadway network. Where deemed significant, the Project's contribution to these deficiencies are noted below. To the extent a deficient roadway or intersection is not discussed below, but is identified as deficient under the existing conditions or year 2030 no Project conditions, the Project's contribution to the deficiency, if any, is deemed less than significant and not cumulatively considerable.

Impact #3.13-3: The Project will contribute to the following deficiencies to Caltrans intersections:

Impact #3.13-3a (TR-1): The Project will exacerbate anticipated delays and a cumulative LOS that will fall below the minimum acceptable LOS in the 2030 condition without the Project at the intersection of SR 41 and Road 145 under the 2030 cumulative condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a *significant impact*.

Impact #3.13-3b (TR-2): The Project will exacerbate existing delays and an existing LOS already below the minimum acceptable LOS at the intersection of SR 41 and Avenue 12, and is expected to exacerbate a cumulative LOS that will fall below the acceptable LOS in the anticipated 2030 cumulative condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This will result in an individually and cumulatively *significant impact*.

Impact #3.13-3c (TR-3): The Project will exacerbate an existing LOS already below the minimum acceptable LOS at the intersection of SR 41 and Avenue 15, and is expected to exacerbate a cumulative LOS that will fall below the acceptable LOS in the anticipated 2030 cumulative condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This will result in an individually and cumulatively *significant impact*.

Impact #3.13-3d (TR-11): The Project will exacerbate a cumulative LOS anticipated to fall below the minimum acceptable LOS in the 2030 cumulative condition without the Project at the intersection of Friant Road and the SR 41 northbound off ramp. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a ***significant impact***.

Impact #3.13-3e (TR-12): The Project ~~will exacerbate delays under existing conditions, and~~ will exacerbate anticipated delays and unacceptable LOS in the cumulative 2030 No Project condition at the intersection of Friant Road and SR 41 southbound off ramp. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. The Project will have an individually and cumulatively significant impact on this intersection. This is a *significant impact*

Mitigation Measure #3.13-3: Prior to issuance of a building permit, the applicant shall contribute to its pro rata share of the cost of future off-site traffic improvements to Caltrans intersections through payment of a per trip fee to Caltrans. If Caltrans has not established a per trip fee prior to issuance of a building permit, the applicant shall contribute a fair share fee to the County for the identified improvements based on the then-current estimated traffic volume attributable to the Project. If the Measure C Regional Transportation Mitigation Fee program establishes a fair share fee for an intersection(s) identified above, the applicant may satisfy this mitigation requirement through payment of said fee. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The traffic improvements and current Caltrans fees or estimated percentage of the 2030 cumulative traffic volume are as follows:

Mitigation Measure #3.13-3a (TR-1): The intersection of SR 41 and Road 145 should be converted to an interchange by the year 2030. Caltrans has not established a set fee for this intersection at this time. For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-1922) is 3.2%.

Mitigation Measure #3.13-3b (TR-2): The intersection of SR 41 and Avenue 12 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small total peak hour traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. ~~Caltrans has not established a set fee for this intersection at this time.~~ For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-1922) is 0.5%.

Mitigation Measure #3.13-3c (TR-3): The intersection of SR 41 and Avenue 15 should be converted to an interchange by the year 2030. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional

growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. ~~Caltrans has not established a set fee for this intersection at this time.~~ For those improvements to Caltrans roadways that fall within Madera County, which are covered by the Madera County fee program, the applicant may satisfy this mitigation requirement through an agreement with Madera County for participation in the Madera County fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-1922) is 0.8 %. ~~Caltrans has not established a set fee for this intersection at this time.~~

Mitigation Measure #3.13-3d (TR-11): The intersection of Friant Road and the State Route 41 northbound offramp is expected to operate at LOS C with the addition of a fifth westbound through lane. It is contemplated that a future Measure C Regional Transportation Mitigation Fee program may include mitigation for this intersection. Caltrans typically collects per-trip fees for this interchange as follows:

- Widen Friant Road under SR 41 with four additional lanes, \$900 per trip;
- SR 41 northbound on ramp from eastbound Friant Road: additional ramp lane and auxiliary lane, \$757 per trip; and
- SR 41 northbound on ramp from westbound Friant Road: additional ramp lane and auxiliary lane, \$1,300 per trip.

Mitigation Measure #3.13-3e (TR-12): The intersection of Friant Road and the State Route 41 southbound offramp is expected to operate at LOS C with the addition of a second southbound left-turn lane and a second southbound right-turn lane. It is contemplated that a future Measure C Regional Transportation Mitigation Fee program may include mitigation for this intersection. Caltrans typically collects per-trip fees for this interchange as follows:

- Widen Friant Road under SR 41 with four additional lanes, \$900 per trip;
- SR 41 southbound on ramp from westbound Friant Road: additional ramp lane and auxiliary lane, \$1,200 per trip;
- SR 41 southbound on ramp from eastbound Friant Road: additional ramp lane and auxiliary lane, \$1,200 per trip; and
- SR 41 southbound off ramp to Friant Road: additional ramp lane and auxiliary lane, \$834 per trip.

If a per trip fee has not been established by Caltrans, through an agreement with Madera County for participation in their fee program, or through the Measure C Regional Transportation Mitigation Fee program for an intersection(s) identified above prior to issuance of a building permit, the Board of Supervisors, pursuant to Ordinance Code Section 17.88, shall approve, by resolution or as part of the development agreement, a fair share fee for the Project applicant based on then-current calculations of the pro-rata share and costs for these improvements, with an inflation adjuster based on the Engineering News Record (ENR) 20 Cities Construction Cost Index. The Project applicant would pay the fair share fee to the County ~~for~~ for applicable each unit prior to issuance of a building permit for such unit. Upon receipt of notice of an established fair

share program or construction invoices for ~~the~~ an identified improvements within ten years of collection of fair share payments from the applicant for such improvement, the County would release the fair share funds to Caltrans.

The traffic impact study prepared for this EIR used the best information currently available to estimate the Caltrans fees or the Project's traffic volume as a percentage of the future cumulative traffic volume at the intersections and roadways, as shown in Tables 3.13-22~~19~~ and 3.13-23~~0~~. If the identified improvements are subsequently constructed, provided for in any alternative funding program or required to be constructed as mitigation for another approved project, or if any other intensive land use projects are subsequently approved that will measurably affect the intersection operation, it is possible that the Project's fair share percentage or Caltrans fee would differ from the estimated percentages of the cumulative traffic volume shown in Tables 3.13-22 and 3.13-23 and/or that certain fair share fee payments required in this EIR upon issuance of any future building permits within the Specific Plan Area may not be appropriate or necessary in light of completed construction, alternative funding program(s), or obligations of another project to construct the identified improvement. and per trip fees discussed above. As such, the ~~The~~ Project applicant may request recalculation of the estimated percentages and improvement costs and/or review of the appropriateness or necessity of fair share requirements in conjunction with the review of a tentative tract map, or site plan review, or building permit application. The applicant, and shall be responsible for funding all costs associated with recalculating said percentages and improvement costs or reviewing of the appropriateness or necessity of fair share requirements, including preparation of any necessary updated traffic analysis.

Effectiveness of Mitigation: This mitigation measure provides funding for improvements that will mitigate the impacts to Caltrans intersections. Upon completion of the identified improvements, the impact would be reduced to *less than significant* by attaining acceptable levels of service (LOS C) on the Caltrans intersections.

The improvements described within this mitigation measure are outside the jurisdiction of Fresno County and within the responsibility of Caltrans. During the environmental review for this Project, the County solicited the assistance of Caltrans in formulating the mitigation measures for impacts to the Caltrans intersections.

The County will require payment of any ~~established Caltrans~~ per trip fees established by Caltrans, through an agreement with Madera County for participation in their fee program, or through the Measure C Regional Transportation Mitigation Fee program for an intersection(s) identified above and, where per trip fees are not established for a particular intersection, collect the applicant's fair share fee for the improvements, and provide the funds to Caltrans upon timely receipt of construction invoices for the identified improvements. However, since Caltrans is responsible for the timing and nature of improvements, the County cannot ensure that the improvements will be fully funded sufficient to facilitate construction prior to the Project's contribution to the impact, if at all, despite the County's best efforts. Though the applicant will pay its fair share or Caltrans per trip fees for the improvements, the County cannot ensure that the improvements will be fully funded sufficient to facilitate construction prior to the Project's contribution to the impact. If a proposed improvement is not fully funded and constructed before completion of the Project, significant impacts to the intersection or roadway, in the form of delays and unacceptable levels of service, could occur until Caltrans completes the improvements. Therefore, the impact will be *significant and unavoidable*.

Impact #3.13-4: The Project will contribute to the following deficiencies to Madera County intersections and roadways:

Impact #3.13-4a (TR-4): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition at the intersection of Road 145 and Road 206. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a *significant impact*.

Impact #3.13.4b (TR-34): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition on the Madera County segment of Road 206, including the bridge, west of Friant Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a *significant impact*.

Mitigation Measure #3.13-4: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements necessary to accommodate the 2030 cumulative condition through payment of a fair share fee to Fresno County and/or Madera County as appropriate. The traffic improvements and, where an improvement is identified, the estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-1922 and 3.13-2023) are as follows:

Mitigation Measure #3.13.4a (TR-4): The intersection of Road 145 and Road 206 will require signalization with two northbound left-turn lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 7.2 %.

Mitigation Measure #3.13.4b (TR-34): The Madera County segment of Road 206, including the bridge, west of Friant Road should be widened to four lanes. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.

The Board of Supervisors, pursuant to Ordinance Code Section 17.88, shall approve, by resolution or as part of the development agreement, a fair share fee for the Project applicant based on then-current calculations of the pro-rata share and costs for these improvements, with an inflation adjuster based on the Engineering News Record (ENR) 20 Cities Construction Cost Index. The Project applicant shall pay the fair share fee for each unit prior to issuance of a building permit for such unit. Alternatively, the Project's fair share fee amount for each unit may be imposed through an agreement between the applicant and Madera County.

The traffic impact study prepared for this EIR used the best information currently available to estimate the Project's traffic volume as a percentage of the future cumulative traffic volume at the intersections and roadways, as shown in Tables 3.13-1922 and 3.13-2023. If the identified improvements are subsequently constructed, provided for in any alternative funding program or required to be constructed as mitigation for another approved project, or if any other intensive land use projects are subsequently approved that will measurably affect the intersection operation, it is possible that the Project's fair share percentage would differ from the estimated percentage of the cumulative traffic volume shown in Tables 3.13-1922 and 3.13-2023 and/or that certain fair share fee payments required in this EIR upon issuance of any future building permits within the Specific Plan Area may not be appropriate or necessary in light of completed construction, alternative funding program(s), or obligations of another project to construct the identified improvement. As such, the Project applicant may request recalculation of the estimated percentages and improvement costs and/or review of the appropriateness or necessity of fair share requirements in conjunction with the review of a final map, tentative tract map, site plan review, or building permit application. The applicant shall be responsible for funding all costs associated with recalculating said percentages and improvement costs or reviewing the appropriateness or necessity of fair share requirements, including preparation of any necessary updated traffic analysis.

If fair share fees for improvements within Madera County are imposed by County ordinance, in lieu of an agreement between the applicant and Madera County, The County shall release the fair share funds paid by the applicant to Madera County in full or in part, as appropriate, upon receipt of construction invoices for the improvements to these roadways within ten years of collection of fair share payments from the applicant for such improvement, the County shall release the fair share funds paid by the applicant to Madera County in full or in part, as appropriate.

Effectiveness of Mitigation: This mitigation measure provides funding for improvements that will mitigate the impacts to roadways and intersections within Madera County. Upon completion

of the identified improvements, the impact would be reduced to less than significant by attaining acceptable levels of service for the roadways and intersections within Madera County.

The improvements described within this mitigation measure are outside the jurisdiction of Fresno County and within the responsibility of Madera County. During the environmental review for this Project, the County solicited the assistance and interest of Madera County in formulating the mitigation measure for impacts to the roadways within Madera County. This mitigation measure provides for continued interaction with Madera County. The County will collect the applicant's fair share fee for the improvements, and provide the funds to Madera County upon timely receipt of construction invoices for the identified improvements. Alternatively, the applicant and Madera County may enter into an agreement providing for the applicant's payment of fair share fees for improvements within Madera County. In either event, ~~H~~however, since Madera County is responsible for the timing and nature of improvements, the County cannot ensure that the improvements will be fully funded sufficient to facilitate construction prior to the Project's contribution to the impact, if at all, despite the County's best efforts. If a proposed improvement is not fully funded and constructed prior to completion of the Project, there may be significant impacts to the intersection or roadway, in the form of unacceptable levels of service, until such time as the identified improvements are in place. Therefore, the impact is significant and unavoidable.

Impact #3.13-5: The Project will contribute to the following deficiencies to Fresno County intersections and roadways:

Impact #3.13-5a (TR-5): The Project will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Friant Road and North Fork Road (Road 206) under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively **significant impact**.

Impact #3.13-5b (TR-6): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Friant Road and Lost Lake Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. However, mitigation measure 3.13-1a requires the applicant to construct the requisite improvement. Construction of the intersection will achieve a LOS B with the cumulative condition plus Project and thus reduce the Project's contribution to less than cumulatively considerable. ***This is a less than significant impact.***

Impact #3.13-5c (TR-7): The Project will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Friant Road and Willow Avenue under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively **significant impact**.

Impact #3.13-5d (TR-13): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Winchell Cove Road

under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a ***significant impact***.

Impact #3.13-5e (TR-14): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Brighton Crest Drive under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a ***significant impact***.

Impact #3.13-5f (TR-15): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Sky Harbour Road under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a ***significant impact***.

Impact #3.13-5g (TR-16): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS at the intersection of Millerton Road and Table Mountain Road under

- Between North Fork Road (Road 206) and Winchell Cove Road;
- Between Winchell Cove Road and Brighton Crest Drive;
- Between Brighton Crest Drive and Sky Harbour Road;
- Between Sky Harbour Road and Table Mountain Road;
- Between Table Mountain Road and Auberry Road.

The Project's contribution to the anticipated cumulative condition is cumulatively considerable. These are **significant impacts**.

Impact #3.13-5o (TR-34): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable LOS in the anticipated 2030 No Project condition on the Fresno County segment of Road 206, including the bridge, west of Friant Road. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a **significant impact**.

Impact #3.13-5p (TR-35): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable level of service in the anticipated 2030 ~~“No Project~~ condition at the intersection of Friant Road and Parker Avenue. However, traffic signal warrants on Parker Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. ~~As such, the Project's contribution to the anticipated cumulative condition is~~ **adverse but not significant**, ~~cumulatively considerable. This is a significant impact.~~

Impact #3.13-5q (TR-36): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable level of service in the anticipated 2030 ~~“No Project~~ condition at the intersection of Friant Road and Granite Avenue. However, traffic signal warrants on Granite Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. ~~As such, the Project's contribution to the anticipated cumulative condition is~~ **adverse but not significant**, ~~cumulatively considerable. This is a significant impact.~~

Impact #3.13-5r (TR-37): The Project will exacerbate a cumulative LOS that will fall below the minimum acceptable level of service in the anticipated 2030 ~~“No Project~~ condition at the intersection of Friant Road and Root Avenue. However, traffic signal warrants on Root Avenue are not satisfied at this unsignalized intersection. As explained on page 3-282 of this EIR, traffic impacts are considered “adverse but not significant” if the LOS standard at an unsignalized intersection is exceeded, but the projected traffic volume does not satisfy traffic signal warrants. As such, the Project's contribution to the anticipated cumulative condition is **adverse but not significant**. ~~This is a significant impact.~~

*Fresno County roadways and intersections that also fall within the jurisdictions of City of Fresno and City of Clovis are addressed in Impact # 3.13-6 and 3.13-7.

Mitigation Measure #3.13-5: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment

of a fair share fee to Fresno County. The traffic improvements and, where an improvement is identified, the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~2249~~ and 3.13-~~2320~~) are as follows:

Mitigation Measure #3.13-5a (TR-5): The intersection of Friant Road and North Fork Road (Road 206) should be signalized to achieve an acceptable level of service (LOS C). The ultimate lane configurations required are as follows:

Northbound: two left-turn lanes and two through lanes with a shared right turn
Southbound: one left-turn lane, two through lanes, and one right-turn lane
Eastbound: two left-turn lanes, one through lane, and two right-turn lanes
Westbound: one left-turn lane and one shared through/right-turn lane

The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 17.2%. This signalization will also provide an opportunity to satisfy the Friant Community Plan Policy 1.6 which states, “*Identify key locations for safe pedestrian access across Friant Road and install crosswalks, signage, lighting, traffic signals, and/or pedestrian signals, as warranted.*”

Mitigation Measure #3.13-5b (TR-6): No additional mitigation required. See Mitigation Measure 3.13-1.

Mitigation Measure #3.13-5c (TR-7): Signalization of the intersection of Friant Road and Willow Avenue to achieve an acceptable level of service (LOS B). The ultimate lane configurations required are as follows:

Northbound: one left-turn lane (protected), two through lanes, and one right-turn lane
Southbound: two left-turn lanes (protected), two through lanes with a shared right turn
Eastbound: one shared lane (permissive)
Westbound: one shared left-turn/through lane (permissive) and one right-turn lane

The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 29.6%.

Mitigation Measure #3.13-5d (TR-13): Signalization of Millerton Road and Winchell Cove Road and widening of Millerton Road to four lanes at this intersection is needed to achieve appropriate levels of service to accommodate the 2030 cumulative condition plus the Project. Mitigation Measure 3.13-5n requires payment of a fair share fee for the widening of Millerton Road between North Fork Road (Road 206) and Sky Harbour Road. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-22 ~~19 and 3.13-20~~) is 3.3%. The Measure C Tier 2 Rural project plans to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road. However, the Tier 2 projects are not yet funded.

Mitigation Measure #3.13-5e (TR-14): The intersection of Millerton Road and Brighton Crest Drive should be signalized and Millerton Road should be widened to four lanes to accommodate the 2030 cumulative condition plus Project. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 3.7%. The Measure C

Mitigation Measure #3.13-5l (TR-30): Willow Avenue should be widened to four lanes between Friant Road and Silaxo Avenue to provide an acceptable level of service (LOS B) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 18.9%.

Mitigation Measure #3.13-5m (TR-31): Willow Avenue should be widened to four lanes between Silaxo Avenue and Copper Avenue to provide an acceptable level of service (LOS B or better) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 18.9%.

Mitigation Measure #3.13-5n (TR-33): Millerton Road should be widened to four lanes between Road 206 and Sky Harbour Road to provide LOS C or better. The Measure C Tier 2 Rural project to widen Millerton Road to four lanes between North Fork Road (Road 206) and Sky Harbour Road would mitigate a portion of the impact. However, the Tier 2 projects are not yet funded. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Sky Road 206 to Winchell Cove is 4.8%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Winchell Cove to Brighton Crest is 4.0%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Brighton Crest to Sky Harbour is 3.2%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Sky Harbour to Table Mountain is 2.4%. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) for the segment from Table Mountain to Auberry is 2.0%.

Mitigation Measure #3.13-5o (TR-34): Road 206, including the bridge, west of Friant Road for the Fresno County segment should be widened to four lanes to provide an acceptable level of service (LOS C or better) under the 2030 cumulative condition. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 17.1%.

Mitigation Measure #3.13-5p (TR-35): None feasible. Peak-hour traffic signal warrants for Parker Avenue are not expected to be satisfied at the intersection. The County may consider constructing a median to prevent left turns from Parker Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants on Parker Avenue are not satisfied and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact will remain *adverse but not significant*.

Mitigation Measure #3.13-5q (TR-36): None feasible. Peak-hour traffic signal warrants are not expected to be satisfied at the intersection on Granite Avenue. The County may consider constructing a median to prevent left turns from Granite Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants are not satisfied on Granite Avenue and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact will remain *adverse but not significant*.

Mitigation Measure #3.13-5r (TR-37): None feasible. Peak-hour traffic signal warrants on Root Avenue are not expected to be satisfied at the intersection. The County may consider

constructing a median to prevent left turns from Root Avenue; however, current plans are to construct a full-access intersection. Since traffic signal warrants on Root Avenue are not satisfied and it is desirable to maintain access at the intersection, there are no feasible mitigations and the impact will remain **adverse but not significant**

The County Board of Supervisors, pursuant to Ordinance Code Section 17.88, shall approve, by resolution or as part of the development agreement, a fair share fee for the Project applicant based on then-current calculations of the pro-rata share and costs for these improvements, with an inflation adjuster based on the Engineering News Record (ENR) 20 Cities Construction Cost Index. The Project applicant shall pay the fair share fee for each unit prior to issuance of a building permit for such unit.

The traffic impact study prepared for this EIR used the best information currently available to estimate the Project's traffic volume as a percentage of the future cumulative traffic volume at the intersections and roadways, as shown in Tables 3.13-22~~19~~ and 3.13-23~~20~~. If the identified improvements are subsequently constructed, provided for in any alternative funding program or required to be constructed as mitigation for another approved project, or if any other intensive land use projects are subsequently approved that will measurably affect the intersection operation, it is possible that the Project's fair share percentage would differ from the estimated percentage of the cumulative traffic volume shown in Tables 3.13-22 and 3.13-23 and/or that certain fair share fee payments required in this EIR upon issuance of any future building permits within the Specific Plan Area may not be appropriate or necessary in light of completed construction, alternative funding program(s), or obligations of another project to construct the identified improvement. As such, the Project applicant may request recalculation of the estimated percentages and improvement costs and/or review of the appropriateness or necessity of fair share requirements in conjunction with the review of a final map, tentative tract map, site plan review, or building permit application. The applicant shall be responsible for funding all costs associated with recalculating said percentages and improvement costs or reviewing the appropriateness or necessity of fair share requirements, including preparation of any necessary updated traffic analysis.

Effectiveness of Mitigation: Individually and cumulatively significant impacts to the segment of Friant Road between Road 206 and Lost Lake Road, and cumulatively significant impacts to the intersections of Friant Road and Parker Avenue, Friant and Granite Avenue, and Friant and Root Avenue will remain **significant and unavoidable** because no feasible mitigation is available to mitigate the Project's contribution to deficiencies on these intersections and roadway.

For all other intersections and roadways within Fresno County, this mitigation measure provides funding for improvements that will mitigate the impacts. Upon completion of the identified improvements, the impact would be reduced to **less than significant** by attaining acceptable levels of service on the roadways and intersections within Fresno County. Though the applicant will pay its fair share fee for the improvements, the County cannot ensure that the improvements will be fully funded sufficient to facilitate construction prior to the Project's contribution to the impact. If a proposed improvement is not fully funded and constructed before completion of the Project, significant impacts to the intersection or roadway, in the form of delays and

unacceptable levels of service, could occur until the County completes the improvements. Therefore, the impact will be ***significant and unavoidable***.

Impact #3.13-6: The Project will contribute to the following deficiencies to City of Fresno* roadways and intersections:

Impact #3.13-6a (TR-8): The Project will contribute to an unacceptable LOS under the existing plus Project condition and exacerbate a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition at the intersection of Friant Road and Shepherd Avenue. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively ***significant impact***.

Impact #3.13-6b (TR-9): The Project will exacerbate existing delays and an existing LOS already below the minimum acceptable LOS at the intersection of Friant Road and Audobon Drive, and is expected to exacerbate anticipated delays and a cumulative LOS that will fall below the acceptable LOS even without the Project under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This will result in an individually and cumulatively *significant impact*.

Impact #3.13-6c (TR-10): The Project will exacerbate delays and a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition at the intersection of Friant Road and Fresno Street. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a *significant impact*.

Impact #3.13-6d (TR-19): The Project will exacerbate an existing LOS already below the minimum acceptable LOS at the intersection of Audobon Drive and Nees Avenue, and is expected to exacerbate delays and a cumulative LOS that will fall below the acceptable LOS even without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is an individually and cumulatively *significant impact*.

Impact #3.13-6e (TR-28): The Project will contribute to an unacceptable LOS on the City of Fresno segment of Friant Road between Champlain Avenue and Ft. Washington Road under the 2030 cumulative condition (2030 with Project). The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a *significant impact*.

Impact #3.13-6f (TR-29): The Project will contribute to an existing and cumulative LOS already below the minimum acceptable LOS on the following City of Fresno segments of Friant Road:

- Between Shepherd Avenue and Audubon Drive.
- Between Audubon Drive and Fresno Street; and
- Between Fresno Street and SR 41.

These are *significant impacts*.

*City of Fresno roadways and intersections that share jurisdiction with City of Clovis are addressed in Impact # 3.13-7 below.

Mitigation Measure #3.13-6: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~2249~~ and 3.13-~~2320~~) are as follows:

Mitigation Measure #3.13-6a (TR-8): The intersection of Friant Road and Shepherd Avenue should be provided with a second northbound right-turn lane in addition to the funded third westbound left-turn lane and third southbound through lane to achieve an acceptable level of

service (LOS C). The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for the identified improvement, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct an improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~22~~~~19~~ and 3.13-20) is 6.3%.

Mitigation Measure #3.13-6b (TR-9): None feasible. The intersection of Friant Road and Audubon Drive is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is ***significant and unavoidable***.

Mitigation Measure #3.13-6c (TR-10): None feasible. The intersection of Friant Road and Fresno Street is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is ***significant and unavoidable***.

Mitigation Measure #3.13-6d (TR-19): The intersection of Nees Avenue and Audubon Drive should be signalized with two eastbound left-turn lanes to provide an acceptable level of service (LOS D) under the existing and the 2030 cumulative condition. The results of the existing-plus-Project conditions analyses and the 2030 no-Project conditions analyses indicate that the Project alone does not create the need for improvements at this intersection, but the need is created primarily by regional growth. It is unreasonable to expect the Project applicant to construct this major improvement necessitated by the regional growth condition and to which the Project contributes a proportionately small traffic volume. The Project can mitigate its fair share of the impact by paying a fair share of the cost of construction. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~19~~ and 3.13-20 3.13-22) is 2.0%. The intersection is funded by the City of Fresno Traffic Signal Mitigation Impact Fee.

Mitigation Measure #3.13-6e (TR-28): Friant Road between Champlain Avenue and Ft. Washington Road will require six lanes to provide an acceptable level of service (LOS D or better) under the 2030 cumulative condition. The City of Fresno has planned for this improvement in its capital improvement program and its current citywide traffic fee program. The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-23) is 14.7%.

Mitigation Measure #3.13-6f (TR-29): None feasible. The City of Fresno General Plan identifies the need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue to accommodate the anticipated cumulative conditions due to regional growth and accepts LOS F

with six lanes since additional widening is not feasible due to physical constraints associated with the adjacent land uses. This condition, as already contemplated and accepted in the City of Fresno General Plan, is ***significant and unavoidable***.

The Board of Supervisors, pursuant to Ordinance Code Section 17.88, shall approve, by resolution or as part of the development agreement, a fair share fee for the Project applicant based on then-current calculations of the pro-rata share and costs for these improvements, with an inflation adjuster based on the Engineering News Record (ENR) 20 Cities Construction Cost Index. The Project applicant shall pay the fair share fee for each unit prior to issuance of a building permit for such unit.

The traffic impact study prepared for this EIR used the best information currently available to estimate the Project's traffic volume as a percentage of the future cumulative traffic volume at the intersections and roadways, as shown in Tables 3.13-22 and 3.13-23. If the identified improvements are subsequently constructed, provided for in any alternative funding program or required to be constructed as mitigation for another approved project, or if any other intensive land use projects are subsequently approved that will measurably affect the intersection operation, it is possible that the Project's fair share percentage would differ from the estimated percentage of the cumulative traffic volume shown in Tables 3.13-22 and 3.13-23 and/or that certain fair share fee payments required in this EIR upon issuance of any future building permits within the Specific Plan Area may not be appropriate or necessary in light of completed construction, alternative funding program(s), or obligations of another project to construct the identified improvement. As such, the Project applicant may request recalculation of the estimated percentages and improvement costs and/or review of the appropriateness or necessity of fair share requirements in conjunction with the review of a final map, tentative tract map, site plan review, or building permit application. The applicant shall be responsible for funding all costs associated with recalculating said percentages and improvement costs or reviewing the appropriateness or necessity of fair share requirements, including preparation of any necessary updated traffic analysis.

Upon receipt of construction invoices for the improvements to these roadways within ten years of collection of fair share payments from the applicant for such improvement, the County shall release the fair share funds paid by the applicant to the City of Fresno in full or in part, as appropriate.

Effectiveness of Mitigation: The impacts to the intersections of Friant Road and Audobon Drive, Friant Road and Fresno Street, and the road segments of Friant Road from Shepherd to Audobon, Audobon to Fresno, and Fresno to State Route 41 are ***significant and unavoidable***. These intersections and roadways will operate at unacceptable levels of service as a result of the Project and regional growth.

For all other identified intersections and road segments within the City of Fresno, this mitigation measure provides funding for improvements that will mitigate the impacts. Upon completion of the identified improvements, the impacts would be reduced to ***less than significant*** by attaining acceptable levels of service for the roadways and intersections within the City of Fresno. The improvements described within this mitigation measure are outside the jurisdiction of Fresno

County and within the responsibility of the City of Fresno. During the environmental review for this Project, the County solicited the assistance and interest of the City of Fresno in formulating the mitigation measure for impacts to the roadways within the City of Fresno. This mitigation measure provides for continued interaction with the City of Fresno. The County will collect the applicant's fair share fee for the improvements, and provide the funds to the City of Fresno upon receipt of construction invoices for the identified improvements. However, since the City of Fresno is responsible for the timing and nature of improvements, the County cannot ensure that the improvements will be fully funded sufficient to facilitate construction prior to the Project's contribution to the impact, if at all, despite the County's best efforts. If a proposed improvement is not fully funded and constructed prior to completion of the Project, there may be significant impacts to the intersection or roadway, in the form of delays and unacceptable levels of service, until such time as the identified improvements are in place. Therefore, the impact will be **significant** and unavoidable.

Impact #3.13-7: The Project will contribute to the following deficiencies to intersections and roadways within the shared jurisdiction of City of Clovis and City of Fresno:

Impact #3.13-7a (TR-22): The Project will exacerbate existing and anticipated future delays and will contribute to a cumulative level of service below the minimum acceptable level of service at the intersection of Willow Avenue and Nees Avenue in the 2030 plus project condition. The Project's contribution to the anticipated 2030 cumulative condition is cumulatively considerable. This is a **significant impact**. (County of Fresno, City of Fresno, City of Clovis jurisdiction)

Impact #3.13-7b (TR-23): The Project will exacerbate anticipated delays and contribute to a cumulative level of service that will fall below the minimum acceptable level of service at the intersection of Willow Avenue and Herndon Avenue in the 2030 plus project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a **significant impact**.

Impact #3.13-7c (TR-24): The Project will exacerbate anticipated delays and a cumulative level of service that will fall below the minimum acceptable level of service at the intersection of

Willow Avenue and Sierra Avenue in the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a ***significant impact***.

Impact #3.13-7d (TR-25): The Project will exacerbate existing delays, and will exacerbate anticipated delays and a cumulative level of service below the minimum acceptable level of service at the intersection of Willow Avenue and Bullard Avenue under the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This will result in an individually and cumulatively ***significant impact***.

Impact #3.13-7e (TR-26): The Project will exacerbate existing delays at the intersection of Willow Avenue and Barstow Avenue. The Project will also exacerbate anticipated delays and a cumulative level of service that will fall below the minimum acceptable level of service at the intersection of Willow Avenue and Barstow Avenue in the 2030 condition without the Project. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This will result in an individually and cumulatively ***significant impact***.

Impact #3.13-7f (TR-32): The Project will exacerbate a cumulative LOS that falls below the minimum acceptable level of service under the 2030 condition without the Project on Willow Avenue at the following locations:

- Between Alluvial and Herndon Avenues;
- Between Herndon and Sierra Avenues;
- Between Sierra and Bullard Avenues; and
- Between Bullard and Barstow Avenues.

The Project's contribution to the anticipated cumulative condition is cumulatively considerable. These are ***significant impacts***.

Mitigation Measure #3.13-7: Prior to issuance of a building permit, the applicant shall contribute its pro rata share of the cost of future off-site traffic improvements through payment of a fair share fee to Fresno County. The traffic improvements and, where an improvement is identified, the estimate percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Tables 3.13-~~2249~~ and 3.13-~~2320~~) are as follows:

Mitigation Measure #3.13-7a (TR-22): None feasible. The intersection of Willow Avenue and Nees Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. This impact is ***significant and unavoidable***.

Mitigation Measure #3.13-7b (TR-23): None feasible. The intersection of Willow Avenue and Herndon Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Herndon Avenue and accepts LOS F with six lanes since additional widening is not feasible. This impact is ***significant and unavoidable***.

Mitigation Measure #3.13-7c (TR-24): None feasible. The intersection of Willow Avenue and Sierra Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. Therefore, this impact is ***significant and unavoidable***.

Mitigation Measure #3.13-7d (TR-25): None feasible. The intersection of Willow Avenue and Bullard Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. Therefore, this impact is ***significant and unavoidable***.

Mitigation Measure #3.13-7e (TR-26): The intersection of Willow Avenue and Barstow Avenue should be widened to the following lane configurations to provide an acceptable level of service (LOS D) in the 2030 cumulative condition.

- Northbound: two left-turn lanes, three through lanes, one right-turn lane
- Southbound: two left-turn lanes, three through lanes, one right-turn lane
- Eastbound: one left-turn lane, two through lanes, and two right-turn lanes
- Westbound: one left-turn lane and two through lanes with a shared right turn.

The estimated percentage of the 2030 cumulative traffic volume attributable to the Project (as shown in Table 3.13-22) is 1.0%.

Mitigation Measure #3.13-7f (TR-32): None feasible. The City of Fresno General Plan identifies the ultimate need for six lanes on Willow Avenue between Alluvial and Barstow Avenues and accepts LOS E. The City of Clovis requires LOS D. A width of six lanes is typically considered the maximum width for roadways in Fresno even when additional lanes are warranted (for example, Herndon Avenue and Friant Avenue are limited to six lanes even where the ultimate mitigation requires more lanes). The proposed Project does not create the need for additional lanes. The Project's share of this cumulative impact is considered to be ***significant and unavoidable***.

The Board of Supervisors, pursuant to Ordinance Code Section 17.88, shall approve, by resolution or as part of the development agreement, a fair share fee for the Project applicant based on then-current calculations of the pro-rata share and costs for these improvements, with an inflation adjuster based on the Engineering News Record (ENR) 20 Cities Construction Cost Index. The Project applicant shall pay the fair share fee for each unit prior to issuance of a building permit for such unit.

The traffic impact study prepared for this EIR used the best information currently available to estimate the Project's traffic volume as a percentage of the future cumulative traffic volume at the intersections and roadways, as shown in Tables 3.13-22 and 3.13-23. If the identified improvements are subsequently constructed, provided for in any alternative funding program or required to be constructed as mitigation for another approved project, or if any other intensive land use projects are subsequently approved that will measurably affect the intersection operation, it is possible that the Project's fair share percentage would differ from the estimated percentage of the cumulative traffic volume shown in Tables 3.13-22 and 3.13-23 and/or that certain fair share fee payments required in this EIR upon issuance of any future building permits

within the Specific Plan Area may not be appropriate or necessary in light of completed construction, alternative funding program(s), or obligations of another project to construct the identified improvement. As such, the Project applicant may request recalculation of the estimated percentages and improvement costs and/or review of the appropriateness or necessity of fair share requirements in conjunction with the review of a final map, tentative tract map, site plan review, or building permit application. The applicant shall be responsible for funding all costs associated with recalculating said percentages and improvement costs or reviewing the appropriateness or necessity of fair share requirements, including preparation of any necessary updated traffic analysis.

Upon receipt of construction invoices for the improvements to these roadways within ten years of collection of fair share payments from the applicant for such improvement, the County shall release the fair share funds paid by the applicant to the City of Fresno and the City of Clovis, in full or in part, as appropriate.

Effectiveness of Mitigation: The impacts to the intersections of Willow Avenue and Nees Avenue, Willow Avenue and Herndon Avenue, Willow Avenue and Sierra Avenue, and Willow Avenue and Bullard Avenue are ***significant and unavoidable***. The impacts to the road segments of Willow Avenue between Alluvial and Barstow are ***significant and unavoidable***. These intersections and roadways will operate at unacceptable levels of service.

For all other identified intersections and road segments within the shared jurisdictions of City of Clovis and City of Fresno, this mitigation measure provides funding for improvements that will mitigate the impacts. Upon completion of the identified improvements, the impacts would be reduced to ***less than significant*** by attaining acceptable levels of service for the roadways and intersections within the City of Clovis and the City of Fresno. With the exception of the intersection of Willow Avenue and Nees Avenue (over which the County shares jurisdiction with City of Clovis and City of Fresno), the improvements described within this mitigation measure are outside the jurisdiction of Fresno County and within the responsibility of the City of Clovis and City of Fresno. During the environmental review for this Project, the County solicited the

assistance and interest of the City of Fresno and City of Clovis in formulating the mitigation measure for impacts to the roadways within the City of Fresno and City of Clovis. This mitigation measure provides for continued interaction with the City of Fresno and City of Clovis. The County will collect the applicant's fair share fee for the improvements, and provide the appropriate share of the funds to the City of Fresno and/or City of Clovis upon timely receipt of construction invoices for the identified improvements. However, since the City of Fresno and the City of Clovis are responsible for the timing and nature of improvements, the County cannot ensure that the improvements will be fully funded sufficient to facilitate construction prior to the Project's contribution to the impact, if at all, despite the County's best efforts. If a proposed improvement is not fully funded and constructed prior to completion of the Project, there may be significant impacts to the intersection or roadway, in the form of unacceptable levels of service, until such time as the identified improvements are in place. Therefore, the **impacts are significant and unavoidable**.

Impact #3.13-8: Change Air Traffic Patterns
[Evaluation Criteria (c)]

The Community of Friant is not located within the traffic pattern of a public airport. The Project will therefore not affect airport traffic levels or result in substantial safety risks to a public airport facility.

Conclusion: There is **no impact**.

Mitigation Measures: No mitigation measures are required.

Impact #3.13-9: Increase Hazards Due to a Design Feature
[Evaluation Criteria (d)]

The Project is consistent with Fresno County General Policy TR-A.1 in that future Friant Community Plan Area streets and roads will be designed in accordance with the County's Roadway Design Standards. The Friant Ranch Specific Plan Area includes unique street cross sections designed to create a community circulation network that moves people efficiently and safely throughout Friant Ranch, whether by automobile, bicycle, foot, or by Neighborhood Electric Vehicle.

Consistent with Policies TR-A.7 and TR-B.2, the Project has been designed to provide for a multi-modal circulation system and potential future transit stops. Along the western portion of the Friant Ranch Specific Plan Area, parallel to the east side of Friant Road, a multi-modal transportation easement up to 20 feet in width is planned within an unused railroad easement that will include a multi-purpose trail for bicycles/pedestrians, and also reserve space for potential future transit stops. The Draft Friant Community Plan identifies two potential transit stops in the Community of Friant. One of the potential stops would be located adjacent to the planned Village Center, while the other would be located at the northern area of the Community of Friant, at North Fork Road. This easement will benefit Friant Ranch because it will allow easy connectivity between the Friant Ranch Specific Plan Area and the Community of Friant. The transit stops will also be utilized for shuttle buses or alternative modes of transportation.

Impact #3.13-11: Result in Inadequate Parking Capacity
[Evaluation Criteria (f)]

Future development in the existing Friant Community Plan Area will be subject to the parking requirements of the Fresno County Zoning Ordinance. Such standards are sufficient to ensure that adequate on-site and off-site parking is available. The Friant Ranch Specific Plan Area will also be subject to the requirements of the Fresno County Zoning Ordinance (as amended by the proposed Zoning Ordinance text amendments applicable to the Specific Plan Area) ~~where the Specific Plan is silent on the issue.~~ Policy 5.47 of the Friant Ranch Specific Plan ~~however,~~ states, requires that the applicant “design and locate off-street parking to minimize conflicts with pedestrians and to minimize the physical and visual impact to the traditional streetscape appearance. Where practical, adjoining uses should share parking to minimize the number of parking lots, driveways and surface landscape area.”

Conclusion: Compliance with the Fresno County Zoning Ordinance will ensure that new development provides adequate parking in the existing Friant Community Plan Area and Friant Ranch Specific Plan Area. Compliance with Policy 5.47 of the Specific Plan will help ensure that adequate parking is available in the Friant Ranch Specific Plan Area. There is ***no impact***.

Mitigation Measures: No mitigation measures are required.

Impact #3.13-12: Conflict with Adopted Policies Supporting Alternative Transportation
[Evaluation Criteria (g)]

The Project will not conflict with adopted policies supporting alternative transportation. The Draft Friant Community Plan and Friant Ranch Specific Plan include Transportation Elements with plans to provide for potential future transit stations, the use of Neighborhood Electric Vehicles, and an integrated system of pedestrian and bicycle trails. Development in the Friant Community Plan Area and Friant Ranch Specific Plan Area will comply with the policies of the Fresno County General Plan with regard to alternative transportation.

The Project is consistent with Fresno County General Plan policies TR-A.12, TR-B.2 and TR-D.1 in that the Draft Friant Community Plan and Friant Ranch Specific Plan include plans for multi-modal transportation such as pedestrian and bicycle trails throughout the Project Area, the use of Neighborhood Electric Vehicles, and potential future transit stops.

The Draft Friant Community Plan includes the following policies to facilitate and encourage pedestrian, bicycle and public transportation:

- Policy 1.4 Promote a street and highway system that can accommodate alternative modes of travel.*
- Policy 1.5 Promote safe and convenient access within the residential portions of the community including use of lighting and crosswalks.*

Policy 1.6 Identify key locations for safe pedestrian access across Friant Road and install crosswalks, signage, lighting, traffic signals, and/or pedestrian signals, as warranted.

The source of domestic water for the Project is surface water from Millerton Lake. Water in the lake is of high quality and is low in turbidity and chemical content. Existing water treatment plants operated by WWD 18 (Friant Community) and the CSA No. 34 (Brighton Crest Development) have found it feasible to treat the Millerton Lake water to drinking water standards with standard technologies without unusual expense.

Although the Lower Tule River Irrigation District (LTRID) boundaries are located approximately 60 miles south of the Friant Community Plan Project Area, a brief description of the area within the LTRID boundaries is provided because of the proposed transfer of 2,000AF of CVP Friant Division Class 1 water from Lower Tule River Irrigation District (LTRID) to WWD18 to serve the proposed Project. The LTRID is comprised of approximately 103,086 acres extending approximately 10 miles west and eight miles east of the State Highway 99 corridor beginning at a point approximately four miles south of the City of Tulare and extending to a point approximately three miles north of the Community of Pixley. With exception of the small unincorporated communities of Poplar, Woodville and Tipton the entire LTRID consists of flat farmland (approximately 85,000 irrigated acres) traversed by over 150 miles of canals and rivers.

Wastewater

Nearly all of the buildings in the Friant Community are currently serviced by individual septic systems. The Millerton Lake Village Mobile Home Park is the only portion of the Friant Community that is currently served by a small sewer system package treatment plant. A new wastewater treatment plant is needed to provide adequate service levels and accommodate new development within the existing Friant Community.

Stormwater

Much of the highland area east of the Friant Ranch Specific Plan Area, east of the Friant-Kern Canal, drains naturally through the Project Area. Two existing drainage areas east of the canal cross under the canal in culverts and enter the Project Area at the Friant Ranch Specific Plan site. The largest of the drainage areas skirts the most southeasterly edge of Friant Ranch Specific Plan Area along the west side of the canal and continues on to the adjoining property to the south. The other drainage area enters the central portions of the Friant Ranch Specific Plan site, passes through natural swales and exits along the property's western edge as the drainage continues to flow toward and eventually into the San Joaquin River. Stormwater in the remaining Friant Community Plan Area including the Lost Lake Recreation Area is conveyed via storm drain outlets and culverts which ultimately drain into the San Joaquin River.

Off-site drainage from the east of the Friant-Kern Canal flows on-site through two culverts. One existing concrete box culvert is 3' x 3', while the other is 2.5' x 2.5' in size. Other drainage is cut off by the Friant-Kern Canal and empties into the canal via 18 inch corrugated metal pipe.

Within the proposed Friant Ranch Specific Plan boundaries, several ephemeral streams that have been classified as wetland channels and/or vernal swales convey most of the runoff from east-west to Friant Road. A portion of the Friant Ranch Specific Plan site drains to the south where it either crosses Friant Road by culvert or flows into Little Dry Creek. Near the proposed main

entrance to the Friant Ranch Specific Plan Area is an existing 24-inch culvert that flows underneath Friant Road towards Lost Lake Recreation Area. At the northwest edge of the Friant Ranch Specific Plan Area, the storm runoff enters a large concrete box culvert that crosses underneath Friant Road and drains to the San Joaquin River. On-site drainages also include vernal pools.

Solid Waste

The existing Friant Community's solid waste is transferred to the County owned and operated American Avenue Landfill. The 440-acre waste management facility is located approximately 40 miles southwest of Friant near the City of Kerman. The facility consists of an unlined waste management unit covering 30 acres (Phase I) and a 160-acre composite-lined waste management unit (Phase II). Phase I has reached capacity, and no additional materials are being accepted. There is a proposal to remove all contents of Phase I and line this unit, and to expand the waste management facility by constructing Phase III (250 acres). As of March 2010, Phase II is operational and has capacity, and three of twelve cells of Phase III have been completed. ~~upon completion of Phase II.~~ This expansion is necessary to provide service to Fresno County's expanding population base. The landfill is expected to have capacity through the year 2045.

The County has a franchise agreement with Ponderosa Solid Waste providing an exclusive right for solid waste disposal services in the unincorporated area of Fresno County near Friant. Ponderosa Solid Waste provides once-per-week curbside collection service to all homes and a range of commercial pick-up services to businesses. —To enhance Fresno County's waste diversion performance under the mandates of AB 939, solid waste customers are provided with the individual containers required to conduct source-separated recycling.

Electric Power and Natural Gas/Propane

Electricity for the Project will be provided by PG&E by extension of existing lines located throughout the Friant Community Plan area while natural gas will be provided from extension of existing lines from Friant Road and completion of an approximately 2.5 mile gap from Willow to the entrance to Lost Lake Park. The Friant Community is currently served by propane distributors, although PG&E recently constructed a natural gas transmission line north of Willow Avenue on Friant Road, extending to the entrance of Lost Lake Park. This pipeline is currently unused and is not connected to the PG&E gas distribution system. Currently, gas service to the Friant Ranch Specific Plan Area is not available.

Telephone, Internet and Cable TV

Telephone, Internet and cable television infrastructure is provided to the Project Area by Ponderosa Communications.

3.14.3 IMPACT EVALUATION CRITERIA

The following thresholds of significance are based on Appendix G of the 2008 CEQA Guidelines. For purposes of this EIR, a project will normally have significant adverse impacts associated with utilities if it would do any of the following:

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.*

Table 3.14-6
Projected Friant Ranch Specific Plan Average Daily Demand (ADD) for Water
By Residence Type and Lot Size
By Land Use at Build-Out –Residential

Friant Ranch Land Use	No. of Units	ADD (gpd/ac)	Acres	Demand (gpd)	Demand (AF/Day)	Demand (AF/yr)
SFD-1 Single-Family (6,000–7,200 SF)	293	1,875	60.7	113,812	0.349	127
SFD-2 Single-Family (3,500- 5,000 SF)	1,295	1,875	214.4	402,000	1.23	449
SFD-3 Single-Family Cluster & Alley-load (8.0- 12.0 du/ac)	1,095	3,035	135.0	409,725	1.26	460
MFD Apartments, Condos, Triplexes (12.0-18.0 du/ac)	83	3,035	5.3	16,085	0.049	18
MFD Non-Age Qualified Apartments (12.0- 18.0 du/ac)	180	3,035	13.5	40,972	0.126	46
Village Center (Live/Work)	50	200 (gpd/unit)	-	10,000	0.031	11
Total	2,996		428.9	992,594	3.04	1,111

Table 3.14-7
Projected Friant Ranch Specific Plan Average Daily Demand (ADD) for Water
By Land Use at Build-Out – Non-Residential

Land Use	ADD (Gpd/ac)	Acres	Total Demand (gpd)	Total Demand (AF/Day)	Total Demand (AF/yr)
Neighborhood Shopping Center	1,965	23.8	46,767	0.14	52
Active-Adult Community Center (CC)	1,965	16.7	32,815	0.10	37
Park (P)	2,500	25.0	62,900	0.19	70
Manufactured Slopes	1,965	92.0	180,780	0.55	201
Total		157.5	322,862 <u>323,262</u>	0.98	360

Table 3.14-6 presents a summary of water usage for residential development within the area, based upon the following methodology. With 2,996 units proposed in the Friant Ranch Specific Plan area, it is possible to calculate average densities, which have been correlated with land use designations in Clovis that allow for the use of selected specific water use factors which are presented in Table 3.14-6. As a measure of conservatism, these factors have not been adjusted for the much-lower expected average occupancy of each unit in an age-restricted 55+ active adult community such as Friant Ranch. Approximately 2/3 of domestic water is for external use (i.e., landscaping).

year yield of 1,540 AF. Pre-1914 water from LTRID will be used during critical dry periods of the hydrologic cycle to offset the shortfall, 460 AF (the difference between the 2000 AF contractual entitlement and the 1540 AF expected yield), in CVP Class 1 supply. The pre-1914 water from LTRID will not be delivered to the Project, but instead will be pumped into the Friant-Kern Canal and used to meet a portion of LTRID's South Valley commitments which would normally be met with CVP Class 1 supplies, thereby freeing up additional Class 1 water to be delivered to the Project;

- Approximately 400 acre-feet of reclaimed wastewater supplies will be recycled and utilized in a normal hydrologic year for non-potable uses on the Project site; and
- WWD 18 long-term contract for 150 AF of Class I CVP Friant Division supply, with a dry year yield of 37 AF.

Unlike many areas within California planned for long term growth and development, the advantageous location of the Friant Community Plan area, inclusive of the proposed Friant Ranch Specific Plan, adjacent to a major reservoir (Millerton Lake) ensures the reasonable likelihood of long term availability of adequate water supply to meet the areas water demand at Buildout well beyond a 20 year time frame. The likelihood of long term availability of adequate water supply is further enhanced by the agreement that has been signed between the Specific Plan applicant and Lower Tule River Irrigation District, subject to approval by the US Bureau of Reclamation, securing a water supply of up to 2,000 AF per year.

Although long term uncertainties are always a factor when considering the adequacy of domestic use water supplies over time, the degree to which such uncertainties, such as contract terminations or modifications and reduction in snow melt due to global climate change (see Section 3.15 for discussion of potential effect of global climate change on long term water supply), etc. are considered minimal for the waters provided by the CVP in that WWD 18 and the LTRID have each entered into CVP Friant Division long-term water supply contracts with the USBR. Each of these separate renewal contracts negotiated by these districts in January 2001 expires on February 28, 2026, with possible 25-year renewals.

These identified water supplies, current and agreed upon in principle, satisfy the projected 20-year demands of the Project together with WWD 18's existing and planned future uses during normal, critical dry and multiple-dry years. To secure the identified supplies, WWD 18 will need to accomplish the following steps:

1. Participate in the County CEQA process for the Friant Community Plan Update and Friant Ranch Specific Plan, and adopt CEQA findings for related WWD 18 actions including a Water Supply Agreement, water service agreement for the Project, approval of water supply infrastructure agreements, and inclusion of the Project Site into WWD 18.
2. Participate in the USBR and LAFCO approval processes for annexation of the Project boundaries into WWD 18.

The treatment plant (or WWTP, need to be consistent) will be provided with several features to assure full compliance with the requirements of Title 22 for effluent reclamation. Although not all-inclusive, the features required for compliance are provided to assure consistent, reliable delivery of water at the expected quality. Plant features to provide this assurance will include, but not be limited to, the following:

- Standby power generation facilities sufficient to operate necessary process units;
- Redundant machinery and/or components, as needed to allow uninterrupted operation during loss of any device;
- Automated control, monitoring, and alarm systems. These shall be of open architecture so the operating staff is not bound to a single vendor for maintenance;
- Process ability to remove nitrogen to levels less than 10 mg/l, (measured as Nitrogen). This is the allowable nitrate level for potable water;
- Compliance with requirements for monitoring of turbidity, effluent BOD, and other constituents as specified in the Waste Discharge requirements;
- Storage facilities for “off-spec” water, sufficient to contain one day’s production; water not meeting the necessary quality would be stored and re-treated as capacity is available;
- Staff training, particularly in the application of reclaimed water in public spaces; and
- Friant Ranch will implement a CC&R condition banning use of residential water softeners. This provision will limit the quantity of electroconductivity (EC) added to the wastewater as it is used within the community, and will enhance WWD 18’s ability to meet the EC discharge limits expected to be imposed by the Regional Water Quality Control Board.

The intent of the Project is to provide a facility adequate to treat wastewater to the level that is necessary to comply with all applicable water quality standards for the discharge of treated effluent to the San Joaquin River, and is treated to a level necessary for unrestricted reuse, reliably and in full compliance with applicable rules and regulations. A tentative site layout for the treatment facilities is shown in Figure 3.14-3. Note that the layout includes tanks to contain effluent for diurnal storage for irrigation, and also a second tank for storage of “off-spec” water. This second tank would be used to assure that all water used for irrigation fully complies with Title 22 Requirements. The preferred method of discharge of the treated effluent is by storage and land disposal onsite and at off-site locations in the immediate vicinity (see Figure 3.14-4 for Beck Property effluent storage/disposal option). It is possible that the first tank could be located on the Lost Lake Park property near the disposal area, and that the second tank could be replaced by converting the existing WWTP storage ponds to the same purpose, with correspondingly less visual impact to the community. These decisions are deferred to final Project design. Potential impacts associated with installation of effluent tanks within the WWTP options are analyzed in other sections of this Draft EIR in conjunction with discussion of Buildout of the Friant Community Plan, inclusive of the Friant Ranch Specific Plan (e.g., Chapters 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 and 3.8).

All lands used for effluent reclamation must be permitted by the Regional Water Quality Control Board and the Department of Public Health prior to commencement of reclamation activities. These permits will be applied for concurrently with the filing of the Report of Waste Discharge.

While effluent is generated year-round, it cannot be applied beneficially to land on that same basis. Effluent generated during winter months must either be stored for subsequent irrigation, or disposed in another fashion. All areas within the development containing sufficient acreage for wintertime effluent storage host a number of environmentally sensitive species. Due to the extent of these sensitive habitats, it is doubtful that storage ponds could be provided within the development. Therefore, an alternative disposal method must be provided for the winter months when plants and grasses are dormant.

~~During winter months, subject to requisite approvals, disposal of tertiary treated effluent will occur through discharge of tertiary treated effluent to the San Joaquin River during high river flow periods. River discharge will be limited to the months of October through April. An NPDES permit will be required for this discharge, and will be applied for concurrently with the filing of the Report of Waste Discharge. If the requisite approvals are not provided to WWD 18 for this proposed discharge, WWD 18 will consider alternative disposal options, such as storage or percolation at locations in the immediate vicinity (see Figure 3.14-4 for Beck Property effluent storage option). The preferred method of discharge of the treated effluent is by storage and land disposal onsite and at off-site locations in the immediate vicinity (see Figure 3.14-4 for Beck Property effluent storage/disposal option). As an alternative disposal option, the tertiary treated effluent may be discharged during winter months, subject to requisite approvals, to the San Joaquin River during high river flow periods. River discharge would be limited to the months of October through April. An NPDES permit would be required for this discharge and applied for concurrently with the filing of the Report of Waste Discharge.~~

Potential impacts associated with various effluent disposal options are analyzed in other sections of this Draft EIR in conjunction with discussion of Buildout of the Friant Community Plan, inclusive of the Friant Ranch Specific Plan (e.g., Chapters 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 and 3.8).

Conclusion: Implementation of Fresno County General Plan policies noted previously (Regulatory Setting Section) and infrastructure improvements noted in the Friant Ranch Infrastructure Master Plan, hereby incorporated by reference and included as Appendix N, will ensure that the potential impacts in excess of the wastewater requirements of the Regional Water Quality Control Board (criteria a) will be ***less than significant***. The Project has the potential to create a ***potentially significant impact***, without mitigation, on existing wastewater treatment capacity (criteria b and c) and will require construction of a new wastewater treatment plant, the impacts of which are ***potentially significant*** without mitigation.

Mitigation Measure #3.14.3a: All new development in the Friant Community Plan area, inclusive of the Friant Ranch Specific Plan, shall comply with Fresno County General Plan policy PF-D.2, which requires that any new community sewer and wastewater treatment facilities serving residential subdivisions be owned and maintained by a County Service Area or other public entity approved by the County, such as Waterworks District No. 18.

Mitigation Measure #3.14.3b: Adequately sized on-site collection facilities, including lift stations, shall be installed for each subdivision in the Project Specific Plan area concurrent with road construction for individual subdivisions. A “backbone” conveyance system sufficient to serve each subdivision shall be installed prior to issuance of building permits for that subdivision.

Mitigation Measure #3.14.3c: Wastewater collection, treatment and disposal of the Friant Ranch Specific Plan Area shall adhere to Section VI of the Friant Ranch Infrastructure Master Plan. The applicant and/or WWD 18 must demonstrate adherence to Section VI of the Friant Ranch Infrastructure Master Plan prior to issuance of an occupancy permit for development within the Friant Ranch Specific Plan Area.

Mitigation Measure #3.14.3d: Commitments from the wastewater treatment provider to receive anticipated flows from the Friant Ranch Specific Plan Area and Millerton Lake Village Mobile Home Park at the WWTP shall be secured by Fresno County prior to County approval of improvement plans for wastewater collection and transmission infrastructure.

Mitigation Measure #3.14.3e: Prior to issuance of building permits for each increment of new development within the Project Area, the County shall confirm that all necessary permits (e.g., NPDES) are in place for the WWTP to discharge additional treated effluent in the amounts associated with new development. This shall include a determination that development timing will not impede other development for which entitlements have been issued.

Mitigation Measure #3.14.3f: Prior to approval of improvement plants and wastewater collection and infrastructure, the applicant must demonstrate to the County that on- and off-site sewer pipelines will have watertight joints and be in accordance with design standards adopted by Fresno County in order to minimize the potential for accidental discharge.

Mitigation Measure #3.14.3g: The design plans for the WWTP shall incorporate appropriate and cost-effective odor and noise reduction measures as described in the Infrastructure Master Plan, to the satisfaction of the Fresno County Planning and Public Works Departments prior to issuance of the conditional use permit for the WWTP.

Effectiveness of Mitigation: Implementation of the above mitigation measures will result in a *less than significant* impact.

Impact #3.14.4 – Stormwater Drainage Capacity and Facilities [Evaluation Criteria (c)]

The Friant Community Plan, inclusive of the Friant Ranch Specific Plan, will be designed using Low Impact Development principles which are set forth in detail in the Friant Ranch Infrastructure Master Plan and also discussed in the Hydrology and Water Quality section of this Draft EIR

Detention and Retention Basins

The basin geometry for each watershed differs depending on many factors, including the contributing drainage area and the design flow volume. Retention basins are designed to maintain the predevelopment runoff volume by storing the peak storm runoff above a base flow; retention basins in this case have also been sized to provide the storage volume necessary to give the detention time required for water quality control.

Biosolids Disposal

Disposal of biosolids generated by the WWTP in Friant Ranch will be in accordance with regulations contained in EPA 40 CFR 503,

Solids will be disposed to permitted landfills.

Conclusion: Compliance with regulations contained in EPA 40 CFR 503 reduces this impact to a ***less than significant*** level.

Mitigation Measures: No additional mitigation measures are required.

Impact #3.14.6 – Compliance with Federal, State, and Local Solid Waste Regulations [Evaluation Criteria (f)]

The Project would have a significant impact related to solid waste disposal if it would not comply with federal, State and local statutes and regulations related to solid waste and recycling. The existing landfill is regulated by the Fresno County Environmental Health Department in compliance with Federal, State, and Local regulations. The American Avenue Landfill has sufficient permitted capacity to accommodate the buildout of the Project and is operated in compliance with federal, state and local solid waste regulations.

Conclusion: The project proponent(s)/developer(s) will comply with federal, State and local statutes and regulations related to solid waste and recycling. The impact is considered ***less than significant***.

Mitigation Measures: No mitigation measures are required. Though not required to mitigate an identified less than significant impact, the following mitigations are recommended to further reduce impact on the land fill.

Mitigation Measure #3.14.6a: Contractors shall be required to provide on-site separation of construction debris to assure a minimum 50% diversion of this material from the landfill.

Mitigation Measure #3.14.6b: A source-separated green waste program shall be implemented within the project area, subject to review and approval by the Fresno County Department of Public Works and Planning, Resources Division.

Effectiveness of Mitigation: Implementation of the above mitigation measures will ensure a ***less than significant*** impact.

- Coal: Emission of nitrogen oxides, carbon dioxide, sulfur dioxide, mercury and methane into the air; significant water use; discharge of warmed and polluted water into natural water bodies; generation of solid waste; soil contamination; alteration of wildlife habitat during surface mining; and
- Natural Gas: Emission of methane, nitrogen oxides, and carbon dioxide; alteration of habitat during extraction.

Mitigation Measure #3.14.7a: The Specific Plan applicants and subsequent developers within the Community Plan area shall work closely with PG&E or other utility provider to ensure that development of electrical and natural or propane gas infrastructure with the capacity to service the proposed development ~~entire Community Plan area~~ is located and provided concurrently with roadway construction and in accordance with PUC regulations. The applicant(s) shall grant all necessary easements for installation of electrical and natural/propane gas facilities, including utility easements along existing and future on-site arterial roads ~~for the development of area-wide utility corridors~~. Coordination with PG&E and/or alternative providers shall occur, and any required agreements shall be established prior to recordation of ~~the first~~ a final subdivision map.

Mitigation Measure #3.14.7b: Implement Mitigation Measure 3.3.2 as set forth in Section 3.3 of this Draft EIR.

Effectiveness of Mitigation: Implementation of the above mitigation measures will reduce energy-related impacts to a *less than significant* level.

3.15 Greenhouse Gas Emissions and Global Climate Change

INTRODUCTION

In California, observational trends from the last half century show warmer winter and spring temperatures, decreased spring snow levels in lower- and mid-elevation mountains, up to one month earlier snow pack melting, and flowers blooming one- to two-weeks earlier than under historical conditions (Cayan et al. 2006b). Research suggests that human activities, such as the burning of fossil fuels and clearing of forests, contribute additional carbon dioxide (CO₂) and other heat trapping gas emissions into the atmosphere. Future global climate change could have widespread consequences that would affect many of California's important resources, including its water supply.

This section considers the impacts of all land within the Friant Community Plan boundary, including the proposed Friant Ranch Specific Plan, on greenhouse gas emissions and global climate change, as well as climate change impacts to water supply. The Project land uses that are included in this study that will result in significant levels of vehicle trips at full build-out are as follows (Figure 3.15-1):

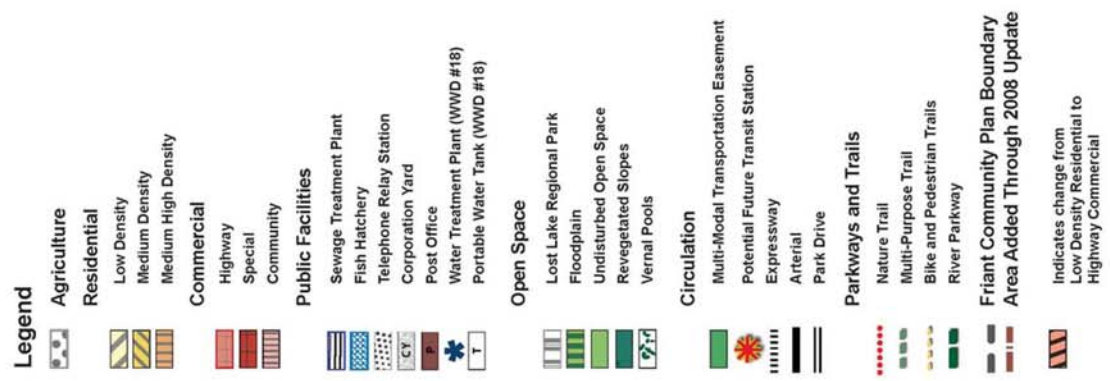
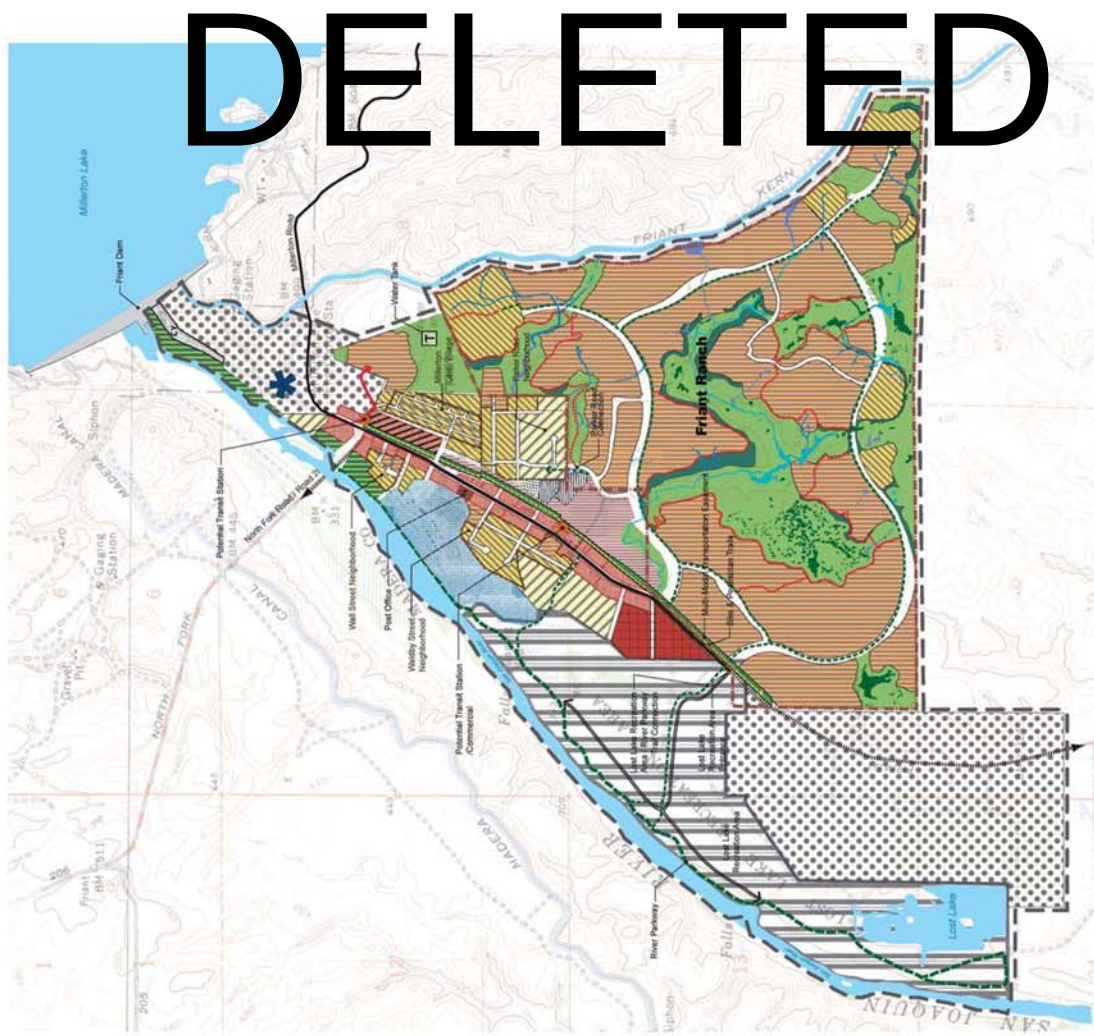


FIGURE 3.15-1

LAND USE MAP



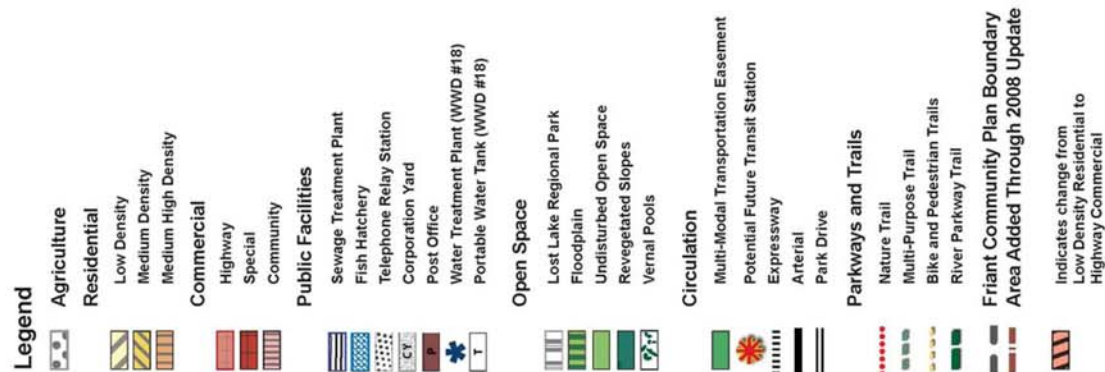
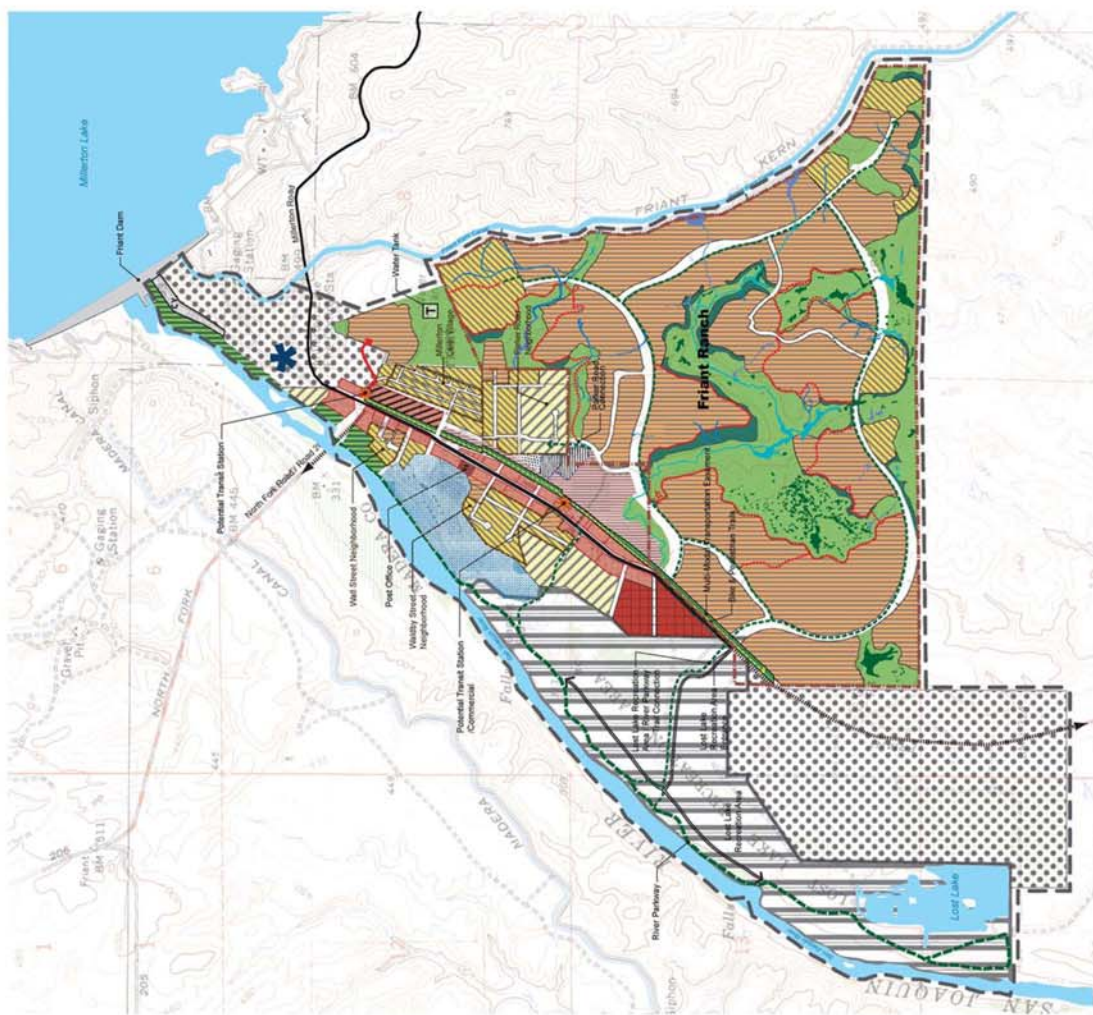


FIGURE
3.15-1

LAND USE MAP

Community Plan Area outside Friant Ranch Specific Plan area:

- Highway Commercial: 33.07 acres;
- Lost Lake Regional Park: 263.97 acres;
- Low Density Residential: 44.33 acres;
- Medium Density Residential: 50.92 acres;
- Medium High Density Residential: 10.09 acres; and
- Special Commercial: 17.1 acres

Friant Ranch Specific Plan: Total of 565 acres

- 2,683 Senior adult housing-detached units;
- 83 Senior adult housing- attached units;
- 230 low rise apartment units;
- 10,000 SF of high-turnover sit down restaurant;
- 5,000 SF of fast food restaurant with drive through;
- 10,000 SF medical-dental office;
- 100,000 SF of general office space; and
- 125,000 SF of shopping center area.

The Depot Parcel:

- Highway Commercial: 6.75 acres

3.15.1 REGULATORY SETTING

This section describes recent state regulations that specifically address greenhouse gas emissions and global climate change. At the time of writing, there are no regulations setting ambient air quality emissions standards for greenhouse gases.

California Air Resources Board

The CARB, a part of the U.S. EPA, is responsible for the coordination and administration of both federal and State air pollution control programs within California. The CARB conducts research, sets State ambient air quality measure standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs.

Assembly Bill 1493

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493, which required that the California Air Resources Board (ARB) develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases y passenger vehicles and light-duty truck and other vehicles determined by the ARB vehicles whose primary use is noncommercial personal transportation in the state.”

Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra’s snowpack, further exacerbate California’s air quality problems, and

potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050.

certain CEQA documents. SB 97 requires the Governors Office of Planning and Research (OPR) to prepare CEQA guidelines for the mitigation of GHG emissions, including but not limited to, effects associated with transportation or energy consumption. OPR must prepare these guidelines and transmit them to the Resources Agency by July 1, 2009. The Resources Agency must then certify and adopt the guidelines by January 1, 2010. OPR and the Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by ARB pursuant to the Global Warming Solutions Act, scheduled for 2012.

In June 2008, OPR released a technical advisory on CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review as interim recommendations while the official OPR CEQA Guidelines were under development. In January 2009, OPR released its draft CEQA Guideline amendments and additions, which include suggested thresholds of significance and mitigation measures to address global climate change.

Senate Bill 375

SB 375 was signed by Governor Schwarzenegger on September 30, 2008. The bill provides means to further reduce greenhouse gas (GHG) emissions from passenger vehicles and light trucks. The intent of the bill is to connect land use planning with transportation policy, resulting in more sustainable and environmentally friendly communities. The bill requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within their Regional Transportation Plans (RTPs). The SCS sets forth a vision for growth of the region taking into account, transportation, housing, environmental, and economic needs of the region, with the goal of reducing the number of miles traveled by personal vehicles, and thus reducing GHG emissions. Under the law, the California Air Resources Board has two years to give each of California's MPO a GHG emissions reduction target for cars and light trucks. However this target GHG from cars and light trucks can only be implemented through changes in development pattern of the MPO. Once the guidelines have been established, (in mid-2010), regions will need to prepare an SCS and incorporate them into their RTPs.

The GHG emissions reduction targets for each region are required to be established no later than September 30, 2010. Once the GHG emissions reduction targets for each region have been established, SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their Regional Transportation Plan. While there is no deadline for adoption of the SCS, it is anticipated that the first plans would not be released until 2011, at the earliest. The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide individual jurisdictions with growth strategies that, when taken together, achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS but provides incentives for consistency for governments and developers. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an Alternative Planning Strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measures.

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted guidelines for addressing greenhouse gas impacts in its *Guidance for Valley Land Use Agencies in Addressing GHG impacts for New Projects Under CEQA (2009)*. The guidance relies on performance-based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific GHG emissions on global climate change during the environmental review process. Projects implementing BPS's would be determined to have a less than cumulatively significant impact. Projects can also demonstrate compliance with the requirements of AB 32 by demonstrating that their emissions achieve a 29% reduction below "business as usual" levels.

To be determined to have a less than significant individual and cumulative impact on global climate changes, projects must be determined to have reduced or mitigated GHG emissions by 29% below "business as usual" conditions, consistent with GHG emission reduction targets established by the AB 32 Scoping Plan.

Projects meeting one of the following would have a less than significant impact on global climate change:

- Exempt from CEQA;
- Complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project achieves 29% GHG reductions by using approved Best Performance Standards; and
- Project achieves AB 32 targeted 29% GHG reductions compared with "business as usual".

3.15.2 PHYSICAL SETTING

Existing Greenhouse Gases and Links to Global Climate Change

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect (Ahrens 2003). Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2006a). A byproduct of fossil fuel combustion is CO₂. Methane, a highly potent GHG, results from offgassing associated with agricultural practices and landfills. Processes that absorb and

accumulate CO₂, often called CO₂ “sinks,” include uptake by vegetation and dissolution into the ocean.

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO₂ in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004 (California Energy Commission 2006a). Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potentials to retain infrared radiation in the atmosphere and

Other Feedback Mechanisms

As global temperature continues to rise, CH₄ gas currently trapped in permafrost, would be released into the atmosphere when areas of permafrost thaw. Thawing of permafrost attributable to global warming would be expected to accelerate and enhance global warming trends. Additionally, as the surface area of polar and sea ice continues to diminish, the Earth's albedo, or reflectivity, is also anticipated to decrease. More incoming solar radiation will likely be absorbed by the Earth rather than being reflected back to space, further enhancing the greenhouse effect. The scientific community is still studying these and other positive and negative feedback mechanisms to better understand their potential effects on global climate change.

3.15.3 IMPACT EVALUATION CRITERIA

~~No air district in California, including the San Joaquin Valley Air Pollution Control District, has identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to greenhouse gas emissions.~~ The State has identified 1990 emission levels as a goal through adoption of AB 32. To meet this goal, California would need to generate lower levels of GHG emissions than current levels. ~~However, no standards have yet been adopted quantifying 1990 emission targets.~~ It is recognized that for most projects there is no simple metric available to determine if a single project would help or hinder meeting the AB 32 emission goals. In addition, at this time AB 32 only applies to stationary source emissions. Consumption of fossil fuels in the transportation sector accounted for over 40% of the total GHG emissions in California in 2004. Current standards for reducing vehicle emissions considered under AB 1493 call for "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles," and do not provide a quantified target for GHG emissions reductions for vehicles.

Emitting CO₂ into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of CO₂ in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental effects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project's incremental contribution of CO₂ into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of CO₂ emitted by the project would result in any altered conditions.

Given the challenges associated with determining a project-specific significance criteria for GHG emissions when the issue must be viewed on a global scale, a quantitative significance criteria is not proposed for the Project. For this analysis, a project's incremental contribution to global climate change would be considered significant if due to the size or nature of the project it would generate a substantial increase in GHG emissions relative to existing conditions.

~~Pending~~ Recent CEQA Guidelines amendments, ~~being drafted~~ adopted by the Governors Office of Planning and Research in early 2010, have identified the following ~~draft~~ significance criteria pertaining to the impact of Global Warming:

- a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance.*
- b. *Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.*

Under the ~~proposed~~ Guidelines criteria, greenhouse gas emissions should be addressed if either of the above applies.

Estimated Emissions of Greenhouse Gases from the Project

GHG emissions associated with the Project were estimated using CO₂ emissions as a proxy for all GHG emissions. This is consistent with the current reporting protocol of the California Climate Action Registry (CCAR). Calculations of GHG emissions typically focus on CO₂ because it is the most commonly produced GHG in terms of both number of sources and volume generated, and because it is among the easiest GHGs to measure; however, it is important to note that other GHGs have a higher global warming potential than CO₂. For example, as stated previously, 1 lb of methane has an equivalent global warming potential of 21 lb of CO₂ (California Climate Action Registry 2006). Nonetheless, emissions of other GHGs from the Project (and from almost all GHG emissions sources) would be low relative to emissions of CO₂ and would not contribute significantly to the overall generation of GHGs from the project.

Although the CCAR provides a methodology for calculating GHG emissions, the process is designed to be applied to a single or limited number of entities or operations where detailed information on emissions sources is available (e.g., usage of electricity and natural gas, numbers and types of vehicles and equipment in a fleet, type and usage of heating and cooling systems, emissions from manufacturing processes). Information at this level of detail is not available for the Project area. For example, the ultimate GHG emissions from the approximately 39.82 acres of Highway Commercial in the Community Plan could vary substantially depending on the type and amount of office and commercial uses that are developed, the density of employees in each facility, the hours of operation for each facility, and other factors. Similarly, GHG emissions from the proposed residences could vary substantially based on numerous factors, such as the sizes of homes, the type and extent of energy efficiency measures that might be incorporated into each home's design, the type and size of appliances installed in the home, and whether solar energy facilities are included on any of the residences. Given the lack of detailed design and operational information available at this time for facilities in the Project area, the CCAR emissions inventory methodology is not appropriate for estimating GHG emissions from the project.

The URBEMIS modeling program was utilized in creating the CO₂ emission calculations. The program estimates CO₂ emissions from project-generated vehicle trips. Estimates are based on the proposed detailed land use information from the Friant Ranch Specific Plan and an estimate

of possible uses for the areas outside the Friant Ranch Specific Plan and within the Community Plan boundary, including the Depot Parcel, based on the Friant Community Plan. Figure 3.15-1 represents the areas that are described above. Because there are no current developments being planned for the area outside the Friant Ranch Specific Plan, and only an assumption of land use types was used within the quantitative analysis, the CO₂ emissions should be recalculated at time of proposed development within the existing Community Plan Area. Build-out of the entire Project area, including both existing and planned/proposed future uses, would result in approximately 81,436 vehicle trips per day. The Project at full buildout would generate an average of 585,214 vehicle miles traveled (VMT) per day, or approximately 213 million VMT annually. The Project will emit approximately 127,392 tons of CO₂ per year from the project-generated vehicle trips and area source emissions.

The analysis for GHG emissions utilized URBEMIS calculations which included trip-rates from the traffic study. This provides a more conservative approach since portions of the Community Plan currently have no development plans. The portion of the above Project impacts calculated for the Friant Ranch Specific Plan Area from the detailed land use plan would result in approximately 22,340 vehicle trips per day. The Specific Plan Area at full buildout would generate an average of 137,857 vehicle miles traveled (VMT) per day, or approximately 50 million VMT annually. Vehicle trips and area source emissions resulting from development within the Specific Plan Area will emit approximately 38,525 tons of CO₂ per year. Additionally, the portion of the above Project impacts calculated for the proposed land use at the Depot Parcel would result in approximately 3,156 vehicle trips per day. The zoning change for the Depot Parcel would generate an average of 14,900 VMT per day, or approximately 5.44 million VMT annually. Vehicle trips and area source emissions resulting from development on the Depot Parcel will emit approximately 2,790 tons of CO₂ per year.

This should be considered a very general estimate providing an indication of the order of magnitude of CO₂ emissions from the Project. As discussed above, numerous factors that can substantially affect the project's CO₂ emissions (structural designs, type of building occupants, hours of operation) will not be known until buildout is complete.

Although the estimate of ~~260,408~~ 127,392 tons of CO₂ emitted annually from the Project is very general, and is considered high, it is sufficient to support an evaluation of the project's contribution towards GHG emissions.

It should also be noted that the emissions calculations described above do not take into account reductions in GHG emissions resulting from implementation of AB 32. Stationary emissions sources on the project site resulting from energy usage and stationary sources that serve the project site's energy needs (e.g., power plants) will be subject to emissions reductions requirements of AB 32.. The extent of these reductions has not yet been quantified by ARB. At the time of project buildout, overall CO₂ emissions attributable to the Project could be substantially less than current emissions assumptions might indicate. Similarly, if GHG emissions reductions for vehicles are enacted, through either the requirements of AB 1493 or AB 32 or a federal regulation, CO₂ emissions from the Project would be further reduced. If regulations proposed to comply with AB 1493 survive current legal challenges, by project buildout CO₂ emissions from vehicles associated with the project could be 20% to 30% less than

under current conditions. If AB 1493 is repealed, it is unclear what vehicle emissions limits might be adopted as part of AB 32.

3.15.4 IMPACT ANALYSIS

As described above in the “Environmental Setting” discussion, the cumulative increase in GHG concentrations in the atmosphere has resulted in and will continue to result in increases in global average temperature and associated shifts in climatic and environmental conditions. Multiple adverse environmental effects are attributable to global climate change, such as sea level rise, increased incidence and intensity of severe weather events (e.g., heavy rainfall, droughts), and

totaled approximately 391 million tons in 2004 (California Energy Commission 2006a). Total CO₂ emissions from the Project, as estimated above, would be 0.07% of this statewide total.

Impact #3.1415.1 – Development of the Project could potentially result in a cumulatively considerable incremental contribution to the significant cumulative impact of global climate change

The project will have a cumulative impact of global climate change due to the increase of population and vehicles in the area. CO₂ emissions created from the Project through the VMT's as mentioned in the section above will contribute to GHG's local, regionally, and globally.

The Project's Mitigating Factors

Broadly speaking, climate change mitigation and adaptation strategies fall into three categories: (1) transportation sector strategies; (2) electricity sector strategies, including renewable energy and energy efficiency; and (3) all other adaptation strategies, such as carbon sequestration, participation in emissions trading markets and research and public education (California Energy Commission, 2003). The Friant Community Plan Update, including the proposed Friant Ranch Specific Plan project, (the Project) incorporates guidelines, strategies and mitigation measures that minimize the human and spatial environmental footprint in the project area, including transportation and electricity impacts. Implementation of these measures will help reduce potential GHG emissions resulting from the development of the Project.

The state's primary source of GHG emissions is the consumption of fossil energy (California Energy Commission 2003). The proposed Community Plan has several components included in the project's goals and policies that would reduce consumption of fossil energy within the Project area, and thereby reduce potential GHG emissions. These components are consistent with "smart growth" principles developed and promoted by local and regional communities worldwide.

"Smart Growth" Factors

The proposed Project has several components that will promote smart growth development scenarios, which will help to reduce the possible amounts of GHG's. Many of these are mentioned in the Goals and Policies section below. The Specific Plan will make use of alternative modes of transportation that produce less greenhouse gas emissions than vehicular travel, or none at all. Also, the proposed development is designed to encourage people to walk, ride bicycles, take public transportation, and make use of Neighborhood Electric Vehicles (NEV's). The project area's overall design and land use plan creates a compact development pattern that offers a wide variety of density typologies. In addition, the project will include a Village Center that will create numerous jobs with resulting shorter trips between work and living units, and a balance of housing and jobs.

Traffic Factors

Implementation of the Specific Plan's transportation and circulation goals, policies, and mitigation measures will also help reduce potential GHG emissions by providing multi-modal

This No Project Alternative considers two potential scenarios that could occur without the Project: (1) development of additional structures under current zoning and general plan designations for the Friant Community Plan Area and the Friant Ranch Specific Plan Area; and (2) maintenance of the status quo use of the lands within the Friant Ranch Specific Plan Area.

A considerable amount of properties within the existing Community Plan Area fronting onto Friant Road are vacant, so there is potential for new development under the current zoning and general plan designations (No Project Alternative – Buildout Under Existing Zoning and General Plan Designations). However, development potential in the Friant Community Plan Area is constrained by current limited existing water supply and lack of wastewater treatment facility. There are approximately 18 acres of Low Density, five acres of Medium Density, and eight acres of Medium High Density designated land in the existing Friant Community Plan Area that are vacant and available for development under the current zoning and general plan designations. The total number of units (.80 net density to account for right of way) which could be built is approximately 17 Low Density units, 29 Medium Density units and 116 Medium High Density units. At 2.27 persons per household, the total number of additional persons in the existing Friant Community Plan Area could be 367 with the No Project Alternative – Buildout Under Existing Zoning and General Plan Designations.

There is, however, no certainty that the “No Project Alternative” would result in construction within the Project Area even though some development would be allowed under existing zoning and general plan designations. If the property owner were to maintain the status quo use of grazing cattle on the Specific Plan site, land use impacts would not change appreciably from those impacts that already occur from the grazing of cattle on the Specific Plan site. Similarly, if lands within the existing Community Plan Area were left in their present condition the amount of disturbed area would remain constant and no significant impacts would result. None of the impacts associated with construction and operational activities would occur under the No Project Alternative. No additional vehicle trips would be generated over present conditions, nor would noise, climate change/greenhouse gas emissions, and air quality impacts occur with this alternative. In addition, the No Project Alternative – Maintenance of Status Quo would have no impact with regard to visual resources, land use, public services and recreation, energy, utilities, hazardous materials, biological resources or cultural resources. Accordingly, the No Project Alternative – Maintenance of Status Quo within the Project area would not result in any significant impacts to the environment. As such, the following analysis discusses in more detail the potential impacts of the No Project Alternative – Buildout Under Existing Zoning and General Plan Designations.

Under current zoning as depicted in Table 4-1, the Specific Plan property owner may build one single-family dwelling for every 40 acres of the Specific Plan site. Thus, the property owner could build up to 23 residential units on the 942-acre Project Site. Other improvements which may feasibly be constructed on the site are septic systems, outbuildings, utility lines, wells and water storage facilities, access roads, and cross-fencing. Typically, rural residential development of this type results in direct disturbance to the project site from grading, trenching, building construction, etc. to one or more acres of land per residential unit. Thus, up to 60 acres of previously undisturbed land could be permanently altered from residential construction under

current zoning. Indirect effects on the existing landscape could result from accelerated drainage from developed lands to undeveloped lands, more intensive grazing from domestic livestock

Geology, Soils and Mineral Resources

Section 3.6 of this Draft EIR identifies the potentially significant impacts of the Project on geology, soils and mineral resources. As identified in Section 3.6, the Project would have a less than significant impact. The No Project Alternative would have less of an impact than the Project because new development would be limited to the existing Friant Community Plan Area, with limited development potential in the Friant Ranch Specific Plan Area.

Hazards and Hazardous Materials

Section 3.7 of this Draft EIR identifies the potentially significant impacts of the Project on hazards and hazardous materials. As identified in Section 3.7, the Project would have a less than significant impact with implementation of mitigation measures #3.7.6a and #3.7.6b on emergency preparedness. The No Project Alternative would have less of an impact than the Project because new development would be limited to the existing Friant Community Plan Area, with limited development potential in the Friant Ranch Specific Plan Area.

Hydrology and Water Quality

Section 3.8 of this Draft EIR identifies the potentially significant impacts of the Project on hydrology and water quality. As identified in Section 3.8, the Project would have a less than significant impact with implementation of mitigation measure #3.8.3a on the alteration of the existing drainage pattern and stormwater drainage capacity. The No Project Alternative would have less of an impact on the existing drainage pattern and stormwater drainage capacity as the Project because this alternative would limit development to the existing Friant Community Plan Area, with limited development potential in the Friant Ranch Specific Plan Area. Under the No Project Alternative, the proposed tertiary wastewater treatment facility would not be constructed; wastewater treatment within the Friant Community Plan area would continue to be limited to individual septic systems (of which there are presently 170), while treatment for the approximately 100 units within the Millerton Lake Mobile Home Park would continue to be secondary treatment with land disposal to unlined disposal ponds, operated by CSA 44. The benefits to groundwater from higher quality wastewater treatment and ~~surface water~~ disposal that would occur for future development within the Friant Community Plan area, and for existing uses that choose to connect to the new tertiary facility, would not be realized.

Land Use and Planning

Section 3.9 of this Draft EIR identifies the potentially significant impacts of the Project on land use and planning. As identified in Section 3.9, the Project would have a less than significant impact. The No Project Alternative would have less of an impact than the Project because there would be no potential conflicts between the Project and applicable land use plans, policies and regulations.

Noise

Section 3.10 of this Draft EIR identifies the potentially significant impacts of the Project with regard to noise. As identified in Section 3.10, the Project would have a less than significant impact with implementation of mitigation measure #3.10.1a on the exposure to excessive noise levels or vibration. The Project would have a less than significant impact with implementation of mitigation measures #3.10.2a through #3.10.2c on construction noise. The No Project Alternative would have less of an impact on excessive noise levels or vibration, and construction noise because this alternative would limit development to the existing Friant Community Plan Area, with limited development potential in the Friant Ranch Specific Plan Area.

Population and Housing

Section 3.11 of this Draft EIR identifies the potentially significant impacts of the Project on population and housing. As identified in Section 3.11, the Project would have a significant impact that cannot be mitigated. The No Project Alternative would have less of an impact than the Project because new development would be limited to the existing Friant Community Plan Area, with limited development potential in the Friant Ranch Specific Plan Area.

Public Services

Section 3.12 of this Draft EIR identifies the potentially significant impacts of the Project ~~on from~~ the increased demand for public services and recreation, law enforcement services. As identified in Section 3.12, the Project would not result in a significant impact as a result of increased demand on parks and recreation and would have a less than significant impact on public services with implementation of mitigation measures #3.12.1 and #3.12.2.a on the increased demand for law enforcement services. The No Project Alternative would have less of an impact on the increased demand for ~~law enforcement~~ public services and parks/recreation than the Project because this alternative would include fewer residential units than the Project, which would equate to ~~less~~ fewer officers being needed to patrol the Project Area and fewer people to frequent recreational and park areas.

Traffic and Circulation

Section 3.13 of this Draft EIR identifies and quantifies traffic impacts of the Project related to future operations within the Friant Community Plan Area and Friant Ranch Specific Plan Area. Tables 3.13-16 through 3.13-18 identify Year 2030 With-Project conditions. A significant impact occurs if the additional traffic generation from the Project results in a Level of Service above established thresholds. After implementation of mitigation measures outlined in Tables 3.13-19 and 3.13-20, several intersections and roadway segments remain significantly impacted.

Traffic impacts associated with this alternative would be less than those with the Project because development would only occur within the existing Friant Community Plan Area, with limited development potential in the Friant Ranch Specific Plan Area. The No Project Alternative would have less of an impact on traffic related resources than the Project because this alternative would include fewer residential units than the Project, which would equate to less traffic being generated.

Biological Resources

Section 3.4 of this Draft EIR identifies the potentially significant impacts of the Project on biological resources. As identified in Section 3.4, the Project would have a less than significant impact with implementation of mitigation measures #3.4-1a through 3.4-13. Alternative 1 would have less of an impact than the Project because this alternative would concentrate development on 496 acres of Friant Ranch as opposed to 667 acres with the Project, and there would be less residential units built with this alternative (reference Figure 4-1 for location relative to biological resources). Mitigation measures 3.4-1a through 3.4-13 would be applicable and implemented with Alternative 1 and would result in a less than significant impact. Approximately 446 acres of dedicated onsite open space would be maintained under conservation easement. Most of this open space would be contiguous with a large undeveloped parcel to the south of the Project site that consists of biotic habitats similar to those occurring in the onsite open space. A smaller area of open space would be maintained in the vicinity of the community of Friant's water tank at the northern end of the Project Site.

With the Alternative 1 development configuration, the preservation of grassland and seasonal wetland habitat (excluding vernal pools) used by various wildlife species for nesting, foraging, and aestivation would increase from the approximately 250 acres under the Proposed Project to 446 acres, an increase of approximately 77%. Furthermore, most designated open space would be contiguous with lands supporting a mosaic of grasslands and seasonal wetlands to the south. Thus, the viability of preserved open space for many vernal pool and grassland species would be greater for Alternative 1 than would be the case for the Proposed Project. The habitat loss associated with Alternative 1 would nonetheless be considerable, and, without mitigation, would remain a significant adverse impact, including 496 acres of disturbed upland habitat for California tiger salamander and western spadefoot toads, 401 square feet of impacted Hartweg's Golden Sunburst, 8.35 acres of wetland/drainage impact (including 1.27 acres of vernal pools, which are vernal pool fairy shrimp and California tiger salamander breeding habitat, 3.96 acres of vernal swales and 3.11 acres of wetland channels). Alternative 1 may potentially impact nesting raptors, common and special status nesting birds, American badgers and burrowing owls. The mitigation measures prescribed in section 3.4 for the Project should apply in the same manner to this alternative to reduce these impacts to less than significant. All of the biological impacts would be related to the consistency with local policies, water transfer and conveyance, and Depot Parcel and Community Plan Area-related impacts would be approximately equal to those identified for the Project. The biological impacts related to wastewater disposal would be somewhat less than those identified for the Project because of the reduced number of residential units and anticipated reduction in wastewater. All of the mitigation measures described in section 3.4 apply to this alternative and, in some instances, the alternative land plan as designed will provide more benefit to species and habitat than what is required by the mitigation. The impact, however, would be far less under Alternative 1 than that of the Proposed Project (without mitigation). With mitigation the potential impacts are less than significant.

Cultural Resources

Section 3.5 of this Draft EIR identifies the potentially significant impacts of the Project on cultural resources. As identified in Section 3.5, the Project would have a significant impact to

reduce the amount of treated effluent disposed to land or the river. The LID IMP's in Mitigation Measure #3.8.3a would still be applicable and implemented with Alternative 1 and this alternative would result in a less than significant impact.

Land Use and Planning

Section 3.9 of this Draft EIR identifies the potentially significant impacts of the Project on land use and planning. As identified in Section 3.9, the Project would have a less than significant impact. Alternative 1 would have a similar impact to the Project because Alternative 1 would require amendments to the Fresno County General Plan and Zoning Division in order to accommodate the intended uses within the Friant Ranch Specific Plan Area. Similar to the Project, impacts under this alternative would be less than significant.

Noise

Section 3.10 of this Draft EIR identifies the potentially significant impacts of the Project with regard to noise. As identified in Section 3.10, the Project would have a less than significant impact with implementation of mitigation measure #3.10.1a on the exposure to excessive noise levels or vibration. The Project would have a less than significant impact from construction noise with implementation of mitigation measures #3.10.2a through #3.10.2c. Alternative 1 would have less of an impact from excessive noise levels or vibration, and construction noise because this alternative would concentrate development on 496 acres of Friant Ranch as opposed to 667 acres with the Project, and there would be fewer residential units built under this alternative. Mitigation Measures #3.10.1a and #3.10.2a through #3.10.2c would still be applicable and implemented with this alternative and this alternative would result in a less than significant impact on exposure to excessive noise levels or vibration, and construction noise.

Population and Housing

Section 3.11 of this Draft EIR identifies the potentially significant impacts of the Project on population and housing. As identified in Section 3.11, the Project would have a significant impact that cannot be mitigated. Alternative 1 would have a similar impact to the Project because it will have a direct, growth inducing impact on the area's population and housing stock by facilitating the development of up to 2,200 new households within the Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area. Similar to the Project, impacts under this alternative would be significant.

Public Services

Section 3.12 of ~~the this Draft~~ EIR identifies the potentially significant impacts of the Project from the increased demand for public services and recreation, law enforcement services. As identified in Section 3.12, the Project would not result in a significant impact as a result of increased demand on parks and recreation and would have a less than significant impact on public services with implementation of mitigation measures #3.12.1 and #3.12.2, ~~a on the increased demand for law enforcement services.~~ Alternative 1 would have less of an impact ~~from on the increased demand for law enforcement~~ public services and parks/recreation than the Project because this alternative would include fewer residential units than the Project, which

would equate to fewer officers being needed to patrol the Project Area and fewer people to frequent recreational and park areas. Mitigation Measures #3.12.1 and #3.12.2a would still be applicable and implemented with this alternative and this alternative would result in a less than significant impact on the increased demand for ~~law enforcement~~ public services and parks/recreation.

Traffic and Circulation

Section 3.13 of this Draft EIR identifies and quantifies traffic impacts of the Project related to future operations within the Friant Community Plan Area and Friant Ranch Specific Plan Area. Tables 3.13-16 through 3.13-18 identify Year 2030 With-Project conditions. A significant impact occurs if the additional traffic generation from the Project results in a Level of Service above established thresholds. After implementation of mitigation measures outlined in Tables 3.13-19 and 3.13-20, several intersections and roadway segments remain significantly impacted.

Traffic impacts associated with this alternative would be less than those with the Project because the number of residential units would be reduced from 2,996 to 2,200, and therefore fewer trips would be generated. The mitigation measures set forth in Section 3.13 of this Draft EIR are applicable to this alternative, although estimated percentages calculated for mitigating cumulative impacts would be reduced based on the reduced unit counts associated with this alternative relative to the proposed unit count for the Project. The impacts to traffic related resources with this alternative would still be significant and unavoidable; however, the impact with this alternative would be less than with the Project.

Utilities and Service Systems

Section 3.14 of this Draft EIR identifies the potentially significant impacts of the Project on utilities and service systems such as water, sewer, storm drainage and solid waste disposal. As identified in Section 3.14, the Project would have a less than significant impact with implementation of mitigation measure #3.14.1 on the water supply for the Project. The Project would have a less than significant impact with implementation of mitigation measures #3.14.3a through #3.14.3i on wastewater treatment capacity. The Project would have a less than significant impact with implementation of mitigation measures #3.14.6a and #3.14.6b on compliance with Federal, State and local solid waste regulations. The Project would have a less than significant impact with implementation of mitigation measures #3.14.7a and 3.14.7b on the increased demand for electricity and natural gas within the Friant Community Plan Area. Alternative 1 would have less of an impact on wastewater treatment capacity, compliance with solid waste regulations and electricity and natural gas because this alternative would include fewer residential units than the Project; thereby resulting in less wastewater capacity needed, less solid waste going to the landfill and less electricity and natural gas being used. The mitigation measures noted above would still be applicable and implemented with this alternative, and this alternative would result in a less than significant impact.

Summary and Determination

The North Development Configuration Alternative is environmentally superior to the Project in all respects with the exception of cultural resources which is unchanged. This alternative would meet most of the Project objectives.

impact with implementation of mitigation measures #3.4-1a through 3.4-13. Alternative 2 would have less of an impact than the Project because this alternative would concentrate development on ~~496~~ 493 acres of Friant Ranch as opposed to 667 acres with the Project (with the balance of the 942-acre Specific Plan being designated as Open Space in either case), and there would be fewer residential units built with this alternative (reference Figure 4-2 for location relative to biological resources). Mitigation measures 3.4-1a through 3.4-13 would be applicable and implemented with Alternative 2 and would result in a less than significant impact. Approximately 449 acres of dedicated onsite open space would be maintained under conservation easement. Most of this open space would be contiguous with a large undeveloped parcel to the south of the Project site that consists of biotic habitats similar to those occurring in the onsite open space. A smaller area of open space would be maintained in the vicinity of the community of Friant's water tank at the northern end of the Project Site.

Under Alternative 2, the preservation of grassland and seasonal wetland habitat (excluding vernal pools) used by various wildlife species for nesting, foraging, and aestivation would increase from the approximately 250 acres under the Proposed Project to 449 acres, an increase of approximately 78%. Furthermore, most of the designated open space would be contiguous with lands supporting a mosaic of grasslands and seasonal wetlands to the south. Thus, the viability of preserved open space for many vernal pool and grassland species would be greater for Alternative 2 than would be the case for the Proposed Project. The habitat loss associated with Alternative 2 would nonetheless be considerable, and, without mitigation, including 496 acres of disturbed upland habitat for California tiger salamander and western spadefoot toads, 401 square feet of impacted Hartweg's Golden Sunburst, 8.35 acres of wetland/drainage impact (including 1.27 acres of vernal pools, which are vernal pool fairy shrimp and California tiger salamander breeding habitat, 3.96 acres of vernal swales and 3.11 acres of wetland channels). Alternative 1 may potentially impact nesting raptors, common and special status nesting birds, American badgers and burrowing owls. The mitigation measures prescribed in section 3.4 for the Project should apply in the same manner to this alternative to reduce these impacts to less than significant. All of the biological impacts would be related to the consistency with local policies, water transfer and conveyance, and Depot Parcel and Community Plan Area-related impacts would be approximately equal to those identified for the Project. The biological impacts related to wastewater disposal would be somewhat less than those identified for the Project because of the reduced number of residential units and anticipated reduction in wastewater. All of the mitigation measures described in section 3.4 apply to this alternative and, in some instances, the alternative land plan as designed will provide more benefit to species and habitat than what is required by the mitigation. The impact, however, would be far less under Alternative 2 than that of the Proposed Project (without mitigation). With mitigation the potential impacts are less than significant.

Cultural Resources

Section 3.5 of this Draft EIR identifies the potentially significant impacts of the Project on cultural resources. As identified in Section 3.5, the Project would have a significant impact to cultural resources because the Project would impact site CA-FRE-2653 which is located within the Friant Ranch Specific Plan Area development footprint. Mitigation measures are proposed (#3.5.1a through 3.5.1g) to reduce the impact to site 2653 to a less than significant impact.

The impact to site 2653 would be the same with this alternative as with the Project because site 2653 would also be within the development footprint of Alternative 2 (reference Figure 4-2 for location relative to cultural resources). Alternative 2 would include the same mitigation measures to reduce potential impacts to a less than significant level.

Geology, Soils and Mineral Resources

Section 3.6 of this Draft EIR identifies the potentially significant impacts of the Project on geology, soils and mineral resources. As identified in Section 3.6, the Project would have a less than significant impact. The impacts of Alternative 2 on geology, soils and mineral resources in the Project Area would be less than those associated with the Project because Alternative 2 would concentrate development on 493 acres of Friant Ranch as opposed to the entire 667 acre boundary as with the Project. Similar to the Project, impacts under this alternative would be less than significant.

Hazards and Hazardous Materials

Section 3.7 of this Draft EIR identifies the potentially significant impacts of the Project related to hazards and hazardous materials. As identified in Section 3.7, the Project would have a less than significant impact with implementation of mitigation measures #3.7.6a and #3.7.6b on emergency preparedness. Alternative 2 would have less of an impact than the Project because there would be less land developed, and fewer residential units built than the Project. Mitigation Measures #3.7.6a and #3.7.6b would also be applicable and implemented with Alternative 2. The impacts of this alternative on emergency preparedness in the Project Area would be less than those associated with the Project because Alternative 2 would concentrate development on 493 acres of Friant Ranch as opposed to 667 acres with the Project. Alternative 2 would still be consistent with the applicable Fresno County General Plan policies and not interfere with an adopted emergency response or evacuation plan.

Hydrology and Water Quality

Section 3.8 of this Draft EIR identifies the potentially significant impacts of the Project on hydrology and water quality. As identified in Section 3.8, the Project would have a less than significant impact with implementation of mitigation measure #3.8.3a on the alteration of the existing drainage pattern and stormwater drainage capacity. Alternative 2 would have less of an impact on the existing drainage pattern and stormwater drainage capacity compared to the Project because Alternative 2 would concentrate development on ~~496~~493 acres of Friant Ranch as opposed to 667 acres, and would result in less wastewater and stormwater due to the reduced unit count and disturbed drainage areas. The unit count reduction would reduce the anticipated amount of wastewater resulting from the Project and, as such, reduce the amount of treated effluent disposed to land or the river. The LID IMP's in Mitigation Measure #3.8.3a would still be applicable and implemented with Alternative 2 and would result in a less than significant impact.

Land Use and Planning

Section 3.9 of this Draft EIR identifies the potentially significant impacts of the Project on land use and planning. As identified in Section 3.9, the Project would have a less than significant impact. Alternative 2 would have a similar impact to the Project because Alternative 2 would require amendments to the Fresno County General Plan and Zoning Division in order to accommodate the intended uses within the Friant Ranch Specific Plan Area. Similar to the Project, impacts under this alternative would be less than significant.

Noise

Section 3.10 of this Draft EIR identifies the potentially significant impacts of the Project with regard to noise. As identified in Section 3.10, the Project would have a less than significant impact from the exposure to excessive noise levels or vibration with implementation of mitigation measure #3.10.1a. The Project would have a less than significant impact from construction noise with implementation of mitigation measures #3.10.2a through #3.10.2c. Alternative 2 would have less of an impact due to excessive noise levels or vibration, and construction noise because this alternative would concentrate development on ~~496~~⁴⁹³ acres of Friant Ranch as opposed to 667 acres of development within the 942-acre Specific Plan Area with the Project, and there would be fewer residential units built with this alternative. Mitigation Measures #3.10.1a and #3.10.2a through #3.10.2c would still be applicable and implemented with this alternative and would result in a less than significant impact on exposure to excessive noise levels or vibration, and construction noise.

Population and Housing

Section 3.11 of this Draft EIR identifies the potentially significant impacts of the Project on population and housing. As identified in Section 3.11, the Project would have a significant impact that cannot be mitigated. Alternative 2 would have a similar impact to the Project because it will have a direct, growth inducing impact on the area's population and housing stock by facilitating the development of up to 2,100 new households within the Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area. Similar to the Project, impacts under this alternative would be significant.

Public Services

Section 3.12 of ~~the this Draft~~ EIR identifies the potentially significant impacts of the Project ~~on~~ from the increased demand for law enforcement public services and recreation. As identified in Section 3.12, the Project would not result in a significant impact as a result of increased demand on parks and recreation and would have a less than significant impact from increased demand for ~~law enforcement public services~~ public services with implementation of mitigation measures #3.12.1 and #3.12.2a. Alternative 2 would have less of an impact ~~from on~~ on the increased demand for ~~law enforcement public services and parks/recreation~~ public services and parks/recreation than the Project because this alternative would include fewer residential units than the Project, which would equate to fewer officers being needed to patrol the Project Area and fewer people to frequent recreational and park areas. Mitigation Measures #3.12.1 and #3.12.2a would still be applicable and implemented with this

alternative and this alternative would result in a less than significant impact ~~from~~ related to the increased demand for on law enforcement public services and parks/recreation.

Biological Resources

Section 3.4 of this Draft EIR identifies the potentially significant impacts of the Project on biological resources. As identified in Section 3.4, the Project would have a less than significant impact with implementation of mitigation measures #3.4-1a through 3.4-13. Alternative 3 would have less of an impact than the Project because this alternative would concentrate development on ~~496~~ 482 acres of Friant Ranch as opposed to 667 acres of development within the 942-acre Specific Plan Area with the Project, and there would be fewer residential units built with this alternative (reference Figure 4-3 for location relevant to sensitive biological resources). Mitigation measures 3.4-1a through 3.4-13 would be applicable and implemented with Alternative 3 and would result in a less than significant impact. Approximately 460-acres of dedicated onsite open space would be maintained under conservation easement, most of which would be located to the south of proposed development and contiguous with a large undeveloped parcel to the south of the Project site that consists of biotic habitats similar to those occurring in the onsite open space.

Under Alternative 3, the preservation of grassland and seasonal wetland habitat (excluding vernal pools) used by various wildlife species for nesting, foraging, and aestivation would increase from the approximately 250 acres under the Proposed Project to 460 acres, an increase of approximately 83%. Furthermore, most designated open space would be contiguous with lands supporting a mosaic of grasslands and seasonal wetlands to the south. Thus, the viability of preserved open space for many vernal pool and grassland species would be greater for Alternative 3 than would be the case for the Proposed Project. The habitat loss associated with Alternative 3 would nonetheless be considerable, and, without mitigation, would remain a significant adverse impact, including 482 acres of disturbed upland habitat for California tiger salamander and western spadefoot toads, 401 square feet of impacted Hartweg's Golden Sunburst, 6.8 acres of wetland/drainage impact (including .99 acres of vernal pools, which are vernal pool fairy shrimp and California tiger salamander breeding habitat, 4.31 acres of vernal swales and 1.47 acres of wetland channels). Alternative 3 may potentially impact nesting raptors, common and special status nesting birds, American badgers and burrowing owls. The mitigation measures prescribed in section 3.4 for the Project should apply in the same manner to this alternative to reduce these impacts to less than significant. All of the biological impacts would be related to the consistency with local policies, water transfer and conveyance, and Depot Parcel and Community Plan Area-related impacts would be approximately equal to those identified for the Project. The biological impacts related to wastewater disposal would be somewhat less than those identified for the Project because of the reduced number of residential units and anticipated reduction in wastewater. All of the mitigation measures described in sSection 3.4 of this EIR apply to this alternative and, in some instances, the alternative land plan as designed will provide more benefit to species and habitat than what is required by the mitigation.- Further, pursuant to the Biological Opinion issued for the Specific Plan Area (which analyzed Alternative 3 and imposes mitigation requirements thereon) requires permanent preservation by way of a conservation of on-site and off-site mitigation lands, including the 460 acres of on-site open space provided under Alternative 3 and all of the off-site mitigation properties identified in Table 3.4.3 of this EIR, which exceeds the mitigation ratios required by the biological mitigation measures in this EIR. The impact, however, would be far less under Alternative 3 than that of the

Proposed Project (without mitigation). With mitigation the potential impacts are less than significant.

Cultural Resources

Section 3.5 of this Draft EIR identifies the potentially significant impacts of the Project on cultural resources. As identified in Section 3.5, the Project would have a significant impact to cultural resources because the Project would impact site CA-FRE-2653, which is located within

Land Use and Planning

Section 3.9 of this Draft EIR identifies the potentially significant impacts of the Project on land use and planning. As identified in Section 3.9, the Project would have a less than significant impact. Alternative 3 would have a similar impact to the Project because Alternative 3 would require amendments to the Fresno County General Plan and Zoning Division in order to accommodate the intended uses within the Friant Ranch Specific Plan Area. Similar to the Project, impacts under this alternative would be less than significant.

Noise

Section 3.10 of this Draft EIR identifies the potentially significant impacts of the Project with regard to noise. As identified in Section 3.10, the Project would have a less than significant impact from exposure to excessive noise levels or vibration with implementation of mitigation measure #3.10.1a. The Project would have a less than significant impact from construction noise with implementation of mitigation measures #3.10.2a through #3.10.2c. Alternative 3 would have less of an impact from excessive noise levels or vibration and construction noise because this alternative would concentrate development on 482 acres of Friant Ranch as opposed to 667 acres of development within the 942-acre Specific Plan Area the Project, and there would be fewer residential units built with this alternative. Mitigation Measures #3.10.1a and #3.10.2a through #3.10.2c would still be applicable and implemented with this alternative and would result in a less than significant impact from exposure to excessive noise levels or vibration, and construction noise.

Population and Housing

Section 3.11 of this Draft EIR identifies the potentially significant impacts of the Project on population and housing. As identified in Section 3.11, the Project would have a significant impact that cannot be mitigated. Alternative 3 would have a similar impact to the Project because it will have a direct, growth inducing impact on the area's population and housing stock by facilitating the development of up to 2,500 new households within the Specific Plan Area and development of vacant properties in the Existing Friant Community Plan Area. Similar to the Project, impacts under this alternative would be significant.

Public Services

Section 3.12 of ~~this Draft the~~ EIR identifies the potentially significant impacts of the Project from the increased demand for ~~law enforcement~~ public services and recreation. As identified in Section 3.12, the Project would not result in a significant impact as a result of increased demand on parks and recreation and would have a less than significant impact from on public the increased demand for law enforcement services with implementation of mitigation measures #3.12.1 and #3.12.2a. Alternative 3 would have less of an impact from the increased demand for ~~law enforcement~~ public services and parks/recreation than the Project because this alternative would include fewer residential units than the Project, which would equate to fewer officers being needed to patrol the Project Area and fewer people to frequent recreational and park areas. Mitigation Measures #3.12.1 and #3.12.2a would still be applicable and implemented with this

alternative and this alternative would result in a less than significant impact ~~from the~~ related to increased demand for ~~law enforcement~~ public services and parks/recreation.

- Locate an effluent disposal pipeline from the Alternative WWTP Location to the Specific Plan area. This would be an additional purple pipeline, smaller in size than the pipeline above, that would return reclaimed effluent to the Project for use in irrigation of landscaping and open spaces.
- The WWTP itself would continue to be fully enclosed, set back from Friant Road and screened by landscaping from public view. Access could be provided from Friant Road through the existing drive at the north end of the property, or from the drive near the center of the property. No changes would be required to Friant Road at this location.
- The effluent storage pond and disposal by irrigation onto the balance of the Beck Property lands would not change from the original proposal.
- Lands comprising the Proposed WWTP Location would be repurposed as additional landscaping to enhance the commercial center. No additional commercial square footage or parking areas would be proposed under this alternative.
- Net water balance would not be affected. The agricultural acreage lost for reclamation at the Beck Property due to construction of the WWTP would be made up within the Specific Plan area by additional parks and landscaped area created by eliminating the WWTP site, which could receive reclaimed effluent for irrigation. Overall reclaimed effluent use would not be significantly affected.

Aesthetics

Section 3.1 of this Draft EIR identifies the potentially significant impacts of the Project (including the proposed WWTP) on aesthetic resources. As identified in Section 3.1, the Project would have a less than significant impact with implementation of mitigation measures on the introduction of new sources of light and glare and increased lighting on the night sky and degradation of the existing visual character and quality of the Project Area and its surroundings. Relocating the WWTP to the Alternative WWTP Location would free up approximately two to three acres of space adjacent to the Central Commercial area. This would be used to expand landscaped areas and parks. No additional commercial square footage or parking is proposed for this area. The added landscape and parks would enhance the aesthetics of the Commercial Center area, allow for additional landscape buffer between the commercial center and the nearby residential areas. The additional landscaping and parks would offset the reduction in irrigation water demand at the Beck Property resulting from constructing the approximately 2-3-acre plant site at the Beck Property WWTP Location. The Alternate WWTP could be smaller due to flatter terrain allowing for more efficient site arrangement. The WWTP would be fully enclosed, set back 200 feet from Friant Road and screened by landscaping from public view, to ensure no aesthetic impacts from Friant Road and nearby residences/office or trails. The location and layout depicted in Figure 4-4 is shown as an example of potential project design. The final size and layout of the facility will be determined at the time of final project design, and considered for approval by County prior to issuance of any conditional use permit for the facility.

Relocation of the WWTP to the Beck Property would result in a structure (the WWTP) being constructed where none has been proposed. The structure would be a single-story wood-frame building not unlike the individual residences on neighboring parcels, and the CEMEX office

located several hundred feet to the south. Since the entire Beck Property is located outside of the San Joaquin River Parkway boundary, there would be no impact upon the sight lines within the Parkway. The proposed WWTP location (identified in Figure 4-4) is outside the General Plan's designated scenic corridor, the western boundary of which is east of the proposed WWTP location. Sight lines from Friant Road to the river could be minimally impacted depending upon the relative height of the building versus the roadway, but the small overall size of the building means that any such impact would be less than significant.

As such, the Alternative WWTP Location's aesthetic impact would be less than that of the Proposed WWTP Location and less than significant.

Agricultural Resources

Section 3.2 of this Draft EIR identifies the potentially significant impacts of the Project on agricultural resources. As identified in Section 3.2, the Project would have a significant impact because the Project would result in the rezoning of agricultural land to urban uses. There are, however, no lands under Williamson Act contract within the Friant Community Plan Area or Friant Ranch Specific Plan Area.

The amount of land zoned for agriculture within the Friant Community Plan Area, including the Friant Ranch Specific Plan Area, is approximately 1,328 acres. The amount of land zoned for agriculture within the Friant Ranch Specific Plan Area is approximately 900 acres. The Project would result in the conversion of approximately 900 acres of land zoned AE-20 and AL-20 within the Friant Ranch Specific Plan Area to non-agricultural designations. However, the proposed land uses will be inconsistent with the existing agricultural zoning on approximately 600 acres of the existing agricultural zoned lands.

The Alternative WWTP Location consists of 2-3 acres of highly disturbed agricultural lands and in the immediate vicinity of an aggregate mining quarry, which has an active quarry 25 acres in size from which sand and gravel are being extracted. The agricultural lands within the Specific Plan Area (where the Proposed Project WWTP is located) and at the Alternative WWTP Location are not designated as Prime Farmland, Unique Farmland, or Farmland of State Importance. Further, the current agricultural zoning for both locations allows for a wastewater treatment plant use, subject to attainment of a conditional use permit. ~~This would result in additional loss of existing agricultural lands.~~ As such, applying the significance criteria set forth on page 3-23 of the DEIR, the Alternative WWTP Location's agricultural impact would be greater less than significant and would be similar to the level of impact anticipated with the original than that of the Proposed WWTP Location analyzed in Chapter 3 of the EIR.

Air Quality and Greenhouse Gases/Global Climate Change

Section 3.3 of this Draft EIR identifies and, to the extent possible, quantifies air quality impacts of the Project (including the proposed WWTP) related to construction and future operations within the Friant Community Plan Area and Friant Ranch Specific Plan Area. Operations include both mobile and stationary source air pollutants. All of the impacts are considered significant and unavoidable.

Though the Alternative WWTP Location is farther from the Specific Plan than the Proposed WWTP Location, it is approximately 20 feet lower in elevation. This difference means that significantly less energy will be needed to pump wastewater to the plant for processing and proportionately less greenhouse gas will be produced.

Hazards and Hazardous Materials

Section 3.7 of this Draft EIR identifies the potentially significant impacts of the Project (including the proposed WWTP) related to hazards and hazardous materials. As identified in Section 3.7, the Project would have a less than significant impact with implementation of mitigation measures #3.7.6a and #3.7.6b on emergency preparedness. Construction and operation of a WWTP at the Alternative WWTP Location will have no additional effect on hazards and hazardous materials. As analyzed in the Draft EIR, the WWTP will be subject to the same regulatory standards as the Proposed WWTP Location.

As such, the Alternative WWTP Location's hazards and hazardous materials impact would be the same as that of the Proposed WWTP Location and less than significant.

Hydrology and Water Quality

Section 3.8 of this Draft EIR identifies the potentially significant impacts of the Project (including the proposed WWTP) on hydrology and water quality. As identified in Section 3.8, the Project would have a less than significant impact with implementation of mitigation measure #3.8.3a on the alteration of the existing drainage pattern and stormwater drainage capacity.

Construction and operation of a WWTP at the Alternative WWTP Location will have no effect on waters of the San Joaquin River or groundwater. The treatment process is fully contained, and any on-site runoff will be captured and returned to the treatment stream for cleanup and storage in the Beck Property pond. As analyzed in ~~the ADEIR~~ the analysis of the Proposed Project within Chapter 3 of this EIR, no water from the treatment, storage, or reclamation process will be able to reach the San Joaquin River, rendering this impact less than significant.

The Alternative WWTP Location would have no effect on groundwater either at the Project site or at the Alternative location, since there is no change proposed in the method of effluent disposal versus the project itself.

As such, the Alternative WWTP Location's hydrology and water quality impact would be the same as that of the Proposed WWTP Location and less than significant.

Land Use

Section 3.9 of this Draft EIR identifies the potentially significant impacts of the Project (including the proposed WWTP) on Land Use. As identified in Section 3.9, the Project would have a less than significant impact.

While the Proposed WWTP Location is surrounded by urban development and is adjacent to the most intensive commercial development in the Specific Plan area, the Alternative WWTP Location is surrounded by open space on three sides (Lost Lake Park on the north and west, range land across Friant Road on the east) and an existing heavy industrial use (the CEMEX gravel plant) to the south. There are a few rural residences and a CEMEX office nearby. The residences and the office are at least 500 feet from the proposed WWTP location. The Alternative WWTP Location facilitates more consistency with surrounding land uses than does the Proposed WWTP Location.

CHAPTER FIVE – CUMULATIVE IMPACTS

Introduction

CEQA requires that an EIR examine the cumulative impacts associated with a project. The range of projects to be included in the cumulative analysis encompasses “past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those outside of the control of the agency.” CEQA Guidelines Section 15130 requires cumulative impacts to be discussed “where they are significant.” A cumulative effect is deemed significant if the project’s incremental contribution to a cumulative impact is “considerable.” A cumulative impact is not considered significant if the impact can be mitigated to below the level of significance through mitigation, including providing improvements and/or contributing funds through fee-payment programs. The EIR must examine “reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project” (CEQA, Section 15130).

The CEQA Guidelines allow for the use of two alternative methods to determine the scope of projects for the cumulative impact analysis:

- List Method – A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency (Section 15130 (1)(A)).
- General Plan Projection Method – A summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact (Section 15130 (1)(B)).

Although the List Method was selected to conduct the cumulative impact analysis for this ~~Draft~~ EIR, it is important to note that this EIR analyzes certain cumulative impacts such as effects of the proposed Project on air quality (regional air basin), global climate change (worldwide) and energy usage (remote location energy production and conveyance) ~~must~~ considered a much larger geographic area than the area comprised of the projects constituting the “list” of projects in the general vicinity of the proposed Project. Table 5-1 and corresponding Figure 5-1 were intended to show geographic context for cumulative impacts associated with aesthetics, agricultural resources, biological resources, cultural resources, geology/soils/mineral resources, hydrology/water quality, land use, noise, public services/recreation, and utilities/service systems. Cumulative 2030 traffic impacts were analyzed using the Fresno County COG models, pending roadway improvement programs and the pending projects within the region listed on Table 5-1 of the Traffic Impact Study (Appendix D of the DEIR). (See Appendix D, pages 19-24.) Additionally, cumulative impacts related to hazardous substances/materials consider countywide growth impacts to the regional landfill. Cumulative impacts related to population and housing are not limited to consideration of the geographical area reflected in Figure 5-1, but rather consider growth in all of Fresno and Madera Counties.

The following section summarizes projects in the vicinity of the proposed project.

5.1 Cumulative Projects

Table 5-1 identifies related projects and other possible development in the Project vicinity determined as having the potential to interact with the Project to the extent that a significant cumulative effect might be expected to occur. Any proposed project within the Project vicinity for which an application had been filed at the time of the NOP for the Project was considered a probable future project. A map depicting the major projects identified in Table 5-1, along with the Friant Ranch Specific Plan Area and the surrounding region, is given as Figure 5-1.

This analysis also considers the current Lost Lake Park Master Plan, which is within the Project Area, and cumulative impacts consequent to buildout within the existing Community of Friant. Information required for this analysis was obtained from recent aerial photography, reports from the Natural Resources Conservation Service (NRCS), U.S. Fish and Wildlife Service (USFWS), planning and environmental documents prepared for completed projects in the project vicinity, and some studies prepared by consultants within the Project vicinity. Planning documents for some projects in Table 5-1 had not yet been prepared, or were not yet available. Relevant literature is listed in the bibliography attached at the end of this section.

As stated in the introduction to this section, cumulative impacts related to traffic, population and housing, hazardous materials/substances, regional air quality, global climate change and energy usage are not limited to consideration of the geographic area reflected in Figure 5-1

5.2 Cumulative Impacts Analysis

5.2.1 AESTHETICS

The landscape in north-central Fresno County has been changing over the years from one of predominately rural open space and agricultural grazing land to urban uses. The cities of Fresno and Clovis have been rapidly growing to the north and northwest, contributing to the landscape change. Several land development proposals envisioned by the Fresno County and Madera County general plans and individual project proposals have received their entitlements, or are seeking them, including the Rio Mesa Area Plan, Lakeview Estates, Millerton New Town, Gateway Village, Gunner Ranch West, among others. Although the urban environment that is ultimately built could be aesthetically pleasing to many, these cumulative changes will significantly degrade the existing visual character and quality of the area. Based on the standards of significance, the proposed Project individually would have a less than significant aesthetic impact as concluded in Section 3.1 of this DEIR. However, ultimate impacts of the proposed project in combination with other projects identified in this section are significant, and the project's incremental contribution to this impact is itself ***cumulatively considerable*** and thus ***significant***. This impact cannot be mitigated to a less than cumulatively considerable level and is unavoidable.

5.2.2 AGRICULTURAL RESOURCES

The California Department of Finance Demographic Research Unit forecasts that the Central Valley's population will more than double by the year 2040 to almost 10 million people. According to the American Farmland Trust, if current land use trends continue, nearly 900,000 acres of Central Valley farmland would be converted to urban uses and ranchette development, most of it high quality farmland.

As discussed ~~noted~~ in Section 3.2, the proposed Project would result in the ~~loss~~ redesignation of approximately 675 acres of Grazing Lands, currently zoned for agricultural use, within the Friant Ranch Specific Plan Area to non-agricultural uses that conflict with that zoning. The Friant Community Plan Update includes 403 acres of land designated for Agriculture in the southwest and northeast corners of the site, which will remain designated Agriculture. ~~While many~~ Many of the projects listed previously under Section 5.1 (Cumulative Projects) in Fresno and Madera County will take agriculturally zoned lands, including in many instances prime farmland, unique

farmland, and farmland of statewide importance out of agricultural production. ~~the proposed Project will not.~~ However, as noted above, the Project will have no impact on Farmland, but would result in the loss of approximately 675 acres of Grazing Land, currently zoned for agricultural use, to non-agricultural uses that conflict with such zoning. The cumulative ~~loss~~ conversion of agriculturally-designated grazing land to non-agricultural uses that conflict with such zoning, together with other foreseeable regional development that results in loss of ~~Farmland,~~ would be ***significant and unavoidable***, and the Project's contribution to conversions of agriculturally-designated lands to non-agricultural use would be ***cumulatively considerable***. As discussed in Chapter 3 of the EIR, there is no feasible mitigation available to mitigate the Project's redesignation of agriculturally zoned lands. However, the on-site and off-site preservation of grazing lands incorporated in Project design and required through biological mitigation measures set forth in Chapter 3 will have a positive impact on the cumulative conversion of agricultural lands in the region.

5.2.3 AIR QUALITY

As growth continues in the San Joaquin Valley, attainment of air quality standards will become more difficult, even though overall air quality has improved. Proposed cumulative development planned in Fresno, Tulare, Kings and Madera Counties will result in thousands of new homes and millions of square feet of new retail uses. The SJVAPCD is classified as a nonattainment area for the state and federal ozone standards. The region is also a nonattainment area for state and federal dust standards measured by particulate matter. Air pollution in the SJVAPCD comes primarily from mobile sources, such as on and off-road vehicles, as well as from stationary sources including agricultural operations, mineral industries, diesel generators, naturally occurring sources, among others.

The Project would contribute to cumulative air emissions by allowing for substantially greater development in the Project Area than currently exists. The amount of mobile and stationary emissions would be substantially greater than what would be generated under existing conditions, or future conditions if the Project Area were to remain rural. The SJVAPCD has adopted a cumulative threshold of significance of 10 ~~pounds per day~~ tons per year for ozone precursors (ROG and NOx). Project emissions of these two pollutants, after mitigation, would exceed this threshold. Consequently, the Project would contribute to air quality degradation, and impede the region's ability to attain air quality standards.

According to SJVAPCD methodology, any proposed project that would individually have a significant impact would also be considered to have a significant cumulative air quality impact. Significant Unavoidable air quality impacts identified in the DEIR are: 1) Construction Impacts resulting from the Development of the Friant Ranch Specific Plan and Community Plan Update (Reactive Organic Gases, Nitrogen Oxide); and 2) Violation of Air Quality Standards by Area and Operation Emissions. The project will have a less than cumulatively considerable impact on creation of odors because the types of odors typical of residential communities are not considered significant generators of odor impacts.

Mitigation measures applied for short-term construction activities and long term operational activities of the project (as outlined in the DEIR, Section 3.3 – Air Quality) would lessen the impacts, but not to a less than significant level. The cumulative air quality impacts of the Project,

together with other foreseeable development throughout the San Joaquin Valley air basin including build out of the Community Plan area pursuant to the existing General Plan designations, would be ***cumulatively considerable*** and as such ***significant and unavoidable***. As discussed in Section 3.3, all feasible mitigation measures have been imposed to address the Project-specific impacts to air quality and no additional feasible mitigation is available.

5.2.4 BIOLOGICAL RESOURCES

The possible presence of special status plant and animal species on the past, present and probable future projects listed above has either been documented in environmental documents prepared for the Project, or was inferred from the type of habitats present, California Natural Diversity Database records (CNDDB), and other information gleaned from planning documents and studies completed in the area. As noted in Table 5-1, environmental documents were not available for Big Sandy Casino, Sky Harbor, Gwenlee Cedar, Wellington Ranch, and Liberty Groves, either because such documentation was not required at the time of individual project approval, or because such documents were in preparation. Nonetheless, a considerable amount of information was available for each project site, including habitats and soil types present, special status species occurring on or adjacent to them, and their likely role in facilitating regional wildlife movements. This information was sufficient to identify those impacts that might be considered cumulatively significant.

A cumulative analysis is provided below for each of the biological resources potentially affected by the Project, as identified within the biological resource impact analysis for the Project Area.

Overview: Agricultural and Urban Development in the Project Vicinity

Vast areas of grassland and vernal pool habitats once present in Fresno County no longer exist. Relatively large areas of these habitats remain in the Friant/Millerton area, rolling lands to the north and east of Big Dry Creek Reservoir, and similar areas to the north and east of Round

Special Status Animal Species Occurring on Site as Migrants or Transients, or that May Forage on the Site

Other special status animal species have the potential to use all of the project sites listed in Table 5-1, as well as the larger Friant Community Plan area. These include various raptor species (hawks and owls) that may forage on the sites (see Table 3.4-1 of the EIR), other migratory birds that may pass over these sites from time to time, and various bat species that may forage in the airspace over these sites. It is not known what effect the development of these sites will have on these special status species. Many will continue to move through (or over) these sites even after the proposed projects have been built. Species that forage in the airspace over the sites for insects or small birds may also continue to do so after these projects have been built. Some of these projects would reduce foraging habitat for some raptors, but the projected loss of up to 7,500 acres of grassland and oak woodland habitat in the Study Area is a small fraction of these habitat types now occurring in Fresno and Madera Counties. It is unlikely that these losses would result in a significant cumulative effect on these other special status animal species.

Wildlife Movement Corridors

There is no evidence that the Friant Ranch Specific Plan site functions as a wildlife movement corridor. Home range and dispersal movements of resident species will be altered by the Project. Migratory species (primarily birds), however, will continue to pass over the site and possibly forage in designated open space to be preserved both on and off site.

The San Joaquin River corridor passing through the larger Friant Community Plan area is likely to function as a wildlife movement corridor. This corridor is generally protected from development by the San Joaquin River Parkway Plan, and at the time this analysis was prepared, no development had been proposed within this corridor. The Project itself would have no direct effect on the functional value of the San Joaquin River (or its associated riparian habitat) on regional wildlife movement. Since the Project does not affect wildlife movement corridors, no cumulative impact discussion is required for wildlife movement corridors.

Cumulative Impacts of Water Transfers

Water for the Friant Ranch Specific Plan development will be obtained from the Lower Tule River Irrigation District (LTRID). Water releases from Millerton Lake are delivered to the LTRID via the Friant Kern Canal. The LTRID is upgrading its facilities to extract water from the Tule River, thus alleviating its reliance on delivered water, and allowing the transfer and use of ~~that water at Friant Ranch~~ CVP Class 1 Supplies. The CEQA document for the additional extraction of water from the Tule River found that the project would have no significant biological impacts. Water for the Friant Community Plan Area will similarly be obtained from Millerton Lake. The Friant Ranch development and development within the Friant Ranch Community Plan Area will have no significant cumulative impacts related to water transfers.

Other projects proposed in the Project vicinity are expected to total approximately 22,000 residential units. Those projects will rely on water deliveries from Millerton Lake. Depending upon the transfer water, those projects may have a significant impact upon the San Joaquin River

project mitigations where needed. As a result, seismic and soils hazards and effects to mineral resources would be a *less than significant cumulative impact*.

5.2.7 HAZARDOUS SUBSTANCES AND MATERIALS

As discussed in Section 3.7, while there would be an increase in local population and employment, the proposed project would not result in a significant impact related to hazards and hazardous materials due to local, regional, State and federal regulations. Similarly, as growth occurs in the County, additional people would be exposed to the risk of hazardous materials, wastes and wildland fires. However, as would occur in Friant, regional, State and federal regulations would apply to development countywide, thereby reducing the potential for cumulative impacts associated with hazards and hazardous materials to a *less than significant* level.

5.2.8 HYDROLOGY AND WATER QUALITY

As development proceeds within the proposed Project Area, an increase in storm water runoff, potentially containing pollutants, will result in potential impact to surface and groundwater quality. However as discussed in Section 3.8 of the Draft EIR, project-level water quality and flooding impacts would be reduced to a less than significant level through compliance with Fresno County General Plan policies and existing regulations and the proposed Friant Community Plan and proposed Friant Ranch Specific Plan policies.

Other new development within the County reflected in Table 5-1 would also result in additional storm water runoff and wastewater discharge to the San Joaquin River and adjoining groundwater aquifers. The Project-specific analyses of stormwater runoff and wastewater discharge analyzed whether the Project would “cause or contribute to” any violations of water quality standards. As such, the Project-specific analysis considered any combined effects of the Project in addition to existing contaminants already occurring in the river below Friant Dam. Since the discharge from these other developments will be to groundwater aquifers, river segments, and/or tributaries outside of the Project Area, it is not likely that the respective discharges will somehow combine in a given area to result in significant decreases in water quality. With respect to surface water discharges, the proposed discharge point within the Project Area is miles from any other discharge of stormwater or wastewater and, as such, the flow of the river will dilute any discharge from the Project such that by the time it reaches another discharge point, the effect of Project discharges is not recognizable. With respect to discharges to groundwater, as discussed in Section 3.8, due to impermeable soil conditions, it is unlikely that stormwater runoff or land application of treated wastewater within the Project Area would migrate through the groundwater to other groundwater areas to combine with similar releases from other projects in such a way as to create a cumulatively significant impact to groundwater quality. This Moreover, the past, present and reasonably foreseeable regional development would be required to comply with regional, State and federal regulations, including the attainment of the Sacramento-San Joaquin Basin Plan and Tulare Lake Basin Plan water quality standards to protect designated beneficial uses (discussed in Section 3.8 of the Draft EIR), designed to appropriately manage and control storm water runoff, water quality and flooding. Compliance with these regulations will reduce the potential for cumulative hydrological and water quality

impacts to ***less than significant and*** the ~~Project proposed project~~ would, therefore, result in a ***less than significant cumulative impact***.

5.2.9 LAND USE

The land use analysis of the proposed project in Section 3.9 found that the Project would not conflict with established land uses or conflict with adopted land use or habitat plans or policies. Since the project would not result in a land use impact, the project would also ***not contribute to a cumulative*** land use impact.

5.2.10 NOISE

Table 5-2 compares year 2030 no-project and with-project traffic noise levels at existing residences to determine whether a significant impact results at the existing residential areas from the Project. A significant impact occurs if the additional traffic noise due to the Project causes noise levels to exceed 60 dB DNL, or, if a substantial increase in noise levels as defined in Section 3.10, Table 3.10-7, results due to the project. Noise levels are expected to exceed the 60 dB DNL, or substantial increase criteria for four of the 24 road segments analyzed. This is a ***significant cumulative impact***. However, implementation of Mitigation Measure #3.10.1a would reduce on-site traffic noise impacts to a ***less than cumulatively considerable (i.e., less than significant) level*** with respect to all areas in the Project vicinity except the impacts to those existing homes along Friant Road and Willow Avenue resulting from the anticipated 2030 traffic levels related to the Friant Ranch Specific Plan and other reasonably foreseeable past, present and future projects, as discussed on page 3-248 of Chapter 3.10 of the DEIR. As stated on page 3-248 of the DEIR, the significant noise impacts to existing homes along those portions of Friant Road and Willow Avenue identified in Table 5-2 will remain ***significant and unavoidable***.

Table 5-2
Year 2030 Off-Site Traffic Noise Levels, DNL

Roadway Name	Segment Description	2030 NP, dB	2030 WP, dB	Change, dB	Significant Impact?
Friant Road	Root to Lost Lake	64.2	66.2	2	No
	Lost Lake to Willow	56.5	58.8	2.3	No
	Willow to Copper River	65.2	66.8	1.6	Yes
	Copper to Lakeview	61.8	62.9	1.1	No
	Lakeview to Champlain	61.9	62.9	1	No
	Champlain to Ft. Washington	62.3	63.2	0.9	No
	Ft. Washington to Shepherd	65.3	65.8	0.5	No
	Shepherd to Audubon	64.8	65	0.2	No
Willow Avenue	Friant to Copper	59.5	60.7	1.2	Yes
	Behymer to Perrin	58.5	59.2	0.7	No
	Perrin to Shepherd	59.7	60.2	0.5	Yes
	Shepherd to Teague	64.6	65.1	0.5	No
	Teague to Nees	65.6	66	0.4	No
	Nees to Alluvial	65.9	66.2	0.3	No
	Alluvial to Herndon	66	66.3	0.3	No
	Herndon to Sierra	66	66.2	0.2	No
	Sierra to Bullard	66	66.1	0.1	No
	Bullard to Barstow	65.9	66	0.1	No
Millerton Road	206 to Winchell Cove	58.7	59.2	0.5	No
	Winchell Cove to Brighton Crest	58.9	59.2	0.3	No
	Brighton Crest to Sky Harbour	59.1	59.3	0.2	No
	Sky Harbour to Table Mt.	59	59.2	0.2	No
	Table Mt. to Auberry	58.5	58.7	0.2	No
Parker Avenue	Friant to Project	48.7	50.9	2.2	No

Source: Brown-Buntin Associates, Inc.

5.2.11 POPULATION AND HOUSING

As discussed ~~previously~~ in Section 3.11.1 and Section 6.4, population and housing effects are considered to be significant and adverse if they will result in substantial impacts from unplanned growth. The proposed project includes policies and guidelines to control and direct growth in a well-planned manner, thus ensuring that such growth is compatible with existing and future uses and with the General Plan policies related to growth, provides needed housing and facilities for a growing segment of the population and would improve jobs and housing opportunities in the community. As stated in Section 3.11.1, the Project's potential impact on growth outside of the Project Area itself is very limited: existing services are generally adequate to serve the Project and its future residents, and new jobs that might be created by the Project can be filled by the existing job-seeking population in the greater Fresno-Madera County area, which has relatively high levels of unemployment. The Project would not extend or result in the creation of new services outside the Project that would facilitate growth beyond the Project. As a result, there would not be a significant adverse or unavoidable project-level impact. Growth unrelated to the Project will also occur outside of Friant, in other nearby cities and unincorporated communities in Fresno and Madera County. Fresno County and other incorporated and unincorporated jurisdictions are required by State law to use the General Plan process, as well as other planning processes, such as utility master plans, to plan for and control future growth. As a result, there

would not be a cumulative impact associated with unplanned growth, and ~~As a result, the~~ proposed project would ***not contribute considerably to a significant cumulative impact related to population and housing.***

5.2.12 PUBLIC SERVICES AND RECREATION

Police and fire protection services, educational and park and recreational services and facilities already exist or are provided in the area. The proposed project includes policies and guidelines for the provision of adequate fire protection, law enforcement, educational facilities, and park and recreational services and facilities to serve the predicted population growth within the project area. Further, as identified in Section 3.12, implementation of mitigation measures 3.12.1 and 3.12.2 would ensure that development within the Project adheres to such policies and guidelines. Therefore, ***no cumulative impacts*** are anticipated.

5.2.13 TRANSPORTATION AND CIRCULATION

The Project would facilitate an increase in traffic generation that will affect circulation conditions on the local and regional roadway network. The Transportation Element of the Draft Friant Community Plan addresses established and planned roadways, bicycle and trail routes, alternative modes of transportation, pedestrian facilities, and the potential for light rail transit. The Transportation Element is consistent with the Fresno County General Plan. The Draft Friant Ranch Specific Plan focuses on creating a community circulation network that moves people efficiently and safely throughout Friant Ranch, whether by automobile, bicycle, foot, or by Neighborhood Electric Vehicle (NEV).

Refer to Section 3.13 for a discussion of impacts and mitigation measures related to cumulative traffic impacts. Tables 3.13-22 through 3.13-23 identify Cumulative Year 2030 With-Project conditions. A significant impact occurs if the additional traffic generation from the Project results in a Level of Service above established thresholds. After implementation of mitigation measures outlined in Tables 3.13-22 and 3.13-23, several intersections and roadway segments remain significantly impacted. The cumulative increase in traffic generation, together with other foreseeable regional development that results in additional traffic generation, would be ***significant and unavoidable***, and the Project's contribution would be ***cumulatively considerable***.

5.2.14 UTILITIES/SERVICE SYSTEMS

Planned development in Fresno and Madera Counties will generate additional cumulative demand for water, which will be provided through a mixture of surface and groundwater sources. As described on Table 5-1 above several land development proposals in the vicinity have recently been approved or are proposed. As discussed in Section 3.14 of the Draft EIR, the proposed Project would not result in depletion of groundwater supplies in that surface water will be used to meet Project water supply needs after all necessary approvals. Because the Project will not use groundwater, it will not contribute to cumulative groundwater impacts resulting from new development throughout the region. The project-specific analysis in Section 3.14 of this Draft EIR also concluded that construction of new and expanded water facilities to serve the proposed Project would result in a less than significant impact at the project level. In

consideration of the section 3.14 conclusions, the project's contribution to cumulative water impacts is considered to be ***less than cumulatively considerable***.

Based upon the analysis in the Water Supply Assessment for Fresno County Waterworks #18, there is sufficient water to supply the proposed Project through 2030. Regardless, it is widely recognized that water is a finite resource, especially in the West. Water supplies in the future may be affected by the effects of global climate change. It is anticipated that the winter snow season would be shortened if the temperature of the ocean warms, thereby affecting snowpack in the Sierra Nevada mountains. According to a California Climate Change Center report (*Our Changing Climate: Assessing the Risks to California*), the snowpack portion of water supply could potentially decline by 70 to 90% by the end of the 21st century. This phenomenon could

Specific Plan and Community Plan, which will promote the use of alternative transportation, air quality mitigation for new developments, and strategies to minimize the number and length of vehicle trips. However, there are no known additional feasible mitigation measures which will reduce the impact to a less than significant level.

Impact #3.15.1 – Development of the Project could potentially result in a cumulatively considerable incremental contribution to the significant cumulative impact of global climate change The project will have a cumulative impact of global climate change due to the increase of population and vehicles in the area. CO₂ emissions created from the Project through the VMT's as mentioned in the section above will contribute to GHG's local, regionally, and globally.

Noise

Impact #3.10.1a Exposure to Excessive Noise Levels or Vibration: Project traffic noise levels at existing residences along Friant Road and Willow Avenue are expected to exceed the significance threshold of 60dB DNL.

Traffic and Circulation:

Impact #3.13-8b (TR-9): The Project will exacerbate existing delays and an existing LOS already below the minimum acceptable LOS at the intersection of Friant Road and Audubon Drive, and is expected to exacerbate anticipated delays and a cumulative LOS that will fall below the acceptable LOS even without the Project under the 2030 no Project condition. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This will result in an individually and cumulatively **significant impact**.

Mitigation #3.13-8b (TR-9): None feasible. The intersection of Friant Road and Audubon Drive is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is **significant and unavoidable**.

Impact #3.13-8c (TR-10): The Project will exacerbate delays and a cumulative LOS that will fall below the minimum acceptable LOS under the 2030 no Project condition at the intersection of Friant Road and Fresno Street. The Project's contribution to the anticipated cumulative condition is cumulatively considerable. This is a **significant impact**.

Mitigation #3.13-8c (TR-10): None feasible. The intersection of Friant Road and Fresno Street is constructed to the largest reasonable configuration and no further intersection improvements are feasible. The City of Fresno General Plan identifies the ultimate need for 12 lanes on Friant Road between SR 41 and Shepherd Avenue and accepts LOS F with six lanes since additional widening is not considered to be feasible. This impact is **significant and unavoidable**.

Impact #3.13-9a (TR-22): The Project will exacerbate existing and anticipated future delays and will contribute to a cumulative level of service below the minimum acceptable level of

service at the intersection of Willow Avenue and Nees Avenue in the 2030 plus project condition. The Project's contribution to the anticipated 2030 cumulative condition is cumulatively considerable. This is a **significant impact**. (County of Fresno, City of Fresno, City of Clovis jurisdiction).

Mitigation #3.13-9h (TR-22): None feasible. The intersection of Willow Avenue and Nees Avenue is planned to be constructed to the largest reasonable configuration and no further intersection improvements are feasible. This impact is **significant and unavoidable**.

Impact #3.13-9b (TR-23): The Project will exacerbate anticipated delays and contribute to a cumulative level of service that will fall below the minimum acceptable level of service at the intersection of Willow Avenue and Herndon Avenue in the 2030 plus project condition. The

CHAPTER SEVEN – REFERENCES & PERSONS CONTACTED

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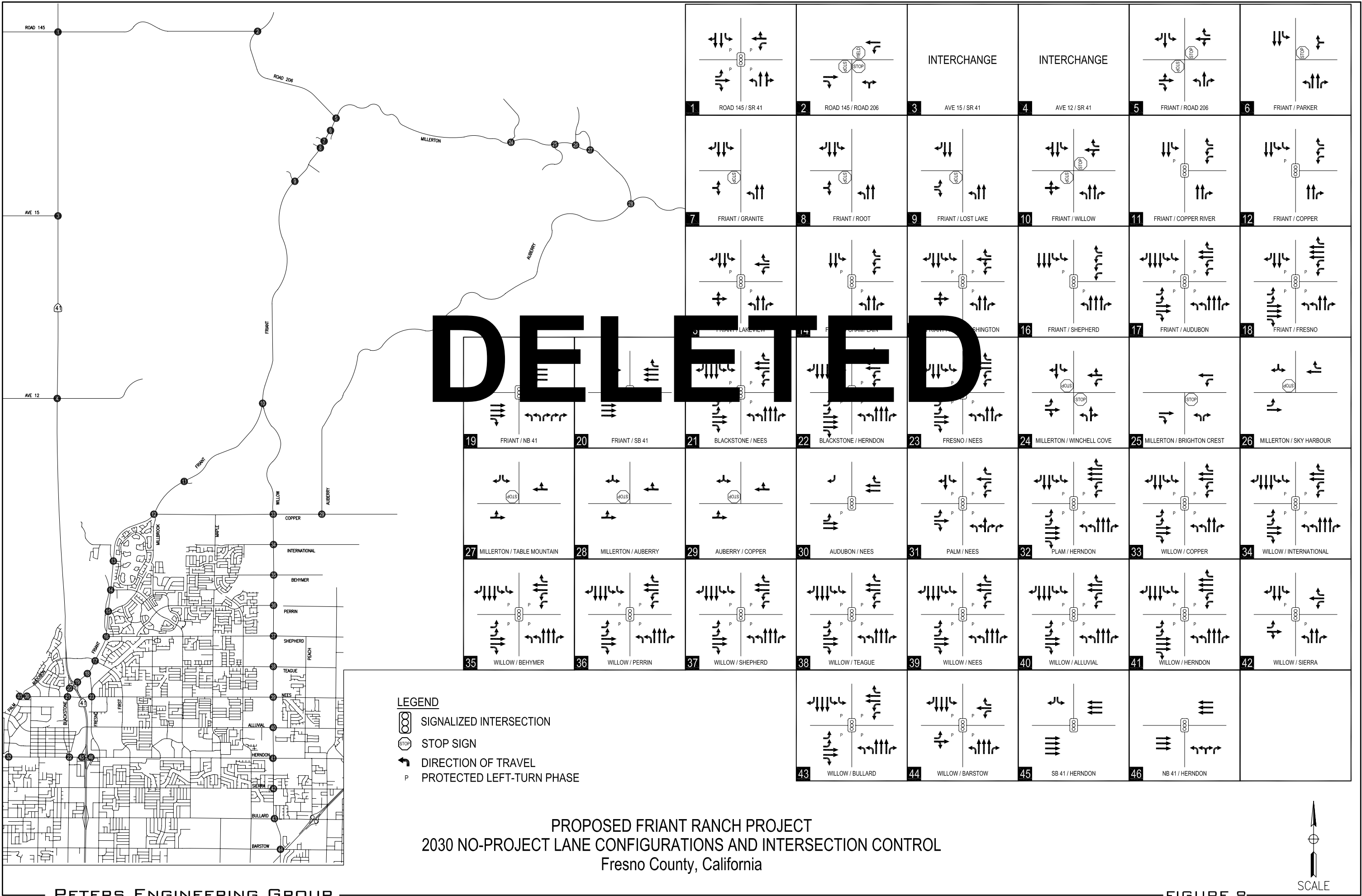
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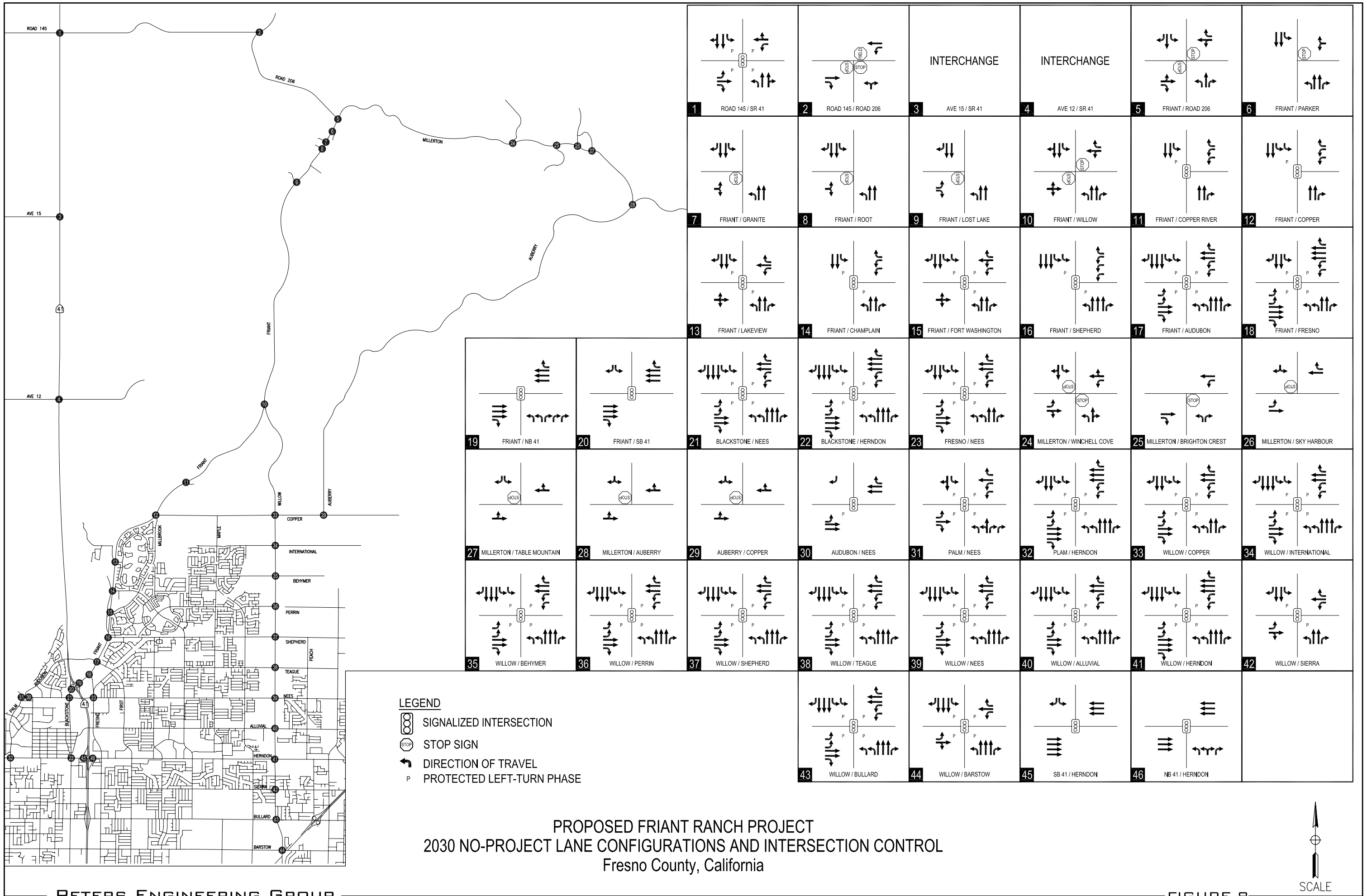
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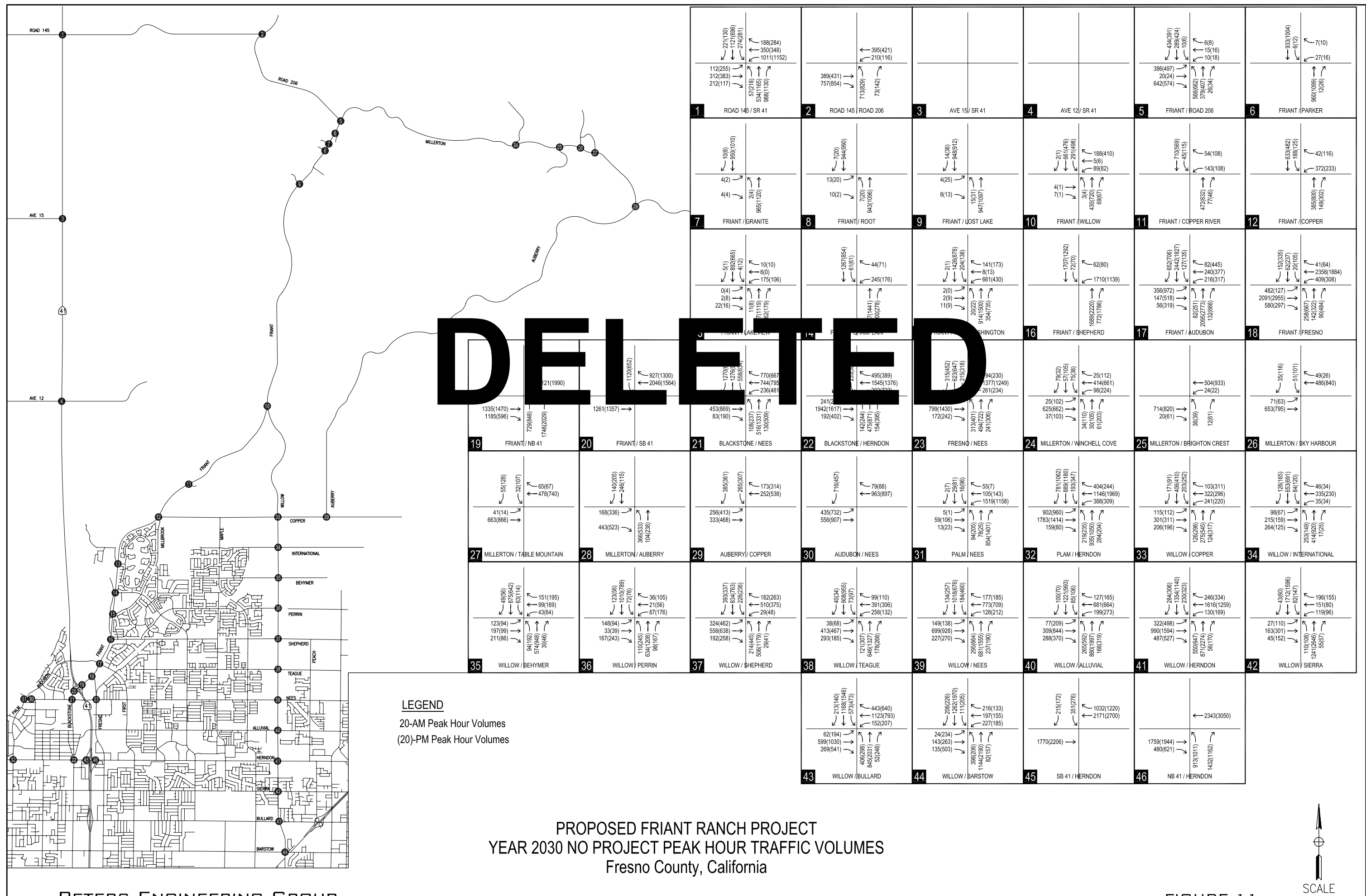
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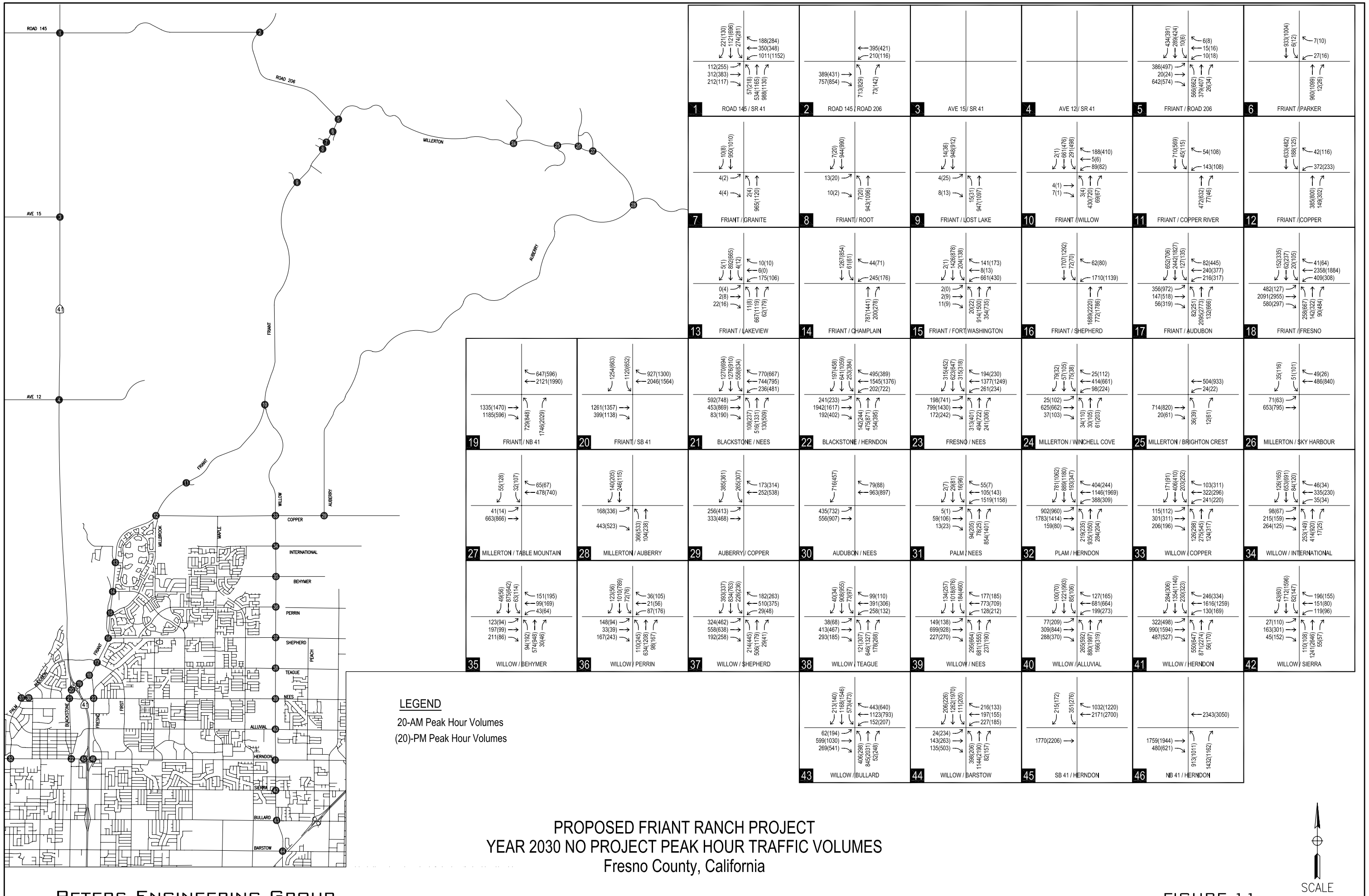
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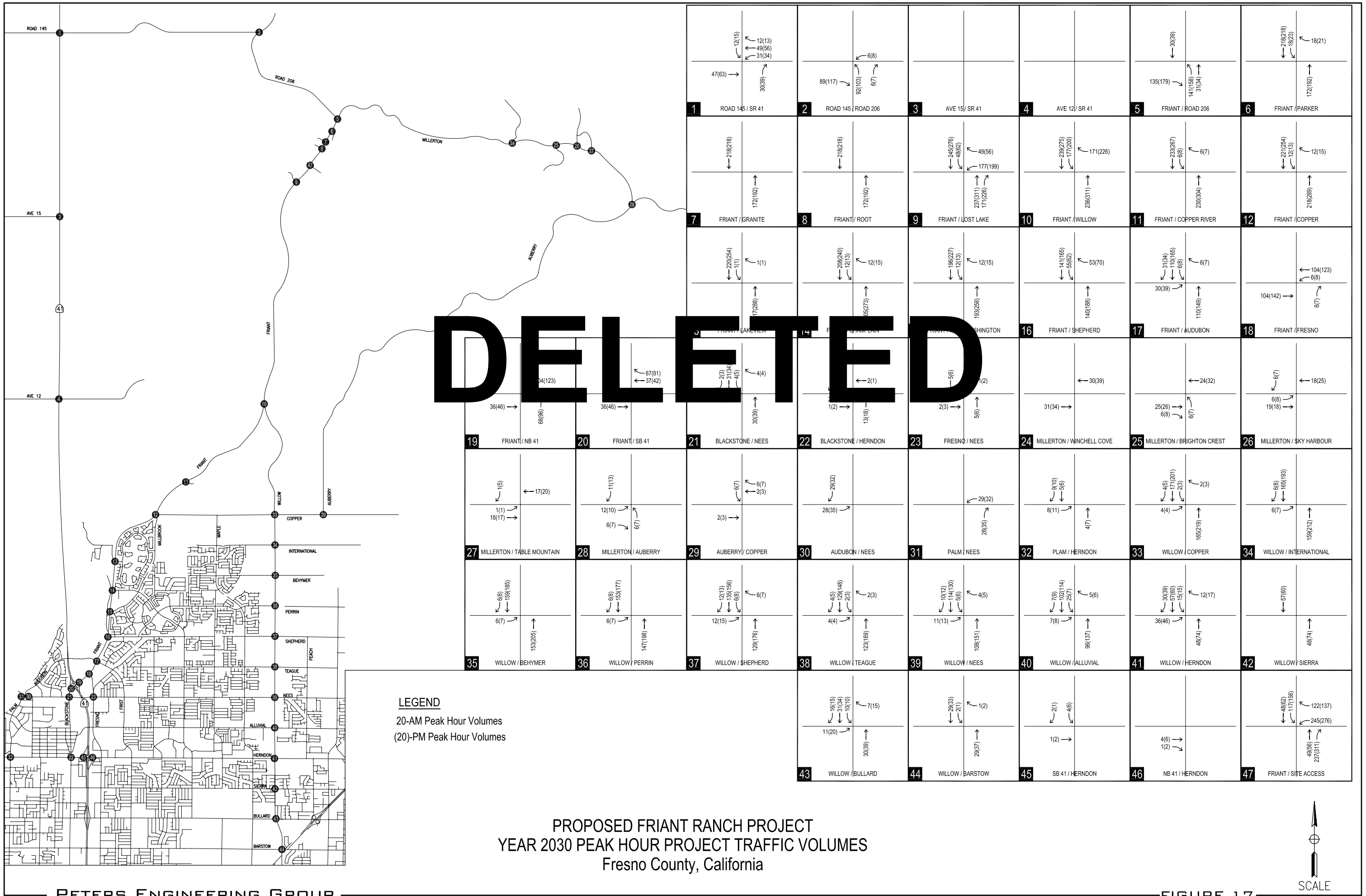


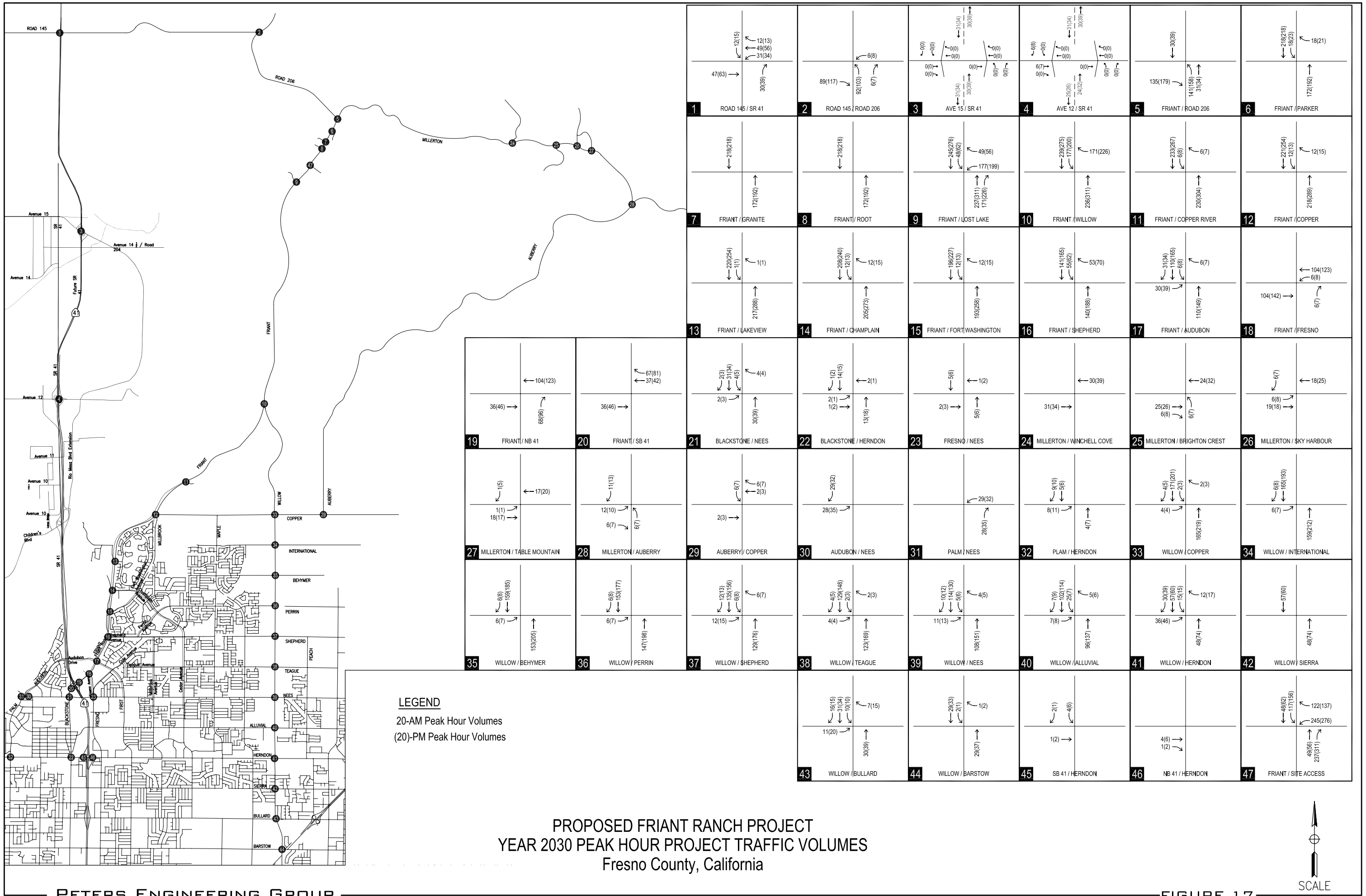


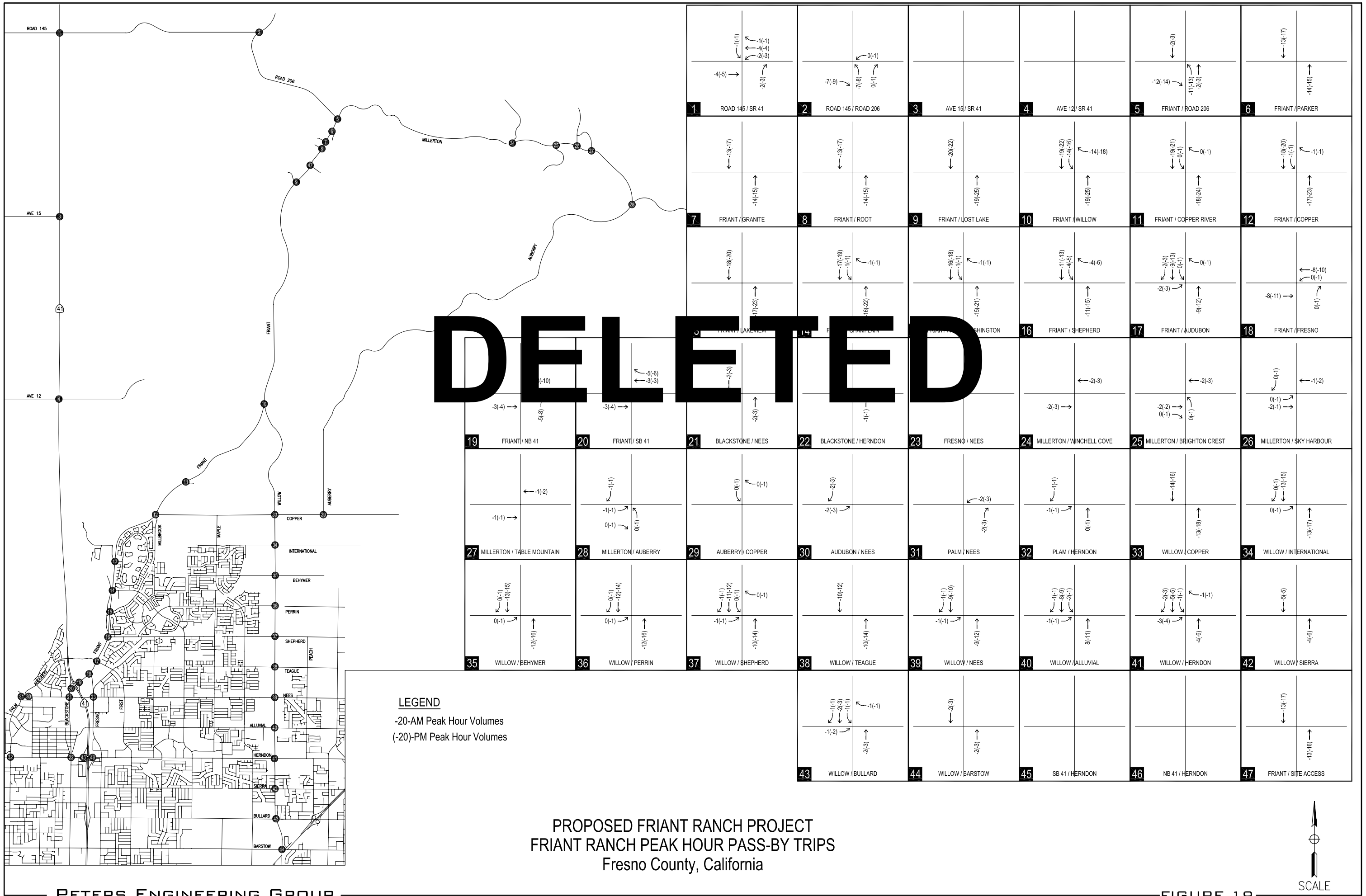


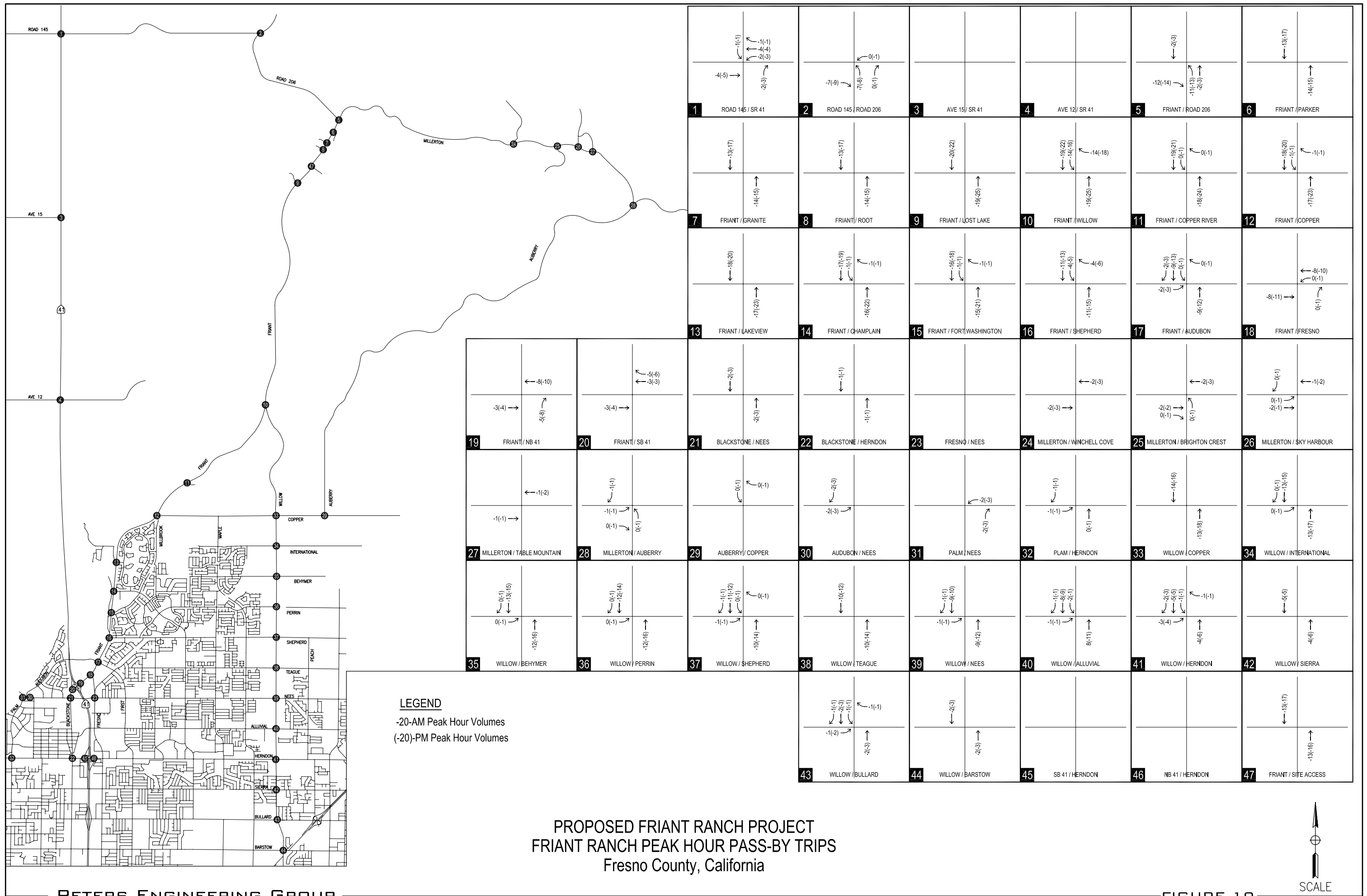


1 221(130) 112(255) 312(383) 212(117) 188(284) 350(348) 1011(1152) 57(218) 534(1165) 988(1130) ROAD 145 / SR 41	2 389(431) 757(854) 395(421) 210(116) 713(629) 73(142) ROAD 145 / ROAD 206	3 AVE 15 / SR 41	4 AVE 12 / SR 41	5 434(391) 289(424) 10(6) 6(8) 15(16) 10(18) 566(662) 379(407) 26(34) FRIANT / ROAD 206	6 933(1004) 6(12) 7(10) 960(1089) 12(26) FRIANT / PARKER
7 10(8) 4(2) 4(4) 950(1010) 2(4) 965(1120) 2(4) 2(4) 2(4) FRIANT / GRANITE	8 7(20) 13(20) 10(2) 944(990) 7(20) 943(1086) 7(20) 7(20) 943(1086) FRIANT / ROOT	9 14(36) 4(25) 8(13) 948(912) 15(31) 947(1097) 15(31) 15(31) 947(1097) FRIANT / LOST LAKE	10 2(1) 4(1) 7(1) 661(476) 188(410) 5(6) 89(82) 3(4) 430(720) 69(67) FRIANT / WILLOW	11 710(569) 45(115) 54(108) 143(108) 472(632) 77(46) 472(632) 77(46) 77(46) FRIANT / COPPER RIVER	12 633(482) 42(116) 372(233) 385(800) 149(302) 385(800) 149(302) FRIANT / COPPER
13 5(1) 0(4) 2(8) 22(16) 882(665) 6(0) 175(106) 10(10) 6(0) 62(179) FRIANT / LAKEVIEW	14 126(854) 6(161) 44(71) 245(176) 787(1441) 200(278) 787(1441) 200(278) 200(278) FRIANT / CHAMPLAIN	15 2(1) 2(0) 2(9) 11(9) 1426(878) 8(13) 661(430) 141(173) 8(13) 661(430) FRIANT / FORT WASHINGTON	16 1707(1292) 72(70) 62(80) 1710(1139) 1689(2220) 772(1786) 62(80) 1710(1139) 772(1786) FRIANT / SHEPHERD	17 652(706) 244(1827) 127(135) 82(445) 240(377) 216(317) 356(972) 147(518) 56(319) FRIANT / AUDUBON	18 152(335) 62(237) 20(105) 41(64) 2358(1884) 409(308) 482(127) 2091(2955) 580(297) FRIANT / FRESNO
21 592(748) 453(869) 83(190) 1270(694) 1276(910) 558(634) 770(667) 744(795) 236(481) BLACKSTONE / NEES	22 241(233) 194(1617) 192(402) 197(458) 62(1103) 253(384) 495(389) 1545(1376) 202(722) BLACKSTONE / HERNDON	23 198(741) 799(1430) 172(242) 315(452) 623(647) 315(318) 194(230) 105(143) 261(234) FRESNO / NEES	24 25(102) 625(662) 37(103) 79(32) 57(105) 5(38) 25(112) 414(661) 98(224) MILLERTON / WINCHELL COVE	25 714(820) 20(61) 504(933) 24(22) 504(933) 24(22) MILLERTON / BRIGHTON CREST	26 35(116) 51(101) 49(26) 486(840) 71(63) 653(795) 71(63) 653(795) MILLERTON / SKY HARBOUR
29 256(413) 333(468) 385(361) 265(307) 173(314) 252(538) AUBERRY / COPPER	30 435(732) 556(907) 716(457) 79(88) 963(897) 435(732) 556(907) AUDUBON / NEES	31 5(1) 59(106) 13(23) 2(7) 29(81) 16(96) 55(7) 105(143) 1519(1158) PALM / NEES	32 902(960) 1783(1414) 159(80) 781(1082) 888(1180) 193(347) 404(244) 1146(1969) 388(309) PLAM / HERNDON	33 115(112) 301(311) 206(196) 171(91) 408(410) 203(252) 103(311) 322(296) 241(220) WILLOW / COPPER	34 98(67) 215(159) 264(125) 126(165) 653(691) 84(120) 46(34) 335(230) 35(34) WILLOW / INTERNATIONAL
37 324(462) 558(638) 192(258) 383(337) 634(763) 226(236) 182(263) 510(375) 29(48) WILLOW / SHEPHERD	38 38(68) 413(467) 293(185) 40(34) 903(655) 73(97) 99(110) 391(306) 258(132) WILLOW / TEAGUE	39 149(138) 699(928) 227(270) 134(257) 1018(676) 184(460) 177(185) 773(709) 128(212) WILLOW / NEES	40 77(209) 309(844) 288(370) 100(70) 122(1983) 85(106) 127(165) 681(664) 199(273) WILLOW / ALLUVIAL	41 322(498) 990(1594) 487(527) 284(306) 1354(1140) 230(323) 246(334) 1616(1259) 130(169) WILLOW / HERNDON	42 27(110) 163(301) 45(152) 43(60) 1772(596) 82(147) 196(155) 151(80) 119(96) WILLOW / SIERRA
43 62(194) 599(1030) 269(541) 213(140) 1186(1546) 573(473) 443(640) 1123(793) 152(207) WILLOW / BULLARD	44 24(234) 143(263) 135(503) 206(226) 1262(1970) 111(205) 216(133) 197(155) 227(185) WILLOW / BARSTOW	45 1770(2206) 215(172) 35(276) 1032(1220) 2171(2700) SB 41 / HERNDON	46 1759(1944) 480(621) 913(1011) 1432(1162) 2343(3050) NB 41 / HERNDON		









PROPOSED FRIANT RANCH PROJECT
 FRIANT RANCH PEAK HOUR PASS-BY TRIPS
 Fresno County, California

