



MILLERTON ROAD WIDENING PROJECT

North Fork Road to Millerton Lake State Park Entrance

FY 2017 NATIONAL
INFRASTRUCTURE
INVESTMENTS -
TIGER PROGRAM

FON: DTOS59-17-RA-
TIGER9

County of Fresno,
Public Works and
Planning
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Director

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I. PROJECT DESCRIPTION

A. GENERAL

The proposed Millerton Road Widening Project aims to widen a 1.7-mile stretch of Millerton Road, in a rural region of Fresno County, California, as the initial phase of a larger 4.7-mile roadway improvement project. Through these transportation improvement projects, the county endeavors to accommodate a higher level of projected traffic demand, and to promote improved traffic operations, bike safety, and motorist safety. The project will also contribute to community safety by decreasing the California Fire Department's response times to fires in the region, and is expected to bolster regional tourism by better accommodating seasonal traffic to the scenic Millerton Lake State Park. The Millerton Road Widening Project (MRWP) will achieve these objectives by transforming the current two-lane rural roadway into a four-lane divided arterial roadway with paved shoulders, which will include signed and striped bicycle lanes.

The total project, of which the Millerton Road Widening Project is the first phase, has been preliminarily designed by Table Mountain Rancheria's consultant group, AECOM.



FIGURE 1: HISTORIC MILLERTON COURTHOUSE



FIGURE 2: ONE OF THE MANY SCENIC VIEWS FROM MILLERTON LAKE STATE PARK.

The reconstructed roadway will generally follow the centerline of the existing roadway, with deviations to improve turning radii and road grade. The minimum design speed for the roadway will be 45 mph, and will conform to a higher design speed of 55 mph when possible.

Several public road intersections, private road intersections, and driveway intersections will also be improved to accommodate the widening of the road and median improvements. Additionally, this project will include the incorporation of

new, pocketed, left-turn lanes, and a new, two-lane, pre-stressed I-girder bridge to complement the already existing bridge, and accommodate increased traffic flow. These alterations will contribute to a higher level of safety and utility for motorists and bicyclists.

Finally, erosion control measures will be utilized on all embankment area slopes, as well as on cut slopes when the slope material will support growth. By seeding and mulching all slopes that are a part of this project, we will prevent erosion, and promote a more aesthetically pleasing landscape for those who will be utilizing the newly improved roadway. Relocation of electrical and telephone utilities may also be required in certain areas, and will similarly provide opportunities to improve the existing system as a side effect of this project.

B. PROJECT HISTORY

The Millerton Specific Plan, adopted by the Fresno County Board of Supervisors in December of 1984, and subsequently amended on multiple occasions, provides for a mixed-use development on 1,420 acres. The ultimate population of this development will be between 8,000 and 10,000 people, who will reside in approximately 3,500 dwelling units. The residential population will be supported by retail commercial uses, public services and utilities, parks, and a public school.

The objective of the Millerton Specific Plan necessitates a system of major roadways that will accommodate the increased traffic volumes associated with the newly adopted land uses and the increased densities allowed by these land uses. The Millerton Road Widening Project will also establish design and improvement standards for future road improvement projects. Therefore, it is imperative that the Millerton Road Widening Project set an outstanding precedent of reducing visual impact and maintaining a semi-rural character whenever possible for the future of the community.

C. RURAL COMMUNITY BENEFIT

Based on 2011 traffic counts, the daily traffic for this length of Millerton Road averaged 8,300 trips per day. It is anticipated that these rates will substantially increase as the area continues to grow. The travel time savings for commuters and recreational travelers, after the improvements, will help to ensure more vibrant economic opportunities and more fulfilling personal lives, improving their quality of life for the community. Additionally, the project would maintain a lower traffic congestion rate, and provide additional future savings on transportation and safety spending.

Cycling enthusiasts once enjoyed cruising along the stretch of Millerton Road that the county is now hoping to improve. The scenic, rural setting and changes in topography made it an ideal place for them to enjoy the outdoors and stay active. However, the recent increases in traffic on this stretch of road have made it difficult, and often unsafe, for cyclists to share this space with motorists because the majority of the road does not have paved shoulders. The inclusion of 6-foot-wide paved shoulders will function as directional bike lanes, and will allow cyclists to safely reclaim this once popular route as a community recreational resource, without impeding traffic or requiring the development of a separate thoroughfare.



FIGURE 3: FRESNO COUNTY CITIZENS ENJOYING THE SCENIC, RURAL THOROUGHFARE, MILLERTON ROAD

The undergrounding of utility lines along Millerton Road will improve electrical service reliability for residents, and will improve property values in the area. It will also remove unnecessary visual intrusions from the route's scenic nature, and increase public safety.

II. PROJECT LOCATION

Fresno County covers over 6,000 square miles of diverse terrain, bordering the California Coastal Range in the West and the Sierra Nevada Mountains in the east. The center of the county is the very heart of California's central San Joaquin Valley.

The proposed project is located in the Sierra Nevada foothills of eastern Fresno County, near Friant Dam and the Millerton Lake reservoir. The reservoir fulfills the irrigation and drinking water needs of many San Joaquin Valley residents and job-creating industry.



FIGURE 4: MILLERTON LAKE STATE RECREATIONAL AREA

Millerton Lake is a popular recreational destination in the region, and provides boating, swimming, fishing, and camping opportunities to local residents and visitors. The dam and recreational facilities are located off of Millerton Road, the subject of this improvement project.

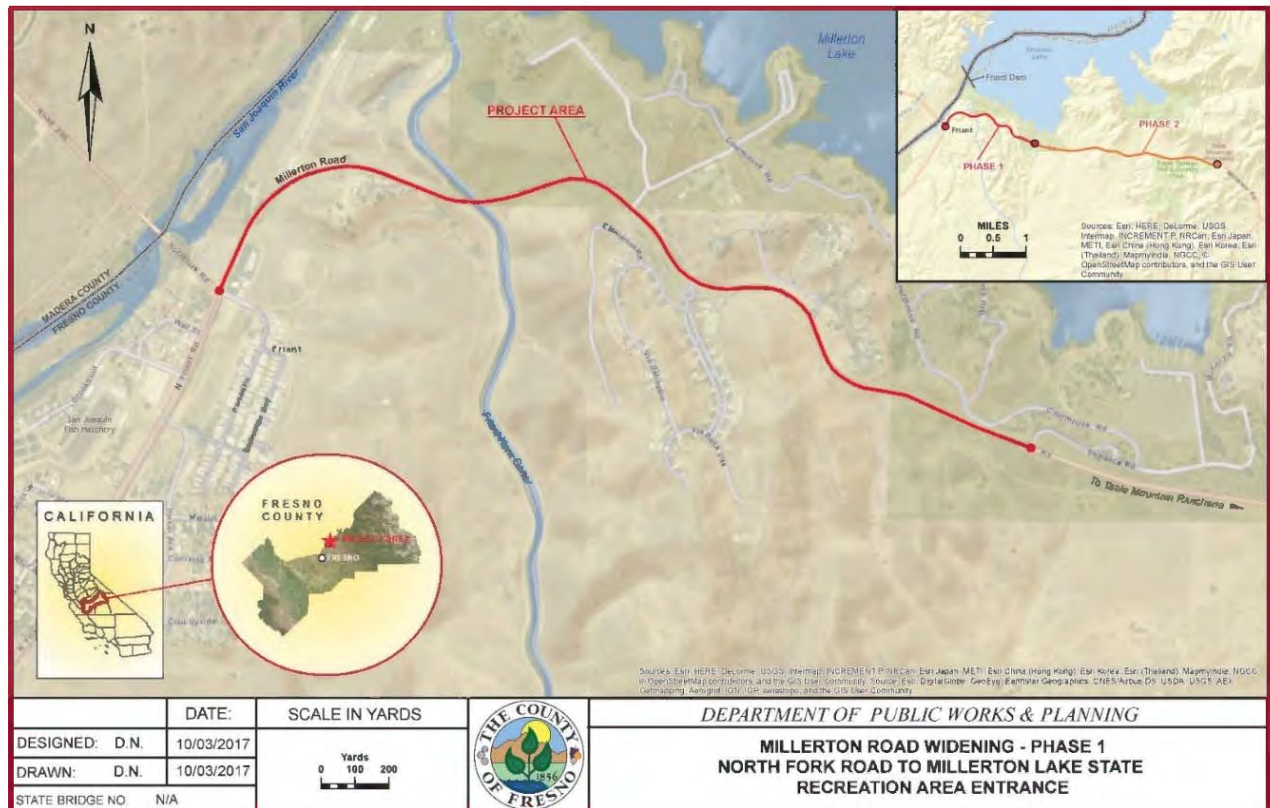


FIGURE 5: PROJECT LOCATION. AERIAL VIEW AND LOCATION, RELATIVE TO FRESNO COUNTY

As indicated in Figure 5, the western edge of the transportation improvement project begins at the intersection of North Friant Road, Millerton Road, and Road 286. The eastern terminus of the project will be approximately one mile west of Auberry Road (which intersects with Millerton Road beyond the right edge of this map).

The improvement project continues down Millerton Road 4.7-miles, and will accommodate increased traffic flows between the existing Friant community, and the new mixed-use Millerton development, as shown in the center of Figure 5.

Several public road, private road, and driveway intersections, as well as pocketed left-turn lanes, will also be improved or added in the course of this project to accommodate the widening of the road and the median improvements. These intersections include the entrance to a CalFire Fire Station, Friant Dam Access Road, and Millerton Lake State Park. The road and intersection improvements made in the Millerton Road

Widening Project will have the added benefit of providing improved emergency response to area wildfires.

A new two-lane pre-stressed I-girder bridge will be located approximately thirteen (13) feet upstream of the existing bridge, spanning the Friant-Kern Canal, to accommodate westbound traffic. The existing Bridge will be retained and utilized for the eastbound lanes.

III. GRANT FUNDS, SOURCES AND USES OF PROJECT FUNDS

A. PROJECT COSTS

The total project cost, including environmental mitigation, right-of-way, utility relocation, and construction, is estimated to be approximately \$27.6 million. Excluding the costs expended to date, the remaining cost is approximately \$24.1 million.

Pursuant to the Millerton Specific Plan, the development fees associated with the relevant, mixed-use development project, have been collected by the local County Service Area, and are being used to provide capital facilities. Development Fees are being collected for the construction of collector and arterial roadway service for the entire community.

B. NON-FEDERAL COMMITMENTS, FEDERAL SOURCES AND AMOUNT OF FUNDS

Project costs will be pieced together from various sources, including Table Mountain Rancheria, a federally recognized Native American Tribe with lands reliant on Millerton Road. Table Mountain Rancheria has consequently contributed \$2.6 million toward the project for engineering and environmental studies and processes thus far and has committed an additional \$0.9 million for future project costs.

Our proposal request is to fund the remaining cost required of the project, including a contingency for construction cost.

C. BUDGET

A more thorough engineer's estimate and funding/cost breakdown is included as an attachment.

D. FEDERAL FUNDING

This project has RSTP Funding in the amount of \$46,900, which is being utilized to fund the completion of NEPA.

IV. MERIT CRITERIA

A. PRIMARY SELECTION CRITERIA

1. SAFETY

In the past 13 years, for which the County has available electronic accident records, there have been no fewer than 106 collisions involving at least 146 vehicles, 111 injuries, and 7 fatalities along this stretch of Millerton Road. The rate of collisions per million vehicle miles (MVM) is approximately 1.13 (with 1.56 vehicles involved per MVM). The Injury and Fatality Rates per MVM are 1.19 and .07, respectively. Heavy traffic, on narrow lanes, is exacerbated in inclement weather. The additional travel lanes will improve traffic flow and the view corridor for approaching traffic hazards.

Given the types of anticipated accident reductions and the applied crash reduction factors, this project is expected to reduce the number of vehicles involved in collisions by 54.86%, injuries by 58.11%, and fatalities by 75.88%. It is estimated that the overall collision rate can be reduced by 54.33%.



FIGURE 6: PICTURE OF TRAGIC TRAFFIC ACCIDENT ON MILLERTON ROAD

There is a CalFire station located on this segment of Millerton Road, and by improving the road and reducing congestion, it is expected that this fire station will be able to provide faster response time to regional wildfires as a result of this transportation improvement project. Earlier responses can be the difference between a fire that destroys a few acres or a few hundred acres, and this region of California is particularly prone to fires.

2. STATE OF GOOD REPAIR

The Millerton Road Widening Project will extend the life cycle of the road segment that is to be improved.

3. ECONOMIC COMPETITIVENESS

Millerton Road is the primary access route to Millerton Lake State Park, which is a popular recreation area that can attract thousands of visitors per day during the peak summer months. With over 40 miles of shore for water sports, this State park offers visitors swimming, fishing, and boating. The hills surrounding the lake provide good hiking opportunities. Wildlife in the park includes ground squirrels, cottontails, mule deer, badgers and bald and golden eagles. During winter, the park has special boat tours to view the bald eagles.

The lake was created by construction of the Friant Dam across the San Joaquin River in 1944. The park contains the original Millerton County Courthouse, built in 1867. Visitors enjoy a variety of activities, both on and off the lake, including boating, swimming, fishing, and camping.



**FIGURE 7: MILLERTON LAKE
STATE PARK ENTRANCE**

This recreational activity results in a considerable contribution to the local economy. The level of tourism greatly increases traffic flows and congestion, but the negative effects of this traffic influx will be lessened by the proposed road improvements. Additionally, the improved traffic conditions will improve the overall experience of our Millerton Lake State Park's visitors.

Millerton Road is the primary corridor that the Table Mountain Rancheria tribe members rely on to access their lands and governmental operation. It is used by more than 1,300 employees of Table Mountain Rancheria and thousands of patrons and is integral to their economic success.



FIGURE 8: FACILITIES AT TABLE MOUNTAIN RANCHERIA

Based on 2017 traffic counts, the daily traffic for this stretch of Millerton Road averaged 11,600 users. It is predicted that these rates will substantially increase as the population and popularity of the area continues to grow. Long-term travel time savings for commuters and recreational travelers will help to ensure more vibrant economic opportunities, more fulfilling personal lives, and will improve the users' quality of life. The project will also maintain a lower traffic congestion rate as the area grows, which will provide additional future savings in road maintenance.

The calculated return on investment in regards to safety savings, which has been extrapolated from the per million vehicle miles (MVM) rate calculated for the past ten years, and applied to the area's projected traffic growth, indicates a continued improvement in the economic competitiveness of the project. This analysis shows that the Millerton improvement project should lead to a net positive project investment before the expected lifetime of the project comes due. It is therefore economically viable, as well as a necessary public good for the growing rural community.

4. ENVIRONMENTAL SUSTAINABILITY

This project is not expected to have an immediately measurable effect on environmental sustainability.

5. QUALITY OF LIFE

The residents of the unincorporated foothill communities of Prather and Auberry, respectively located approximately 13 and 17 miles from the Millerton/North Fork Road intersection, frequently rely on the relative convenience that Millerton Road provides them to get to Madera County or to north and central Fresno. It lies along the most direct route to Madera, and the only alternate route available to north and central Fresno will take them on a winding route through the foothills and the City of Clovis, which will take longer to reach a north Fresno destination.



FIGURE 9 VENTANA HILLS SUBDIVISION

Several housing and commercial developments are currently in various stages of planning and construction along Millerton Road. Increased connectivity and accessibility – along with the other developments, currently underway, will increase commercial opportunities and economic prospects.

The improvements which will be constructed as a part of this project will better tie the foothill area to the Fresno/Clovis metropolitan area. By supporting regional development and

economic growth, property values can be improved and the related construction and service industries will be buoyed. Additionally, it is expected that the residual impacts and job creation caused by such investment will be positively felt throughout the region.

The County suffers from socioeconomic strain, with chronically high unemployment (10%+) and poverty (20%+) rates, which are regularly over 50% higher than their respective national averages. Infusions of liquidity into major projects will help to bolster the regional economy, providing greater economic opportunity and a more favorable economic climate.

B. SECONDARY SELECTION CRITERIA

1. INNOVATION AND PARTNERSHIP

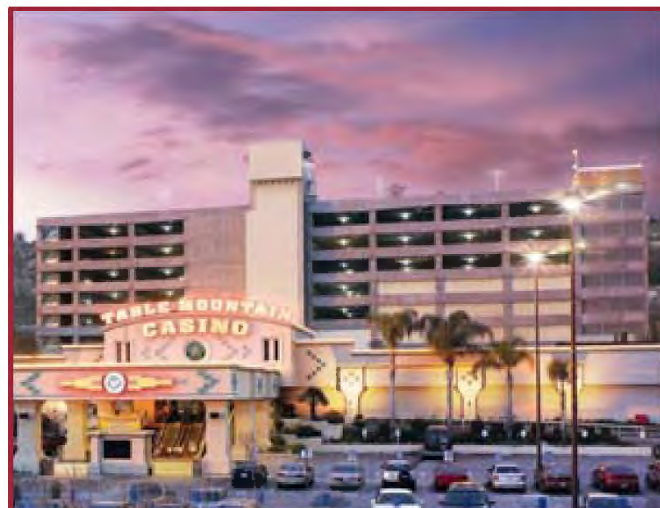


FIGURE 10 TABLE MOUNTAIN CASINO

Although the project does not encompass innovative safety approaches or technology, the County has partnered with Table Mountain Rancheria for the financing of the project, which is a notable and extremely effective partnership.

Table Mountain Rancheria has already contributed approximately \$2.6 million toward the project for engineering, environmental studies, and CEQA process. Table Mountain Rancheria is also completing the NEPA, with the

Bureau of Reclamation acting as lead agency. Additionally, Table Mountain Rancheria has \$0.9 million allocated toward future costs.

V. PROJECT READINESS

All technical studies were prepared in accordance with Federal and State requirements.

A. TECHNICAL FEASIBILITY

Table Mountain Rancheria has paid for the development of plans and specifications for the overall widening of Millerton between North Fork Road and Table Mountain Road. These plans and specifications can be updated and revised to ensure up-to-date regulatory compliance and to bring the project to construction.

B. PROJECT SCHEDULE

The County of Fresno and Table Mountain Rancheria have been working toward a shovel ready project since 2008, and it is anticipated that construction can be completed by the end of 2023, if grant funding can be obtained. Table Mountain Rancheria funded the design and preparation of environmental studies while the County has pursued construction funding for the project.

All technical reports were prepared to Federal and State standards. With no Federal sponsor, U.S. Army Corps of Engineers (ACOE) was the Federal Lead Agency for the Endangered Species Act, Section 7 Consultation and National Historic Preservation Act, Section 106 Consultation triggered by the Nationwide Permit No. 14 Notification. The U.S. Bureau of Reclamation (BOR) prepared an Environmental Assessment / Finding of No Significant Impact for approximately 9.48 acres of BOR easements necessary to construct the project, however could not be the NEPA Lead Agency for impacts outside BOR jurisdiction.

A detailed schedule is included with the attachments.

C. REQUIRED APPROVALS

1. ENVIRONMENTAL PERMITS AND REVIEWS

(A) NEPA AND DOT CONSULTATION

Caltrans District 6, Local Assistance will approve and release for public comment the County of Fresno prepared Environmental Assessment. Caltrans District 6 Director will sign the Findings of No Significant Impact (FONSI), which is the anticipated determination.

(B) OTHER AGENCY APPROVALS

U.S. Army Corps of Engineers must re-verify / extend the Nationwide Permit No. 14 verification issued on December 5, 2014.

(C) PROJECT IMPACTS AND POSSIBLE MITIGATION

The project requires mitigation and minimization and avoidance measures in the following areas:

- Aesthetics: Cut and fill slopes should look natural and be constructed to facilitate planting, erosion control, and ease of maintenance.
- Air Quality: Implement applicable San Joaquin Valley Air Pollution Control District measures for particulate matter, nitrogen oxides, reactive organic gases and other construction emissions.
- Biological Resources:
- Comply with Biological Opinion with incidental take statement issued by the U.S. Fish and Wildlife Service for impacts to California tiger salamander, Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp.
- Implement measures to protect burrowing owls, Swainson's hawk, birds of prey, migratory birds, San Joaquin kit fox, and special status plants, as necessary.
- Cultural Resources: Implement standard measures to address inadvertently discovering cultural materials or human remains.
- Greenhouse Gas Emissions: Implement California Air Pollution Control Officers Association measures to reduce greenhouse gas emissions.



FIGURE 11 BALD EAGLE

- Hazards and Hazardous Materials: Construction equipment should be equipped with a spark arrestor in good working order. Staging or construction areas should be cleared of materials that could serve as fuel for combustion when using spark-producing equipment.
- Hydrology and Water Quality: Project shall comply with NPDES General Permit.
- Noise: Construction activities shall be limited to occur only between the hours of 6:00 am to 9:00 pm Monday through Friday, and between the hours of 7:00 am to 5:00 pm on Saturday and Sunday



**FIGURE 12 TABLE MOUNTAIN RANCHERIA
Pow Wow**

To review the adopted measures in their entirety, see the CEQA Mitigation and Monitoring and Reporting Plan (also referenced in BOR's FONSI) located with the project's attachments.

(D) DISCUSSIONS WITH DOT

In October 2016, Caltrans District 6, Local Assistance conducted a preliminary review of all environmental technical reports and agency approvals and provided a tentative scope of work to complete NEPA for the entire project (BOR's EA / FONSI only addressed impacts related to approximately 9.48 acres of BOR easements needed to construct the project).

(E) PUBLIC ENGAGEMENT

A public hearing will be held during the public comment period for the Environmental Assessment.

2. STATE AND LOCAL APPROVALS

The following approvals will be required to be obtained:

- The California Department of Fish and Wildlife must issue a California Endangered Species Act, Incidental Take Permit for impacts to endangered species.
- A Clean Water Act, Section 401 Water Quality Certification is required from the Regional Water Quality Control Board.



FIGURE 13 ENDANGERED SAN JOAQUIN VALLEY KIT FOX

3. FEDERAL TRANSPORTATION REQUIREMENTS

This project has been included in the Fresno Council of Government's 2014 Regional Transportation Plan, and has been designed to meet federal guidelines.

D. ASSESSMENT OF PROJECT RISKS AND MITIGATION STRATEGIES

The proposed mitigation measures were adopted during the CEQA and BOR's NEPA review. Substantial modification is not anticipated to result from Caltrans NEPA review.

Preliminary Engineering funds are programmed in Fresno Council of Governments, Federal Transportation Improvement Program, which allows the County to initiate Caltrans' NEPA review. Caltrans conducted a preliminary review of the environmental technical reports and Regulatory Agency approvals and provided a tentative scope of work to complete NEPA. The following environmental milestones are complete:

- NEPA: Final Environmental Assessment / Finding of No Significant Impact issued by Bureau of Reclamation on May 16, 2017, for approximately 9.48 acres of BOR easements
- National Historic Preservation Act, Section 106: State Historic Preservation Officer issued concurrence letter on November 16, 2015 (ACOE, Lead Agency)
- Clean Water Act, Nationwide Permit: Nationwide Permit No. 14 verification letter issued by USACOE on December 5, 2014

- CEQA: Notice of Determination (Mitigated Negative Declaration) filed with the Fresno County Clerk on December 13, 2013. Notice of Completion filed with State Clearinghouse on October 28, 2013 (SCH# 2013101092).
- Federal Endangered Species Act, Section 7 Consultation: Biological Opinion with an incidental take statement was issued by U.S. Fish and Wildlife Service on October 22, 2013 (ACOE, Lead Agency)

The following environmental milestones remain:

- Issue RFP for Environmental Consultant
- Prepare:
 - o Noise Study Report
 - o Air Quality Conformity Analysis
 - o Water Quality Assessment Report
 - o Location Hydraulic Study
 - o Summary Floodplain Evaluation Report
 - o Section 4(f) Report (de minimis anticipated)
 - o Community Impact Assessment
 - o Natural Environment Study
 - o Visual Assessment (Update to Caltrans standards)
 - o Biological Assessment (Update if new species listed)
- Update Environmental Assessment using Caltrans template.
- Caltrans to conduct NEPA review (FONSI anticipated)
- Obtain Incidental Take Permit (ITP) from California Department of Fish and Wildlife
- Extend existing USACOE Nationwide Permit verification
- Obtain Section 401 Water Quality Certification from RWQCB
- Purchase compensatory mitigation and implement avoidance and minimization measures prior to construction.



FIGURE 14 MILLERTON ROAD AT FRIANT KERN CANAL

VI. BENEFIT COST ANALYSIS, RESULTS AND METHODOLOGY

The traffic impact studies from developments identified as being reliant on Millerton Road indicate that the cumulative impact on Millerton Road could more than double the 2017 average daily traffic rate, when fully built out. For purposes of the Safety and Social/Time Savings portions of the analysis, a much more conservative traffic escalation factor of 1.5% per year was applied to project traffic rates. This gives us a modest traffic escalation of approximately 49.5% between the 2017 traffic counts and 2044 (approximately 20 years after project completion). As a result of using such a modest rate, and because future (additional) traffic congestion moderation was not accounted, the benefit-cost analysis does not represent the greatest potential benefits rate, but a moderate possibility.



FIGURE 15 MILLERTON ROAD ACCIDENT

The Safety portion was the most complex part of this Benefit-Cost Analysis. Collisions along the segment first had to be ascertained, which required isolating those collisions inside of the project area, and tabulating the number of accidents, injuries, and fatalities per year. The number of vehicles involved in multi-vehicle collisions is not data regularly identified by the Department, so all multi-

vehicle collisions were calculated as involving two vehicles, for a minimum number of vehicles involved in collisions.

The data was separated into the collision-type categories and subcategories, and the Federal Highway Administrations “Desktop Reference for Crash Reduction Factors, September 2008, FHWA-SA-08-011” was used to find best estimate crash reduction factors for each category/subcategory. Some collision-types were not reduced, such as those of unknown cause, or those caused by drivers who were under the influence, as these types of accidents are either not readily preventable (or accountable) by transportation improvements, or will not be significantly impacted by the improvements. Where multiple factors were applied, they were factored together to demonstrate the combination of countermeasures.

The applied Crash Reduction Factors calculated the potential preventable rates, which were added together and refactored to get combined collision reduction factors. These

rates were applied to future collisions, which were scaled by the future traffic rate and the calculated rates of accidents, injuries, and fatalities per million vehicle miles (MVM).

Accident Factors						Preventable				
Applied Crash Reduction Factors ◦		CRFs			Applied	Overall	Vehicles	Injuries	Fatalities	
		1	2	3		27.25	30.92	22.54	3.91	
Install Turn Lanes (33); Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6Ft (69)		44%	60%	12%	80.29%	16.06	16.86	8.83	3.21	
Install Turn Lanes (33); Increase Lanes, All (61); Widen Shoulder, Paved, 0-6Ft (69)		42%		12%	48.96%	1.47	2.94	0.98	0.00	
Install Raised Median (32); Install Turn Lanes (33)		42%		12%	48.96%	8.32	8.32	7.83	0.00	
Install Raised Median (32); Install Turn Lanes (33)		38%	45%	12%	69.99%	1.40	2.80	4.90	0.70	
						22.06	32.62	26.68	0.00	
Install Turn Lanes (33); Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6Ft (69)		44%	60%	12%	80.29%	5.62	5.62	5.62	0.00	
Install Turn Lanes (33); Increase Lanes, All (61); Widen Shoulder, Paved, 0-6Ft (69)		42%		12%	48.96%	5.88	11.75	3.92	0.00	
Install Raised Median (32); Install Turn Lanes (33)		42%		12%	48.96%	6.36	6.85	7.34	0.00	
Install Raised Median (32); Install Turn Lanes (33)		38%	45%	12%	69.99%	4.20	8.40	9.80	0.00	
Increase Lanes, All (61)		35%	28%	12%	58.82%	1.18	2.35	1.18	0.00	
Increase Lanes, Head On & Run Off Road (61); Install Raised Median (73)		38%	45%	12%	69.99%	4.90	9.80	11.90	1.40	
Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6 Ft (69)		35%	28%	12%	55.07%	2.20	4.41	2.20	0.00	
None. Accidents are either not readily preventable by transportation improvements or project improvements will not significantly impact.										
						57.59	80.10	64.50	5.31	
for 2008 (Page Number in Parenthesis)						Overall Crash Reduction Factors	54.33%	54.86%	58.11%	75.88%

The resultant statistical value of safety benefits was calculated using the TIGER BCA Guidance Resource Guide's given Value of Statistical Life, Value of Injuries, and Value of Property Damage. Because the Department's data does not include the severity of injuries, the value of injuries was calculated using the Abbreviated Injury Scale data conversion matrix included therein, which provided an average statistical value of injuries.

The Social/Time Savings portion assumed the \$13.60/hour recommended for all-purpose local travel in the TIGER BCA Guidance. Major factors include: a 5 minute delay per vehicle, per day for the construction phase; and no calculated savings after construction. It is anticipated that the reduction in future congestion will lead to limited time savings, however, those were not calculated and are not included in the BCA.

The additional maintenance costs shown in the Benefit-Cost Summary represent a 40% increase per mile, when compared to the average annual maintenance expenditure per mile of road in Fresno County. It is presently anticipated that maintenance costs may actually decrease by as much as 30% for the first twenty years following the project, as the newly reconstructed road should require less immediate attention.

The Benefit-Cost Summary sheet compiles this information into monetized terms, combines it, then provides an annual summary for undiscounted and 7% discounted benefits. The cumulative/scaled benefits and costs are also shown on an annualized basis. According to our calculations, the entire project should become net-positive within ten years (post-construction) using the 7% discount rate.

Several spreadsheets have been included with the attachments for this package, detailing the underlying project benefit-cost analysis, and demonstrating the methodology.

A. COST SHARE

1. NON-FEDERAL SHARE

Project costs will be pieced together from various sources, including Table Mountain Rancheria. Table Mountain Rancheria is a federally recognized Native American Tribe with lands reliant upon Millerton Road. They have contributed \$2.6 million toward the project for engineering and environmental studies and processes. Table Mountain Rancheria has committed an additional \$0.9 million for future project costs.

2. FISCAL CONSTRAINTS

There are insufficient funds to construct this project without selection for a grant. The County's road funding resources are limited by other projects that have obtained higher tier approval ratings from regional bodies. This project will remain shelf ready until adequate funding can be obtained to proceed with construction. Until then, the County will have to continue to shoulder the financial burden of the continued safety and maintenance costs inherent in an insufficient roadway.

3. FULL LIFE-CYCLE COSTS

The costs of operations and maintenance will be borne by the County, and are expected to be approximately \$8,000 to \$10,000 per mile for the entirety of the road's life cycle. This maintenance budget is approximately \$4,000 more per mile than what the current infrastructure would require, and this difference is due to a larger surface area, from a wider road and paved shoulders.

4. FEDERAL WAGE RATE CERTIFICATION

A wage rate certification is included with the attachments.

VII. APPLICATION PACKAGE

SF-424

Project Narrative

Attachments

- TIGER 2017 Project Information (Included on Grants.gov)
- Federal Wage Rate Certification (Included on Grants.gov)
- Located on the [County's Website](#) (link):
 - o Funding and Costs Spreadsheet
 - o Detailed Schedule Spreadsheet
 - o U.S. Fish and Wildlife Biological Opinion
 - o U.S. Army Corps of Engineers Nationwide Permit Verification
 - o Bureau of Reclamation Finding of No Significant Impacts
 - o State Historic Preservation Office Letter of Concurrence
 - o State Clearinghouse Compliance Letter
 - o Mitigated Negative Declaration and Notice of Determination
 - o Mitigation and Monitoring and Reporting Plan
 - o Benefit-Cost Analysis Spreadsheets
 - o Collision History
 - o Letters of Support

Millerton Road - North Fork Road to Millerton Lake State Park Entrance

Benefit-Cost Summary

Year	Safety Benefits	Time Savings/Costs	Project Costs & Upkeep	Undiscounted Benefits	Cumulative Undiscounted	Discounted Value	Cumulative (7% Discount)
2017	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ -	\$ -	\$ (750,000.00)	\$ (750,000.00)	\$ (750,000.00)	\$ (700,934.58)	\$ (700,934.58)
2019	\$ -	\$ -	\$ (750,000.00)	\$ (750,000.00)	\$ (1,500,000.00)	\$ (655,079.05)	\$ (1,356,013.63)
2020	\$ -	\$ -	\$ (1,500,000.00)	\$ (1,500,000.00)	\$ (3,000,000.00)	\$ (1,224,446.82)	\$ (2,580,460.44)
2021	\$ -	\$ -	\$ (1,500,000.00)	\$ (1,500,000.00)	\$ (4,500,000.00)	\$ (1,144,342.82)	\$ (3,724,803.26)
2022	\$ -	\$ (4,822,473.41)	\$ (18,000,000.00)	\$ (22,822,473.41)	\$ (27,322,473.41)	\$ (16,272,108.13)	\$ (19,996,911.38)
2023	\$ -	\$ (2,447,405.26)	\$ (4,000,000.00)	\$ (6,447,405.26)	\$ (33,769,878.67)	\$ (4,296,178.36)	\$ (24,293,089.74)
2024	\$ 5,340,408.81	\$ -	\$ 8,363.14	\$ 5,348,771.95	\$ (28,421,106.72)	\$ 3,330,946.35	\$ (20,962,143.39)
2025	\$ 5,420,514.94	\$ -	\$ 8,614.04	\$ 5,429,128.98	\$ (22,991,977.75)	\$ 3,159,802.49	\$ (17,802,340.90)
2026	\$ 5,501,822.66	\$ -	\$ 8,872.46	\$ 5,510,695.12	\$ (17,481,282.62)	\$ 2,997,453.02	\$ (14,804,887.88)
2027	\$ 5,584,350.00	\$ -	\$ 9,138.63	\$ 5,593,488.63	\$ (11,887,793.99)	\$ 2,843,445.99	\$ (11,961,441.89)
2028	\$ 5,668,115.25	\$ -	\$ 9,412.79	\$ 5,677,528.04	\$ (6,210,265.95)	\$ 2,697,352.67	\$ (9,264,089.21)
2029	\$ 5,753,136.98	\$ -	\$ 9,695.17	\$ 5,762,832.16	\$ (447,433.79)	\$ 2,558,766.40	\$ (6,705,322.82)
2030	\$ 5,839,434.04	\$ -	\$ 9,986.03	\$ 5,849,420.07	\$ 5,401,986.28	\$ 2,427,301.37	\$ (4,278,021.45)
2031	\$ 5,927,025.55	\$ -	\$ 10,285.61	\$ 5,937,311.16	\$ 11,339,297.43	\$ 2,302,591.63	\$ (1,975,429.82)
2032	\$ 6,015,930.93	\$ -	\$ 10,594.18	\$ 6,026,525.11	\$ 17,365,822.54	\$ 2,184,290.04	\$ 208,860.22
2033	\$ 6,106,169.89	\$ -	\$ 10,912.00	\$ 6,117,081.90	\$ 23,482,904.44	\$ 2,072,067.28	\$ 2,280,927.50
2034	\$ 6,197,762.44	\$ -	\$ 11,239.36	\$ 6,209,001.81	\$ 29,691,906.25	\$ 1,965,610.96	\$ 4,246,538.46
2035	\$ 6,290,728.88	\$ -	\$ 11,576.54	\$ 6,302,305.42	\$ 35,994,211.67	\$ 1,864,624.76	\$ 6,111,163.23
2036	\$ 6,385,089.81	\$ -	\$ 11,923.84	\$ 6,397,013.65	\$ 42,391,225.33	\$ 1,768,827.58	\$ 7,879,990.81
2037	\$ 6,480,866.16	\$ -	\$ 12,281.56	\$ 6,493,147.72	\$ 48,884,373.04	\$ 1,677,952.76	\$ 9,557,943.57
2038	\$ 6,578,079.15	\$ -	\$ 12,650.00	\$ 6,590,729.16	\$ 55,475,102.20	\$ 1,591,747.34	\$ 11,149,690.91
2039	\$ 6,676,750.34	\$ -	\$ 13,029.50	\$ 6,689,779.84	\$ 62,164,882.04	\$ 1,509,971.38	\$ 12,659,662.29
2040	\$ 6,776,901.59	\$ -	\$ 13,420.39	\$ 6,790,321.98	\$ 68,955,204.02	\$ 1,432,397.26	\$ 14,092,059.55
2041	\$ 6,878,555.12	\$ -	\$ 13,823.00	\$ 6,892,378.12	\$ 75,847,582.14	\$ 1,358,809.05	\$ 15,450,868.60
2042	\$ 6,981,733.45	\$ -	\$ 14,237.69	\$ 6,995,971.14	\$ 82,843,553.28	\$ 1,289,001.93	\$ 16,739,870.53
2043	\$ 7,086,459.45	\$ -	\$ 14,664.82	\$ 7,101,124.27	\$ 89,944,677.55	\$ 1,222,781.59	\$ 17,962,652.12
2044	\$ 7,192,756.34	\$ -	\$ 15,104.77	\$ 7,207,861.10	\$ 97,152,538.65	\$ 1,159,963.73	\$ 19,122,615.86

Safety Factors (Escalated Using MVM)

54.33% Accident Reduction
54.86% Property Damage Reduction Factor
58.11% Injury Reduction Factor
75.88% Fatality Reduction Factor

Time Factors

-5.00 Minutes Lost/Vehicle (Construction)
0.00 Minutes Saved/Vehicle
1.50% Annual Traffic Escalation

Construction completed mid-2025

Maintenance Factors

\$ (4,000.00) Projected Annual Maintenance Cost/Mile
3.00% Inflation Rate

Millerton Road - North Fork Road to Millerton Lake State Park Entrance

Collision History: 9/1/2004 - 7/31/2017

	Number of Accidents Along Project Stretch	Number of Vehicles Involved in Collisions _b	Value of Property Damage (\$4,252 / Vehicle)	Number of Injuries	Value of Injuries _c	Number of Fatalities	Value of Fatalities (\$9,400,000 / Each)	Combined Statistical Value of Collisions
Total	106	146	\$ 620,792.00	111	\$ 19,317,282.05	7	\$ 65,800,000.00	\$ 85,738,074.05
Rate/MVM	1.13	1.56	\$ 6,634.42	1.19	\$ 206,444.30	0.07	\$ 703,206.32	\$ 916,285.04

a Average Daily Traffic (2011 Sample): 11600 Annual Adjustment Factor: 1.50%

b Exact records are not available on the number of vehicles involved in multi-vehicle collisions. All multi-vehicle collisions were assigned a value of two (2).

c Derived by applying guidance factors for converting unknown injury severity to AIS, given in the TIGER BCA Resource Guide (page 13). See conversion table for details.

Value of Injuries, Abbreviated Injury Scale (AIS) Conversion

	Number of Injuries (Severity Unknown)	No Injury, AIS 0 0.21538 0.000	Minor Injury, AIS 1 0.62728 0.003	Moderate Injury, AIS 2 0.104 0.047	Serious Injury, AIS 03 0.03858 0.105	Severe Injury, AIS 4 0.00442 0.266	Critical Injury, AIS 5 0.01034 0.593	Total
								Probability Factor
								VSL/AIS Factor
Total	111	\$ -	\$ 2,005,288.70	\$ 5,208,652.80	\$ 4,316,639.04	\$ 1,252,847.23	\$ 6,533,854.27	\$ 19,317,282.05

Values calculated by multiplying the number of *Injuries* , the *Probability Factor* (to determine the likelihood of a type of injury) and the *Value of Statistical Life/Fatality* by the *VSL/AIS Factor*

\$9,600,000 Value of Statistical Life (VSL)

Millerton Road - North Fork Road to Millerton Lake State Park Entrance

Accident Prevention / Crash Reduction Factors

	9/1/2004 - 7/31/2017				Accident Factors					Preventable							
Primary Collision Factor	Number	Vehicles	Injuries	Fatalities	Applied Crash Reduction Factors _a	CRFs			Applied	Overall	Vehicles	Injuries	Fatalities				
Improper Turning	42	48	36	5		1	2	3		27.25	30.92	22.54	3.91				
<i>Ran Off Road/Fixed Object</i>	20	21	11	4	Install Turn Lanes (33); Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6Ft (69)	44%	60%	12%	80.29%	16.06	16.86	8.83	3.21				
<i>Slower or Turning 2nd</i>	3	6	2	0	Install Turn Lanes (33); Increase Lanes, All (61); Widen Shoulder, Paved, 0-6Ft (69)	42%		12%	48.96%	1.47	2.94	0.98	0.00				
<i>Overturned</i>	17	17	16	0	Install Raised Median (32); Install Turn Lanes (33)	42%		12%	48.96%	8.32	8.32	7.83	0.00				
<i>Head On/Opposing Lane</i>	2	4	7	1	Install Raised Median (32); Install Turn Lanes (33)	38%	45%	12%	69.99%	1.40	2.80	4.90	0.70				
Unsafe Speed	38	57	44	0						22.06	32.62	26.68	0.00				
<i>Ran Off Road/Fixed Object</i>	7	7	7	0	Install Turn Lanes (33); Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6Ft (69)	44%	60%	12%	80.29%	5.62	5.62	5.62	0.00				
<i>Slower or Turning 2nd</i>	12	24	8	0	Install Turn Lanes (33); Increase Lanes, All (61); Widen Shoulder, Paved, 0-6Ft (69)	42%		12%	48.96%	5.88	11.75	3.92	0.00				
<i>Overturned</i>	13	14	15	0	Install Raised Median (32); Install Turn Lanes (33)	42%		12%	48.96%	6.36	6.85	7.34	0.00				
<i>Head On/Opposing Lane</i>	6	12	14	0	Install Raised Median (32); Install Turn Lanes (33)	38%	45%	12%	69.99%	4.20	8.40	9.80	0.00				
Improper Passing	2	4	2	0	Increase Lanes, All (61)	35%	28%	12%	58.82%	1.18	2.35	1.18	0.00				
Wrong Side of the Road	7	14	17	2	Increase Lanes, Head On & Run Off Road (61); Install Raised Median (73)	38%	45%	12%	69.99%	4.90	9.80	11.90	1.40				
Auto R/W Violation	4	8	4	0	Increase Lanes, Run Off Road (61); Widen Shoulder, Paved, 0-6 Ft (69)	35%	28%	12%	55.07%	2.20	4.41	2.20	0.00				
DUI	8	10	8	0	None. Accidents are either not readily preventable by transportation improvements or project improvements will not significantly impact.												
Other Than Driver or Ped	4	4	0	0													
Unknown	1	1	0	0													
Total	106	146	111	7						57.59	80.10	64.50	5.31				
_a Desktop Reference for Crash Reduction Factors, FHWA-SA-08-011, September 2008 (Page Number in Parenthesis)										Overall Crash Reduction Factors				54.33%	54.86%	58.11%	75.88%

_a Desktop Reference for Crash Reduction Factors, FHWA-SA-08-011, September 2008 (Page Number in Parenthesis)

Millerton Road - North Fork Road to Millerton Lake State Park Entrance

Projected Accident Prevention / Traffic Safety Benefits

Calendar Year	Affected Drivers/Day	MVM/Year	Accidents	Vehicles Damaged	Injuries	Fatalities	Undiscounted Value
2017	11600	7.20	0.00	0.00	0.00	0.00	\$ -
2018	11774	7.31	0.00	0.00	0.00	0.00	\$ -
2019	11951	7.42	0.00	0.00	0.00	0.00	\$ -
2020	12130	7.53	0.00	0.00	0.00	0.00	\$ -
2021	12312	7.64	0.00	0.00	0.00	0.00	\$ -
2022	12496	7.75	0.00	0.00	0.00	0.00	\$ -
2023	12684	7.87	0.00	0.00	0.00	0.00	\$ -
2024	12874	7.99	4.92	6.84	5.51	0.45	\$ 5,340,408.81
2025	13067	8.11	4.99	6.94	5.59	0.46	\$ 5,420,514.94
2026	13263	8.23	5.07	7.05	5.67	0.47	\$ 5,501,822.66
2027	13462	8.35	5.14	7.15	5.76	0.47	\$ 5,584,350.00
2028	13664	8.48	5.22	7.26	5.84	0.48	\$ 5,668,115.25
2029	13869	8.61	5.30	7.37	5.93	0.49	\$ 5,753,136.98
2030	14077	8.73	5.38	7.48	6.02	0.50	\$ 5,839,434.04
2031	14288	8.87	5.46	7.59	6.11	0.50	\$ 5,927,025.55
2032	14503	9.00	5.54	7.70	6.20	0.51	\$ 6,015,930.93
2033	14720	9.13	5.62	7.82	6.30	0.52	\$ 6,106,169.89
2034	14941	9.27	5.71	7.94	6.39	0.53	\$ 6,197,762.44
2035	15165	9.41	5.79	8.06	6.49	0.53	\$ 6,290,728.88
2036	15393	9.55	5.88	8.18	6.58	0.54	\$ 6,385,089.81
2037	15624	9.69	5.97	8.30	6.68	0.55	\$ 6,480,866.16
2038	15858	9.84	6.06	8.42	6.78	0.56	\$ 6,578,079.15
2039	16096	9.99	6.15	8.55	6.88	0.57	\$ 6,676,750.34
2040	16337	10.14	6.24	8.68	6.99	0.58	\$ 6,776,901.59
2041	16582	10.29	6.33	8.81	7.09	0.58	\$ 6,878,555.12
2042	16831	10.44	6.43	8.94	7.20	0.59	\$ 6,981,733.45
2043	17083	10.60	6.52	9.07	7.31	0.60	\$ 7,086,459.45
2044	17340	10.76	6.62	9.21	7.42	0.61	\$ 7,192,756.34

Millerton Road - North Fork Road to Millerton Lake State Park Entrance

Social / Time Savings

Calendar Year	Affected Drivers/Day	Time Savings (Hrs)	Undiscounted Value
2017	11600	0.00	\$ -
2018	11774	0.00	\$ -
2019	11951	0.00	\$ -
2020	12130	0.00	\$ -
2021	12312	0.00	\$ -
2022	12496	-255103.33	\$ (4,822,473.41)
2023	12684	-129464.94	\$ (2,447,405.26)
2024	12874	0.00	\$ -
2025	13067	0.00	\$ -
2026	13263	0.00	\$ -
2027	13462	0.00	\$ -
2028	13664	0.00	\$ -
2029	13869	0.00	\$ -
2030	14077	0.00	\$ -
2031	14288	0.00	\$ -
2032	14503	0.00	\$ -
2033	14720	0.00	\$ -
2034	14941	0.00	\$ -
2035	15165	0.00	\$ -
2036	15393	0.00	\$ -
2037	15624	0.00	\$ -
2038	15858	0.00	\$ -
2039	16096	0.00	\$ -
2040	16337	0.00	\$ -
2041	16582	0.00	\$ -
2042	16831	0.00	\$ -
2043	17083	0.00	\$ -
2044	17340	0.00	\$ -

\$13.60 / Person / Hr.

1.39 Passengers / Vehicle

RECLAMATION

Managing Water in the West

FINDING OF NO SIGNIFICANT IMPACT

County of Fresno's Millerton Road Widening Project

FONSI-09-009



U.S. Department of the Interior
Bureau of Reclamation
South-Central California Area Office

May 2017

Mission Statements

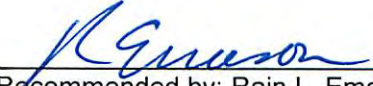
The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

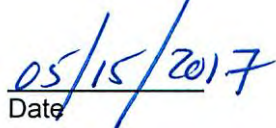
BUREAU OF RECLAMATION
South-Central California Area Office, Fresno, California

FONSI-09-009

**County of Fresno's Millerton Road
Widening Project**



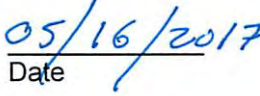
Recommended by: Rain L. Emerson
Supervisory Natural Resources Specialist



Date

for 

Approved by: Michael P. Jackson, P.E.
Area Manager



Date

Introduction

In accordance with section 102(2)(c) of the National Environmental Policy Act of 1969, as amended, the South-Central California Area Office of the Bureau of Reclamation (Reclamation), has determined that an environmental impact statement is not required for the proposed widening of a 4.7-mile stretch of Millerton Road located in Fresno County, California. This Finding of No Significant Impact (FONSI) is supported by Reclamation's Environmental Assessment (EA)-09-009, *County of Fresno's Millerton Road Widening Project*, and is hereby incorporated by reference.

Reclamation provided the public with an opportunity to comment on the Draft FONSI and Draft EA between March 13, 2017 and April 11, 2017. No comments were received.

Background

The County of Fresno (County) has proposed to widen a 4.7-mile stretch of Millerton Road located between North Fork Road and slightly east of Table Mountain Road. The County's Millerton Road Widening Project (Project) would reconstruct this area from a 2-lane rural roadway to a 4-lane arterial roadway with four 12-foot-wide travel lanes, two 6-foot-wide paved shoulders that would function as directional bike lanes, and 4-foot-wide treated dirt shoulders. A 16-foot-wide median would separate the eastbound and westbound traffic. Implementation of the Project would require expansion of the County's existing right-of-way from approximately 60 feet wide to approximately 106 feet wide (53 feet on either side of the roadway centerline, except where additional width is necessary for cut and fill slopes). The minimum designed speed for the roadway is 45 miles per hour (mph) and conforms to a higher designed speed (55 mph) wherever practical.

The County analyzed the environmental effects of their proposed Project in an Initial Study (IS) in accordance with the California Environmental Quality Act. The County determined that all potentially significant effects due to the Project would be reduced to less than significant levels with the implementation of mitigation measures (Appendix A in EA-09-009). Accordingly, the County adopted a Mitigated Negative Declaration and mitigation monitoring and reporting program (MMRP) for the Project on December 10, 2013.

The County submitted an application to the U.S. Army Corps of Engineers (Corps) for their Project. As the federal lead agency for the Project, the Corps completed consultations pursuant to the Endangered Species Act and the National Historic Preservation Act that covered the entire Project area (Appendix B and C of EA-09-009, respectively). The Corps issued Nationwide Permit (NWP) 14 for the Project on December 5, 2014 (Appendix D in EA-09-009).

The County currently holds an easement with Reclamation for a two-span precast/pre-stressed I-girder bridge along Millerton Road that crosses over the Friant-Kern Canal (FKC). The County has requested additional right-of-way easement(s) from Reclamation in order to accommodate portions of the Project, which includes a second bridge crossing over the FKC. The Corps'

consultations for the overall Project include Reclamation's Proposed Action area analyzed in EA-09-009. Reclamation completed Section 106 consultation with the State Historic Preservation Officer (SHPO) specific to Reclamation's Section 106 area of potential effects (APE) within the larger Project area (Appendix E in EA-09-009).

Proposed Action

Reclamation proposes to issue easement(s) to the County for their Project totaling approximately 9.46 acres. Specific construction details are included in Section 2.2 of EA-09-009.

Environmental Commitments

The County shall implement the environmental protection measures included in the permits and/or environmental compliance documents listed in Section 2.2.1 of EA-09-009 to avoid and/or reduce environmental consequences associated with the Proposed Action. Environmental consequences for resource areas assume the measures specified would be fully implemented.

Findings

Reclamation's finding that implementation of the Proposed Action will result in no significant impact to the quality of the human environment is supported by the following findings:

Resources Eliminated from Detailed Analysis

As described in Table 1 of EA-09-009, Reclamation analyzed the affected environment and determined that the Proposed Action does not have the potential to cause direct, indirect, or cumulative adverse effects to the following resources: environmental justice, Indian Sacred Sites, land use and agricultural resources, or traffic and circulation.

Air Quality

Minimal short-term air quality impacts would occur associated with construction of the Project, generally arising from dust generation (fugitive dust) and operation of construction equipment. As shown in Table 2 of EA-09-009, temporary and short-term emissions related to construction of the Project would not produce criteria air pollutants in excess of the San Joaquin Valley Air District thresholds except for Nitrogen dioxides. The County has included Mitigation Measures AQ-2 through AQ-4 in their MMRP (Appendix A) in order to reduce emissions below the Air District's threshold. Therefore, the Project, including Reclamation's Proposed Action, would not contribute to a violation of National Ambient Air Quality Standards or contribute to an exceedance of ambient air quality standards. Additionally, Mitigation Measure AQ-1 within the County's MMRP would further reduce impacts associated with particulate matter emissions due to construction activities.

Biological Resources

As described in Table 3 of EA-09-009, the majority of federally protected special-status species do not occur in the Proposed Action area and would therefore be unaffected. The Proposed Action would affect California tiger salamander, vernal pool fairy shrimp and tadpole shrimp, and San Joaquin kit fox as described below. In addition, the Proposed Action would affect 2.08

acres and 6.15 acres of Critical Habitat for vernal pool fairy shrimp and California tiger salamander, respectively.

California Tiger Salamander

Construction of the Project would adversely impact known and potential upland and breeding habitat for California tiger salamander within the seasonal wetland and nonnative annual grassland that occur throughout the Action Area. In addition, a portion of the Proposed Action area lies within the Southern San Joaquin Region Unit 2, of designated Critical Habitat for the central California tiger salamander. The Southern San Joaquin Region Unit 2 contains approximately 10,193 acres of land that includes ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and foraging. The Project would result in the permanent loss of California tiger salamander Critical Habitat through vegetation clearing and grading activities. Additionally, the Project will temporarily create barriers to dispersal within areas of the Critical Habitat. However, the Project would not preclude or appreciably diminish the role of that habitat in the survival and recovery of the species due to the limited size of the impacted area (0.06% of the designated Critical Habitat for Unit 2). In addition, the County would purchase preservation and creation credits to offset removal of this habitat that would enhance overall habitat for the California tiger salamander.

With implementation of the terms and conditions within the Incidental Take Statement (Appendix B) and the measures identified for this species in the County's MMRP (Appendix A), adverse impacts to California tiger salamander and its Critical Habitat would be mitigated.

Vernal Pool Branchiopods

Federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp have the potential to occur within the Action Area. The Proposed Action would directly affect approximately 0.039 acres of potential habitat consisting of a seasonal wetland. In addition, a portion of the Proposed Action area lies within designated Critical Habitat Unit 24 for vernal pool fairy shrimp. Critical Habitat Unit 24 comprises a total of 28,950 acres. The Proposed Action would modify approximately 2.08 acres of uplands within Critical Habitat Unit 24.

With implementation of measures identified for this species in (BR-2 within the County's MMRP), including the purchase of preservation credits, adverse effects to vernal pool fairy shrimp Critical Habitat due to the Proposed Action would be mitigated.

The Service issued an Incidental Take Statement that provided terms and conditions for permitted take of the species (Appendix B). The Service has determined that with implementation of the terms and conditions within the Biological Opinion, the Project would not likely jeopardize the continued existence of vernal pool fairy shrimp or vernal pool tadpole shrimp (Service, 2013, p. 17). All terms and conditions within the Incidental Take Statement shall be adhered to. With implementation of the measures identified for this species in Mitigation Measure BR-2 within the County's MMRP (Appendix A), including the purchase of conservation credits required for impacts to California tiger salamander and the purchase of preservation credits, adverse effects to federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp would be mitigated.

San Joaquin Kit Fox

The Action Area does not provide denning habitat for San Joaquin kit fox. San Joaquin kit fox has a low potential to forage in the Action Area as only one California Natural Diversity Data Base occurrence documented over 17 years ago has been recorded within a five-mile radius. Several barriers, including the San Joaquin River, Millerton Lake, the FKC, Auberry Road, and Friant Road, inhibit the continuity of surrounding vegetative communities, and therefore reduce the likelihood that San Joaquin kit fox would forage within the Action Area. The County has committed to precautionary mitigation measures to minimize the potential for individuals to be harmed during construction activities. With the incorporation of the precautionary Mitigation Measure BR-6 within the County's MMRP (Appendix A), the Proposed Action is not likely to adversely affect the San Joaquin kit fox. The Service concurred with the determination that the Project is not likely to adversely affect the San Joaquin kit fox (Appendix B). Therefore, no adverse effects to San Joaquin kit fox would occur.

Migratory Birds

Potential nesting habitat is present within the Proposed Action area for migratory bird species and other birds of prey. If active nests are present, construction activities associated with the Proposed Action could result in impacts to these species. With the incorporation of the mitigation measures identified for nesting birds in Mitigation Measure BR-4 and BR-5 within the County's MMRP (Appendix A), including preconstruction surveys, the potential for disruption of active nests would be minimized.

Cultural Resources

Both the Corps and Reclamation consulted with and received SHPO concurrence on a finding of no adverse effect on the FKC, pursuant to 36 CFR § 800.5(b). No other known historic properties will be affected by proposed Project activities and no significant impacts to cultural resources will result from Reclamation's Proposed Action.

In the event that previously unknown cultural resources are encountered during Project construction on Reclamation land, such post-review discoveries will be handled in accordance with 36 CFR § 800.13 and other applicable federal laws and regulations. Mitigation Measures within Appendix A of EA-09-009 also would ensure that unknown cultural resources and/or human remains throughout the Project are protected in accordance with federal and state laws should they be inadvertently discovered during construction.

Global Climate Change

The entire Project would directly generate greenhouse gasses (GHGs) during the construction phase, but would not generate GHGs during the operation phase, as traffic would not increase along Millerton Road. Because GHG emissions would be short-term and temporary, and the County has committed to the implementation of mitigation measures to minimize emissions, the Project and Reclamation's Proposed Action would not cause significant impacts associated with global climate change.

Indian Trust Assets

A portion of the proposed right-of-way is located within Table Mountain Rancheria trust land. The Table Mountain Rancheria has been extensively involved throughout the design of the Project, including consultation with the Corps and Reclamation. Table Mountain Rancheria has

not raised any concerns regarding the Proposed Action or the granting of easements by Reclamation. Further, the proposed roadway improvements would benefit the Tribe as it is the main roadway to the Table Mountain Rancheria. Therefore, the Proposed Action would not adversely affect Indian Trust Assets.

Water Resources

Potential short-term impacts to surface waters may occur during construction, mainly from exposure of loose soil during construction-related activities, such as grading and excavation. Suspended solids, dissolved solids, and organic pollutants may enter surface water bodies while soils are disturbed and dust is generated. In addition, construction activities have the potential to generate waste materials (concrete, metal, rubble, etc.) or discharge pollutants to surface waters from construction wastes and fuel spills/leaks. The County would implement required erosion and pollutant control measures in compliance with the National Pollutant Discharge Elimination System General Permit prior to commencement of construction in order to avoid these potential impacts. Control measures would include the development of a Stormwater Pollution Prevention Plan and implementation of Best Management Practices included in Appendix A of EA-09-009; thereby, reducing the potential for adverse effects to water quality as a result of construction activities.

Installation of a new bridge over the FKC would not result in long-term impacts to water flow or water quality. There may be temporary impacts during construction from potential introduction of soil and/or construction-related pollutants; however, the preferred period of installation would be when the FKC is dewatered for maintenance reducing potential impacts to flowing water. In addition, the County would implement the mitigation measures found in Appendix A of EA-09-009 in order to avoid potential water quality impacts.

Drainage and Stormwater

The Project would increase the amount of impermeable surfaces in the Proposed Action area thereby increasing the amount of stormwater runoff. The County would install additional conveyance for stormwater through roadside ditches within the right-of-way of Millerton Road to accommodate the additional flow. The additional drainage would connect with the existing drainage that leads into the two unnamed tributaries to Little Dry Creek and ultimately to the San Joaquin River. The stormwater conveyance facilities have been designed by the County to provide sufficient capacity to contain the anticipated changes to stormwater runoff, including those within Reclamation's Proposed Action area. Therefore, no adverse effects would occur as a result of changes to existing drainage patterns.

Floodplain

The Action Area is located in areas designated by FEMA as being outside of a 100- and 500-year flood event. The Project includes stormwater conveyance capacity designs sufficient to contain the anticipated increase of stormwater runoff, including those within the Proposed Action area. Therefore, no adverse effects associated with flooding would occur.

Wetlands and Waters of the U.S.

The Proposed Action would impact approximately 0.063 acres of waters of the U.S., including 0.039 acres of seasonal wetlands, through direct removal, filling, hydrological interruption, or other means. Implementation of mitigation measures found in Appendix A of EA-09-009 and

adherence to NMW 14 would minimize the impact to and mitigate for the loss of federally protected wetlands and waterways for the Project.

Cumulative Impacts

Cumulative impacts result from incremental impacts of the Proposed Action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.

Air Quality

The Proposed Action in combination with other similar projects, in the region, has the potential to affect regional air quality. The County has included measures to reduce potential air quality impacts including cumulative impacts. With incorporation of mitigation measures included in Appendix A of draft EA-09-009, the Proposed Action would not contribute to adverse cumulative impacts associated with air quality.

Biological Resources

Cumulative projects in the vicinity of the Proposed Action, including growth resulting from build-out of the Millerton New Town Plan, are anticipated to permanently remove plant and wildlife resources, which could impact special-status species and their habitat, nesting and foraging habitat for resident and migratory birds, and/or local policies or ordinances protecting biological resources. With the implementation of environmental commitments outlined in Appendix A of EA-09-009, the Proposed Action would minimize its contribution to a cumulative direct or indirect loss of sensitive or special-status wildlife species and their habitat, loss of migratory birds, or conflict with local plans or policies protecting biological resources.

Cultural Resources

Several cultural resources, including historic properties eligible for inclusion in the National Register, are located in and adjacent to the Project's APE. Moreover, the records search and archival research indicate that the region is sensitive for both prehistoric and historical resources. Future projects in the area that have a federal nexus would be subject to compliance with Section 106 of the National Historic Preservation Act, ensuring that impacts to cultural resources are considered and mitigated, as required. Future projects under non-federal jurisdiction would be required to conform to the appropriate cultural resources regulatory framework(s), including local preservation ordinances, reducing the cumulative impacts to cultural resources.

Global Climate Change

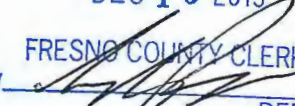
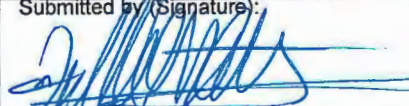
GHG emissions generated during construction of the Proposed Action would be temporary and would not exceed the 25,000 metric tons reporting threshold established by the Environmental Protection Agency (Table 2 of EA-09-009). While any increase in GHG emissions would add to the global inventory of gases that would contribute to global climate change, the Proposed Action would result in potentially minimal-to-no increases in GHG emissions. A net increase in GHG emissions among the pool of GHGs would not be detectable. Therefore, the Proposed Action would not contribute to adverse cumulative impacts associated with global climate change.

Indian Trust Assets

As the Proposed Action and overall Project would not adversely impact Indian Trust Assets, no cumulative impacts to Indian Trust Assets would occur.

Water Resources

The Proposed Action includes project features, which avoid and/or reduce potential impacts associated with water quality, drainage, and flooding; therefore, the Proposed Action would not contribute to adverse cumulative water resources impacts.

File original and one copy with: Fresno County Clerks 2221 Kern Street Fresno, California 93721		Space Below For County Clerk Only. FILED DEC 13 2013 FRESNO COUNTY CLERK By  DEPUTY	
Agency File No: IS 6341		County Clerk File No: E-	
LOCAL AGENCY MITIGATED NEGATIVE DECLARATION			
Responsible Agency (Name): Fresno County	Address (Street and P.O. Box): 2220 Tulare St. Sixth Floor	City: Fresno	Zip Code: 93721
Agency Contact Person (Name and Title): Briza Sholars Planner	Area Code: 559	Telephone Number: 600-4207	Extension: N/A
Applicant (Name): Fresno County Department of Public Works and Planning		Project Title: Millerton Road Widening Project	
Project Description: The overall Millerton Road Widening Project would reconstruct a 4.7 mile stretch of Millerton Road from a two-lane rural roadway to a four-lane arterial roadway with four 12-foot-wide travel lanes, two 6-foot-wide paved shoulders that would function as bike lanes, and 4-foot-wide treated dirt shoulders. A 16-foot-wide median would separate the eastbound and westbound traffic. Implementation of the Millerton Road Widening Project would require expansion of the existing right-of-way from approximately 60 feet wide to approximately 106 feet wide (53 feet on either side of the roadway centerline, except where additional width is necessary for cut and fill slopes).			
Justification for Negative Declaration: Initial Study Application No. 6341 indicates there is no evidence in the record that demonstrates that the project will have a significant effect on the environment. Potential impacts regarding aesthetics were addressed by mitigation measures that require cut and fill slopes to blend with adjacent slopes. Potential impacts to air quality were addressed in the Air Quality and Green House Gas Sections of the IS which included mitigation measures which reduce potential impacts to air quality to a less than significant level. Potential impacts regarding biology have been addressed in the Biological Resources section of the IS which include specific mitigation measures for the project that will reduce potential impacts to biological resources to a less than significant level. Potential impacts to known and unknown cultural and archaeological resources were addressed by mitigation measures that would reduce the potential for impacts through avoidance, monitoring, and by means of engineering solutions or a targeted data recovery program. Potential impacts to water quality and soils, and impacts related to the potential for exposing the public and/or the environment to hazardous materials were addressed through compliance with the State's National Pollutant Discharge General Construction Permit. Potential impacts regarding wildland fires were addressed by mitigation measures which reduce the risk of starting fires during construction. Potential impacts regarding noise were addressed through compliance with the County's Noise Ordinance. Based on the Initial Study, staff has concluded that preparation of an Environmental Impact Report is not required. Approval of the Mitigated Negative Declaration is recommended and is subject to approval by the decision-making body.			
FINDING: With the incorporated Mitigation Measures, the proposed project will have a less than significant impact on the environment.			
Newspaper and Date of Publication: Fresno Business Journal, October 28, 2013		Review Date Deadline: November 27, 2013	
Date: 10/28/13	Type or Print Signature: Will Kettler, Division Manager	Submitted by (Signature): 	

State 15083, 15085

County Clerk File No.: _____

**LOCAL AGENCY
MITIGATED NEGATIVE DECLARATION**

E201310000315

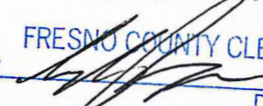
Notice of Determination

E201310000315

To: ☐ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: County of Fresno
2220 Tulare Street, Suite "A"
Fresno, CA 93721

☒ County Clerk
County of Fresno
2221 Kern Street
Fresno, CA 93721

DEC 13 2013
FRESNO COUNTY CLERK
By  DEPUTY

SUBJECT: Filing of Notice of Determination in compliance with Section 21152 of the Public Resource Code.

Initial Study No. 6341, Millerton Road Widening Project

Project Title

2013101092

Briza Sholars

(559) 600-4207

State Clearinghouse Number

Contact Person

Area Code/Number/Ext.

The proposed project would be located east of the town of Friant, just south of Millerton Lake, in Fresno County. The expanded roadway would generally follow the centerline of the existing roadway from North Fork Road to just past Table Mountain Road. Project Location (Fresno County)

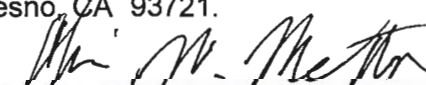
Project Description: The proposed Millerton Road Widening Project would reconstruct a 4.7 mile stretch of Millerton Road from a two-lane rural roadway to a four-lane arterial roadway with four 12-foot-wide travel lanes, two 6-foot-wide paved shoulders that would function as bike lanes, and 4-foot-wide treated dirt shoulders. A 16-foot-wide median would separate the eastbound and westbound traffic. Implementation of the Millerton Road Widening Project would require expansion of the existing right-of-way from approximately 60 feet wide to approximately 106 feet wide (53 feet on either side of the roadway centerline, except where additional width is necessary for cut and fill slopes).

This is to advise that the County of Fresno has approved the above described projects on ☒ Lead Agency ☐ Responsible Agency

12/10/13 and has made the following determination regarding the above described project(s).
(Date)

1. The project ☐ will ☒ will not have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☒ A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation Measures ☒ were ☐ were not made a condition of the approval of the project.
4. A Statement of Overriding Consideration ☐ was ☒ was not adopted for this project.

This is to certify that the Initial Study with comments and responses and record of project approval is available to the General Public at the County of Fresno Department of Public Works and Planning, 2220 Tulare Street, Fresno, CA 93721.


Chris Motta, Principal Planner

Date

12/10/13



County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

October 16, 2017

The Honorable Anthony Foxx
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Ave., SE
Washington, D.C. 20590

Dear Secretary Foxx:

The County of Fresno's (County) Department of Public Works and Planning (Department) administers the planning and construction of the County's public works projects. The Department is applying for a United States Department of Transportation discretionary FY 2017 TIGER grant, and will comply with Davis-Bacon and related provisions of Title 40 of the United States Code.

The Department regularly complies with Davis-Bacon and related provisions of Title 40 of the United States Code, for our projects. For all public works contracts utilizing federal funds, the Department uses contract specifications requiring prime contractors and subcontractors to pay their employees not less than the higher wage applicable to their respective work classification, as specified by the current and applicable Federal Wage Determination, or by the current and applicable State Wage Determination.

If the County is awarded a TIGER grant for the Millerton Road Widening Project, Friant Road to Millerton Lake State Park Entrance, the Department will require all prime and subcontractors to meet minimum federal wage and labor law requirements.

Sincerely,

Steven E. White, Director
Department of Public Works and Planning

ADMINISTRATION

2220 Tulare Street, Sixth Floor / Fresno, California 93721 / Phone (559) 600-4078 / FAX (559) 600-4548
The County of Fresno is an Equal Opportunity Employer

Projected Funding and Costs

COST SUMMARY	Project Expenditures / Projected Costs		
	Estimated Cost	Expenditures, To Date (TMR)	REMAINING COSTS
Prelim. Engineering	\$ 3,100,000.00	\$ 2,400,000.00	\$ 700,000.00
CEQA/NEPA	\$ 400,000.00	\$ 200,000.00	\$ 200,000.00
Env. Mitigation	\$ 1,160,000.00		\$ 1,160,000.00
Right of Way	\$ 1,160,000.00		\$ 1,160,000.00
Utilities	\$ 750,000.00		\$ 750,000.00
Con. Engineering	\$ 2,064,000.00		\$ 2,064,000.00
Construction	\$ 17,200,000.00		\$ 17,200,000.00
Contingency	\$ 1,720,000.00		\$ 1,720,000.00
	\$ 27,554,000.00	\$ 2,600,000.00	\$ 24,954,000.00

FUNDING SUMMARY	Other Project Funding		TIGER REQUEST
	Table Mountain Rancheria	TOTAL OTHER FUNDING	FUNDING REQUIRED
Prelim. Engineering	\$ 700,000.00	\$ 700,000.00	\$ -
CEQA/NEPA	\$ 200,000.00	\$ 200,000.00	\$ -
Env. Mitigation		\$ -	\$ 1,160,000.00
Right of Way		\$ -	\$ 1,160,000.00
Utilities		\$ -	\$ 750,000.00
Con. Engineering		\$ -	\$ 2,064,000.00
Construction		\$ -	\$ 17,200,000.00
Contingency		\$ -	\$ 1,720,000.00
	\$ 900,000.00	\$ 900,000.00	\$ 24,054,000.00

Millerton Road Improvement Project Mitigation Monitoring and Reporting Plan

Purpose of and Need for Monitoring

In compliance with the California Environmental Quality Act (CEQA), the County of Fresno (County) has prepared an Initial Study (IS) for the Millerton Road Improvement Project (Proposed Project). The IS identifies potentially significant impacts that would potentially affect the resource areas listed below, along with mitigation measures to reduce those impacts.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise

Public Resources Code Section 21081.6 specifies that when a public agency makes findings required by paragraph (1) of subdivision (a) of Section 21081, it “shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.” Public Resources Code Section 21081.6 further specifies that the Mitigation Monitoring and Reporting Plan (MMRP) “ensure compliance during project implementation.”

Mitigation Monitoring and Reporting Plan

This MMRP for the Proposed Project lists the mitigation measures identified within the IS, the timing of each measure, and the parties responsible for implementing and monitoring the measures. This MMRP is intended to ensure the effective implementation of mitigation measures that are within the County’s authority to implement, including monitoring where identified, throughout all phases of development of the Proposed Project. Where the responsibility of implementing the mitigation is listed as belonging to Fresno County, the County may choose to delegate that responsibility to the construction contractor or other qualified individual as deemed appropriate by the County and any other regulatory agency.

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
Aesthetics			
Mitigation Measure AES-1: The following mitigation measure would further reduce impacts to visual resources: ▪ Cut and fill slopes shall be contour graded to a non-uniform profile to blend with the adjacent slopes. Slope grades shall be constructed to facilitate planting, erosion control, and ease of maintenance by increasing slope rounding at the top and bottom of cuts and fills, and by creating liberal slope variances.	Prior to and during construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
Air Quality			
Mitigation Measure AQ-1: The construction contractor shall implement the following applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VIII control measures outlined in the Guide for Assessing and Mitigating Air Quality Impacts (2002), to reduce particulate matter (both PM₁₀ and PM_{2.5}) emissions due to construction activities in accordance with SJVAPCD Rule 4641: ▪ All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. ▪ All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emission using water or chemical stabilizer/suppressant. ▪ All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activates shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. ▪ When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. ▪ All operations shall limit or expeditiously remove the accumulation of mud or dirt	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
from adjacent public streets at the end of each workday. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.			
Mitigation Measure AQ-2: The construction contractor shall implement the following NOx, odor, and diesel particulate matter (DPM) emission control measures in accordance with SJVAPCD Rule 4102 and 9510: - All heavy duty diesel equipment shall be equipped with diesel particulate filter. - All heavy duty diesel equipment shall use aqueous diesel fuel.	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
Mitigation Measure AQ-3: Implement Mitigation Measure GHG-1 to reduce construction related NOx and ROG emissions.	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
Mitigation Measure AQ-4: In accordance with SJVAPCD Rule 9510, construction contractors shall reduce construction emissions by using a “clean fleet” or paying appropriate compensatory mitigation to off-set emission as determined in consultation with the SJVAPCD.	Prior to and during construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
Biological Resources			
Mitigation Measure BR-1: A Biological Opinion with an incidental take statement has been obtained from the United States Fish and Wildlife Service (USFWS) and an Incidental Take Permit shall be obtained from the California Department of Fish and Wildlife (CDFW) for impacts to California Tiger Salamander (CTS) prior to construction. All conditions of the permits, including preservation and compensatory measures required by USFWS and by CDFW, shall be implemented. At a minimum, the following proposed mitigation measures shall be implemented to compensate for take of CTS: Before discharge of fill material, three preservation credits will be obtained from a USFWS and CDFW approved mitigation bank for every acre of breeding and	Prior to and during construction	Fresno County	Fresno County Department of Public Works and Planning U.S. Fish and Wildlife Service California Department of Fish and Wildlife

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
upland habitat permanently lost, or an alternative option of equal mitigation as approved by USFWS and CDFW. Approximately 26.14 acres of CTS habitat would be affected as a result of the proposed action, requiring the purchase of 79.11 acres preservation credits. ▪ Construction within central CTS breeding habitat will be timed to occur during the dry season, between approximately April 15 and October 15, so as to avoid impacting breeding individuals at seasonal wetland locations. The dry season window may depend on rainfall and/or site conditions. ▪ Temporary high-visibility construction fencing shall be installed along the edge of work areas within 50 feet of mapped seasonal wetlands and channels. ▪ Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used onsite or disposed of at a regional landfill or other appropriate facility. ▪ Project personnel will exercise caution when commuting to the construction area to minimize any chance for the inadvertent injury or mortality of species encountered on major roads leading to and from the construction area. Project related vehicles and equipment will not exceed 20 miles per hour in the action area. ▪ All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 65 feet from any water body. All workers shall be informed during the worker education program of the importance of preventing spills and of the appropriate measures to take should a spill occur. ▪ No surface water will be drafted from aquatic features in the proposed action area. Water will be trucked in as needed for use during construction. ▪ Standard precautions shall be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials associated with construction activities into potentially jurisdictional features. ▪ Should construction activities occur from December 1 to February 28, the activities shall be limited to between 30 minutes after sunrise and 30 minutes before sunset.			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
- Construction activities shall be finished by 7 pm daily to the extent practicable. - A USFWS and CDFW approved biologist will provide a habitat sensitivity training to all construction personnel either in the form of a power point presentation or in person with training materials. The training shall include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve these species as they relate to the proposed action, penalties for noncompliance, and boundaries of the action area and of the permitted disturbance zones. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel will sign a form stating that they have attended the training and understand all the conservation measures. Training shall be conducted in languages other than English, as appropriate. Proof of this instruction will be kept on file with the applicant. The applicant will provide the USFWS and the CDFW with a copy of the training materials and copies of the signed forms by project staff indicating that training has been completed within 30 days of the completion of the first training session. Copies of signed forms will be submitted monthly as additional training occurs for new employees. The crew foreman will be responsible for ensuring that construction personnel adhere to the guidelines and restrictions. If new construction personnel are added to the proposed action, the crew foreman will ensure that the personnel receive the mandatory training before starting work. - A representative shall be appointed by the applicant who will be the contact source for any contractor who might inadvertently kill or injure a CTS or finds a dead, injured, or entrapped individual. The representative shall be identified during the employee education program. The representative's name and telephone number shall be provided to the USFWS prior to the initiation of ground-disturbance activities. Any worker who inadvertently injures or kills a federally listed species or finds one dead, injured, or entrapped will immediately report the incident to the applicant's appointed representative. The applicant's representative will immediately notify the applicant, who will provide verbal			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
notification to the USFWS Endangered Species Office in Sacramento, California, and to the local CDFW warden or biologist within one working day. The applicant will follow up with written notification to the USFWS and the CDFW within five working days. All observations of federally listed species will be recorded on California Natural Diversity Database (CNDDDB) field sheets and sent to the CDFW. ▪ In the case of injured and/or dead central CTSs, the Service shall be notified of events within one day and the animals shall only be handled by a Service-approved biologist. Injured CTSs shall be cared for by a licensed veterinarian or other qualified person. In the case of a dead animal, the individual animal shall be preserved and held in a secure location until instructions are received from the Service regarding the disposition of the specimen or until the Service takes custody of the specimen. The Corps must report to the Service within one calendar day any information about take or suspected take of federally-listed species not exempted in this opinion. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal. The Service contacts are Daniel Russell, Deputy Assistant Field Supervisor, Endangered Species Program, Sacramento, at (916) 414-6600 and Rebecca Roca, the Resident Agent-in-Charge of the Service's Law Enforcement Division at (916) 414-6660. ▪ The USFWS and the CDFW approved biologist shall have oversight over the implementation of all conservation measures, and shall have the authority to stop project activities if any of the requirements associated with these measures is not being fulfilled. If the biologist has requested work stoppage due to take of any federally listed species, the USFWS and the CDFW will be notified within one working day via email. ▪ All stakes, flagging, and fencing used to delineate the construction area will be removed no later than 30 days after construction and restoration are complete. ▪ If requested during or upon completion of construction activities, the USFWS-approved biologist will accompany USFWS or CDFW personnel on an onsite inspection of the site to review proposed project effects to the CTS and its			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
habitat. ▪ Plastic monofilament netting (erosion control matting) will be prohibited because CTS can become caught in this type of erosion control material. Tightly woven (less than 0.25 inch diameter) fiber netting or similar material shall be used for erosion control or other purposes to ensure that CTS do not become trapped. Biodegradable fiber netting or coconut coir matting is an acceptable erosion control material. This limitation will be communicated to the contractor(s) through use of special provisions included in the bid solicitation package. ▪ All construction pipe, culverts, or similar structures that are stored at the construction site for one or more overnight periods will be thoroughly inspected before the pipe is subsequently moved, buried, or capped. If during inspection a central CTS is discovered inside a pipe, that section of pipe shall not be moved until the salamander has escaped on its own or the Service will be contacted for further instruction. ▪ Vehicles and equipment will be thoroughly inspected for the presence of central CTS prior to movement. If a salamander is found the Service shall be contacted for further guidance. No equipment will be moved until the salamander has left voluntarily. ▪ To prevent inadvertent entrapment of central CTSs during construction, at the end of each work day all excavated, steep-walled holes or trenches will be covered with plywood or similar materials or will be filled with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If, at any time, a trapped central CTS is located, all work in the immediate area will cease, the animal will be allowed to leave on its own or the Service will be contacted for further instruction. The appropriate contact is Thomas Leeman, Chief, San Joaquin Valley Division, (916) 414-6600. ▪ If at any time, a central CTS is located, all work in the immediate vicinity will cease, and the animal will be allowed to leave voluntarily or the Service will be contacted for further guidance. ▪ A litter control program shall be instituted at the entire project site. The			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
contractor will provide closed garbage containers for the disposal of all food-related trash items (e.g., wrappers, cans, bottles, food scraps). All garbage will be removed daily from the project site. Construction personnel will not feed or otherwise attract fish or wildlife to the action area. ▪ No canine or feline pets or firearms (except for federal, state, or local law enforcement officers and security personnel) shall be permitted at the project site to avoid harassment or killing or injuring wildlife. ▪ A post-construction compliance report prepared by the monitoring biologist will be submitted to the Deputy Assistant Field Supervisor at the Sacramento Fish and Wildlife Office within 30 calendar days of the completion of construction activities or within 30 calendar days of any break in construction activity lasting more than 30 days. The report shall detail the following information: dates that groundbreaking activities at the proposed project started and the project was completed; pertinent information concerning the success of the proposed project in meeting compensation and other conservation measures; an explanation of failure to meet such measures, if any; known project effects on CTS, if any; any occurrences of incidental take of CTS; and other pertinent information.			
Mitigation Measure BR-2: An Incidental Take Permit for Vernal Pool Fairy Shrimp (VPFS) and Vernal Pool Tadpole Shrimp (VPTS) has been obtained from the USFWS. All conditions of the permit required by USFWS shall be implemented. At a minimum, the following conservation measures shall be implemented to minimize impacts to the federally listed VPFS and VPTS and/or other nonlisted vernal pool branchiopods including midvalley fairy shrimp and California linderiella: ▪ Effects of permanent losses and degradation of VPFS and VPTS habitat shall be minimized and, to the greatest extent practicable, habitat restored. Before discharge of fill material, one creation credit will be obtained from a USFWS-approved mitigation bank for every acre of habitat directly impacted, and two preservation credits will be obtained for every acre of habitat directly and	Prior to and during construction	Fresno County	Fresno County Department of Public Works and Planning U.S. Fish and Wildlife Service

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
indirectly affected by the proposed action. Approximately 0.23 acres that would be directly affected as a result of the proposed action would require the purchase of creation credits at a 3:1 ratio, for a total of 0.69 acres. Because VPFS and VPTS share the same habitat as CTS, the preservation credits that would be purchased for the 26.14 acres of impacted CTS habitat at a 3:1 ratio would satisfy the requirement to purchase preservation credits for the 0.23 acres of impacted VPFS and VPTS habitat at a 3:1 ratio. - Temporary high-visibility construction fencing shall be installed as identified under the CTS conservation measures. - Staging areas shall be located away from the fenced seasonal wetlands and channels. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used onsite or disposed of at a regional landfill or other appropriate facility. - A USFWS-approved biologist conduct habitat sensitivity training related to VPFS and VPTS for all project contractors and personnel as identified under the CTS conservation measures.			
Mitigation Measure BR-3: The following mitigation measures shall be implemented to avoid project-related impacts to potential nesting and/or wintering habitat for burrowing owls: - A qualified biologist shall conduct a preconstruction take avoidance survey no less than 14 days prior to initiating ground disturbance active using the recommended methods described in the Detection Surveys Section in Appendix D of the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW, 2012). If no burrowing owls or their sign are detected in the vicinity of the project site during the preconstruction survey, a letter report documenting survey methods and findings shall be submitted to the County and the CDFW, and no further mitigation is required. - If burrowing owls are detected, no-construction buffers and timing outlined in Table 2 on page 9 of the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW, 2012) shall be followed unless a qualified biologist verifies through noninvasive	Prior to and during construction	Fresno County	Fresno County Department of Public Works and Planning California Department of Fish and Wildlife

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure					Timing	Implementation Responsibility	Responsible Department/ Agency																							
methods that either 1) the birds have not begun egg laying and incubation or 2) that juveniles from the occupied burrows are capable of independent survival (i.e., foraging independently). Buffer diameters outlined in Table 2 in the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFW, 2012) are as follows:																														
<table><tr><th rowspan="2">Location</th><th rowspan="2">Time of Year</th><th colspan="3">Level of Disturbance</th></tr><tr><th>Low</th><th>Med</th><th>High</th></tr><tr><td>Nesting Sites</td><td>April 1-Aug 15</td><td>200 meters</td><td>500 meters</td><td>500 meters</td></tr><tr><td>Nesting Sites</td><td>Aug 16-Oct 15</td><td>200 meters</td><td>200 meters</td><td>500 meters</td></tr><tr><td>Nesting Sites</td><td>Oct 16-Mar 31</td><td>50 meters</td><td>100 meters</td><td>500 meters</td></tr></table>					Location	Time of Year	Level of Disturbance			Low	Med	High	Nesting Sites	April 1-Aug 15	200 meters	500 meters	500 meters	Nesting Sites	Aug 16-Oct 15	200 meters	200 meters	500 meters	Nesting Sites	Oct 16-Mar 31	50 meters	100 meters	500 meters			
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Mitigation Measure BR-4: The following mitigation measures shall be implemented in accordance with the Staff Report to avoid and/or minimized impacts to nest sites for Swainson's hawk: - A qualified biologist shall conduct a minimum of two protocol level preconstruction surveys during the recommended survey periods immediately prior (no more than 10 days) to the anticipated commencement of construction activities, in accordance with the <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (Swainson's Hawk Technical Advisory Committee, 2000). The qualified biologist shall conduct surveys for nesting Swainson's hawk in the project site and within 0.5 miles of construction activities where legally permitted. The biologist will use binoculars visually determine whether Swainson's hawk nests occur beyond the 0.5-mile survey area if access is denied on adjacent properties. If no active Swainson's hawk nests are identified on or within 0.5 miles of construction activities within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the County and the CDFW within 30 days following the survey, and no further mitigation for nesting habitat is required. - If active Swainson's hawk nests are found within 0.5 miles of construction					Prior to and during construction	Fresno County	Fresno County Department of Public Works and Planning California Department of Fish and Wildlife																							

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
activities, the biologist shall contact the County and the CDFW within one day following the preconstruction survey to report the findings. Construction activities include heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging within 0.5 miles of a nest site between February 1 and September 15. Should an active nest be present within 0.5 miles of construction areas, then the CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within 0.5 miles of the nest. The monitoring program would require that a qualified biologist shall monitor all activities that occur within the established buffer zone to ensure that disruption of the nest or forced fledging does not occur. Should the biologist determine that the construction activities are disturbing the nest, then the biologist shall halt construction activities until the CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. If the CDFW determines that take may occur, the applicant would be required to obtain a CESA take permit. Should the biologist determine that the nest has not been disturbed during construction activities within the buffer zone, then a letter report summarizing the survey results shall be submitted to the County and the CDFW and no further mitigation for nesting habitat is required.			
Mitigation Measure BR-5: The following mitigation measures shall be implemented to avoid project-related impacts to nest sites for birds of prey and migratory birds. These measures would also mitigate for impacts to state listed roosting bats: ▪ A qualified biologist shall conduct a preconstruction survey for active nests should construction commence during the nesting season for birds of prey and migratory birds (between February 1 and September 15). Cavities within trees proposed to be removed shall be surveyed for the roosting bats. The	Prior to and during construction	Fresno County	Fresno County Department of Public Works and Planning California Department of Fish and Wildlife

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
preconstruction survey will be conducted no more than 10 days prior to commencement of construction activities. If surveys show that there is no evidence of nests, then no additional mitigation will be required so long as construction commences within 10 days of the survey. ▪ If any active nests are located within the study area, a buffer zone shall be established around the nests. A qualified biologist shall monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist shall delimit the buffer zone with construction tape or pin flags within 250 feet of the active nest and maintain the buffer zone until the end of breeding season or the young have fledged. Guidance from CDFW will be requested if establishing a 250-foot buffer zone is impractical. ▪ Trees anticipated for removal should be removed prior to nesting season. The dates outside of the nesting season include from September 16 to January 31. If trees are anticipated to be removed during the nesting season, a preconstruction survey shall be conducted by a qualified biologist. If the survey shows that there is no evidence of active nests, then the tree shall be removed within ten days following the survey. If active nests are located within trees identified for removal, a 250 foot buffer shall be installed around the tree. Guidance from the CDFW will be requested if the 250 foot buffer is infeasible. ▪ Exclusionary netting should be installed beneath the bridge that crosses the Friant-Kern Canal prior to nesting season if any construction activities are anticipated to occur on the bridge structure between February 1 and September 15 to eliminate nest sites for swallows. If exclusion netting is infeasible, then the Engineer shall be required to spray beneath the bridge on a daily basis prior to and during the nesting season to remove partial nests prior to the nests becoming established. If an active nest becomes established before the spraying has initiated, then guidance from the CDFW will be requested prior to commencement of construction activities on the bridge over the Friant-Kern Canal.			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
Mitigation Measure BR-6: The following precautionary mitigation measures shall be implemented to avoid project-related effects to San Joaquin Kit Fox (SJKF) in accordance with the <i>U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance</i> (1999a) (Recommendations) for linear projects: ▪ A preconstruction survey must be conducted for SJKF dens within 15 days prior to commencement of construction activities. If no SJKF dens are observed, a letter report summarizing the survey results shall be submitted to the County, the USFWS, and the CDFW within 30 days following the survey, and no further mitigation for nesting habitat is required. ▪ Should SJKF dens be observed, then the following mitigation measures shall be implemented: <u>Exclusion Zones</u> ▪ The configuration of exclusion zones around the SJKF dens shall have a radius measured outward from the entrance or cluster of entrances. The following radii are minimums and if they cannot be followed the USFWS must be contacted: - o 50 feet from potential den; - o 100 feet from known den; - o USFWS must be contacted if presence of occupied and unoccupied natal/pupping den; and - o 50 feet from a typical den. ▪ For known dens, the exclusion zone shall be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by SJKF. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.	Prior to and during construction	Fresno County	Fresno County Department of Public Works and Planning U.S. Fish and Wildlife Service California Department of Fish and Wildlife

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
▪ For potential and atypical dens, the placement of four to five flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location. No fencing is required, but the exclusion zone must be observed. ▪ Construction and other project activities shall be prohibited or greatly restricted within these exclusion zones. Only essential vehicle operation on existing roads and foot traffic shall be permitted. All construction, vehicle operation, material storage, or any other type of surface-disturbing activity shall be prohibited within the exclusion zones. <u>Destruction of Dens</u> ▪ Disturbance to all SJKF dens shall be avoided to the maximum extent possible. Protection provided by SJKF dens for use as shelter, escape, cover, and reproduction is vital to the survival of the species. Limited destruction of SJKF dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to SJKF of potential, known, and natal/pupping dens differ, and therefore, each den type needs a different level of protection. Destruction of any known or natal/pupping SJKF den requires a take authorization/permit from the USFWS and the CDFW. ▪ Occupied natal/pupping dens will not be destroyed until the pups and adults have vacated and then only after consultation with the USFWS and the CDFW. Project activities at some den sites may have to be postponed. ▪ Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no SJKF activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances with soil in a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal's normal foraging activities. The USFWS encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. Extreme caution must be exercised. Destruction of the den should be accomplished by careful excavation until it is certain that no SJKF are inside. The den should be fully excavated, filled with dirt and compacted to ensure that SJKF cannot reenter or use the den during the construction period. If at any point during excavation a SJKF is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgment of the biologist, the animal has escaped from the partially destroyed den. ▪ If a take authorization/permit has been obtained from the USFWS and the CDFW, destruction of potential dens may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by SJKF (e.g. if SJKF sign is found inside), then destruction shall cease and the USFWS and the CDFW shall be notified immediately. <u>Construction and Operational Requirements</u> ▪ Habitat subject to permanent and temporary construction disturbances and other types of project-related disturbance shall be minimized. Project designs shall limit or cluster permanent project features to the smallest area possible while still permitting project goals to be achieved. To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas shall also be included in preconstruction surveys and, to the extent possible, shall be			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
established in locations disturbed by previous activities to prevent further impacts. - o Project-related vehicles shall observe a 20-mph speed limit in all project areas, except on county roads and State and federal highways; this is particularly important at night when SJKF are most active. To the extent possible, night-time construction shall be minimized. Off-road traffic outside of designated project areas should be prohibited. - o To prevent inadvertent entrapment of SJKF or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than two 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. - o SJKF 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 four inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for SJKF before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a SJKF is discovered inside a pipe, that section of pipe should not be moved until the USFWS has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped. - o 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 a construction or study area. - o No firearms shall be allowed on the study area. - o To prevent harassment, mortality of SJKF or destruction of dens by			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
dogs or cats, no pets shall be permitted on study areas. - o Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of SJKF and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and federal legislation, as well as additional project-related restrictions deemed necessary by the USFWS and the CDFW. If rodent control must be conducted, zinc phosphide should be used because of proven lower risk to SJKF. - o A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a SJKF or who finds a dead, injured or entrapped individual. The representative will be identified during the employee education program. The representative's name and telephone number shall be provided to the USFWS and the CDFW. - o A USFWS-approved biologist conduct habitat sensitivity training related to SJKF for all project contractors and personnel as identified under the CTS conservation measures. - o Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. shall be recontoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but that after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas shall be determined on a site-specific basis in consultation with the USFWS, CDFW, and revegetation experts. - o In the case of trapped animals, escape ramps or structures shall be			

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
installed immediately to allow the animal(s) to escape, or the USFWS should be contacted for advice. - o Any contractor, employee, or military or agency personnel who inadvertently kills or injures a SJKF shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped SJKF. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist. - o The USFWS Sacramento Office and the CDFW will be notified in writing within three working days of the accidental death or injury to a SJKF during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species is at 2800 Cottage Way, Suite W2605, Sacramento, CA 95825, (916) 414-6620. The CDFW contact is Mr. Ron Schlorff at 1416 9th Street, Sacramento, California 95814, (916) 654-4262.			
Mitigation Measure BR-7: A Section 1600 SAA shall be obtained from CDFW for impacts to riparian habitat, and all condition and requirements of the permit shall be adhered to. As a condition of the Section 1600 SAA, the following mitigation measure shall be implemented to compensate for the removal of 0.29 acres of riparian habitat: ▪ Riparian habitat shall be created at not less than a 1:1 ratio in an area within reasonable proximity to the project site, and a Riparian Restoration and Monitoring Plan shall be established.	Prior to Construction.	Fresno County	Fresno County Department of Public Works and Planning California Department of Fish and Wildlife
Mitigation Measure BR-8: To compensate for the removal of oak trees within the oak woodland habitat areas, the following mitigation measure shall be implemented: ▪ Each native tree in the genus <i>Quercus</i> with a diameter at breast height of five	Prior to project completion.	Fresno County	Fresno County Department of Public Works and Planning

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
inches or greater that is impacted shall be replaced within upland areas of the project site that would be impacted by the Proposed Project at a 3:1 ratio (or other appropriate ratio as determined by the County) of planted to impacted trees. This replacement ratio is sufficient to offset the minor number of oak trees slated for removal with the Proposed Project (up to 10 trees total would be removed). Replacement trees shall be planted from the same genetic stock in appropriate soils within appropriate habitats.			
Mitigation Measure BR-9: The applicant shall obtain a Section 404 Clean Water Act (CWA) Nationwide Permit from the U.S. Army Corps of Engineers (USACE) for impacts to wetlands and waters of the U.S. and comply with the mitigation measures identified in the Hydrology and Water Quality Section to prevent discharge of pollutants to surface waters during construction. This shall include complying with the State's National Pollution Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit) issued by the Central Valley Regional Water Quality Control Board (CVRWQCB). All conditions of the Nationwide Permit shall be adhered to. At a minimum, impacts to waters of the U.S. shall be offset at a 1:1 ratio through the purchase of creation credits or onsite creation. The creation credits that would be purchased for the loss of VPFS, VPTS, and CTS may be used to satisfy the USACE requirements for removal of seasonal wetlands.	Prior to and during construction	Fresno County	Fresno County Department of Public Works and Planning U.S. Army Corps of Engineers Regional Water Quality Control Board
Mitigation Measure BR-10: The following precautionary mitigation measures shall be implemented to avoid project-related effects to special-status plant species: ▪ Focused surveys by a qualified botanist with previous experience in conducting surveys-for Hartweg's golden sunburst, succulent owl's clover, and orcutt grasses will be conducted during the appropriate annual floristic period(s) prior to construction. ▪ If listed plants are detected during surveys, consultation will be initiated as appropriate with USFWS and/or CDFW in accordance with FESA and/or CESA and an Incidental Take Permit (ITP) will be acquired if appropriate.	Prior to construction	Fresno County	Fresno County Department of Public Works and Planning U.S. Fish and Wildlife Service California Department of Fish and Wildlife

Table 1. Mitigation Monitoring and Reporting Plan, Millerton Road Improvement Project

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
Cultural Resources			
Mitigation Measure CR-1: Site P-10-761 shall be avoided by all ground-disturbing activities associated with the Proposed Project. Temporary construction fencing with a height of at least five feet shall be placed along the southern margin of Site P-10-761 during construction of the Proposed Project to avoid inadvertent impacts.	During construction	Fresno County	Fresno County Department of Public Works and Planning
Mitigation Measure CR-2: In the event that cultural resources are inadvertently discovered during ground-disturbing activities, work should stop in that area and within 100 feet of the find until a qualified archaeologist who meets the Secretary of the Interior's Standards for archaeologists (National Park Service 1983) can assess the significance of the find. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with USACE, Reclamation and any other relevant regulatory agency. Should the Contractor, or any of the Contractor's employees, subcontractors, or parties operating or associated with the Contractor, in the performance of the Contract discover evidence of possible cultural resources on state or federal lands, the Contractor shall immediately cease work at that location and provide oral notification to the Contracting Officer, giving location and nature of the findings, pursuant to the regulations at 36 CFR 800.13, respectively. The Contractor shall forward a written report of findings to USACE or Reclamation's authorized official of the discovery (the authorized official is the Area Manager, or their designee) within 48 hours. The Contractor will not resume activity in the area of the discovery until written approval from the Contracting Officer has been received.	During construction	Fresno County	Fresno County Department of Public Works and Planning U.S. Army Corps of Engineers
Mitigation Measure CR-3: There is a remote possibility that an unanticipated discovery of human remains could occur. The following mitigation measures shall be implemented in the event that human remains are encountered during construction: ▪ If human remains are discovered during project construction, work will stop at	During construction	Fresno County	Fresno County Department of Public Works and Planning Native American Heritage Commission

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Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
the discovery location and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Fresno County coroner will be contacted to determine if the cause of death must be investigated. ▪ If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (NAHC) (PRC, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants (MLD) of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treating and disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if NAHC is unable to identify an MLD or the descendant fails to make a recommendation within 48 hours. ▪ If human remains are discovered on federal lands, the remains shall be treated in accordance with Reclamations' Directives and Standards (LND 07-01). These directives and standards provide procedures for compliance with federal statutes when inadvertent discoveries of human remains occur on Reclamation lands. If Native American cultural items, including human remains, funerary objects, sacred objects, and items of cultural patrimony, are inadvertently discovered, work will cease immediately in the area of discovery and the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 United States Code 3001-3013), and implementing regulations at 43 C.F.R. § 10.4 (2006), will be followed. NAGPRA requires Reclamation to inventory human remains and associated funerary objects and to provide culturally affiliated tribes with the inventory of collections. NAGPRA also requires repatriation, on request, to the culturally affiliated tribes. ▪ If human remains are encountered on Tribal lands, work shall halt in the vicinity of the find and the Fresno County Coroner shall be notified immediately.			

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Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
Pursuant to 36 CFR Part 800.13 of NHPA: Post-Review Discoveries, and 43 C.F.R. § 10.4 (2006) of the NAGPRA: Inadvertent Discoveries, the Tribal Cultural Resources Director and Bureau of Indian Affairs (BIA) archaeologist will also be contacted immediately. No further ground disturbance shall occur in the vicinity of the find until the County Coroner, Tribal Official, and BIA archaeologist have examined the find and agreed on an appropriate course of action. If the remains are determined to be of Native American origin, the BIA representative shall notify a MLD. The MLD is responsible for recommending the appropriate disposition of the remains and any grave goods.			
Greenhouse Gas Emissions			
Mitigation Measure GHG-1: The following Greenhouse Gas (GHG) Reduction Measures developed by the California Air Pollution Control Officers Association would reduce GHG emission by more than 29 percent (CAPCOA, 2010): ▪ Idling of heavy duty construction equipment and delivery trucks shall be limited to no more than five minutes. ▪ An alternative form of fuel (i.e. biodiesel, E85, etc.) shall be used whenever possible. ▪ Hybrid and electric construction equipment shall be used whenever possible.	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
Mitigation Measure GHG-2: Implement Mitigation Measure AQ-2.	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
Hazards and Hazardous Materials			
Mitigation Measure HM-1: Construction contractors shall ensure that any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
Mitigation Measure HM-2: Construction contractors shall ensure that during construction, staging areas, building areas, and/or areas slated for development using spark-producing equipment shall be	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning

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Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
cleared of dried vegetation or other materials that could serve as fuel for combustion. To the extent feasible, the contractor shall keep these areas clear of combustible materials to maintain a firebreak.			
Hydrology and Water Quality			
Mitigation Measure HYD-1: Construction contractors shall comply with the State's NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit). The Central Valley Regional Water Quality Control Board (RWQCB) requires that all construction sites have adequate control measures to prevent the discharge of sediment and other pollutants to streams. To comply with the permit, an NOI shall be filed with the Central Valley RWQCB and a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared prior to construction. Preparation of the SWPPP shall adhere to the Caltrans water pollution control manuals and approved BMPs by the State Water Resources Control Board (SWRCB). A copy of the SWPPP must be obtained and remain onsite during construction activities. Control measures are required prior to and throughout the rainy season. Water quality BMPs identified in the SWPPP may include, but would not be limited to, the following: ▪ Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. ▪ Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures. ▪ A spill prevention and countermeasure plan shall be developed which will identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used onsite. The plan will also require the proper storage, handling, use, and disposal of petroleum products. ▪ Construction activities shall be scheduled to minimize land disturbance during	Prior to and during construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning

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Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction. ▪ Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage outlets. Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion. ▪ Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater. ▪ Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events. ▪ Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff. ▪ Disturbed areas will be revegetated after completion of construction activities. ▪ Temporary high-visibility construction fencing shall be installed along the edge of work areas within 50 feet of mapped seasonal wetlands and channels. Temporary high-visibility construction fencing shall be installed around the channels occurring within 50 feet of construction activities. Fencing should be installed prior to any construction and remain in place until all construction activities within the action area have been completed.			

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Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
- Staging areas shall be located away from the fenced seasonal wetlands and channels. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used onsite or disposed of at a regional landfill or other appropriate facility. - No surface water will be drafted from aquatic features in the project site. Water will be trucked in as needed for use during construction. - All necessary permits and approvals shall be obtained. - Sanitary facilities shall be provided for construction workers. - Hazardous materials shall be stored appropriate and approved containers, maintaining required clearances, and handling materials in accordance with the applicable federal, state and/or local regulatory agency protocols.			
Noise			
Mitigation Measure N-1: In accordance with the County's Noise Ordinance, construction activities shall be limited to occur only between the hours of 6:00 am to 9:00 pm Monday through Friday, and between the hours of 7:00 am to 5:00 pm on Saturday and Sunday.	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

RECEIVED
DEC 10 2014
FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

December 5, 2014

Regulatory Division (SPK-2009-01500)

Fresno County, Department of Public Works and Planning
Attn: Mr. Frank Fowler or Ms. Janet Dailey
2220 Tulare Street, 6th Floor
Fresno, California 93721-2127

Dear Mr. Fowler and Ms. Dailey:

We are responding to your December 14, 2010, request for a Department of the Army permit for the Millerton Road Widening project. This approximately 351.77-acre project involves activities, including discharges of dredged or fill material, in waters of the United States to widen approximately 4.32 miles of Millerton Road from the intersection with North Friant Road to the intersection with Table Mountain Road. The project is located south of Millerton Lake from the intersection with Friant Road (Latitude 36.99040°, Longitude -119.71141°), east to approximately 0.20 miles east of Table Mountain Road (Latitude 36.98106°, Longitude -119.63368°), in Sections 7 to 12, Township 11 South, Range 21 East, Mount Diablo Meridian, Fresno County, California.

Based on the information you provided, the proposed activity, resulting in the permanent loss of approximately 0.233 acre of wetlands and 0.131 acre of other waters of the U.S., is authorized by Nationwide Permit Number (NWP) 14, *Linear Transportation Projects*. However, until Section 401 Water Quality Certification for the activity has been issued or waived, our authorization is denied without prejudice. Once you have provided us evidence of water quality certification, the activity is authorized and the work may proceed subject to the conditions of certification and the NWP. Your work must comply with the general terms and conditions listed on the NWP information sheet, applicable regional conditions, and the following special conditions. The NWP information sheet and regional general conditions can be found on our website at <http://www.spk.usace.army.mil/Missions/Regulatory/Permitting/NationwidePermits.aspx>. If you do not have access to the internet, a hard copy of the NWP information sheet and regional general conditions will be provided upon request.

Special Conditions

1. To mitigate for the loss of 0.364 acre of waters of the United States, you shall purchase 1.38 credits at the National Fish and Wildlife Foundation In-Lieu-Fee program. Evidence of this purchase shall be provided to the Corps prior to initiation of construction activities within waters of the U.S.

2. Within 60 days following construction activities, you shall submit pre- and post-construction site and aerial photographs of the project site, showing the work conducted, to the Corps. The camera positions and view angles of post-construction photographs shall be identified on a map, aerial photo, or project drawing. Construction locations shall include all major project features and waters of the U.S., including mitigation areas.

3. Prior to initiation any construction activities within waters of the U.S., you shall employ construction best management practices (BMPs) onsite to prevent degradation to on-site and off-site waters of the U.S. Methods shall include the use of appropriate measures to intercept and capture sediment prior to entering waters of the U.S., as well as erosion control measures along the perimeter of all work areas to prevent the displacement of fill material. All BMPs shall be in place prior to initiation of any construction activities and shall remain until construction activities are completed. You shall maintain erosion control methods until all on-site soils are stabilized. You shall submit a description of and photo-documentation of your BMPs to our office within 15 days of commencement of construction. Photos may be submitted electronically to regulatory-info@usace.army.mil.

4. This Corps permit does not authorize you to take an endangered species, in particular California tiger salamander (*Ambystoma californiense*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardii*), or designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (e.g., an Endangered Species Act Section 10 permit, or a Biological Opinion under Endangered Species Act Section 7, with "incidental take" provisions with which you must comply). The enclosed Fish and Wildlife Service Biological Opinion (Number 81420-2009-F-1206, dated October 29, 2013) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the Biological Opinion. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with "incidental take" of the attached Biological Opinion, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the Biological Opinion, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The U. S. Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its Biological Opinion, and with the Endangered Species Act. You must comply with all conditions of this Biological Opinion, including those ascribed to the Corps.

You must sign the enclosed Compliance Certification and return it to this office within 30 days after completion of the authorized work.

This verification is valid until March 18, 2017, when the existing NWP's are scheduled to be modified, reissued, or revoked. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified, reissued or

revoked, you will have twelve (12) months from the date of the modification, reissuance or revocation of the NWP to complete the activity under the present terms and conditions. Failure to comply with the General and Regional Conditions of this NWP, or the project-specific Special Conditions of this authorization, may result in the suspension or revocation of your authorization.

We would appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2009-01500 in any correspondence concerning this project. If you have any questions, please contact me at our California South Regulatory Branch, 1325 J Street, Room 1350, Sacramento, California 95814-2922, by email at Zachary.M.Simmons@usace.army.mil, or telephone at 916-557-6746. For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Zachary Simmons', with a stylized, flowing script.

Zachary Simmons
Senior Project Manager, CA South Branch
Regulatory Division

Enclosures

cc: (w/o encls)

Ms. Ryan Lee Sawyer, Analytical Environmental Services, rsawyer@analyticalcorp.com

Mr. Jason Brush, U.S. Environmental Protection Agency, Region IX,
Brush.Jason@epa.gov

Mr. Matthew Scroggins, Central Valley Regional Water Quality Control Board,
MScroggins@waterboards.ca.gov

Mr. Thomas Leeman, U.S. Fish and Wildlife Service, Thomas_Leeman@fws.gov

Mr. Craig Bailey, California Department of Fish and Wildlife, Region 4,
Craig.Bailey@wildlife.ca.gov

COMPLIANCE CERTIFICATION

Permit File Name: Millerton Road Widening

Permit File Number: SPK-2009-01500

Nationwide Permit Number: NWP 14, *Linear Transportation Projects*

Permittee: Fresno County, Department of Public Works and Planning
Attn: Mr. Frank Fowler or Ms. Janet Dailey
2220 Tulare Street, 6th Floor
Fresno, California 93721-2127

County: Fresno

Date of Verification: December 5, 2014

Within 30 days after completion of the activity authorized by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1350
Sacramento, California 95814-2922
DLL-CESPK-RD-Compliance@usace.army.mil

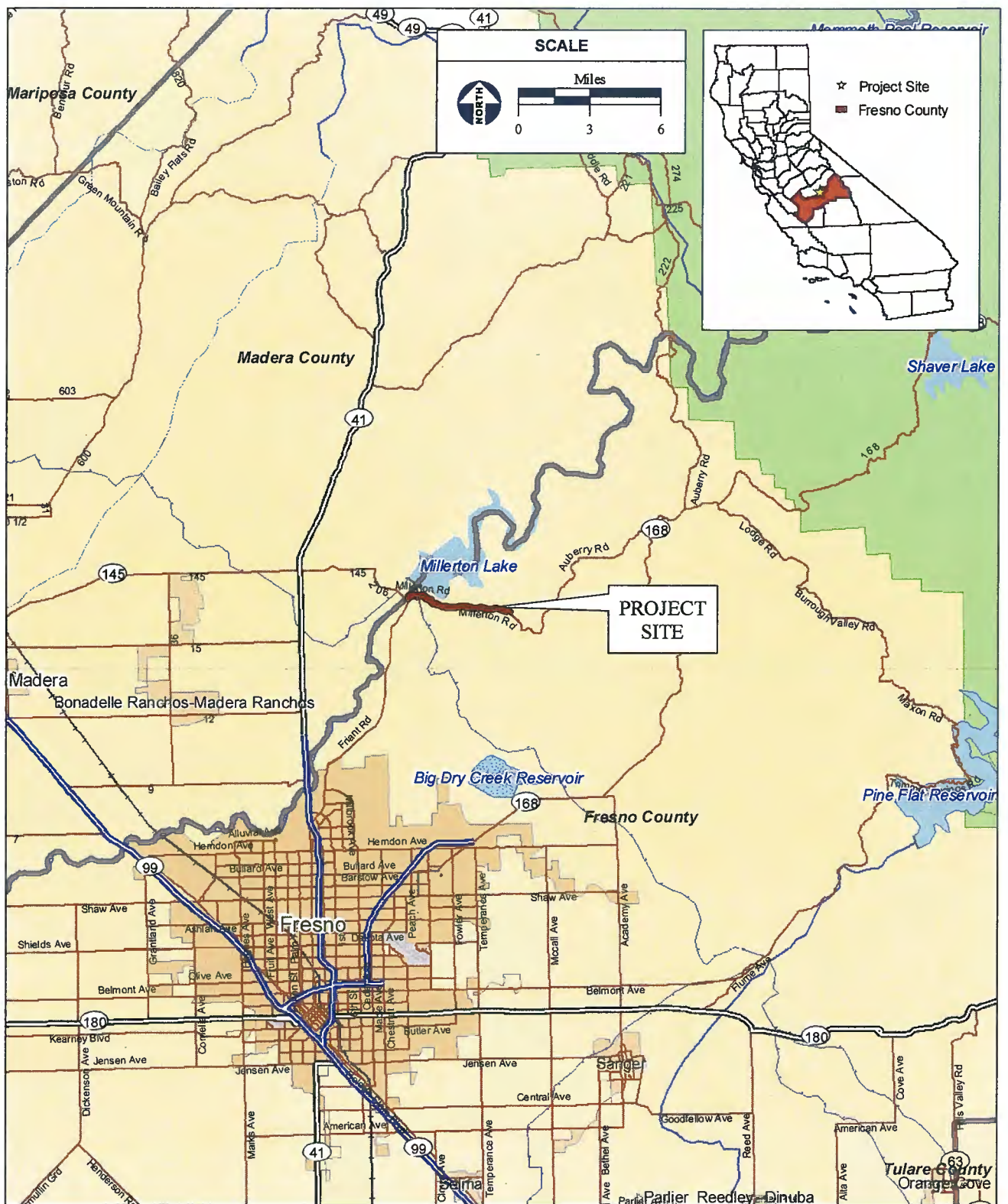
Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of the permit your authorization may be suspended, modified, or revoked. If you have any questions about this certification, please contact the U.S. Army Corps of Engineers.

* * * * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

Signature of Permittee

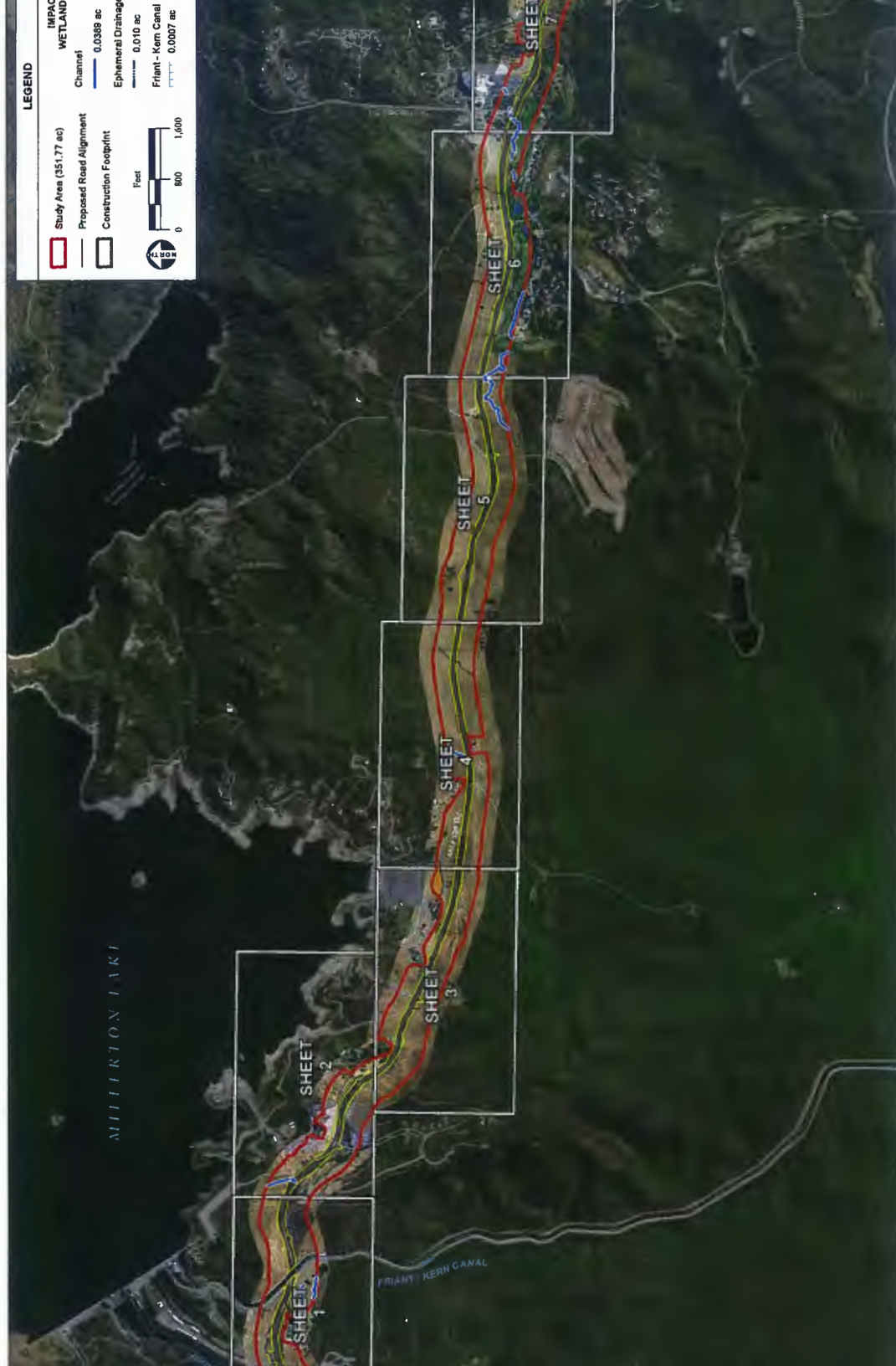
Date



SOURCE: ESRI Data, 2007; AES 2009

Millerton Road Widening Project Nationwide Permit 14 Pre-Construction Notification / 207518 ■

Figure 1
Regional Location





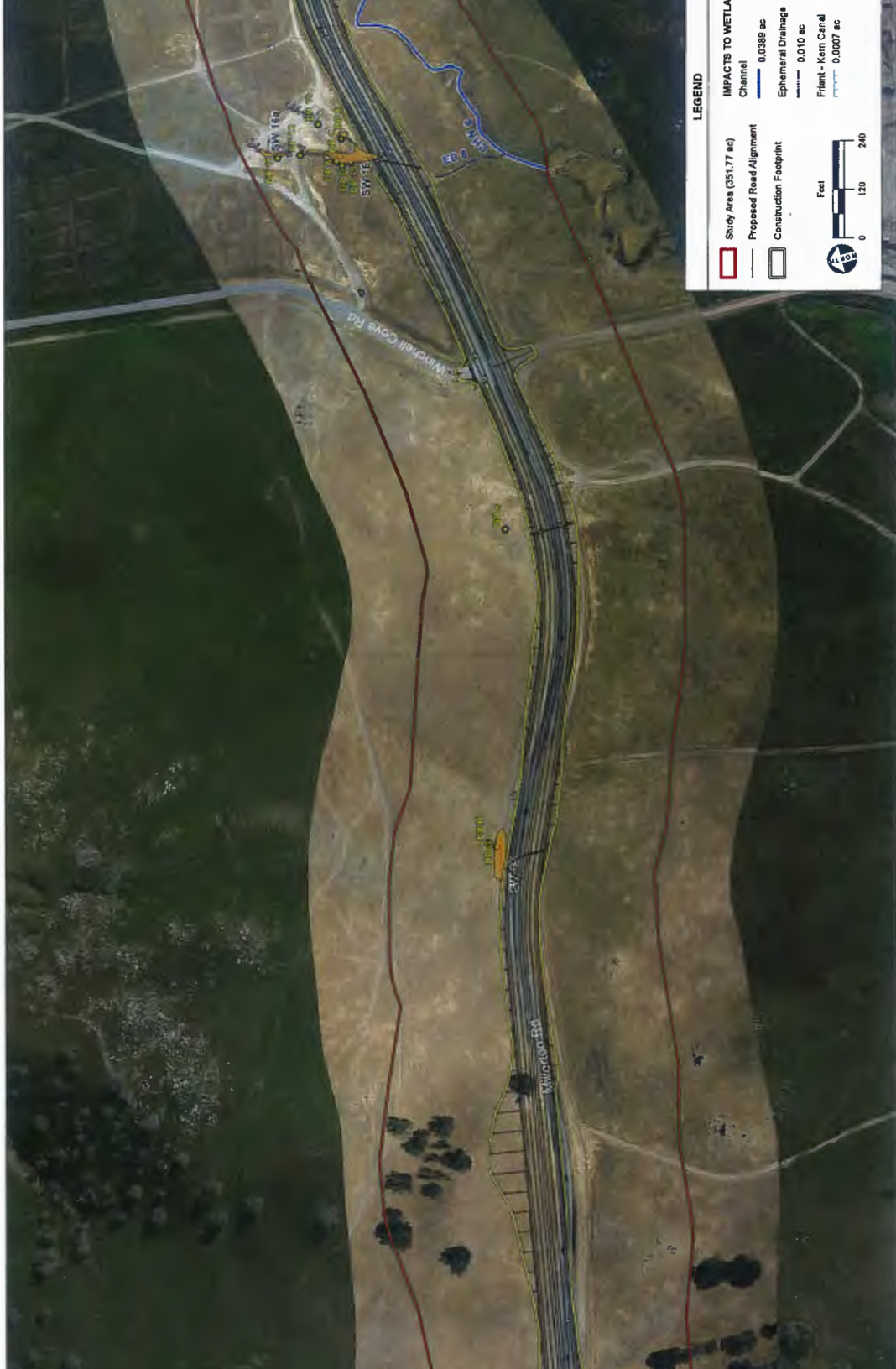


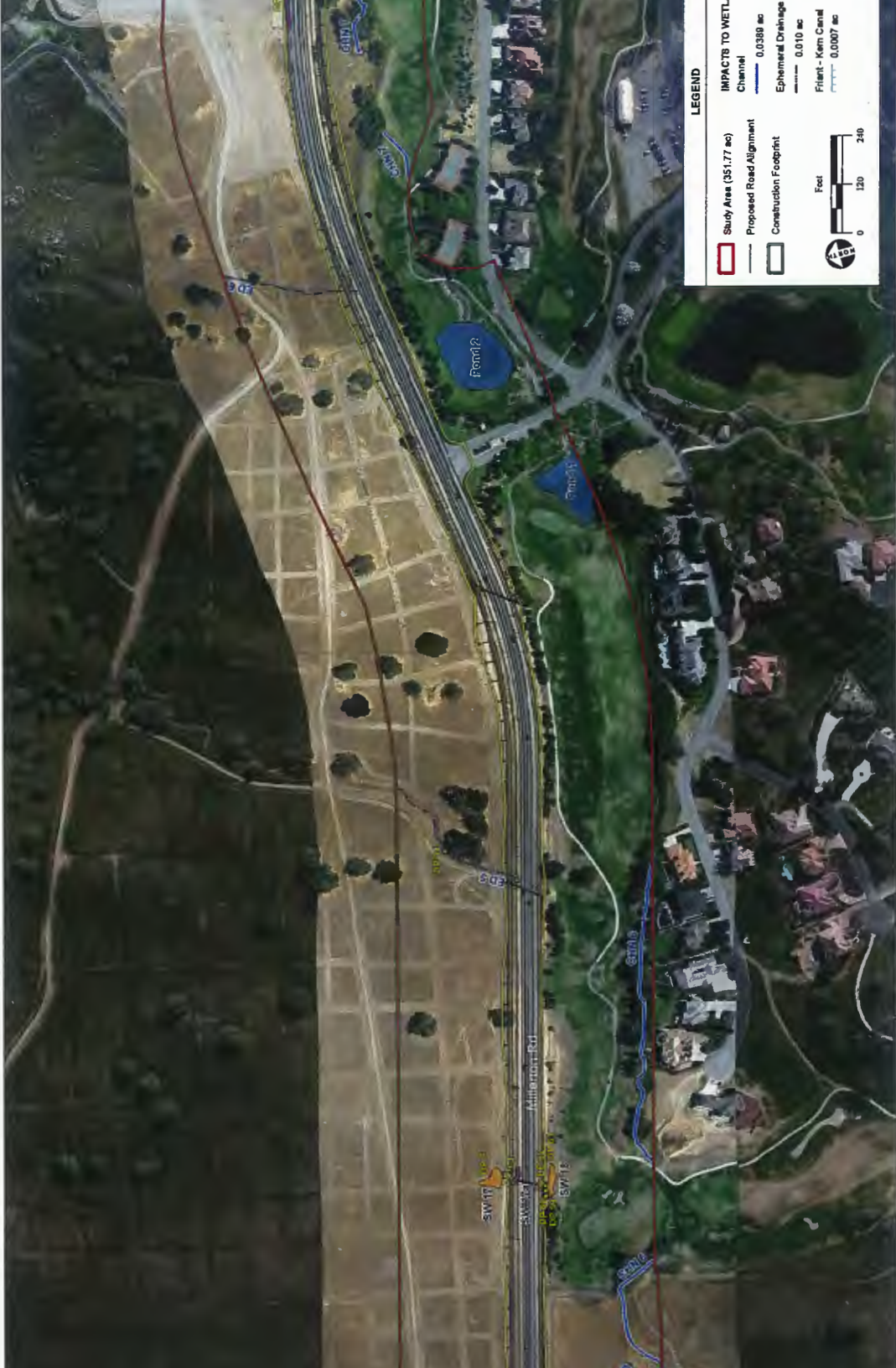
LEGEND

- Study Area (351.77 ac)
- Proposed Road Alignment
- Construction Footprint
- Channel
- 0.0388 ac
- Ephemeral Drainage
- 0.010 ac
- Frient - Kern Canal
- 0.0007 ac













United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



Refer To:
1009-F-1206

OCT 22 2013

Mr. Zachary Simmons
Army Corps of Engineers
Street
Fresno, California 95814

Subject: Formal Consultation for the Millerton Road Widening Project, Fresno County, California

Re: Simmons:

The U.S. Fish and Wildlife Service's (Service) response to the U.S. Army Corps of Engineers' (Corps) March 23, 2011 request for initiation of formal consultation on the proposed Millerton Road Widening Project (project) in Fresno County, California. The Corps is requesting issuance of Nationwide Permit (NWP) 14 for linear transportation projects to Fresno County, California, as administered by the Corps pursuant to Section 404 of the Clean Water Act for the project.

The project represents the Service's biological opinion on the effects of the project on the threatened central California Distinct Population Segment of the California tiger salamander (central California tiger salamander) (*Ambystoma californiense*) and vernal pool shrimp (*Branchinecta lynchi*) and the federally-listed as endangered San Joaquin kit fox (*Macrotis mutica*) and vernal pool tadpole shrimp (*Lepidurus packardii*) listed under the Endangered Species Act of 1973, as amended (Act). Critical habitat for vernal pool tadpole shrimp has been designated but does not occur in the action area.

On the information you have provided to us, the Service concurs with your determination that the project is not likely to adversely affect the San Joaquin kit fox. We concur with your determination because: 1) we agree that this species is not reasonably likely to be in the action area and 2) the applicant has proposed to implement the U.S. Fish and Wildlife Service's *Revised Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Construction* (Service 1999).

Biological opinion is based on: (1) the Service's technical assistance with the Corps' March 23, 2011 request for consultation; (2) the Corps' March 23, 2011 request for consultation; and (3) the Corps' *Revised Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Construction* (Service 1999).

Mr. Zachary Simmons

consultation; (4) AES's November 29, 2012 response to the Service's October 09, 2012 request for additional information; (5) other information available to the Service. The Service received complete information on this project on March 14, 2013.

Consultation History

March 01, 2009. AES sent in a request to conduct wet season vernal pool branchiopod survey. The request was authorized via email.

September 01, 2009. 90 day report for 2008-2009 wet season vernal pool branchiopod survey received in our office.

March 29, 2011. The Corps submitted a request for initiation of formal consultation on the project.

September 28, 2012. The Service sent a letter notifying the Corps that additional information regarding effects to critical habitat in the project area is needed to initiate formal consultation outlined in the regulations governing interagency consultations.

November 29, 2012. The Service received an email response to our September 28, 2012 request for additional information.

December 05, 2012. The Service emailed the Corps and AES to request additional information on the proposed central California tiger salamander surveys, proposed fencing areas, and proposed phasing sections outlined in the biological assessment.

December 13, 2012. The Service emailed the Corps and AES to request additional information on the specifications of the proposed Friant-Kern canal bridge, the erosion control measures at the drainage facilities.

January 24, 2013. The Service received an email from AES in response to our December 13, 2012 request for additional information.

January 30, 2013. The Service received an email from AES in response to our December 05, 2012 request for additional information.

February 20, 2013. AES proposed additional avoidance measures for central California tiger salamander in an updated biological assessment.

March 14, 2013. The Service received an email from AES in response to our March 13, 2013 request for additional information on project timing.

BIOLOGICAL OPINION

Portion of the Proposed Action

The project is located 11 miles north of the City of Clovis, Fresno County, California, in Section 16 and 11, Township 11 south, Range 21 east, Mount Diablo Base and Meridian, with a point near UTM 11s 261225 meters east, 4096650 meters north in the Friant U.S. Geological Survey (USGS) 7.5-minute topographical quadrangle.

According to the biological assessment, Fresno County Public Works and Planning (Fresno) proposes to widen eastbound and westbound Millerton Road from the current two-lane configuration to a four-lane configuration from the intersection of Millerton Road and North Road eastward for approximately 4.7 miles. A description of the project components

North Road

The proposed project includes expanding the road to a four-lane configuration, with four 12-foot-wide travel lanes, two 6-foot-wide paved shoulders, and 4-foot-wide treated dirt shoulders. A 4-foot-wide median would separate the eastbound and westbound traffic. Implementation of the project would require expansion of the existing right-of-way from approximately 60 feet to 106 feet wide, which is 53 feet on either side of the current roadway's centerline, except for the additional width is necessary for cut and fill. Left-turn lanes are to be 11 feet or 12 feet wide where appropriate, and will be separated from opposing traffic by a 4-foot-wide raised curb at minimum. Right-turn lanes, if required, will be 11 feet wide. The minimum design speed for the roadway is 45 miles-per-hour (mph) and conforms to a higher design speed of 55 miles-per-hour where practical.

Millerton Road

Millerton Road

The intersection is near the western end of the project corridor. Some modifications to the roadway will be required to accommodate a right-turn lane for the southbound Millerton Road and a new median to conform with the new road section.

California/CalFire Station Entrance

The fire station entrance/Forest Service Road is located approximately 500 feet west of the Friant-Kern Canal and Millerton Road intersection. The project would result in minor modifications along the subject roadway entrance to match the grade of Millerton Road.

Dam Access Road

Construction of the proposed project may require a realignment of the Friant Dam access road intersection with the Millerton Roadway.

Mr. Zachary Simmons

Winchell Cove Road

This is an asphalt roadway owned by the State of California that provides access to the marina area with the Millerton Lake State Recreation Area (SRA). The intersection will be reestablished to coincide with the roadway changes and will include accommodations for slow-moving boat trailers coming from the marina.

Brighton Crest Entrance Road

The project would result in modifications to this intersection to match the new alignment.

Casino Entrance/Table Mountain Road

This is a two-lane T-intersection entrance to the Table Mountain Casino. The existing north corner radius of the intersection is inadequate for bus turns. The project would result in modifications to the intersection to accommodate bus turns. The current intersection signal would be modified to accommodate two additional lanes. The new alignment will consist of two left turn lanes.

Church Entrance/Table Mountain Road

This is a two-lane T intersection east of the Table Mountain Casino serving the Table Mountain Rancheria Church, employee parking, and other facilities. The intersection will be redesigned to match the new four-lane alignment. The new alignment will include a left turn lane from Millerton Road.

Private Road and Driveway Intersections

There are approximately 18 other private roads and driveways that intersect the existing roadway. Adjustment of these facilities would occur to match the new alignment's grade.

Friant-Kern Canal Bridge

The proposed project includes the construction of a new two-lane pre-stressed I-girder bridge to serve the westbound traffic over the Friant-Kern Canal, while the existing Friant-Kern Canal bridge would be retained and utilized for the eastbound traffic. The proposed bridge would be approximately 13 feet upstream of the existing bridge. The design for the approximately 160-foot long bridge would be similar to that of the existing bridge, including two 12-foot travel lanes a 4-foot shoulder, an 8-foot shoulder/bicycle lane, and two guard rails occupying 1 foot inches of paved roadway each. The total width of the bridge would be approximately 38 feet inches. Construction is proposed to occur during the Friant-Kern Canal's scheduled shut-down period from mid-November to the end of January to avoid construction of coffer dams and temporary culverts along the canal.

Large Facilities

cobble-lined ditches are proposed along Millerton Road to accommodate stormwater runoffs. Two of the ditches will replace existing ones while the third is located where water historically flowed along the roadway gutter without erosion problems.

Large improvements for the proposed facilities would be designed to convey the estimated Proposed culverts will generally coincide with the location of the existing pipe culverts. corrugated metal pipe culverts will be circular and unlined. In addition to the culverts along the alignment of Millerton Road, three culverts are required at road crossings north of Millerton Road as a result of the expansion, that include Winchell Road, the Friant Dam access road and the California State Recreation Area access road. Sixty-five culverts will be installed for the project, this includes replacement culverts.

Equipment Staging

Equipment staging will occur within the existing and proposed right-of-way for Millerton Road. Equipment will be staged or stored on property adjacent to the project disturbance footprint.

Work will occur between the hours of 6:00 am and 9:00 pm Monday through Friday, and in the hours of 7:00 am and 5:00 pm on Saturday and Sunday.

Water Runoff Control Measures

Temporary erosion control measures such as silt fences, and staked straw bales shall be used for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.

Construction is expected to last approximately 24 months and will begin in the summer of 2013 and end in the summer of 2014.

Prepared Avoidance and Minimization Measures

Groups will add special conditions to their NWP to ensure Fresno County and their contractors implement the following guidelines to minimize or avoid impacts to listed species and to have the potential to occur within the vicinity of the project area:

Construction Guidelines

1. At least 15 days prior to the onset of any construction-related activities, Fresno County shall submit to the Service, for approval, the name(s) and credentials of biologists it requests to conduct activities specified for this project. Information included in a request for approval must include, at a minimum: (1) relevant education; (2) relevant training on species identification, survey techniques, handling individuals of different age classes, and handling of different life stages; (3) a summary of field experience conducting requested activities (to include

project/research information and actual experience with the species); (4) a list of biological opinions under which they were authorized to work with the listed species and at what level (such as construction monitoring versus handling), this should include the names and qualifications of persons under which the work was supervised as well as the amount of work experience on the actual project including detail whether the species was encountered or not.

2. A Service-approved biologist will conduct habitat sensitivity training to all construction personnel. The training shall include discussions of the biology, distribution, and ecology of the central California tiger salamander, vernal pool shrimp, and vernal pool tadpole shrimp; required practices before the start of construction, general measures that are being implemented to conserve these species as they relate to the proposed action, penalties for non-compliance, and boundaries of the action area and of the permitted disturbance zones. All workers shall be informed during the worker education program of the importance of preventing spills and appropriate measures to take should a spill occur. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel will sign a form stating that they have attended the training and understand all the conservation measures. Training shall be conducted in languages other than English, as appropriate. Proof of this instruction will be kept in a file with the applicant and this record shall be made available to the Service for compliance verification and shall be included in the first month reporting requirement.
3. All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 65 feet from any water body.
4. All construction pipe, culverts, or similar structures that are stored at the construction site for one or more overnight periods will be thoroughly inspected before the pipes are subsequently moved, buried, or capped. If during inspection a central California salamander is discovered inside a pipe, that section of pipe shall not be moved until the salamander has escaped on its own or the Service will be contacted for further instruction.
5. Project personnel will exercise caution when commuting to the construction area to minimize any chance for the inadvertent injury or mortality of species encountered on major roads leading to and from the construction area. Project related vehicles and equipment will not exceed 20 miles per hour in the action area.
6. Vehicles and equipment will be thoroughly inspected for the presence of central California tiger salamander prior to movement. If a salamander is found the Service shall be contacted for further guidance. No equipment will be moved until the salamander has left voluntarily.
7. All stakes, flagging, and fencing used to delineate the construction area will be removed no later than 30 days after construction and restoration are complete.

8. A litter control program shall be instituted at the entire project site. Fresno County will ensure the contractor will provide closed garbage containers for the disposal of all food-related trash items (e.g., wrappers, cans, bottles, food scraps). All garbage will be removed daily from the project site.
9. The Service-approved biologist shall have oversight over the implementation of all conservation measures, and shall have the authority to stop project activities if any of the requirements associated with these measures are not being fulfilled.

Conservation Measures for Listed Species

Central California Tiger Salamander

1. Fresno County will minimize the effects of the permanent loss of 26.37 acres of central California tiger salamander habitat (0.23 acres of breeding habitat, 26.14 acres of upland habitat) by funding the purchase of 79.11 acres (using a 3:1 compensation ratio for permanent effects) of conservation credits. These credits shall be purchased prior to onset of ground breaking activities from a Service-approved conservation bank with a service area that includes the action area.

2. If at any time, a central California tiger salamander is located, all work in the immediate vicinity will cease, and the animal will be allowed to leave voluntarily or the Service will be contacted for further guidance.

3. To prevent inadvertent entrapment of central California tiger salamanders during construction, at the end of each work day all excavated, steep-walled holes or trenches will be covered with plywood or similar materials or will be filled with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If, at any time, a trapped central California tiger salamander is located, all work in the immediate area will cease, the animal will be allowed to leave on its own or the Service will be contacted for further instruction. The appropriate contact is Thomas Leeman, Chief, San Joaquin Valley Division, (916) 414-6600.

4. Plastic monofilament netting is prohibited because central California tiger salamander can become caught in this type of erosion control material. Tightly woven (less than 0.25 inch diameter) biodegradable fiber netting or biodegradable coconut coir matting shall be used for erosion control or other purposes to ensure that central California tiger salamander do not become entrapped. This limitation will be communicated to the contractors through use of special provisions included in the bid solicitation package.

Mr. Zachary Simmons

5. Construction within potential central California tiger salamander breeding habitat will be timed to occur during the dry season, between approximately April 15 and October 15, so as to avoid impacting breeding individuals and seasonal wetland locations. The dry season window may depend on rain and/or site conditions.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

1. Fresno County will minimize the effects of the direct loss of 0.233 acres of vernal pool fairy shrimp and vernal pool tadpole shrimp habitat by funding the purchase of 0.69 acres (using a 3:1 compensation ratio) of preservation credits. These credits shall be purchased prior to onset of ground breaking activities from a Service-approved conservation bank.

Action Area

The action area is defined in 50 CFR § 402.02, as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." The action for this project includes the project footprint, which consists of a permanently disturbed area of 59.65 acres. Land cover within the project footprint is composed of 26.14 acres of grassland woodland, 0.29 acres of riparian habitat, 32.86 acres of roadway, and 0.362 acres of wetland features.

Analytical Framework for the Adverse Modification Determination

This Biological Opinion does not rely on the regulatory definition of "destruction or adverse modification" of critical habitat at 50 CFR 402.02. Instead, we have relied upon the statutory provisions of the ESA to complete the following analysis with respect to critical habitat.

In accordance with policy and regulation, the adverse modification analysis in this Biological Opinion relies on four components: (1) the *Status of Critical Habitat*, which evaluates the wide condition of the species in terms of primary constituent elements (PCEs), the factors responsible for that condition, and the intended recovery function of the critical habitat over (2) the *Environmental Baseline*, which evaluates the conditions of the critical habitat in the action area, the factors responsible for that condition, and the recovery role of the critical habitat in the action area; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the PCEs and how that will influence the recovery role of affected critical habitat units; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the PCEs and how that will influence the recovery role of affected critical habitat units.

For purposes of the adverse modification determination, the effects of the proposed Federal action on central California tiger salamander and vernal pool fairy shrimp critical habitat are evaluated in the context of the range-wide condition of the critical habitat, taking into account

cumulative effects, to determine if the critical habitat range-wide would remain functional and retain the current ability for the PCEs to be functionally established in areas of vernal pool habitat to serve its intended recovery role for the central California tiger salamander and vernal pool fairy shrimp.

Analysis in this Biological Opinion places an emphasis on using the intended range-wide recovery function of central California tiger salamander and vernal pool fairy shrimp critical habitat and the role of the action area relative to that intended function as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the adverse modification determination.

Overall Framework for the Jeopardy Analysis

Consistency with policy and regulation, the following analysis relies on four components: (1) the *Status of the Species*, which evaluates the range-wide condition of the species, the factors responsible for that condition, and their survival and recovery needs; (2) the *Environmental Effects*, which evaluates the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities of the action area; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities on the species.

Consistency with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the central California tiger salamander and vernal pool fairy shrimp and vernal pool tadpole shrimp current status, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp in the wild.

Consistency with policy and regulation, the biological opinion places an emphasis on consideration of the effects of the proposed Federal action on the survival and recovery needs of the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp and the role of the action area in the survival and recovery of the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

Effects of the Species

Central California Tiger Salamander

Description: The central California distinct population segment of the tiger salamander is listed as threatened on August 04, 2004. The central California tiger salamander is a large,

stocky, terrestrial salamander with a broad, rounded snout. Recorded adult measurements have been as much as 8.2 inches long (Petranka 1998; Stebbins 2003). Central California tiger salamanders exhibit sexual dimorphism (differences in body appearance based on gender) with males tending to be larger than females. The coloration of the adults generally consists of random white or yellowish markings against a black body. The markings tend to be more concentrated on the sides of the body; whereas other salamander species tend to have bright yellow spotting that is heaviest on the dorsal surface.

Distribution: The historic distribution for the California tiger salamander in the Central Valley and surrounding foothills included northern Yolo County southward to northwestern Kern County and northern Tulare County. Currently, the central California tiger salamander is known to occupy the Bay Area (central and southern Alameda, Santa Clara, western Stanislaus, and Merced), and the majority of San Benito counties), Central Valley (Yolo, Sacramento, Solano, eastern Contra Costa, northeastern Alameda, San Joaquin, Stanislaus, Merced, and northwestern Madera counties), southern San Joaquin Valley (portions of Madera, central Fresno, and northern Tulare and Kings Counties), and the Central Coast Range (southern Santa Cruz, Monterey, northern San Luis Obispo, and portions of western San Benito, Fresno, and Kern counties).

Life History: The central California tiger salamander has an obligate biphasic life cycle (Storor *et al.* 2004). Although the larvae develop in the vernal pools and ponds in which they were collected, the species is otherwise terrestrial and individuals spend most of their post-metamorphic lives widely dispersed underground retreats (Shaffer *et al.* 2004; Trenham *et al.* 2001). Because they spend most of their lives underground, the animals rarely are encountered even in areas where central California tiger salamanders are abundant. Subadult and adult central California tiger salamanders typically spend the dry summer and fall months in the burrows of small mammals such as California ground squirrels and Botta's pocket gopher (Storor 1925; Loreda and Vuren 1996; Petranka 1998; Trenham 1998). Central California tiger salamanders may also use landscape features such as leaf litter or desiccation cracks in the soil for upland refugia. Although central California tiger salamanders are members of a family of "burrowing" salamanders, they are not known to create their own burrows. This may be due to the hardness of soils in the California ecosystems in which they are found. Central California tiger salamanders depend on persistent small mammal activity to create, maintain, and sustain sufficient underground refugia for the species.

Upland burrows inhabited by central California tiger salamanders have often been referred to as aestivation-sites. However, "aestivation" implies a state of inactivity, while most evidence suggests that the animals remain active in their underground dwellings. Van Hatten (2004) found that salamanders move, feed, and remain active in their burrows. Because adults are found breeding ponds in good condition and are heavier when entering the pond than when leaving, researchers have long inferred that they are feeding while underground. A number of direct observations have confirmed this (Trenham 2001; Van Hatten 2004). Thus, "upland habitat" is a more accurate description of the terrestrial areas used by central California tiger salamanders.

California tiger salamanders typically emerge from their underground refugia at night in the fall or winter rainy season (November-May) to migrate to their breeding ponds (Sweet 1985, 1989; Shaffer *et al.* 1993; Trenham *et al.* 2000). The breeding period is closely tied with the rainfall patterns in any given year with fewer adults migrating and breeding in dry years (Loredo and Van Vuren 1996; Trenham *et al.* 2000). Historically, breeding was likely limited to vernal pools, but now include livestock stock ponds. Ideal breeding sites were typically fishless, free of non-native predators, and seasonal or semi-permanent (Barry *et al.* 1994; Petranka 1998). After breeding and egg laying is complete, adults leave the ponds and return to their upland refugia (Loredo *et al.* 1996; Trenham 1998). Adult central California tiger salamanders often continue to emerge nightly for approximately the next two weeks to feed in their upland habitat (Shaffer *et al.* 1993).

During metamorphosis, juvenile central California tiger salamanders leave their pools and enter upland habitat. This emigration can occur in both wet and dry conditions (Loredo and Van Vuren 1996; Loredo *et al.* 1996). Wet conditions are more favorable for upland travel but rain events seldom occur as metamorphosis is completed and ponds begin to dry. As a result, juveniles may be forced to leave their ponds on rainless nights. The peak emergence of juveniles in ponds is typically between mid-June and mid-July (Loredo and Van Vuren 1996; Trenham *et al.* 2000). Juveniles remain active in their upland habitat, emerging from their underground refugia during rainfall events to disperse or forage (Trenham and Shaffer 2005).

Local and migration movements made by central California tiger salamanders can be divided into two main categories: (1) breeding migration; and (2) interpond dispersal. Breeding migration is the movement of salamanders between a pond and the surrounding upland habitat. During metamorphosis, juveniles move away from breeding ponds into the surrounding uplands, where they live continuously for several years. At a study in Monterey County, it was found that during sexual maturity, 80 percent of individuals returned to their natal/ birth pond to breed, while 20 percent dispersed to other ponds (Trenham *et al.* 2001). After breeding, adult California tiger salamanders return to upland habitats, where they may live for one or two years before attempting to breed again (Trenham *et al.* 2000).

California tiger salamanders are known to travel long distances between breeding ponds and their upland refugia. Generally it is difficult to establish the maximum distances traveled by individuals, but salamanders in Santa Barbara County have been recorded dispersing up to 1.3 miles from their breeding ponds (Sweet 1998). As a result of a 5-year capture and relocation study in Contra Costa County, Orloff (2011) estimated that captured central California tiger salamanders were traveling a minimum of 0.5 miles to the nearest breeding pond and that some individuals were likely traveling more than 1.3 miles to and from breeding ponds. Central California tiger salamanders are also known to travel between breeding ponds. One study found that 25 percent of the individuals captured at one pond were recaptured later at other ponds approximately 1,900 and 2,200 feet away (Trenham *et al.* 2001). In addition to traveling long distances during juvenile dispersal and adult migration, salamanders may reside in burrows far from their associated breeding ponds.

Threats: The central California tiger salamander is imperiled throughout its range due to a variety of human activities (Service 2004). Current factors associated with declining central California tiger salamander populations include continued habitat loss and degradation due to agriculture and urbanization; hybridization with the non-native eastern tiger salamander (*Ambystoma tigrinum*) (Fitzpatrick and Shaffer 2004; Riley *et al.* 2003); and predation by introduced species. Central California tiger salamander populations are likely threatened by multiple factors but continued habitat fragmentation and colonization of non-native salamanders may represent the most significant current threats. Habitat isolation and fragmentation within many watersheds have precluded dispersal between sub-populations and threatened the viability of metapopulations (broadly defined as multiple subpopulations that occasionally exchange individuals through dispersal, and are capable of colonizing or "rescuing" extirpated habitat patches). Other threats include disease, predation, interspecific competition, urbanization and population growth, exposure to contaminants, rodent and mosquito control, road-crossing mortality, and hybridization with non-native salamanders. The central California tiger salamander is also prone to chance environmental or demographic events, to which small populations are particularly vulnerable.

Central California Tiger Salamander Critical Habitat

Critical habitat for the central California tiger salamander was designated in the *Endangered Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population* (Service, 2005). There are 31 units designated for the central California tiger salamander, totaling 199,109 acres.

Critical habitat is defined in Section 3 of the Act as: (1) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species. In determining which areas to designate as critical habitat, the Service considers those physical and biological features that are essential to a species' conservation and that may require special management considerations or protection (50 CFR 424.12(b)). The Service is required to list the known or inferred areas of critical habitat together with the critical habitat description. Such physical and biological features included are not limited to, the following:

1. Space for individual and population growth, and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;
4. Sites for breeding, reproduction, rearing of offspring, or dispersal; and
5. Generally, habitats that are protected from disturbance or are representative of historic geographical and ecological distributions of a species.

Es defined for the central California tiger salamander were derived from its biological The PCE's and, therefore, the resulting physical and biological features essential for the ation of the species were determined from studies of central California tiger salamander . Based on the above needs and our current knowledge of the life history, biology, and of the species, and the habitat requirements for sustaining the essential life-history us of the species, the Service determined that the PCEs essential to the conservation of the California tiger salamander are: 1) Standing bodies of fresh water (including natural and le (e.g. stock) ponds, vernal pools, and other ephemeral or permanent water bodies which y support inundation during winter rains and hold water for a minimum of 12 weeks in a average rainfall (PCE 1); 2) upland habitats adjacent and accessible to and from breeding at contain small mammal burrows or other underground habitat that central California amander depend on for food, shelter, and protection from the elements and predations ; 3) Accessible upland dispersal habitat between occupied locations that allow for ent between such sites (PCE 3).

refer to the final designation of critical habitat for central California tiger salamander for al information (Service, 2005).

Pool Fairy Shrimp

most comprehensive assessment of the species' range wide status, please refer to the Pool Fairy Shrimp (*Branchinecta lynchi*) 5-Year Review: Summary and Evaluation (Service 2007) for the current status of the species. No change in the species' listing status was ended in this 5-year review. Threats evaluated during that review and discussed in the cument have continued to act on the species since the 2007 5-year review was finalized, is of vernal pool habitat being the most significant effect. While there have been losses of vernal pool habitat throughout the various vernal pool regions identified in overy Plan for Vernal Pool Ecosystems of California and Southern Oregon (Service, including the Southern Sierra Foothills Vernal Pool Region where the proposed project ed, to date no project has proposed a level of effect for which the Service has issued a al opinion of jeopardy for the species. The Service is in the process of finalizing its most 5-year review for the species.

Pool Fairy Shrimp Critical Habitat

habitat for the vernal pool fairy shrimp was designated in the *Endangered and ned Wildlife and Plants: Designation of Critical Habitat for Four Vernal Pool eans and Eleven Vernal Pool Plants* (Service, 2005b). There are 35 units designated for al pool fairy shrimp, totaling 597,821 acres.

Es defined for the vernal pool fairy shrimp were derived from its biological needs. The und, therefore, the resulting physical and biological features essential for the conservation species were determined from studies of vernal pool fairy shrimp ecology. Based on the needs and our current knowledge of the life history, biology, and ecology of the species, habitat requirements for sustaining the essential life-history functions of the species, the

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Service determined that the PCEs essential to the conservation of the vernal pool fairy shrimp are: 1) topographic features characterized by mounds and swales and depressions within a matrix of surrounding uplands that result in complexes of continuously, or intermittently, flowing surface water in the swales connecting the pools, providing for dispersal and promoting hydroperiods of adequate length in the pools (PCE 1); 2) depressional features including is vernal pools with underlying restrictive soil layers that become inundated during winter rains that continuously hold water for a minimum of 18 days for vernal pool fairy shrimp and 41 for vernal pool tadpole shrimp, in all but the driest years; thereby providing adequate water for incubation, maturation, and reproduction (PCE 2); 3) sources of food, expected to be detritus occurring in the pools, contributed by overland flow from the pools' watershed, or the result biological processes within the pools themselves, such as single-celled bacteria, algae, and organic matter, to provide for feeding (PCE 3); and 4) structure within the pools consisting organic and inorganic materials, such as living and dead plants from plant species adapted seasonally inundated environments, rocks, and other inorganic debris that may be washed, blown, or otherwise transported into the pools, that provide shelter (PCE 4).

Please refer to the final designation of critical habitat for vernal pool fairy shrimp for additional information (Service, 2005b).

Vernal Pool Tadpole Shrimp

For the most comprehensive assessment of the species' range wide status, please refer to the *Vernal Pool Tadpole Shrimp (Lepidurus packardii) 5-Year Review: Summary and Evaluation* (Service 2007b) for the current status of the species. No change in the species' listing status recommended in this 5-year review. Threats evaluated during that review and discussed in final document have continued to act on the species since the 2007 5-year review was final with loss of vernal pool habitat being the most significant effect. While there have been continued losses of vernal pool habitat throughout the various vernal pool regions identified the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Service 2005a), including the Southern Sierra Foothills Vernal Pool Region where the proposed project is located, to date no project has proposed a level of effect for which the Service has issued biological opinion of jeopardy for the species. The Service is in the process of finalizing its current 5-year review for the species.

Environmental Baseline

Central California Tiger Salamander

The Service considers the 25.09 acres of nonnative annual grassland and the 1.05 acres blue woodland in the action area as upland habitat for the central California tiger salamander. Numerous California ground squirrels (*Spermophilus beecheyi*) and their burrows were observed in the action area. Central California tiger salamander tends to rely on deep, persistent man burrows for protection from desiccation and for foraging (Madison and Ferrand, 1998; Regier *et al.*, 2003; Trenham *et al.*, 2001. in Searcy *et al.*, 2013). The 0.233 acres of seasonal wet

tion area are assumed in the biological assessment to provide suitable central California salamander aquatic habitat. The existing Millerton Road is considered unsuitable upland or refuge habitat, but the roadway area could be used for dispersal. The remaining 0.419 within the action area are comprised of the Friant-Kern canal, an ephemeral drainage, and a ditch.

for central California tiger salamander have not been conducted at the project site. er, central California tiger salamander larvae were observed in a seasonal wetland on the de of Millerton Road within Millerton Lake State Recreation Area in 2008 and 2009. servations occurred at CNDDB occurrence number 125 (CNDDB 2013), which is an ded 0.05 miles from the existing Millerton Roadway. The tiger salamanders were d in approximately two inches of ponded water during a wetland delineation conducted h 2008. In March of 2009 central California tiger salamander were observed in the same ul wetland. There are 4 additional presumed extant CNDDB occurrences within a 1 mile f the action area, 3 of which are breeding occurrences.

h the action area is fragmented by the existing Millerton roadway, the Service believes ntral California tiger salamander is reasonably certain to occur in the action area because it n the range of the species and provides suitable breeding, feeding and sheltering habitat species.

California Tiger Salamander Critical Habitat

on of the action area lies within the Southern San Joaquin Region Unit-2 (SJR Unit-2), of ted Critical Habitat for the central California tiger salamander. SJR Unit-2 contains mately 10,193 acres of land that includes ephemeral aquatic habitats suitable for breeding and areas for dispersal, shelter, and foraging. This unit represents the distribution of California tiger salamander in the northern end of the Southern San Joaquin Valley region Southern Sierra Foothills vernal pool region. The action area contains the three PCEs ed within the critical habitat designation for this species. Critical habitat within the action mprises 20.66 acres of non-native grassland habitat and 0.17 acres of breeding habitat.

Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

ction area, it is reasonably likely that previously existing seasonal wetlands that were as habitat for the vernal pool fairy shrimp were removed by past actions including the construction of the Millerton Roadway.

ologists conducted one wet season protocol-level vernal pool branchiopod survey for the during the 2009 wet season, between January and July. AES's sampling methods d the Service's 1996 *Interim Survey Guidelines to Permittees for Recovery Permits under 10(a)(1)(4) of the Endangered Species Act for the Listed Vernal Pool Branchiopods* lines) (Service 1996). Vernal pool fairy shrimp and vernal pool tadpole shrimp were not Rather than completing additional sampling to complete the guidelines, AES has elected

to infer presence of the vernal pool fairy shrimp and vernal pool tadpole shrimp within the acres of seasonal wetlands in the action area based on suitable habitat features, the quality of seasonal wetlands, and the close proximity of known species occurrences.

The Service anticipates that the vernal pool fairy shrimp and vernal pool tadpole shrimp are reasonably certain to occur within the action area based on the biology and ecology of these species and the presence of suitable aquatic habitat necessary for all its life-cycle functions form of seasonal pools.

Vernal Pool Fairy Shrimp Critical Habitat

A portion of the action area lies within designated vernal pool fairy shrimp critical habitat U 24. Unit-24 contains approximately 28,950 acres of land. The action area contains four PC identified within the critical habitat designation: PCE 1, 2, 3, and 4. Critical habitat within action area comprises 10.28 acres of uplands and 0.01 acre of seasonal wetland habitat.

Effects of the Proposed Action

Central California Tiger Salamander

The Service believes there is a reasonable likelihood that central California tiger salamander utilizing the 26.14 acres of annual grassland and oak woodland in the action area for upland refugia. Additionally, the Service believes there is a reasonable likelihood that central California tiger salamander is utilizing the 0.233 acres of seasonal wetland for breeding. The Service believes the greatest effects to this species will be in the form of mortality of, or injury to, juveniles or adults that are entombed or crushed in burrows or run over by project related equipment and vehicles during vegetation clearing and grading activities. Removal of seasonal wetland habitat in the action area will cause harm to this species as salamanders attempting return to these wetlands in the next breeding season will not be able to breed, thereby preventing a new offspring cohort, and the returning salamanders themselves are likely to suffer harm through desiccation and/or predation by avian and terrestrial predators. Temporary barriers dispersal such as silt fencing and straw bales will cause harm and harassment by changing species behavior (e.g. central California tiger salamander would have to go around barriers thereby increasing the likelihood of predation or desiccation).

Central California Tiger Salamander Critical Habitat

The project will result in the permanent loss of 20.66 acres of PCE 1 and 0.17 acres of PCE 2 through vegetation clearing and grading activities. Additionally, portions of the project will create temporary barriers to dispersal between aquatic PCE 1 and PCE 2, therefore temporarily affecting PCE 3.

Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

widening of the Millerton Roadway may result in direct effects on populations of vernal fairy shrimp and vernal pool tadpole shrimp through loss or degradation of 0.233 acres of naturally inundated wetlands that support the reproductive cycle of these species. Direct effects, such as harm or mortality by crushing and destroying cysts or preventing them from hatching due to the destruction of their habitat, may also occur during construction of the roadway.

Pool Fairy Shrimp Critical Habitat

The project will result in the permanent loss of 10.28 acres of land categorized as PCE 1 and 2, 3, and 4 for this project, which are adjacent to the existing roadway that is categorized as PCE 2, 3, and 4 for this project through vegetation clearing and grading activities.

Relative Effects

Relative effects include the effects of future State, Tribal, local or private actions that are likely to occur in the action area considered in this biological opinion. Future actions that are unrelated to the proposed action are not considered in this section and require separate consultation pursuant to Section 7 of the Act.

The Service is not aware of any non-Federal actions currently planned in the project action area.

Conclusion

After reviewing the current status of the central California tiger salamander, vernal pool fairy shrimp and vernal pool tadpole shrimp, the environmental baseline for the area covered by this biological opinion, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the proposed project is not likely to jeopardize the continued existence of these species. The Service reached this conclusion because: the action area is small and the project-related effects to the central California tiger salamander would be limited to the level of precluding recovery of the species or reducing the likelihood of their recovery; the project-related effects to the vernal pool fairy shrimp would not rise to the level of precluding recovery of the species or reducing the likelihood of their survival and effects will be limited to the San Joaquin Vernal Pool Region core recovery area; and the project-related effects to the vernal pool tadpole shrimp would not rise to the level of precluding recovery of the species or reducing the likelihood of their survival and effects will occur outside the San Joaquin Vernal Pool Region core recovery area. The core recovery areas have been identified as sites needed to recover vernal pool fairy shrimp and vernal pool tadpole shrimp. In addition, the conservation measures, including conservation of habitat for these species through riparian credits at a Service-approved conservation bank will minimize the effects of the project on the species and further aid in the conservation of these species. These measures will protect and manage habitat for these species in perpetuity.

Mr. Zachary Simmons

After reviewing the current status of the central California tiger salamander and vernal pool fairy shrimp critical habitat, the environmental baseline for the area covered by this biological opinion, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the proposed project is not likely to adversely modify designated critical habitat for the central California tiger salamander and vernal pool fairy shrimp. The Service reached this conclusion because the project-related effects to the central California tiger salamander critical habitat and vernal pool fairy shrimp critical habitat will not appreciably diminish their value of the critical habitat for recovery of the central California tiger salamander and vernal pool fairy shrimp. The effects to the central California tiger salamander and vernal pool fairy shrimp critical habitat units are at small, discrete locations. Effects to the central California tiger salamander critical habitat equate to an estimated 0.2 percent of SJR Unit-2 effects to vernal pool fairy shrimp critical habitat equate to an estimated 0.03 percent of critical habitat Unit 24.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt any such conduct. Harass is defined by FWS regulations at 50 CFR 17.3 as an act which intentionally or negligently creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include but are not limited to, breeding, feeding, or sheltering. Harm is defined by the same regulations as an act which actually kills or injures wildlife. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are nondiscretionary, and must be undertaken by the Corps that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the terms and conditions, or (2) fails to require Fresno County Public Works Planning to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Corps must report the progress of action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

it or Extent of Take

California Tiger salamander

possible to quantify the number of individual central California tiger salamanders that impacted as a result of the proposed project because the number of individuals within the action area is unknown and cannot be determined due to the fact that any salamanders will be living below ground in burrows. Since we cannot quantify the number of individual salamanders that we anticipate will be subject to this incidental take and since take is expected to result from the impacts to habitat, the number of acres of destroyed habitat becomes surrogate for the species that will be taken. The Service anticipates 26.37 acres of habitat for the central California tiger salamander will be permanently lost as a result of proposed project. Upon implementation of the Reasonable and Prudent Measures, these measures will be implemented with the proposed project in the form of harm, harassment, and death of the central California tiger salamander caused by habitat loss and other activities will become exempt from the prohibitions described under Section 9 of the Act.

Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

possible to quantify the number of individual vernal pool fairy shrimp and vernal pool tadpole shrimp cysts that will be taken as a result of the proposed project due to the fact that no reliable way to estimate the number of shrimp cysts that may be in the seasonal sediment. The anticipated loss of individuals of this species also cannot be quantified due to seasonal fluctuations in their numbers, random environmental events, changes in water levels at their vernal pool habitat, or additional environmental disturbances. Therefore, the number of acres of habitat for this species impacted by the project will be used as a surrogate for the number of individuals of this species that will be taken. The Service anticipates 0.233 acres of seasonal wetland habitat suitable for vernal pool fairy shrimp and vernal pool tadpole shrimp will be permanently lost as a result of the proposed project. Upon implementation of the reasonable and prudent measures, these levels of incidental take associated with the project of vernal pool fairy shrimp and vernal pool tadpole shrimp will become exempt from the prohibitions described under section 9 of the Act.

of the Take

accompanying biological opinion, the Service has determined that this level of anticipated take will not likely to jeopardize the continued existence of the central California tiger salamander, vernal pool fairy shrimp, or vernal pool tadpole shrimp.

Reasonable and Prudent Measures

The following reasonable and prudent measure is necessary and appropriate to minimize the effects of the proposed action on the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp.

1. All of the conservation measures for central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp proposed in the biological assessment and additional communication, the *Description of the Proposed Action*, and as supplemented and modified below, must be fully implemented.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These Terms and Conditions are nondiscretionary.

The following Terms and Conditions implement Reasonable and Prudent Measure 1:

1. The Corps shall assure through their Nationwide Permit special conditions that Fresno County and their contractors implement the proposed avoidance and minimization measures.
2. In order to monitor whether the amount or extent of incidental take anticipated implementation of the project is approached or exceeded, the Corps shall adhere to the following reporting requirements. Should this anticipated amount or extent of incidental take be exceeded, the Corps must immediately reinstate formal consultation as per 50 CFR 402.16.
 - a. The Corps shall monitor and document to the Service on a monthly basis, the amount of habitat disturbed during project-related construction and/or operation to ensure that the amount of habitat affected does not exceed the amount of habitat anticipated by this biological opinion.
 - b. For those components of the action that may result in direct encounters between listed species and project workers and their equipment whereby incidental take in the form of harassment, harm, injury, or death could occur, the Corps shall immediately contact the Service's Sacramento Fish and Wildlife Office (SFWO) at (916) 414-6600 to report the encounter. If an encounter occurs after normal working hours, the Corps shall contact the SFWO at the earliest possible opportunity the next working day. When injured or killed individuals of the species are found, the Corps shall follow the steps outlined in the Disposition of Individuals section below.

Protection of Individuals Taken

Use of injured and/or dead central California tiger salamanders, the Service shall be of events within one day and the animals shall only be handled by a Service-approved t. Injured California tiger salamanders shall be cared for by a licensed veterinarian or alified person. In the case of a dead animal, the individual animal shall be preserved and a secure location until instructions are received from the Service regarding the disposition specimen or until the Service takes custody of the specimen. The Corps must report to the within one calendar day any information about take or suspected take of federally-listed not exempted in this opinion. Notification must include the date, time, and location of dent or of the finding of a dead or injured animal. The Service contacts are Russell, Deputy Assistant Field Supervisor, Endangered Species Program, Sacramento, at 4-6600 and Rebecca Roca, the Resident Agent-in-Charge of the Service's Law ment Division at (916) 414-6660.

tractor or employee who, during routine operations and maintenance activities ently kills or injures a listed wildlife species must immediately report the incident to his ative at his contracting/employment firm and to the Corps. This representative must the Service within one calendar day in the case of a federally-listed species.

CONSERVATION RECOMMENDATIONS

ation recommendations are suggestions of the Service regarding discretionary measures nize or avoid further adverse effects of a proposed action on listed, proposed, or te species or on designated critical habitat, or regarding the development of new tion. They may also serve as suggestions on how action agencies can assist species ation in furtherance of their responsibilities under section 7(e)(1) of the Act, or end studies improving an understanding of a species' biology or ecology. Wherever e, conservation recommendations should be tied to tasks identified in recovery plans. The is providing you with the following conservation recommendations:

1. Fresno County should include culverts, tunnels, or other structures along roads and highways in known central California tiger salamander population areas to allow for safe passage of this species. Such crossing may contribute to creating safe dispersal corridors for multiple wildlife species, and will help reduce road mortalities and enhance public safety. Fresno County and their consultants are encouraged to explore designs and include photos, plans, and other information in its biological assessments concerning the incorporation of wildlife passageway designs into its projects.

for the Service to be kept informed of actions minimizing or avoiding adverse effects or ing listed species or their habitats, the Service requests notification of the implementation conservation recommendations.

Mr. Zachary Simmons

REINITIATION—CLOSING STATEMENT

This concludes the Service's review of the Millerton Road Widening Project, as outlined in March 19, 2011 letter and follow up communication. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement control over the action has been maintained (or is authorized by law) and if: (1) the amount extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or an extent not considered in the biological opinion, (3) the agency action is subsequently modified in a manner that causes a effect to the listed species or critical habitat that was not considered in this biological opinion, (4) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this Millerton Road Widening Project biological opinion please contact Hunter Kunkel, Fish and Wildlife Biologist, or Thomas Leeman, Chief, San Joaquin Valley Division, at the letterhead address or at (916) 414-6600.

Sincerely,



Jennifer M. Norris
Field Supervisor

cc:

Ms. Annec Ferranti, California Department of Fish and Wildlife, Fresno, CA

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Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

November 27, 2013

RECEIVED
DEC 04 2013

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

FRESNO COUNTY
DEPT. OF
PUBLIC WORKS & PLANNING

Subject: Millerton Road Widening Project
SCH#: 2013101092

Dear Briza Sholars:

The State Clearinghouse submitted the above named Mitigated Negative Declaration 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 November 26, 2013, 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
Director, State Clearinghouse

Enclosures
cc: Resources Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2013101092
Project Title Millerton Road Widening Project
Lead Agency Fresno County

Type MND Mitigated Negative Declaration

Description The proposed Millerton Road Widening Project would reconstruct a 4.7 mile stretch of Millerton Road from a two-lane rural roadway to a four-lane arterial roadway with four 12-foot-wide travel lanes, two 6-foot-wide paved shoulders that would function as bike lanes, and a 4-foot-wide treated dirt shoulders. A 16-foot-wide median would separate the eastbound and westbound traffic. Implementation of the Millerton Road Widening Project would require expansion of the existing right-of-way from approximately 60 feet wide to approximately 106 feet wide (53 feet on either side of the roadway centerline, except where additional width is necessary for cut and fill slopes). The proposed project would be located east of the town of Friant, just south of Millerton Lake, in Fresno County. The expanded roadway would generally follow the centerline of the existing roadway from North Fork Road to just past Table Mountain Road.

Lead Agency Contact

Name Briza Sholars
Agency Fresno County Public Works and Planning
Phone 559 600 4207 **Fax**
email
Address 2220 Tulare Street, 6th Floor
City Fresno **State** CA **Zip** 93721

Project Location

County Fresno
City
Region
Lat / Long
Cross Streets The project is located on Millerton Road from North Fork Road to just east of Table Mountain Roa
Parcel No.

Township	Range	Section	Base
-----------------	--------------	----------------	-------------

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use Millerton Road is currently a two lane rural roadway and would be reconstructed to a four lane divided arterial roadway.

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Flood Plain/Flooding; Geologic/Seismic; Noise; Public Services; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 4; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 6; Air Resources Board; Regional Water Quality Control Bd., Region 5 (Fresno); Native American Heritage Commission

Date Received 10/28/2013 **Start of Review** 10/28/2013 **End of Review** 11/26/2013



State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, CA 93710
(559) 243-4005
www.wildlife.ca.gov

CHARLOTTE A. BOWMAN, SENIOR

November 26, 2013

Clear
11/26/13
p

RECEIVED

NOV 26 2013

Briza Sholars

Department of Public Works and Planning

County of Fresno

2220 Tulare Street, Sixth Floor

Fresno, California 93721

STATE CLEARING HOUSE

SUBJECT: INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
MILLERTON ROAD WIDENING PROJECT (PROJECT)
NEAR FRIANT IN FRESNO COUNTY
SCH NO. 2013101092

Dear Ms. Sholars:

The California Department of Fish and Wildlife (Department) has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) for the above Project. Your agency intends to adopt the MND and approve the Project in a public hearing on December 10, 2013. Approval of the Project would allow the widening of an existing 4.7-mile segment of Millerton Road between its intersection with North Fork Road and a point just east of Table Mountain Road near the community of Friant in Fresno County. The Project would also allow for the operation and maintenance of the widened roadway. In general, this segment of Millerton Road will be widened from 60 feet wide to 103 feet wide. To accommodate the widened roadway, a second bridge over the Friant-Kern Canal will be constructed and several intersections along the roadway will be modified. The construction and operation/maintenance of the widened roadway would involve the use of heavy equipment in association with: grading, trenching, excavation/placement of fill, paving with asphalt/Portland concrete cement, vegetation management, material stockpiling/laydown, pothole/crack patching, pavement striping, pavement cutting, signage installation/repair, drainage feature installation/repair, and material transport. Your agency indicates that implementation of the Project would improve traffic safety and operations along this segment of Millerton Road.

The Initial Study conducted in support of the MND referenced biological surveys conducted for plants and wildlife at and near the Project area in 2008 and 2009. Based on these surveys, your agency will require as a condition of Project approval the adoption and implementation of nine Mitigation Measures in the finalized California Environmental Quality Act (CEQA) document intended to reduce to less than significant the Project-related impacts to wetlands, the State and federally threatened California tiger salamander (*Ambystoma californiense*); the State threatened Swainson's hawk (*Buteo swainsoni*); the State threatened and federally endangered San Joaquin kit fox

Conserving California's Wildlife Since 1870

Briza Sholars
County of Fresno
November 26, 2013
Page 2

(*Vulpes macrotis mutica*); the State species of special concern, burrowing owl (*Atene cunicularia*); and nesting birds. The IS/MND indicates that coverage for Project related incidental take of California tiger salamander, under Section 2081(b) of Fish and Game Code, will be sought and obtained from the Department prior to Project implementation in compliance with the California Endangered Species Act (CESA). In addition, according to information contained in the IS/MND, focused surveys for special status plants including the State endangered and federally threatened succulent owl's clover (*Castilleja campestris* var. *succulent*); the State endangered and federally threatened San Joaquin Valley orcutt grass (*Orcuttia inaequalis*); and the State and federally endangered Hartweg's golden sunburst were conducted during the appropriate foristic periods in 2008 and 2009 with a negative finding. As a result of these surveys, no further special status plant species avoidance, minimization, or mitigation measures were discussed in the IS/MND. However, a botanical survey report describing the date(s), locations, qualifications of surveyors conducting the surveys, and date(s) reference population sites were visited does not appear to have been included as an appendix to the IS/MND. Therefore, the Department does have not sufficient information to determine that a negative finding for special status plant species is appropriate. Our comments follow.

Department Jurisdiction

Trustee Agency Authority: The Department is a Trustee Agency with 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 the 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 upon environmental documents and impacts arising from project activities, as those terms are used under CEQA (Division 13 [commencing with Section 21000] of the Public Resources Code).

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 activities at the site resulting from the approved Project could result in the "take" of any species listed as threatened or endangered under CESA, the Department may need to issue an Incidental Take Permit (ITP) for the Project. In general, CEQA requires that for each significant impact identified, feasible measures to avoid or substantially reduce the Project's significant environmental effect must be discussed. To be considered adequate, mitigation measures must be specific, feasible actions that will actually improve adverse environmental conditions and must be measurable to allow monitoring and enforcement of their implementation. If this information is not included in the MND prepared for this Project, or if the information is not sufficient for our use as a

Briza Sholars
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Responsible Agency, it may warrant a new or supplemental CEQA analysis for issuance of an ITP for this Project. This could result in significant delays to Project implementation.

Potential Project-Related Impacts and Recommendations

Listed Plant Species: As stated previously, the IS/MND concludes that there is no potential for listed plant species to occur within or adjacent to the Project site based on the results of focused surveys conducted in 2008 and 2009. A botanical survey report is not included in the IS/MND and therefore, the Department is unable to evaluate the survey data and cannot concur with the negative finding asserted in the IS/MND. There are vernal pools and suitable habitat features present within the Project impact area that could support one or more listed and special status plant species. In addition, the area contains multiple State and federally-listed plant species known to occur at and/or in the vicinity of the Project Area. Therefore, absent a botanical survey report, the Department recommends additional focused, repeated surveys by a qualified botanist with previous experience in conducting surveys for Hartweg's golden sunburst, succulent owl's clover, and orcutt grasses during the appropriate floristic period(s) in order to adequately assess the potential Project-related impacts to these listed plant species. If State and/or federal plants are detected during surveys, consultation with the Department is warranted to discuss the potential for take under CESA. Plants listed as threatened or endangered under CESA cannot be addressed by methods described in the Native Plant Protection Act without the acquisition of an Incidental Take Permit pursuant to Section 2081 of the Fish and Game Code.

California tiger salamander (CTS): Mitigation Measure BR-1 in the MND outlines 24 measures which will be implemented to reduce the impacts to CTS and their breeding and upland habitat. These measures include efforts to avoid the species where feasible, minimize impacts where they cannot be avoided, and mitigate for those unavoidable impacts. In Mitigation Measure BR-1, the applicant indicates their intention to obtain coverage under Section 2081 of Fish and Game Code for incidental Project-related take of the species, and mitigate for the unavoidable impacts through the purchase of three preservation credits at a Department-approved mitigation bank for each acre of impacted habitat. Currently there are no Department-approved mitigation banks for CTS and the applicant must be prepared to otherwise mitigate for impacts to the species. The Department recommends the MND require an alternative mechanism for mitigating impacts to CTS in the event a Department-approved mitigation bank is not available at the time the Project is implemented. Further, the Department will include measures in the ITP required to avoid and/or minimize direct "take" of CTS on the Project site, as well as measures to fully mitigate the impact of the "take."

Nesting birds: Mitigation Measures BR-4 and BR-5 outline several measures to reduce to less-than-significant, impacts on nesting birds including the State threatened

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Swainson's hawk. The applicant will reportedly conduct preconstruction surveys and avoid active nests of all migratory bird species by 250 feet.

The Department encourages Project implementation to occur during the non-nesting bird season. However, if ground-disturbing activities must occur during the nesting season (February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in any violation of the Migratory Bird Treaty Act, relevant sections of the Fish and Game Code, or the CEQA, as referenced above. Prior to work commencing, the Department recommends surveys for active nests be conducted by a qualified wildlife biologist no more than 10 days prior to the initiation of Project activities, and that the surveys be conducted in a sufficient area around the Project area to identify any nests that are present and to determine their status. The Department recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species, and a 500-foot no-disturbance buffer around the nests of unlisted raptors until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no disturbance buffers may be implemented when there is compelling biological or ecological reason to do so, such as when the Project area would be concealed from a nest site by topography.

Swainson's Hawk (SWHA): The IS/MND concludes that there is a low potential for this species to nest and forage within the study area based on a single California Natural Diversity Database record documenting the presence of SWHA 15 miles from the Project site. The CNDDB is a database of voluntary reporting of species occurrences and is not intended for use to demonstrate absence. There is both suitable nesting and foraging habitat for SWHA within and adjacent to the Project site. To evaluate potential Project-related impacts, the Department recommends that a qualified wildlife biologist conduct surveys for nesting raptors following the survey methodology developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC, 2000) prior to any ground disturbance.

If ground-disturbing Project activities are to take place during the normal bird breeding season (February 1 through September 15), the Department recommends that additional pre-construction surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of construction. A minimum no-disturbance buffer of 0.5 miles is advised and be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. If such a buffer cannot feasibly be implemented, and work will occur during the avian nesting season, consultation with the Department is advised to occur well in advance of ground-disturbing activities and the acquisition of a State Incidental Take Permit pursuant to Fish and Game Code Section 2081(b) may be warranted. The Department

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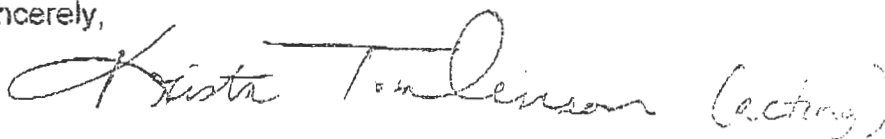
advises that these recommendations be included as required mitigation measures in the EIS/MND prepared for this Project.

In addition, the removal of mature trees is a potentially significant impact to nesting raptors that is recommended to be mitigated. The Department considers removal of known raptor nest trees, even outside of the nesting season, to be a significant impact under CEQA, and, in the case of Swainson's hawk, it could also result in "take" under CESA. This is especially true with species such as Swainson's hawk that exhibit high site fidelity to their nest and nest trees year after year. Regardless of nesting status, trees that must be removed are advised to be replaced with an appropriate native tree species planting at a ratio of 3:1 in an area that will be protected in perpetuity. This mitigation is needed to offset potential impacts to the loss of potential nesting habitat.

Federally Listed Species: The Department also recommends consulting with the U.S. Fish and Wildlife Service (USFWS) on potential impacts to federally listed species including, but not limited to CTS. "Take" under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; "take" under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any ground disturbing activities.

If you have any questions on these issues, please contact Steve Hulbert, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-4014, extension 289, or by electronic mail at steven.hulbert@wildlife.ca.gov.

Sincerely,

Handwritten signature of Krista Tomlinson in cursive script, followed by the word "(acting)" in parentheses.

Jeffrey R. Single, Ph.D.
Regional Manager

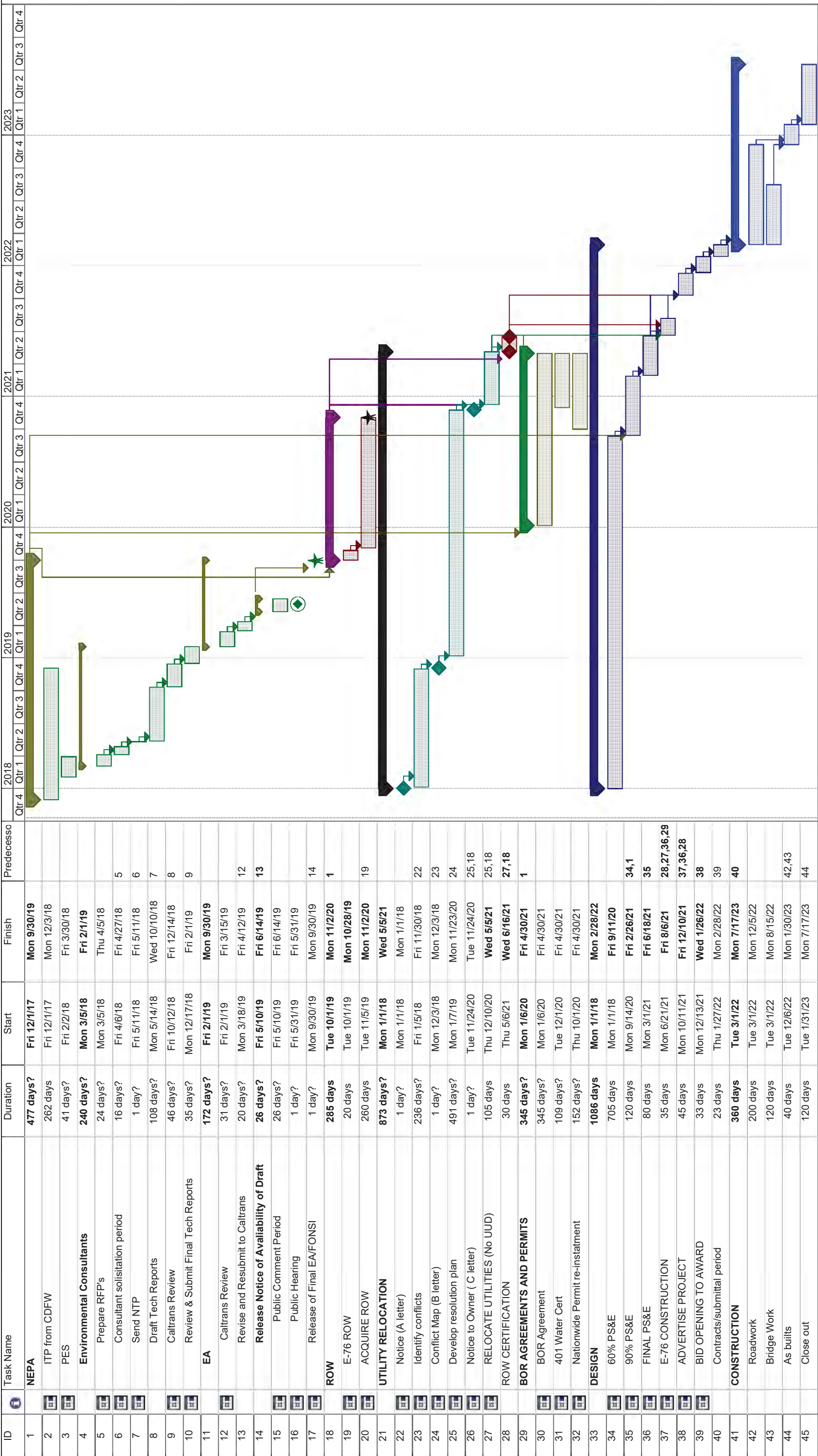
cc: see page 6

Briza Sholars
County of Fresno
November 26, 2013
Page 6

cc: Thomas Leeman
United States Fish and Wildlife Service
2800 Cottage Way, Suite W-2605
Sacramento, California 95825

United States Corps of Engineers
1325 "J" Street
Sacramento, California 95814-2922

California Regional Water Quality Control Board
Central Valley Region
1685 "E" Street
Fresno, California 93706-2020



**OFFICE OF HISTORIC PRESERVATION
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November 16, 2015

In Reply Refer To: COE120628A

Zachary Simmons
Senior Regulatory Project Manager
Department of the Army
U.S. Army Engineer District, Sacramento
1325 J Street
Sacramento, CA 95814

Re: Section 106 Consultation for Millerton Road Widening project

Dear Mr. Simmons:

Pursuant to 36 CFR Part 800 (as amended 8-05-04) regulations implementing Section 106 of the National Historic Preservation Act, the Army Corps of Engineers (COE), is seeking my comments on its determination of the Area of Potential Effects (APE), historic property identification efforts, determination of eligibility for National Register of Historic Places (NRHP), and finding of effects that the proposed undertaking will have on historic properties. The proposed undertaking would issue a Clean Water Act Section 404 permit authorizing the reconstruction of a 4.7-mile stretch of Millerton Road from a two-lane rural roadway to a four-lane divided highway and replace a bridge crossing the Friant-Kern Canal (FKC). The APE has been defined as the new proposed right-of-way for Millerton Road. **Please note that this consultation letter replaces previous letter from October 29, 2012.**

In addition to your letter and attachments, you have submitted the following document as evidence of your efforts to identify historic properties in the project Area of Potential Effects (APE):

- *Cultural Resources Study Millerton Road Widening Project, Fresno County (AES, November 2011)*

Cultural resource inventory efforts included consultation with the Native American Heritage Commission and local Native American tribes identified by them, records search, and intensive pedestrian surveys. The FKC and a portion of CA-KER-3111/H were identified in the APE.

For the purposes of this undertaking, COE is assuming the FKC is eligible for listing in the NRHP and finds that replacing a bridge crossing the FKC does not adversely affect the FKC. The prehistoric component of CA-KER-3111/H was previously determined eligible for listing in the NRHP under Criterion D in 2001 as part of the Caltrans Friant Cove Rest Stop project. Subsurface archaeological testing identified only disturbed deposits and fill material within the portion of CA-KER-3111/H that is within the APE for

this undertaking. COE has determined that issuing a Clean Water Act Section 404 permit for this project will not adversely affect historic properties.

After reviewing your letter and supporting documentation, pursuant to 36 CFR 800.4(c)(1) I have the following comments:

- I have no comments on the definition of the APE or historic property identification efforts.
- I concur that issuing a Clean Water Act Section 404 permit authorizing the reconstruction of Millerton Road will result in no adverse effect to historic properties.

Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the COE may have additional future responsibilities for this undertaking under 36 CFR Part 800. Thank you for seeking my comments and for considering historic properties in planning your project. If you require further information, please contact Brendon Greenaway of my staff at phone 916-445-7036 or email Brendon.greenaway@parks.ca.gov.

Sincerely,

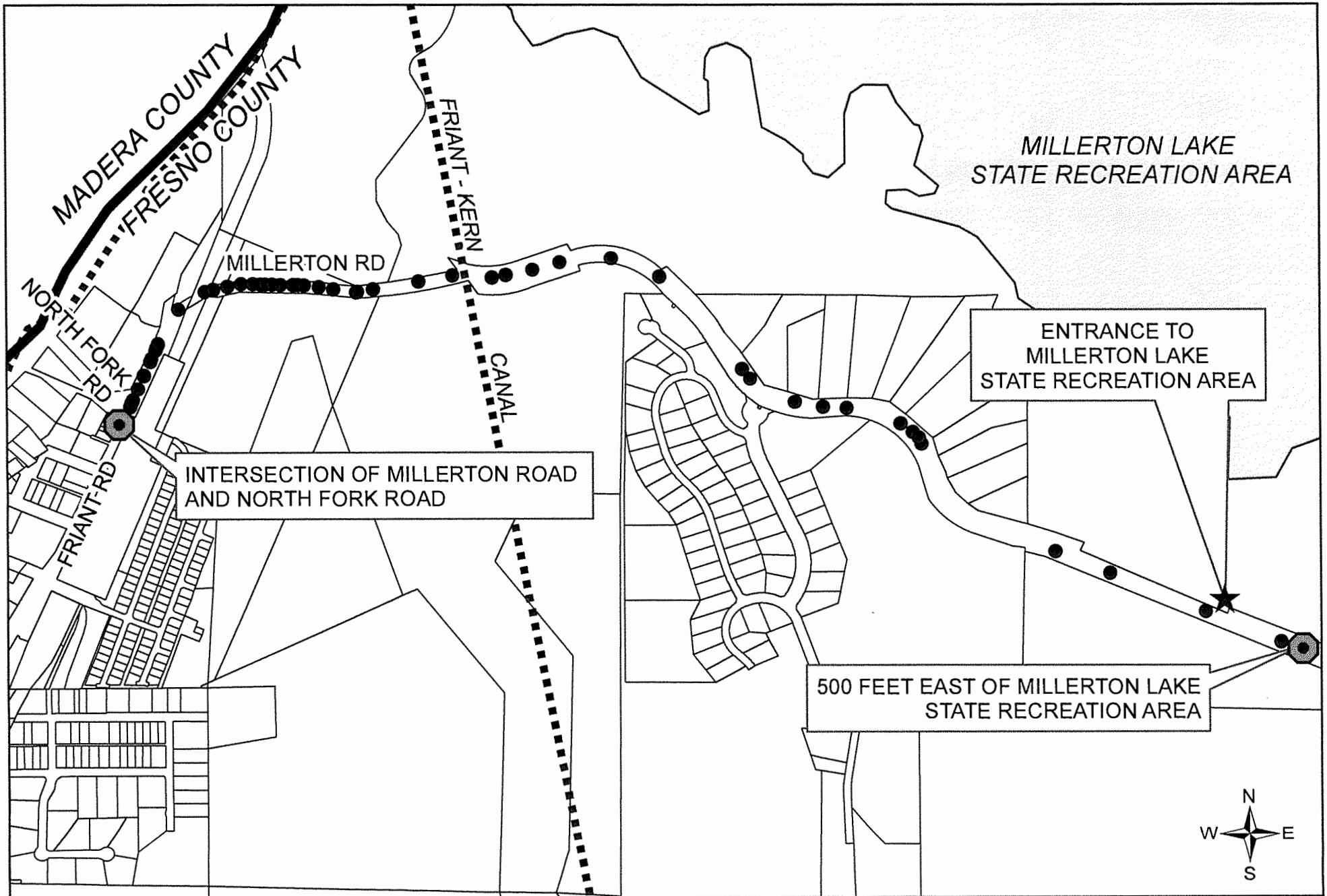
A handwritten signature in blue ink, appearing to read 'Julianne', with a long horizontal line extending to the right.

Julianne Polanco
State Historic Preservation Officer

DATE	TIME	LOCATION	COLL_TYPE	PCF	INVOLVED	PARTY1	PARTY2	DOT1	DOT2	MPC1	MPC2	EXTENT	NUMO_INJ	NUMO_KLD
9/7/2004	09:55 AM	Millerton at Friant-Kern Canal	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	East	Proceeding Straight	Driver	East	Making Left Turn	Complaint of Pain	1	0
2/14/2005	11:15 PM	Millerton at Friant	Hit Object	Improper Turning	Fixed Object	Driver	West	Other Unsafe Turning	-	-	-	Complaint of Pain	1	0
5/29/2005	04:15 PM	Millerton at Friant	Sideswipe	Unsafe Speed	Other Motor Vehicle	Driver	East	Proceeding Straight	Driver	East	Stopped in Road	Complaint of Pain	4	0
10/15/2005	07:50 PM	Millerton at Friant-Kern Canal	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	West	Proceeding Straight	Driver	West	Slowing/Stopping	Complaint of Pain	1	0
1/8/2006	03:05 AM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	West	Ran Off Road	-	-	-	Complaint of Pain	2	0
1/9/2006	03:45 AM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	West	Ran Off Road	-	-	-	Property Damage Only	0	0
1/18/2006	02:55 PM	Millerton at Friant-Kern Canal	Head-On	Wrong Side of Road	Other Motor Vehicle	Driver	East	Crossed Into Opposing Lane - Unplanned	Driver	West	Proceeding Straight	Fatal	2	2
2/4/2006	01:01 AM	Millerton at North Fork	Sideswipe	Improper Turning	Other Motor Vehicle	Driver	East	Other Unsafe Turning	Driver	West	Proceeding Straight	Property Damage Only	0	0
2/12/2006	05:16 AM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	West	Other Unsafe Turning	-	-	-	Property Damage Only	0	0
3/25/2006	01:10 PM	Millerton at Winchell Cove	Hit Object	Unsafe Speed	Fixed Object	Driver	West	Proceeding Straight	-	-	-	Property Damage Only	0	0
4/1/2006	01:48 AM	Millerton at Via Bellagio	Hit Object	Driving Under Influence	Fixed Object	Driver	West	Other Unsafe Turning	-	-	-	Other Visible Injury	1	0
4/13/2006	01:10 PM	Millerton at Via Bellagio	Sideswipe	Improper Turning	Other Motor Vehicle	Driver	North	Proceeding Straight	Driver	North	Proceeding Straight	Complaint of Pain	2	0
4/23/2006	02:45 AM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	West	Proceeding Straight	-	-	-	Complaint of Pain	1	0
5/8/2006	11:12 PM	Millerton at Friant-Kern Canal	Sideswipe	Improper Passing	Other Motor Vehicle	Driver	East	Passing Other Vehicle	Driver	East	Proceeding Straight	Complaint of Pain	1	0
5/20/2006	02:45 PM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	North	Proceeding Straight	-	-	-	Other Visible Injury	2	0
10/1/2006	04:03 AM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	East	Proceeding Straight	-	-	-	Complaint of Pain	1	0
11/18/2006	02:13 AM	Millerton at North Fork	Hit Object	Unsafe Speed	Other Object	Driver	South	Ran Off Road	-	-	-	Property Damage Only	0	0
11/20/2006	01:30 AM	Millerton at North Fork	Broadside	Wrong Side of Road	Other Motor Vehicle	Driver	West	Passing Other Vehicle	Driver	East	Proceeding Straight	Property Damage Only	0	0
11/25/2006	02:50 PM	Millerton at North Fork	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	North	Proceeding Straight	Driver	North	Stopped in Road	Complaint of Pain	2	0
11/27/2006	04:30 AM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	South	Ran Off Road	-	-	-	Other Visible Injury	1	0
12/10/2006	02:42 PM	Millerton at North Fork	Head-On	Unsafe Speed	Other Motor Vehicle	Driver	East	Proceeding Straight	Driver	West	Crossed Into Opposing Lane - Unplanned	Severe Injury	1	0
12/12/2006	02:10 PM	Millerton at North Fork	Overturned	Improper Turning	Fixed Object	Driver	East	Ran Off Road	-	-	-	Complaint of Pain	1	0
12/12/2006	06:40 PM	Millerton at Friant	Overturned	Improper Turning	Fixed Object	Driver	South	Proceeding Straight	-	-	-	Property Damage Only	0	0
1/15/2007	09:05 PM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	West	Ran Off Road	-	-	-	Other Visible Injury	1	0
2/10/2007	10:08 AM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	West	Proceeding Straight	-	-	-	Other Visible Injury	1	0
3/1/2007	07:30 PM	Millerton at Friant-Kern Canal	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	North	Proceeding Straight	Driver	North	Slowing/Stopping	Property Damage Only	0	0
4/1/2007	02:01 PM	Millerton at North Fork	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	North	Proceeding Straight	Driver	North	Slowing/Stopping	Property Damage Only	0	0
4/11/2007	11:04 AM	Millerton at North Fork	Hit Object	Unsafe Speed	Fixed Object	Driver	West	Other Unsafe Turning	-	-	-	Property Damage Only	0	0
5/20/2007	03:35 PM	Millerton at North Fork	Other	Other Than Driver or Ped	Non-Collision	Driver	West	Proceeding Straight	-	-	-	Property Damage Only	0	0
7/20/2007	03:45 PM	Millerton at North Fork	Head-On	Wrong Side of Road	Other Motor Vehicle	Driver	East	Proceeding Straight	Driver	West	Crossed Into Opposing Lane - Unplanned	Severe Injury	5	0
9/22/2007	04:45 AM	Millerton at Friant	Overturned	Improper Turning	Non-Collision	Driver	West	Ran Off Road	-	-	-	Complaint of Pain	3	0
12/8/2007	03:10 AM	Millerton at North Fork	Hit Object	Unsafe Speed	Fixed Object	Driver	South	Proceeding Straight	-	-	-	Complaint of Pain	1	0
12/10/2007	09:50 PM	Millerton at Friant-Kern Canal	Overturned	Driving Under Influence	Non-Collision	Driver	West	Other Unsafe Turning	-	-	-	Property Damage Only	0	0
12/10/2008	09:20 AM	Millerton at Friant	Hit Object	Improper Turning	Fixed Object	Driver	East	Proceeding Straight	-	-	-	Other Visible Injury	1	0
1/8/2008	01:10 AM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	South	Other Unsafe Turning	-	-	-	Property Damage Only	0	0
5/24/2008	10:20 AM	Millerton at Friant-Kern Canal	Hit Object	Driving Under Influence	Fixed Object	Driver	North	Ran Off Road	-	-	-	Complaint of Pain	1	0
5/25/2008	11:20 AM	Millerton at North Fork	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	North	Proceeding Straight	Driver	North	Slowing/Stopping	Property Damage Only	0	0
6/21/2008	02:25 PM	Millerton at North Fork	Head-On	Wrong Side of Road	Other Motor Vehicle	Driver	West	Crossed Into Opposing Lane - Unplanned	Driver	East	Proceeding Straight	Severe Injury	6	0
7/4/2008	08:35 PM	Millerton at North Fork	Broadside	Auto R/W Violation	Non-Collision	Driver	South	Making Left Turn	Driver	North	Proceeding Straight	Complaint of Pain	3	0
7/5/2008	02:40 AM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	East	Ran Off Road	-	-	-	Property Damage Only	0	0
7/20/2008	08:04 PM	Millerton at North Fork	Hit Object	Driving Under Influence	Other Object	Driver	North	Other Unsafe Turning	-	-	-	Property Damage Only	0	0
11/2/2008	02:10 AM	Millerton at North Fork	Sideswipe	Unsafe Speed	Other Motor Vehicle	Driver	West	Crossed Into Opposing Lane - Unplanned	Driver	East	Proceeding Straight	Property Damage Only	0	0
11/26/2008	10:40 AM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	West	Proceeding Straight	-	-	-	Property Damage Only	0	0
12/2/2008	11:00 PM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	West	Proceeding Straight	-	-	-	Complaint of Pain	2	0
12/3/2008	09:45 PM	Millerton at North Fork	Broadside	Unsafe Speed	Other Motor Vehicle	Driver	South	Proceeding Straight	Driver	North	Stopped in Road	Complaint of Pain	3	0
12/23/2008	12:35 AM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	West	Other Unsafe Turning	-	-	-	Severe Injury	1	0
12/23/2008	09:00 AM	Millerton at North Fork	Head-On	Unsafe Speed	Other Motor Vehicle	Driver	North	Proceeding Straight	Driver	South	Crossed Into Opposing Lane - Unplanned	Severe Injury	3	0
1/31/2009	03:20 AM	Millerton at North Fork	Head-On	Wrong Side of Road	Other Motor Vehicle	Driver	East	Proceeding Straight	Driver	West	Proceeding Straight	Other Visible Injury	3	0
3/3/2009	08:50 PM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	West	Other Unsafe Turning	-	-	-	Property Damage Only	0	0
4/8/2009	08:15 AM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	West	Ran Off Road	-	-	-	Other Visible Injury	2	0
5/2/2009	02:37 AM	Millerton at North Fork	Hit Object	Unsafe Speed	Fixed Object	Driver	West	Proceeding Straight	-	-	-	Other Visible Injury	2	0
5/2/2009	02:40 AM	Millerton at North Fork	Sideswipe	Unsafe Speed	Other Motor Vehicle	Driver	West	Proceeding Straight	Other	North	Stopped in Road	Property Damage Only	0	0
5/18/2009	12:33 PM	Millerton at Friant-Kern Canal	Hit Object	Improper Turning	Fixed Object	Driver	West	Other Unsafe Turning	-	-	-	Fatal	0	1
7/16/2009	09:54 PM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	East	Proceeding Straight	Driver	West	-	Other Visible Injury	1	0
9/2/2009	11:40 AM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	West	Ran Off Road	-	-	-	Other Visible Injury	1	0
10/7/2009	02:18 AM	Millerton at North Fork	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	South	Proceeding Straight	Driver	South	Slowing/Stopping	Property Damage Only	0	0
1/18/2010	11:39 AM	Millerton at Friant	Overturned	Unsafe Speed	Non-Collision	Driver	West	Ran Off Road	-	-	-	Complaint of Pain	1	0
2/6/2010	03:40 PM	Millerton at North Fork	Broadside	Unsafe Speed	Other Motor Vehicle	Driver	South	Crossed Into Opposing Lane - Unplanned	Driver	North	Proceeding Straight	Property Damage Only	0	0
2/24/2010	04:30 PM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	West	Ran Off Road	-	-	-	Property Damage Only	0	0
11/27/2010	05:47 PM	Millerton at North Fork	Head-On	Unsafe Speed	Other Motor Vehicle	Driver	South	Crossed Into Opposing Lane - Unplanned	Driver	North	Proceeding Straight	Complaint of Pain	2	0
12/14/2010	08:44 PM	Millerton at Friant	Overturned	Unsafe Speed	Non-Collision	Driver	West	Proceeding Straight	-	-	-	Other Visible Injury	2	0
12/15/2010	05:30 AM	Millerton at Friant	Overturned	Improper Turning	Non-Collision	Driver	West	Other Unsafe Turning	-	-	-	Other Visible Injury	3	0
12/18/2010	06:30 AM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	West	Proceeding Straight	-	-	-	Complaint of Pain	1	0
12/20/2010	05:33 AM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	South	Ran Off Road	-	-	-	Complaint of Pain	1	0
12/23/2010	09:10 AM	Millerton at North Fork	Hit Object	Other Than Driver or Ped	Fixed Object	Driver	West	Proceeding Straight	-	-	-	Property Damage Only	0	0
2/7/2011	02:50 AM	Millerton at North Fork	Sideswipe	Wrong Side of Road	Other Motor Vehicle	Driver	North	Crossed Into Opposing Lane - Unplanned	Driver	South	Proceeding Straight	Other Visible Injury	1	0
3/2/2011	07:30 AM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	West	Ran Off Road	-	-	-	Other Visible Injury	1	0
4/2/2011	01:30 PM	Millerton at North Fork	Head-On	Improper Turning	Other Motor Vehicle	Driver	West	Proceeding Straight	Driver	East	Proceeding Straight	Severe Injury	2	0
5/9/2011	06:50 PM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	South	Other Unsafe Turning	-	-	-	Property Damage Only	0	0
5/27/2011	01:27 AM	Millerton at Winchell Cove	Hit Object	Improper Turning	Fixed Object	Driver	East	Ran Off Road	-	-	-	Property Damage Only	0	0
9/3/2011	01:30 PM	Millerton at North Fork	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	East	Proceeding Straight	Driver	East	Stopped in Road	Property Damage Only	0	0
9/17/2011	12:53 PM	Millerton at Friant-Kern Canal	Hit Object	Unsafe Speed	Fixed Object	Driver	West	Proceeding Straight	-	-	-	Complaint of Pain	3	0
11/4/2011	10:40 PM	Millerton at North Fork	Broadside	Auto R/W Violation	Other Motor Vehicle	Driver	North	Entering Traffic	Driver	West	Proceeding Straight	Property Damage Only	0	0
3/16/2012	09:59 PM	Millerton at North Fork	Overturned	Unsafe Speed	Non-Collision	Driver	South	-	-	-	-	Complaint of Pain	2	0
3/23/2012	01:17 AM	Millerton at North Fork	Head-On	Driving Under Influence	Other Motor Vehicle	Driver	East	-	Driver	West	-	Other Visible Injury	2	0
4/26/2012	08:35 AM	Millerton at North Fork	Broadside	Unsafe Speed	Other Motor Vehicle	Driver	West	-	Driver	East	-	Other Visible Injury	3	0
8/15/2012	12:45 PM	Millerton at Friant	Hit Object	Improper Turning	Fixed Object	Driver	East	-	-	-	-	Property Damage Only	0	0
11/26/2012	09:00 PM	Millerton at North Fork	Hit Object	Unsafe Speed	Fixed Object	Driver	North	-	-	-	-	Complaint of Pain	1	0
1/10/2013	06:10 AM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	South	-	-	-	-	Property Damage Only	0	0
1/31/2013	09:40 AM	Millerton at Winchell Cove	Overturned	Unsafe Speed	Non-Collision	Driver	West	Proceeding Straight	-	-	-	Other Visible Injury	1	0
5/4/2013	01:12 PM	Millerton at Via Bellagio	Overturned	Unsafe Speed	Non-Collision	Driver	West	-	-	-	-	Other Visible Injury	1	0
6/16/2013	05:00 PM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	South	-	-	-	-	Property Damage Only	0	0
6/21/2013	06:50 AM	Millerton at North Fork	Head-On	Wrong Side of Road	Other Motor Vehicle	Driver	South	-	Driver	North	-	Property Damage Only	0	0
8/4/2013	12:00 PM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	South	-	-	-	-	Property Damage Only	0	0
9/3/2013	09:46 PM	Millerton at Friant-Kern Canal	Broadside	Improper Turning	Other Motor Vehicle	Driver	West	-	Driver	East	-	Fatal	5	1
9/30/2013	07:45 PM	Millerton at North Fork	Broadside	Auto R/W Violation	Other Motor Vehicle	Driver	West	-	Driver	North	-	Property Damage Only	0	0
3/12/2014	06:30 AM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	West	-	-	-	-	Property Damage Only	0	0
6/8/2014	10:31 PM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	West	-	-	-	-	Property Damage Only	0	0
7/20/2014	05:40 PM	Millerton at Via Bellagio	Hit Object	Improper Turning	Fixed Object	Driver	West	-	-	-	-	Fatal	0	1
7/29/2014	08:10 AM	Millerton at North Fork	Other	Improper Passing	Bicycle	Driver	East	-	Driver	East	-	Complaint of Pain	1	0
11/17/2014	11:41 PM	Millerton at North Fork	Overturned	Improper Turning	Non-Collision	Driver	West	-	-	-	-	Other Visible Injury	1	0
3/26/2015	08:50 PM	Millerton at North Fork	Broadside	Auto R/W Violation	Other Motor Vehicle	Driver	North	-	Driver	East	-	Other Visible Injury	1	0
4/17/2015	05:58 AM	Millerton at North Fork	Overturned	Unknown	Non-Collision	Driver	West	-	-	-	-	Property Damage Only	0	0
7/20/2015	08:15 AM	Millerton at North Fork	Hit Object	Other Than Driver	Fixed Object	Driver	West	-	-	-	-	Property Damage Only	0	0
8/9/2015	11:57 PM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	South	-	Driver	North	-	Fatal	3	2
10/11/2015	06:50 AM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	South	-	-	-	-	Complaint of Pain	1	0
10/18/2015	12:18 AM	Millerton at Via Bellagio	Hit Object	Improper Turning	Fixed Object	Driver	East	-	-	-	-	Property Damage Only	0	0

11/16/2015	06:25 PM	Millerton at North Fork	Overtuned	Improper Turning	Non-Collision	Driver	West	-	-	-	Other Visible Injury	1	0
1/21/2016	07:14 PM	Millerton at North Fork	Hit Object	Improper Turning	Fixed Object	Driver	North	-	-	-	Property Damage Only	0	0
1/31/2016	05:37 PM	Millerton at North Fork	Sideswipe	Improper Turning	Other Motor Vehicle	Driver	East	Driver	West	-	Property Damage Only	0	0
2/13/2016	01:20 PM	Millerton at Friant-Kern Canal	Hit Object	Other Than Driver	Fixed Object	Driver	South	-	-	-	Property Damage Only	0	0
3/5/2016	06:00 PM	Millerton at Via Bellaggio	Rear-End	Unsafe Speed	Other Motor Vehicle	Driver	East	Driver	East	-	Property Damage Only	0	0
9/27/2016	11:56 PM	Millerton at Friant-Kern Canal	Head-On	Driving Under Influence	Other Motor Vehicle	Driver	East	Driver	West	-	Severe Injury	3	0
12/9/2016	02:05 AM	Millerton at Via Bellaggio	Overtuned	Driving Under Influence	Non-Collision	Driver	East	-	-	-	Property Damage Only	0	0
12/30/2016	03:35 AM	Millerton at North Fork	Overtuned	Improper Turning	Non-Collision	Driver	North	-	-	-	Complaint of Pain	1	0
7/6/2017	03:27 AM	Millerton at Friant	Hit Object	Driving Under Influence	Fixed Object	Driver	East	-	-	-	Other Visible Injury	1	0
							Other Unsafe Turning	-	-	-			
													111
													7

FRIANT ROAD FROM NORTH FORK RD TO 500 FEET
EAST OF MILLERTON LAKE STATE RECREATION ENTRANCE - TRAFFIC COLLISION REPORT



DEPARTMENT OF PUBLIC
WORKS AND PLANNING

SCALE = 0 0.125 0.25 0.5 Miles



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



In Reply Refer To:
81420-2009-F-1206

OCT 22 2013

Mr. Zachary Simmons
U.S. Army Corps of Engineers
1325 J Street
Sacramento, California 95814

Subject: Formal Consultation for the Millerton Road Widening Project, Fresno County, California

Dear Mr. Simmons:

This is the U.S. Fish and Wildlife Service's (Service) response to the U.S. Army Corps of Engineers' (Corps) March 23, 2011 request for initiation of formal consultation on the proposed Millerton Road Widening Project (project) in Fresno County, California. The Corps is considering issuance of Nationwide Permit (NWP) 14 for linear transportation projects to Fresno County Public Works and Planning, as administered by the Corps pursuant to Section 404 of the Clean Water Act for the project.

This document represents the Service's biological opinion on the effects of the project on the federally-listed as threatened central California Distinct Population Segment of the California tiger salamander (central California tiger salamander) (*Ambystoma californiense*) and vernal pool fairy shrimp (*Branchinecta lynchi*) and the federally-listed as endangered San Joaquin kit fox (*Vulpes macrotis mutica*) and vernal pool tadpole shrimp (*Lepidurus packardii*) listed under the Endangered Species Act of 1973, as amended (Act). Critical habitat for vernal pool tadpole shrimp has been designated but does not occur in the action area.

Based on the information you have provided to us, the Service concurs with your determination that the project is not likely to adversely affect the San Joaquin kit fox. We concur with your determination because: 1) we agree that this species is not reasonably likely to be in the action area; and 2) the applicant has proposed to implement the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance* (Service 1999).

This biological opinion is based on: (1) the Service's technical assistance with the Corps (Service File #81420-2009-TA-1206); (2) the Corps' March 23, 2011 request for consultation; (3) the *Millerton Road Widening Project Biological Assessment* (biological assessment) prepared by Analytical Environmental Services (AES) and received with the Corps' request for

consultation; (4) AES's November 29, 2012 response to the Service's October 09, 2012 request for additional information; (5) other information available to the Service. The Service received complete information on this project on March 14, 2013.

Consultation History

March 01, 2009. AES sent in a request to conduct wet season vernal pool branchiopod surveys. The request was authorized via email.

September 01, 2009. 90 day report for 2008-2009 wet season vernal pool branchiopod surveys received in our office.

March 29, 2011. The Corps submitted a request for initiation of formal consultation on the project.

September 28, 2012. The Service sent a letter notifying the Corps that additional information regarding effects to critical habitat in the project area is needed to initiate formal consultation as outlined in the regulations governing interagency consultations.

November 29, 2012. The Service received an email response to our September 28, 2012 request for additional information.

December 05, 2012. The Service emailed the Corps and AES to request additional information on the proposed central California tiger salamander surveys, proposed fencing areas, and project phasing sections outlined in the biological assessment.

December 13, 2012. The Service emailed the Corps and AES to request additional information on the specifications of the proposed Friant-Kern canal bridge, the erosion control measures, and the drainage facilities.

January 24, 2013. The Service received an email from AES in response to our December 13, 2012 request for additional information.

January 30, 2013. The Service received an email from AES in response to our December 05, 2012 request for additional information.

February 20, 2013. AES proposed additional avoidance measures for central California tiger salamander in an updated biological assessment.

March 14, 2013. The Service received an email from AES in response to our March 13, 2013 request for additional information on project timing.

BIOLOGICAL OPINION

Description of the Proposed Action

The project is located 11 miles north of the City of Clovis, Fresno County, California, in Section 9, 10, and 11, Township 11 south, Range 21 east, Mount Diablo Base and Meridian, with a center point near UTM 11s 261225 meters east, 4096650 meters north in the Friant U.S. Geological Survey (USGS) 7.5-minute topographical quadrangle.

According to the biological assessment, Fresno County Public Works and Planning (Fresno County) proposes to widen eastbound and westbound Millerton Road from the current two-lane configuration to a four-lane configuration from the intersection of Millerton Road and North Friant Road eastward for approximately 4.7 miles. A description of the project components follow:

Millerton Road

The proposed project includes expanding the road to a four-lane configuration, with four 12-foot-wide travel lanes, two 6-foot-wide paved shoulders, and 4-foot-wide treated dirt shoulders. A 16-foot-wide median would separate the eastbound and westbound traffic. Implementation of the project would require expansion of the existing right-of-way from approximately 60 feet wide to 106 feet wide, which is 53 feet on either side of the current roadway's centerline, except where additional width is necessary for cut and fill. Left-turn lanes are to be 11 feet or 12 feet wide, where appropriate, and will be separated from opposing traffic by a 4-foot-wide raised medium, at minimum. Right-turn lanes, if required, will be 11 feet wide. The minimum design speed for the roadway is 45 miles-per-hour (mph) and conforms to a higher design speed of 55 mph, where practical.

Intersection Improvements

North Fork Road

This intersection is near the western end of the project corridor. Some modifications to the intersection will be required to accommodate a right-turn lane for the southbound Millerton Road traffic and a new median to conform with the new road section.

State of California/CalFire Station Entrance

The CalFire station entrance/Forest Service Road is located approximately 500 feet west of the Friant-Kern Canal and Millerton Road intersection. The project would result in minor modifications along the subject roadway entrance to match the grade of Millerton Road.

Friant Dam Access Road

Implementation of the proposed project may require a realignment of the Friant Dam access road at the intersection with the Millerton Roadway.

Winchell Cove Road

This is an asphalt roadway owned by the State of California that provides access to the marina area with the Millerton Lake State Recreation Area (SRA). The intersection will be reestablished to coincide with the roadway changes and will include accommodations for slow-moving boat trailers coming from the marina.

Brighton Crest Entrance Road

The project would result in modifications to this intersection to match the new alignment.

Casino Entrance/Table Mountain Road

This is a two-lane T-intersection entrance to the Table Mountain Casino. The existing northwest corner radius of the intersection is inadequate for bus turns. The project would result in modifications to the intersection to accommodate bus turns. The current intersection signals would be modified to accommodate two additional lanes. The new alignment will consist of two left turn lanes.

Church Entrance/Table Mountain Road

This is a two-lane T intersection east of the Table Mountain Casino serving the Table Mountain Rancheria Church, employee parking, and other facilities. The intersection will be redesigned to match the new four-lane alignment. The new alignment will include a left turn lane from Millerton Road.

Private Road and Driveway Intersections

There are approximately 18 other private roads and driveways that intersect the existing roadway. Adjustment of these facilities would occur to match the new alignment's grade.

Friant-Kern Canal Bridge

The proposed project includes the construction of a new two-lane pre-stressed I-girder bridge to serve the westbound traffic over the Friant-Kern Canal, while the existing Friant-Kern Canal bridge would be retained and utilized for the eastbound traffic. The proposed bridge would be approximately 13 feet upstream of the existing bridge. The design for the approximately 160-foot long bridge would be similar to that of the existing bridge, including two 12-foot travel lanes a 4-foot shoulder, an 8-foot shoulder/bicycle lane, and two guard rails occupying 1 foot 5 inches of paved roadway each. The total width of the bridge would be approximately 38 feet 10 inches. Construction is proposed to occur during the Friant-Kern Canal's scheduled shut-off period from mid-November to the end of January to avoid construction of coffer dams and temporary culverts along the canal.

Drainage Facilities

Three cobble-lined ditches are proposed along Millerton Road to accommodate stormwater run-off flows. Two of the ditches will replace existing ones while the third is located where water has historically flowed along the roadway gutter without erosion problems.

Drainage improvements for the proposed facilities would be designed to convey the estimated runoff. Proposed culverts will generally coincide with the location of the existing pipe culverts. The corrugated metal pipe culverts will be circular and unlined. In addition to the culverts along the new alignment of Millerton Road, three culverts are required at road crossings north of Millerton Road as a result of the expansion, that include Winchell Road, the Friant Dam access road, and the California State Recreation Area access road. Sixty-five culverts will be installed as part of the project, this includes replacement culverts.

Equipment Staging

Equipment staging will occur within the existing and proposed right-of-way for Millerton Road. No equipment will be staged or stored on property adjacent to the project disturbance footprint.

Project work will occur between the hours of 6:00 am and 9:00 pm Monday through Friday, and between the hours of 7:00 am and 5:00 pm on Saturday and Sunday.

Storm Water Runoff Control Measures

Temporary erosion control measures such as silt fences, and staked straw bales shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.

Construction is expected to last approximately 24 months and will begin in the summer of 2013 or the summer of 2014.

Proposed Avoidance and Minimization Measures

The Corps will add special conditions to their NWP to ensure Fresno County and their contractors implement the following guidelines to minimize or avoid impacts to listed species that have the potential to occur within the vicinity of the project area:

Construction Guidelines

1. At least 15 days prior to the onset of any construction-related activities, Fresno County shall submit to the Service, for approval, the name(s) and credentials of biologists it requests to conduct activities specified for this project. Information included in a request for approval must include, at a minimum: (1) relevant education; (2) relevant training on species identification, survey techniques, handling individuals of different age classes, and handling of different life stages; (3) a summary of field experience conducting requested activities (to include

project/research information and actual experience with the species); (4) a list of biological opinions under which they were authorized to work with the listed species and at what level (such as construction monitoring versus handling), this should also include the names and qualifications of persons under which the work was supervised as well as the amount of work experience on the actual project including detail on whether the species was encountered or not.

2. A Service-approved biologist will conduct habitat sensitivity training to all construction personnel. The training shall include discussions of the biology, distribution, and ecology of the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp; required practices before the start of construction, general measures that are being implemented to conserve these species as they relate to the proposed action, penalties for non-compliance, and boundaries of the action area and of the permitted disturbance zones. All workers shall be informed during the worker education program of the importance of preventing spills and of the appropriate measures to take should a spill occur. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel will sign a form stating that they have attended the training and understand all the conservation measures. Training shall be conducted in languages other than English, as appropriate. Proof of this instruction will be kept on file with the applicant and this record shall be made available to the Service for compliance verification and shall be included in the first month reporting requirement.
3. All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 65 feet from any water body.
4. All construction pipe, culverts, or similar structures that are stored at the construction site for one or more overnight periods will be thoroughly inspected before the pipe is subsequently moved, buried, or capped. If during inspection a central California tiger salamander is discovered inside a pipe, that section of pipe shall not be moved until the salamander has escaped on its own or the Service will be contacted for further instruction.
5. Project personnel will exercise caution when commuting to the construction area to minimize any chance for the inadvertent injury or mortality of species encountered on major roads leading to and from the construction area. Project related vehicles and equipment will not exceed 20 miles per hour in the action area.
6. Vehicles and equipment will be thoroughly inspected for the presence of central California tiger salamander prior to movement. If a salamander is found the Service shall be contacted for further guidance. No equipment will be moved until the salamander has left voluntarily.
7. All stakes, flagging, and fencing used to delineate the construction area will be removed no later than 30 days after construction and restoration are complete.

8. A litter control program shall be instituted at the entire project site. Fresno County will ensure the contractor will provide closed garbage containers for the disposal of all food-related trash items (e.g., wrappers, cans, bottles, food scraps). All garbage will be removed daily from the project site.
9. The Service-approved biologist shall have oversight over the implementation of all conservation measures, and shall have the authority to stop project activities if any of the requirements associated with these measures are not being fulfilled.

Proposed Conservation Measures for Listed Species

Central California Tiger Salamander

1. Fresno County will minimize the effects of the permanent loss of 26.37 acres of central California tiger salamander habitat (0.23 acres of breeding habitat, 26.14 acres of upland habitat) by funding the purchase of 79.11 acres (using a 3:1 compensation ratio for permanent effects) of conservation credits. These credits shall be purchased prior to onset of ground breaking activities from a Service-approved conservation bank with a service area that includes the action area.
2. If at any time, a central California tiger salamander is located, all work in the immediate vicinity will cease, and the animal will be allowed to leave voluntarily or the Service will be contacted for further guidance.
3. To prevent inadvertent entrapment of central California tiger salamanders during construction, at the end of each work day all excavated, steep-walled holes or trenches will be covered with plywood or similar materials or will be filled with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If, at any time, a trapped central California tiger salamander is located, all work in the immediate area will cease, the animal will be allowed to leave on its own or the Service will be contacted for further instruction. The appropriate contact is Thomas Leeman, Chief, San Joaquin Valley Division, (916) 414-6600.
4. Plastic monofilament netting is prohibited because central California tiger salamander can become caught in this type of erosion control material. Tightly woven (less than 0.25 inch diameter) biodegradable fiber netting or biodegradable coconut coir matting shall be used for erosion control or other purposes to ensure that central California tiger salamander do not become entrapped. This limitation will be communicated to the contractors through use of special provisions included in the bid solicitation package.

5. Construction within potential central California tiger salamander breeding habitat will be timed to occur during the dry season, between approximately April 15 and October 15, so as to avoid impacting breeding individuals at seasonal wetland locations. The dry season window may depend on rainfall and/or site conditions.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

1. Fresno County will minimize the effects of the direct loss of 0.233 acres of vernal pool fairy shrimp and vernal pool tadpole shrimp habitat by funding the purchase of 0.69 acres (using a 3:1 compensation ratio) of preservation credits. These credits shall be purchased prior to onset of ground breaking activities from a Service-approved conservation bank.

Action Area

The action area is defined in 50 CFR § 402.02, as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” The action area for this project includes the project footprint, which consists of a permanently disturbed area of 59.65 acres. Land cover within the project footprint is composed of 26.14 acres of grassland and woodland, 0.29 acres of riparian habitat, 32.86 acres of roadway, and 0.362 acres of wetland features.

Analytical Framework for the Adverse Modification Determination

This Biological Opinion does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat at 50 CFR 402.02. Instead, we have relied upon the statutory provisions of the ESA to complete the following analysis with respect to critical habitat.

In accordance with policy and regulation, the adverse modification analysis in this Biological Opinion relies on four components: (1) the *Status of Critical Habitat*, which evaluates the range wide condition of the species in terms of primary constituent elements (PCEs), the factors responsible for that condition, and the intended recovery function of the critical habitat overall; (2) the *Environmental Baseline*, which evaluates the conditions of the critical habitat in the action area, the factors responsible for that condition, and the recovery role of the critical habitat in the action area; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities of the PCEs and how that will influence the recovery role of affected critical habitat units; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the PCEs and how that will influence the recovery role of affected critical habitat units.

For purposes of the adverse modification determination, the effects of the proposed Federal action on central California tiger salamander and vernal pool fairy shrimp critical habitat are evaluated in the context of the range-wide condition of the critical habitat, taking into account

any cumulative effects, to determine if the critical habitat range-wide would remain functional (or would retain the current ability for the PCEs to be functionally established in areas of currently unsuitable but capable habitat) to serve its intended recovery role for the central California tiger salamander and vernal pool fairy shrimp.

The analysis in this Biological Opinion places an emphasis on using the intended range-wide recovery function of central California tiger salamander and vernal pool fairy shrimp critical habitat and the role of the action area relative to that intended function as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the adverse modification determination.

Analytical Framework for the Jeopardy Analysis

In accordance with policy and regulation, the following analysis relies on four components: (1) the *Status of the Species*, which evaluates the range-wide condition of the species, the factors responsible for that condition, and their survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the species.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the central California tiger salamander vernal pool fairy shrimp and vernal pool tadpole shrimp current status, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp in the wild.

The following analysis in this biological opinion places an emphasis on consideration of the range-wide survival and recovery needs of the central California tiger salamander, vernal pool fairy shrimp and vernal pool tadpole shrimp and the role of the action area in the survival and recovery of the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

Status of the Species

Central California Tiger Salamander

Species Description: The central California distinct population segment of the tiger salamander was listed as threatened on August 04, 2004. The central California tiger salamander is a large,

stocky, terrestrial salamander with a broad, rounded snout. Recorded adult measurements have been as much as 8.2 inches long (Petranka 1998; Stebbins 2003). Central California tiger salamanders exhibit sexual dimorphism (differences in body appearance based on gender) with males tending to be larger than females. The coloration of the adults generally consists of random white or yellowish markings against a black body. The markings tend to be more concentrated on the sides of the body; whereas other salamander species tend to have brighter yellow spotting that is heaviest on the dorsal surface.

Distribution: The historic distribution for the California tiger salamander in the Central Valley and surrounding foothills included northern Yolo County southward to northwestern Kern County and northern Tulare County. Currently, the central California tiger salamander is known to occupy the Bay Area (central and southern Alameda, Santa Clara, western Stanislaus, western Merced, and the majority of San Benito counties), Central Valley (Yolo, Sacramento, Solano, eastern Contra Costa, northeastern Alameda, San Joaquin, Stanislaus, Merced, and northwestern Madera counties), southern San Joaquin Valley (portions of Madera, central Fresno, and northern Tulare and Kings Counties), and the Central Coast Range (southern Santa Cruz, Monterey, northern San Luis Obispo, and portions of western San Benito, Fresno, and Kern counties).

Life History: The central California tiger salamander has an obligate biphasic life cycle (Shaffer *et al.* 2004). Although the larvae develop in the vernal pools and ponds in which they were born, the species is otherwise terrestrial and individuals spend most of their post-metamorphic lives in widely dispersed underground retreats (Shaffer *et al.* 2004; Trenham *et al.* 2001). Because they spend most of their lives underground, the animals rarely are encountered even in areas where central California tiger salamanders are abundant. Subadult and adult central California tiger salamanders typically spend the dry summer and fall months in the burrows of small mammals, such as California ground squirrels and Botta's pocket gopher (Storer 1925; Loredó and Van Vuren 1996; Petranka 1998; Trenham 1998). Central California tiger salamanders may also use landscape features such as leaf litter or desiccation cracks in the soil for upland refugia. Although central California tiger salamanders are members of a family of "burrowing" salamanders, they are not known to create their own burrows. This may be due to the hardness of soils in the California ecosystems in which they are found. Central California tiger salamanders depend on persistent small mammal activity to create, maintain, and sustain sufficient underground refugia for the species.

Upland burrows inhabited by central California tiger salamanders have often been referred to as aestivation-sites. However, "aestivation" implies a state of inactivity, while most evidence suggests that the animals remain active in their underground dwellings. Van Hattem (2004) found that salamanders move, feed, and remain active in their burrows. Because adults arrive at breeding ponds in good condition and are heavier when entering the pond than when leaving, researchers have long inferred that they are feeding while underground. A number of direct observations have confirmed this (Trenham 2001; Van Hattem 2004). Thus, "upland habitat" is a more accurate description of the terrestrial areas used by central California tiger salamanders.

Central California tiger salamanders typically emerge from their underground refugia at night during the fall or winter rainy season (November-May) to migrate to their breeding ponds (Stebbins 1985, 1989; Shaffer *et al.* 1993; Trenham *et al.* 2000). The breeding period is closely associated with the rainfall patterns in any given year with fewer adults migrating and breeding in drought years (Loredo and Van Vuren 1996; Trenham *et al.* 2000). Historically, breeding ponds were likely limited to vernal pools, but now include livestock stock ponds. Ideal breeding ponds are typically fishless, free of non-native predators, and seasonal or semi-permanent (Barry and Shaffer 1994; Petranka 1998). After breeding and egg laying is complete, adults leave the pool and return to their upland refugia (Loredo *et al.* 1996; Trenham 1998). Adult central California tiger salamanders often continue to emerge nightly for approximately the next two weeks to feed in their upland habitat (Shaffer *et al.* 1993).

Following metamorphosis, juvenile central California tiger salamanders leave their pools and move to upland habitat. This emigration can occur in both wet and dry conditions (Loredo and Van Vuren 1996; Loredo *et al.* 1996). Wet conditions are more favorable for upland travel but summer rain events seldom occur as metamorphosis is completed and ponds begin to dry. As a result, juveniles may be forced to leave their ponds on rainless nights. The peak emergence of these metamorphs in ponds is typically between mid-June and mid-July (Loredo and Van Vuren 1996; Trenham *et al.* 2000). Juveniles remain active in their upland habitat, emerging from underground refugia during rainfall events to disperse or forage (Trenham and Shaffer 2005).

Dispersal and migration movements made by central California tiger salamanders can be grouped into two main categories: (1) breeding migration; and (2) interpond dispersal. Breeding migration is the movement of salamanders between a pond and the surrounding upland habitat. After metamorphosis, juveniles move away from breeding ponds into the surrounding uplands, where they live continuously for several years. At a study in Monterey County, it was found that upon reaching sexual maturity, 80 percent of individuals returned to their natal/ birth pond to breed, while 20 percent dispersed to other ponds (Trenham *et al.* 2001). After breeding, adult central California tiger salamanders return to upland habitats, where they may live for one or more years before attempting to breed again (Trenham *et al.* 2000).

Central California tiger salamanders are known to travel long distances between breeding ponds and their upland refugia. Generally it is difficult to establish the maximum distances traveled by any species, but salamanders in Santa Barbara County have been recorded dispersing up to 1.3 miles from their breeding ponds (Sweet 1998). As a result of a 5-year capture and relocation study in Contra Costa County, Orloff (2011) estimated that captured central California tiger salamanders were traveling a minimum of 0.5 miles to the nearest breeding pond and that some individuals were likely traveling more than 1.3 miles to and from breeding ponds. Central California tiger salamanders are also known to travel between breeding ponds. One study found that 20 to 25 percent of the individuals captured at one pond were recaptured later at other ponds approximately 1,900 and 2,200 feet away (Trenham *et al.* 2001). In addition to traveling long distances during juvenile dispersal and adult migration, salamanders may reside in burrows far from their associated breeding ponds.

Threats: The central California tiger salamander is imperiled throughout its range due to a variety of human activities (Service 2004). Current factors associated with declining central California tiger salamander populations include continued habitat loss and degradation due to agriculture and urbanization; hybridization with the non-native eastern tiger salamander (*Ambystoma tigrinum*) (Fitzpatrick and Shaffer 2004; Riley *et al.* 2003); and predation by introduced species. Central California tiger salamander populations are likely threatened by multiple factors but continued habitat fragmentation and colonization of non-native salamanders may represent the most significant current threats. Habitat isolation and fragmentation within many watersheds have precluded dispersal between sub-populations and threatened the viability of metapopulations (broadly defined as multiple subpopulations that occasionally exchange individuals through dispersal, and are capable of colonizing or “rescuing” extirpated habitat patches). Other threats include disease, predation, interspecific competition, urbanization and population growth, exposure to contaminants, rodent and mosquito control, road-crossing mortality, and hybridization with non-native salamanders. The central California tiger salamander is also prone to chance environmental or demographic events, to which small populations are particularly vulnerable.

Central California Tiger Salamander Critical Habitat

Critical habitat for the central California tiger salamander was designated in the *Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population* (Service, 2005). There are 31 units designated for the central California tiger salamander, totaling 199,109 acres.

Critical habitat is defined in Section 3 of the Act as: (1) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. In determining which areas to designate as critical habitat, the Service considers those physical and biological features that are essential to a species’ conservation and that may require special management considerations or protection (50 CFR 424.12(b)). The Service is required to list the known PCEs together with the critical habitat description. Such physical and biological features include, but are not limited to, the following:

1. Space for individual and population growth, and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;
4. Sites for breeding, reproduction, rearing of offspring, or dispersal; and
5. Generally, habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The PCEs defined for the central California tiger salamander were derived from its biological needs. The PCE's and, therefore, the resulting physical and biological features essential for the conservation of the species were determined from studies of central California tiger salamander ecology. Based on the above needs and our current knowledge of the life history, biology, and ecology of the species, and the habitat requirements for sustaining the essential life-history functions of the species, the Service determined that the PCEs essential to the conservation of the central California tiger salamander are: 1) Standing bodies of fresh water (including natural and manmade (e.g. stock) ponds, vernal pools, and other ephemeral or permanent water bodies which typically support inundation during winter rains and hold water for a minimum of 12 weeks in a year of average rainfall (PCE 1); 2) upland habitats adjacent and accessible to and from breeding ponds that contain small mammal burrows or other underground habitat that central California tiger salamander depend on for food, shelter, and protection from the elements and predations (PCE 2); 3) Accessible upland dispersal habitat between occupied locations that allow for movement between such sites (PCE 3).

Please refer to the final designation of critical habitat for central California tiger salamander for additional information (Service, 2005).

Vernal Pool Fairy Shrimp

For the most comprehensive assessment of the species' range wide status, please refer to the *Vernal Pool Fairy Shrimp (Branchinecta lynchie) 5-Year Review: Summary and Evaluation* (Service 2007) for the current status of the species. No change in the species' listing status was recommended in this 5-year review. Threats evaluated during that review and discussed in the final document have continued to act on the species since the 2007 5-year review was finalized, with loss of vernal pool habitat being the most significant effect. While there have been continued losses of vernal pool habitat throughout the various vernal pool regions identified in the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (Service, 2005a), including the Southern Sierra Foothills Vernal Pool Region where the proposed project is located, to date no project has proposed a level of effect for which the Service has issued a biological opinion of jeopardy for the species. The Service is in the process of finalizing its most current 5-year review for the species.

Vernal Pool Fairy Shrimp Critical Habitat

Critical habitat for the vernal pool fairy shrimp was designated in the *Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants* (Service, 2005b). There are 35 units designated for the vernal pool fairy shrimp, totaling 597,821 acres.

The PCEs defined for the vernal pool fairy shrimp were derived from its biological needs. The PCE's and, therefore, the resulting physical and biological features essential for the conservation of the species were determined from studies of vernal pool fairy shrimp ecology. Based on the species needs and our current knowledge of the life history, biology, and ecology of the species, and the habitat requirements for sustaining the essential life-history functions of the species, the

Service determined that the PCEs essential to the conservation of the vernal pool fairy shrimp are: 1) topographic features characterized by mounds and swales and depressions within a matrix of surrounding uplands that result in complexes of continuously, or intermittently, flowing surface water in the swales connecting the pools, providing for dispersal and promoting hydroperiods of adequate length in the pools (PCE 1); 2) depressional features including isolated vernal pools with underlying restrictive soil layers that become inundated during winter rains and that continuously hold water for a minimum of 18 days for vernal pool fairy shrimp and 41 days for vernal pool tadpole shrimp, in all but the driest years; thereby providing adequate water for incubation, maturation, and reproduction (PCE 2); 3) sources of food, expected to be detritus occurring in the pools, contributed by overland flow from the pools' watershed, or the results of biological processes within the pools themselves, such as single-celled bacteria, algae, and dead organic matter, to provide for feeding (PCE 3); and 4) structure within the pools consisting of organic and inorganic materials, such as living and dead plants from plant species adapted to seasonally inundated environments, rocks, and other inorganic debris that may be washed, blown, or otherwise transported into the pools, that provide shelter (PCE 4).

Please refer to the final designation of critical habitat for vernal pool fairy shrimp for additional information (Service, 2005b).

Vernal Pool Tadpole Shrimp

For the most comprehensive assessment of the species' range wide status, please refer to the *Vernal Pool Tadpole Shrimp (Lepidurus packardii) 5-Year Review: Summary and Evaluation* (Service 2007b) for the current status of the species. No change in the species' listing status was recommended in this 5-year review. Threats evaluated during that review and discussed in the final document have continued to act on the species since the 2007 5-year review was finalized, with loss of vernal pool habitat being the most significant effect. While there have been continued losses of vernal pool habitat throughout the various vernal pool regions identified in the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Service, 2005a), including the Southern Sierra Foothills Vernal Pool Region where the proposed project is located, to date no project has proposed a level of effect for which the Service has issued a biological opinion of jeopardy for the species. The Service is in the process of finalizing its most current 5-year review for the species.

Environmental Baseline

Central California Tiger Salamander

The Service considers the 25.09 acres of nonnative annual grassland and the 1.05 acres blue oak woodland in the action area as upland habitat for the central California tiger salamander. Numerous California ground squirrels (*Spermophilus beecheyi*) and their burrows were observed in the action area. Central California tiger salamander tends to rely on deep, persistent mammal burrows for protection from desiccation and for foraging (Madison and Ferrand, 1998; Regosin *et al.*, 2003; Trenham *et al.*, 2001. in Searcy *et al.*, 2013). The 0.233 acres of seasonal wetlands

in the action area are assumed in the biological assessment to provide suitable central California tiger salamander aquatic habitat. The existing Millerton Road is considered unsuitable upland forage or refuge habitat, but the roadway area could be used for dispersal. The remaining 0.419 acres within the action area are comprised of the Friant-Kern canal, an ephemeral drainage, and roadside ditch.

Surveys for central California tiger salamander have not been conducted at the project site. However, central California tiger salamander larvae were observed in a seasonal wetland on the south side of Millerton Road within Millerton Lake State Recreation Area in 2008 and 2009. The observations occurred at CNDDDB occurrence number 125 (CNDDDB 2013), which is an estimated 0.05 miles from the existing Millerton Roadway. The tiger salamanders were observed in approximately two inches of ponded water during a wetland delineation conducted in March 2008. In March of 2009 central California tiger salamander were observed in the same seasonal wetland. There are 4 additional presumed extant CNDDDB occurrences within a 1 mile radius of the action area, 3 of which are breeding occurrences.

Although the action area is fragmented by the existing Millerton roadway, the Service believes that central California tiger salamander is reasonably certain to occur in the action area because it is within the range of the species and provides suitable breeding, feeding and sheltering habitat for the species.

Central California Tiger Salamander Critical Habitat

A portion of the action area lies within the Southern San Joaquin Region Unit-2 (SJR Unit-2), of designated Critical Habitat for the central California tiger salamander. SJR Unit-2 contains approximately 10,193 acres of land that includes ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and foraging. This unit represents the distribution of central California tiger salamander in the northern end of the Southern San Joaquin Valley region and the Southern Sierra Foothills vernal pool region. The action area contains the three PCEs identified within the critical habitat designation for this species. Critical habitat within the action area comprises 20.66 acres of non-native grassland habitat and 0.17 acres of breeding habitat.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

In the action area, it is reasonably likely that previously existing seasonal wetlands that were suitable as habitat for the vernal pool fairy shrimp were removed by past actions including the original construction of the Millerton Roadway.

AES biologists conducted one wet season protocol-level vernal pool branchiopod survey for the project during the 2009 wet season, between January and July. AES's sampling methods followed the Service's 1996 *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods* (Guidelines) (Service 1996). Vernal pool fairy shrimp and vernal pool tadpole shrimp were not found. Rather than completing additional sampling to complete the guidelines, AES has elected

to infer presence of the vernal pool fairy shrimp and vernal pool tadpole shrimp within the 0.233 acres of seasonal wetlands in the action area based on suitable habitat features, the quality of the seasonal wetlands, and the close proximity of known species occurrences.

The Service anticipates that the vernal pool fairy shrimp and vernal pool tadpole shrimp are reasonably certain to occur within the action area based on the biology and ecology of these species and the presence of suitable aquatic habitat necessary for all its life-cycle functions in the form of seasonal pools.

Vernal Pool Fairy Shrimp Critical Habitat

A portion of the action area lies within designated vernal pool fairy shrimp critical habitat Unit-24. Unit-24 contains approximately 28,950 acres of land. The action area contains four PCEs identified within the critical habitat designation: PCE 1, 2, 3, and 4. Critical habitat within the action area comprises 10.28 acres of uplands and 0.01 acre of seasonal wetland habitat.

Effects of the Proposed Action

Central California Tiger Salamander

The Service believes there is a reasonable likelihood that central California tiger salamander is utilizing the 26.14 acres of annual grassland and oak woodland in the action area for upland refugia. Additionally, the Service believes there is a reasonable likelihood that central California tiger salamander is utilizing the 0.233 acres of seasonal wetland for breeding. The Service believes the greatest effects to this species will be in the form of mortality of, or injury to, juveniles or adults that are entombed or crushed in burrows or run over by project related equipment and vehicles during vegetation clearing and grading activities. Removal of seasonal wetland habitat in the action area will cause harm to this species as salamanders attempting to return to these wetlands in the next breeding season will not be able to breed, thereby preventing a new offspring cohort, and the returning salamanders themselves are likely to suffer harm through dessication and/or predation by avian and terrestrial predators. Temporary barriers to dispersal such as silt fencing and straw bales will cause harm and harassment by changing the species behavior (e.g. central California tiger salamander would have to go around barriers), thereby increasing the likelihood of predation or desiccation.

Central California Tiger Salamander Critical Habitat

The project will result in the permanent loss of 20.66 acres of PCE 1 and 0.17 acres of PCE 2 through vegetation clearing and grading activities. Additionally, portions of the project will create temporary barriers to dispersal between aquatic PCE 1 and PCE 2, therefore temporarily affecting PCE 3.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

The widening of the Millerton Roadway may result in direct effects on populations of vernal pool fairy shrimp and vernal pool tadpole shrimp through loss or degradation of 0.233 acres of seasonally inundated wetlands that support the reproductive cycle of these species. Direct adverse effects, such as harm or mortality by crushing and destroying cysts or preventing them from hatching due to the destruction of their habitat, may also occur during construction of the project.

Vernal Pool Fairy Shrimp Critical Habitat

The project will result in the permanent loss of 10.28 acres of land categorized as PCE 1 and 0.01 acres of land adjacent to the existing roadway that is categorized as PCE 2, 3, and 4 for this species through vegetation clearing and grading activities.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the Act.

The Service is not aware of any non-Federal actions currently planned in the project action area.

Conclusion

After reviewing the current status of the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp, the environmental baseline for the area covered by this biological opinion, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the proposed project is not likely to jeopardize the continued existence of these species. The Service reached this conclusion because: the action area is relatively small and the project-related effects to the central California tiger salamander would not rise to the level of precluding recovery of the species or reducing the likelihood of their survival; the project-related effects to the vernal pool fairy shrimp would not rise to the level of precluding recovery of the species or reducing the likelihood of their survival and effects will occur outside the San Joaquin Vernal Pool Region core recovery area; and the project-related effects to the vernal pool tadpole shrimp would not rise to the level of precluding recovery of the species or reducing the likelihood of their survival and effects will occur outside the San Joaquin Vernal Pool Region core recovery area. The core recovery areas have been identified as necessary sites needed to recover vernal pool fairy shrimp and vernal pool tadpole shrimp. In addition, the conservation measures, including conservation of habitat for these species through purchasing credits at a Service-approved conservation bank will minimize the effects of the proposed project on the species and further aid in the conservation of these species. These conservation banks protect and manage habitat for these species in perpetuity.

After reviewing the current status of the central California tiger salamander and vernal pool fairy shrimp critical habitat, the environmental baseline for the area covered by this biological opinion, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the proposed project is not likely to adversely modify designated critical habitat for the central California tiger salamander and vernal pool fairy shrimp. The Service reached this conclusion because the project-related effects to the central California tiger salamander critical habitat and vernal pool fairy shrimp critical habitat will not appreciably diminish their value of the critical habitat for recovery of the central California tiger salamander and vernal pool fairy shrimp. The effects to the central California tiger salamander and vernal pool fairy shrimp critical habitat units are at small, discrete locations. Effects to the central California tiger salamander critical habitat equate to an estimated 0.2 percent of SJR Unit-2 and effects to vernal pool fairy shrimp critical habitat equate to an estimated 0.03 percent of critical habitat Unit 24.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by FWS regulations at 50 CFR 17.3 as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the same regulations as an act which actually kills or injures wildlife. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are nondiscretionary, and must be undertaken by the Corps so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the terms and conditions, or (2) fails to require Fresno County Public Works and Planning to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Corps must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement. [50 CFR §402.14(i)(3)].

Amount or Extent of TakeCentral California Tiger salamander

It is not possible to quantify the number of individual central California tiger salamanders that will be impacted as a result of the proposed project because the number of individuals within the project action area is unknown and cannot be determined due to the fact that any salamanders present will be living below ground in burrows. Since we cannot quantify the number of individual salamanders that we anticipate will be subject to this incidental take and since take is expected to result from the impacts to habitat, the number of acres of destroyed habitat becomes a direct surrogate for the species that will be taken. The Service anticipates 26.37 acres of suitable habitat for the central California tiger salamander will be permanently lost as a result of the proposed project. Upon implementation of the Reasonable and Prudent Measures, these levels of incidental take associated with the proposed project in the form of harm, harassment, injury, and death of the central California tiger salamander caused by habitat loss and construction activities will become exempt from the prohibitions described under Section 9 of the Act.

Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

It is not possible to quantify the number of individual vernal pool fairy shrimp and vernal pool tadpole shrimp cysts that will be taken as a result of the proposed project due to the fact that there is no reliable way to estimate the number of shrimp cysts that may be in the seasonal wetland sediment. The anticipated loss of individuals of this species also cannot be quantified due to seasonal fluctuations in their numbers, random environmental events, changes in water regime at their vernal pool habitat, or additional environmental disturbances. Therefore, the quantity of acres of habitat for this species impacted by the project will be used as a surrogate for quantifying take. The Service anticipates 0.233 acres of seasonal wetland habitat suitable for vernal pool fairy shrimp and vernal pool tadpole shrimp will be permanently lost as a result of the project. Upon implementation of the reasonable and prudent measures, these levels of incidental take associated with the project of vernal pool fairy shrimp and vernal pool tadpole shrimp caused by habitat loss and construction activities will become exempt from the prohibitions described under section 9 of the Act.

Effect of the Take

In the accompanying biological opinion, the Service has determined that this level of anticipated take is not likely to jeopardize the continued existence of the central California tiger salamander, vernal pool fairy shrimp, or vernal pool tadpole shrimp.

Reasonable and Prudent Measures

The following reasonable and prudent measure is necessary and appropriate to minimize the effects of the proposed action on the central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp.

1. All of the conservation measures for central California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp proposed in the biological assessment and additional communication, the *Description of the Proposed Action*, and as supplemented and modified below, must be fully implemented.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following terms and conditions, which implement the reasonable and prudent measure described above and outline required reporting/monitoring requirements. These Terms and Conditions are nondiscretionary.

The following Terms and Conditions implement Reasonable and Prudent Measure 1:

1. The Corps shall assure through their Nationwide Permit special conditions that Fresno County and their contractors implement the proposed avoidance and minimization measures.
2. In order to monitor whether the amount or extent of incidental take anticipated from implementation of the project is approached or exceeded, the Corps shall adhere to the following reporting requirements. Should this anticipated amount or extend of incidental take be exceeded, the Corps must immediately reinitiate formal consultation as per 50 CFR 402.16.
 - a. The Corps shall monitor and document to the Service on a monthly basis, the amount of habitat disturbed during project-related construction and/or operation to ensure that the amount of habitat affected does not exceed the amount of take anticipated by this biological opinion.
 - b. For those components of the action that may result in direct encounters between listed species and project workers and their equipment whereby incidental take in the form of harassment, harm, injury, or death could occur, the Corps shall immediately contact the Service's Sacramento Fish and Wildlife Office (SFWO) at (916) 414-6600 to report the encounter. If an encounter occurs after normal working hours, the Corps shall contact the SFWO at the earliest possible opportunity the next working day. When injured or killed individuals of the listed species are found, the Corps shall follow the steps outlined in the Disposition of Individuals section below.

Disposition of Individuals Taken

In the case of injured and/or dead central California tiger salamanders, the Service shall be notified of events within one day and the animals shall only be handled by a Service-approved biologist. Injured California tiger salamanders shall be cared for by a licensed veterinarian or other qualified person. In the case of a dead animal, the individual animal shall be preserved and held in a secure location until instructions are received from the Service regarding the disposition of the specimen or until the Service takes custody of the specimen. The Corps must report to the Service within one calendar day any information about take or suspected take of federally-listed species not exempted in this opinion. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal. The Service contacts are Daniel Russell, Deputy Assistant Field Supervisor, Endangered Species Program, Sacramento, at (916) 414-6600 and Rebecca Roca, the Resident Agent-in-Charge of the Service's Law Enforcement Division at (916) 414-6660.

Any contractor or employee who, during routine operations and maintenance activities inadvertently kills or injures a listed wildlife species must immediately report the incident to his representative at his contracting/employment firm and to the Corps. This representative must contact the Service within one calendar day in the case of a federally-listed species.

CONSERVATION RECOMMENDATIONS

Conservation recommendations are suggestions of the Service regarding discretionary measures to minimize or avoid further adverse effects of a proposed action on listed, proposed, or candidate species or on designated critical habitat, or regarding the development of new information. They may also serve as suggestions on how action agencies can assist species conservation in furtherance of their responsibilities under section 7(a)(1) of the Act, or recommend studies improving an understanding of a species' biology or ecology. Wherever possible, conservation recommendations should be tied to tasks identified in recovery plans. The Service is providing you with the following conservation recommendations:

1. Fresno County should include culverts, tunnels, or other structures along roads and highways in known central California tiger salamander population areas to allow for safe passage of this species. Such crossing may contribute to creating safe dispersal corridors for multiple wildlife species, and will help reduce road mortalities and enhance public safety. Fresno County and their consultants are encouraged to explore designs and include photos, plans, and other information in its biological assessments concerning the incorporation of wildlife passageway designs into its projects.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION—CLOSING STATEMENT

This concludes the Service's review of the Millerton Road Widening Project, as outlined in your March 19, 2011 letter and follow up communication. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or an extent not considered in this biological opinion, (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this biological opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this Millerton Road Widening Project biological opinion please contact Hunter Kunkel, Fish and Wildlife Biologist, or Thomas Leeman, Chief, San Joaquin Valley Division, at the letterhead address or at (916) 414-6600.

Sincerely,

A handwritten signature in dark ink, appearing to read 'J. Norris', with a long horizontal flourish extending to the right.

Jennifer M. Norris
Field Supervisor

cc:

Ms. Annee Ferranti, California Department of Fish and Wildlife, Fresno, CA

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