Appendix A: Fresno County Mitigation Monitoring and Reporting Plan

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.

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		Implementation	Responsible
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Mitigation Measure AES-1: The following mitigation measure would further reduce impacts to visual resources:	Prior to and during construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
 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. 			
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 PM_{10} and $PM_{2.5}$) emissions due to construction activities in accordance with SJVAPCD Rule 4641:	During construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
 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 			

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.	During	France Country/	Fresno County
Mitigation Measure AQ-2:	During construction	Fresno County/ Construction Contractors	Department of Public
The construction contractor shall implement the following NOx, odor, and diesel particulate matter (DPM) emission control measures in accordance with SJVAPCD			Works and Planning
Rule 4102 and 9510:			
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. 			
Mitigation Measure AQ-3:	During	Fresno County/	Fresno County
Implement Mitigation Measure GHG-1 to reduce construction related NOx and ROG emissions.	construction	Construction Contractors	Department of Public Works and Planning
Mitigation Measure AQ-4:	Prior to and	Fresno County/	Fresno County
In accordance with SJVAPCD Rule 9510, construction contractors shall reduce	during	Construction Contractors	Department of Public
construction emissions by using a "clean fleet" or paying appropriate compensatory	construction		Works and Planning
mitigation to off-set emission as determined in consultation with the SJVAPCD.			
Biological Resources			
Mitigation Measure BR-1:	Prior to and	Fresno County	Fresno County
A Biological Opinion with an incidental take statement has been obtained from the	during construction		Department of Public Works and Planning
United States Fish and Wildlife Service (USFWS) and an Incidental Take Permit shall	construction		works and Flamming
be obtained from the California Department of Fish and Wildlife (CDFW) for impacts to			U.S. Fish and Wildlife
California Tiger Salamander (CTS) prior to construction. All conditions of the permits,			Service
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 compare for take of CTS:			California Department of
be implemented to compensate for take of CTS:			Fish and Wildlife
 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			

Measure			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			

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			

Measure	Timing Implementation Responsibility				
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 (CNDDB) 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					

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 that 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			

Measure		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 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

Measure	Timing	Implementation Responsibility
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		

Measure	Timing	Responsibility	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.	Driverte est		F
Mitigation Measure BR-3:	Prior to and during	Fresno County	Fresno County Department of Public
The following mitigation measures shall be implemented to avoid project-related	construction		Works and Planning
impacts to potential nesting and/or wintering habitat for burrowing owls:			
A gualified biologist shall conduct a procentituation take sweidenes survey no			California Department of
 A qualified biologist shall conduct a preconstruction take avoidance survey no less than 14 days prior to initiating ground disturbance active using the 			Fish and Wildlife
recommended methods described in the Detection Surveys Section in Appendix			
D of the Staff Report on Burrowing Owl Mitigation (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			

Responsible

Measure					Timing	Implementation Responsibility	Responsible Department/ Agency
that juver (i.e., fora <i>Report or</i>	that either 1) the bi niles from the occu ging independently) n Burrowing Owl Min	pied burrows are o). Buffer diameters <i>tigation</i> (CDFW, 20	capable of indep s outlined in Tabl 12) are as follows	endent survival e 2 in the <i>Staff</i>			
Location	Time of Year	Lev	el 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 Mitigation Meas	Oct 16-Mar 31	50 meters	100 meters	500 meters	Prior to and	Fresno County	Fresno County
 A qualifipreconstruction A qualifipreconstruction prior (no activities, Swainson Hawk Teconduct semiles of binocular 0.5-mile semiles Swainson activities the survection days follower 	tigation measures s nd/or minimized imp ied biologist shal ruction surveys dur more than 10 days in accordance with n's Hawk Nesting S echnical Advisory of surveys for nesting construction activiti s visually determine survey area if acce n's hawk nests are within the recomm ey results shall be owing the survey, Swainson's hawk ne	bacts to nest sites f I conduct a mir ing the recommend) to the anticipated h the <i>Recommend</i> <i>Surveys in Californ</i> Committee, 2000). Swainson's hawk i es where legally p e whether Swainson ess is denied on a e identified on or v ended survey period submitted to the C and no further m	or Swainson's ha nimum of two ded survey perio commencement <i>ed Timing and M</i> <i>nia's Central Vall</i> The qualified n the project site ermitted. The b h's hawk nests of djacent propertie within 0.5 miles ods, a letter repo ounty and the C nitigation for nes	wk: protocol level ds immediately of construction <i>Methodology for</i> ey (Swainson's biologist shall e and within 0.5 iologist will use ccur beyond the ^{S.} If no active of construction ort summarizing DFW within 30 sting habitat is			Department of Public Works and Planning California Department of Fish and Wildlife

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:	Prior to and	Fresno County	Fresno County
The following mitigation measures shall be implemented to avoid project-related	during construction		Department of Public Works and Planning
impacts to nest sites for birds of prey and migratory birds. These measures would also	construction		
mitigate for impacts to state listed roosting bats:			California Department of Fish and Wildlife
 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			

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.				

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
 Measure Mitigation Measure BR-6: The following precautionary mitigation measures shall be implemented to avoid project related effects to San Jaoquin Kit Fox (SJKF) in accordance with the U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance (1999a) (Recommendations) for linead brojects: A preconstruction survey must be conducted for SJKF dens within 15 days priot 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: Exclusion Zones 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: 50 feet from potential den; 100 feet from known den; 50 feet from a typical den. For known dens, the exclusion zone shall be demarcated by fencing tha 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 states of the states and uncertained should be maintained until all states and uncertained should be maintained until all states and the states and does not prevent access to the den by SJKF. Exclusion zone fencing should be maintained until all states and does not prevent access to the den by SJKF. 	Prior to and during construction t r		

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. 			
 Destruction of Dens 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 			

N easure	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.			
Construction and Operational Requirements			
 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			

Measure		Timing	Implementation Responsibility	Responsible Department/ Agency
establi	shed in locations disturbed by previous activities to prevent further			
impact	S.			
0	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.			
0	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.			
0	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.			
0	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.			
0	No firearms shall be allowed on the study area.			
0	To prevent harassment, mortality of SJKF or destruction of dens by			

Measure		Timing	Implementation Responsibility	Responsible Department/ Agency
	dogs or cats, no pets shall be permitted on study areas.			
0	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.			
0	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.			
0	A USFWS-approved biologist conduct habitat sensitivity training related			
	to SJKF for all project contractors and personnel as identified under the			
	CTS conservation measures.			
0	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.			
0				

Measure	Timing	Implementation Responsibility	Responsible Department/ Agency
 installed immediately to allow the animal(s) to escape, or the USFWS should be contacted for advice. 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. 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: 	Prior to Construction.	Fresno County	Fresno County Department of Public Works and Planning California Department of Fish and Wildlife
reasonable proximity to the project site, and a Riparian Restoration and Monitoring Plan shall be established.			
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:	Prior to project completion.	Fresno County	Fresno County Department of Public Works and Planning
• Each native tree in the genus Quercus with a diameter at breast height of five			

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

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. Mitigation Measure CR-2: In the event that cultural resources are inadvertently discovered during ground-	During construction During construction	Fresno County Fresno County	Fresno County Department of Public Works and Planning Fresno County Department of Public
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.			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

Measure		Timing	Implementation Responsibility	Responsible Department/ Agency
the	discovery location and any nearby area reasonably suspected to overlie			
hun	nan remains (Public Resources Code, Section 7050.5). The Fresno County			
cord	oner will be contacted to determine if the cause of death must be			
inve	estigated.			
■ If th	ne coroner determines that the remains are of Native American origin, it is			
nec	essary to comply with state laws relating to the disposition of Native			
Am	erican burials, which fall within the jurisdiction of the Native American			
Her	itage Commission (NAHC) (PRC, Section 5097). The coroner will contact			
the	NAHC. The descendants or most likely descendants (MLD) of the			
dec	eased will be contacted, and work will not resume until they have made a			
reco	ommendation to the landowner or the person responsible for the excavation			
wor	k for means of treating and disposing of, with appropriate dignity, the human			
rem	nains and any associated grave goods, as provided in Public Resources			
Coc	de, Section 5097.98. Work may resume if NAHC is unable to identify an			
MLI	D or the descendant fails to make a recommendation within 48 hours.			
■ If h	uman remains are discovered on federal lands, the remains shall be treated			
in a	accordance with Reclamations' Directives and Standards (LND 07-01).			
The	ese directives and standards provide procedures for compliance with federal			
stat	utes when inadvertent discoveries of human remains occur on Reclamation			
land	ds. If Native American cultural items, including human remains, funerary			
obje	ects, sacred objects, and items of cultural patrimony, are inadvertently			
disc	covered, work will cease immediately in the area of discovery and the			
requ	uirements of the Native American Graves Protection and Repatriation Act			
(NA	GPRA) of 1990 (25 United States Code 3001-3013), and implementing			
reg	ulations at 43 C.F.R. § 10.4 (2006), will be followed. NAGPRA requires			
Rec	clamation to inventory human remains and associated funerary objects and			
to p	provide culturally affiliated tribes with the inventory of collections. NAGPRA			
also	p requires repatriation, on request, to the culturally affiliated tribes.			
■ If h	uman remains are encountered on Tribal lands, work shall halt in the vicinity			
of t	the find and the Fresno County Coroner shall be notified immediately.			

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:	During	Fresno County/	Fresno County
The following Greenhouse Gas (GHG) Reduction Measures developed by the California	construction		Department of Public Works and Planning
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. 			
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:	During	Fresno County/	Fresno County
Construction contractors shall ensure that any construction equipment that normally	construction	construction Construction Contractors	Department of Public
includes a spark arrester shall be equipped with an arrester in good working order. This			Works and Planning
includes, but is not limited to, vehicles, heavy equipment, and chainsaws.			
Mitigation Measure HM-2:	During	construction Construction Contractors Department of P	
Construction contractors shall ensure that during construction, staging areas, building	construction		Department of Public Works and Planning
areas, and/or areas slated for development using spark-producing equipment shall be			

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:	Prior to and during construction	Fresno County/ Construction Contractors	Fresno County Department of Public Works and Planning
 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 			

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.			

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:	During	Fresno County/	Fresno County Department of Public Works and Planning
In accordance with the County's Noise Ordinance, construction activities shall be limited	construction	Construction Contractors	
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.			