

Mitigation/Environmental Protection Measures

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Biological Resources					
Swainson's Hawk					
<p>Nest Tree Avoidance. To ensure Project activities would have no deleterious effects on the adjacent Swainson's hawk nest tree, the Proposed Project would maintain a minimum 50-foot buffer around the adjacent eucalyptus tree throughout the course of construction during the nesting season. The buffer would be delineated with orange barrier fencing.</p>			Tranquillity Irrigation District		
<p>Temporal Avoidance. In order to avoid impacts to nesting Swainson's hawks, construction activities would occur outside the nesting season, typically defined as March 1-September 15.</p>	March 1-September 15		Tranquillity Irrigation District		
<p>Pre-construction Survey. If construction activities are initiated between March 1 and September 15, a qualified biologist would conduct pre-construction nest surveys for Swainson's hawks on and within ½ mile of the Proposed Project site within 30 days prior to the start of construction. The survey would consist of inspecting all accessible, suitable trees within the survey area for the presence of nests and hawks.</p>	Pre-construction		Tranquillity Irrigation District		
<p>Avoidance of Active Nests. Should any active Swainson's hawk nests be discovered within the survey area, an appropriate disturbance-free buffer would be established based on local conditions and agency guidelines. Disturbance-free buffers would be identified on the ground with flagging, fencing, or by other easily visible means, and would be maintained until a qualified biologist has determined that the young have fledged and are capable of foraging independently.</p>			Tranquillity Irrigation District		
<p>Biological Monitoring. If construction activities are initiated before March 1, but continue into March, a qualified biologist would monitor Swainson's hawk nesting activity at the onsite nest tree once a week beginning March 1. If Swainson's hawks begin nesting at the tree and Proposed Project activities continue, monitoring would occur daily for two weeks to determine Proposed Project effects on nesting behavior. If nesting behavior appears unaffected by Proposed Project activities, monitoring would be reduced to once a week. If</p>	<p>If Swainson's hawks begin nesting at the tree and Proposed Project activities continue, monitoring would occur daily for two weeks to determine Proposed Project effects on</p>		Tranquillity Irrigation District		

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Proposed Project activities appear to be having some effect on the nesting hawks, these activities would be stopped until the California Department of Fish and Wildlife (CDFW) is consulted.	nesting behavior. If nesting behavior appears unaffected by Proposed Project activities, monitoring would be reduced to once a week.				
Active Bird Nest					
Temporal Avoidance: If feasible, the Proposed Project would be implemented outside of the avian nesting season, typically defined as February 1 to August 31.	February 1 to August 31		Tranquillity Irrigation District		
Pre-construction Surveys. If construction is to occur between February 1 and August 31, a qualified biologist would conduct pre-construction surveys for active migratory bird nests within 14 days prior to the start of construction. If there is a lapse in construction of 14 days or more, pre-construction surveys would need to be repeated. Should any active nests be discovered in or near proposed construction zones, the biologist would identify a suitable construction-free buffer around the nest. This buffer would be identified on the ground with flagging or fencing, and would be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.	Pre-construction		Tranquillity Irrigation District		
Burrowing Owls					
Pre-construction Survey. A pre-construction survey would be conducted by a qualified biologist for burrowing owls between 14 and 30 days prior to the onset of construction according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). The survey area would include all suitable habitat on and within 200 meters of Proposed Project impact areas, where accessible.	Pre-construction		Tranquillity Irrigation District		
Avoidance of Active Nests. If Proposed Project activities are undertaken during the breeding season (February 1-August 31) and active nest burrows are identified within or near Proposed	(February 1-August 31)		Tranquillity Irrigation District		

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<p>Project impact areas, a 200-meter disturbance-free buffer would be established around these burrows, or alternate avoidance measures implemented in consultation with CDFW so that no take would occur. The buffers would be enclosed with temporary fencing to prevent construction equipment and workers from entering the setback area. Buffers would remain in place for the duration of the breeding season, unless otherwise arranged with CDFW. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.</p>					
<p>Avoidance or Passive Relocation of Resident Owls. During the non-breeding season (September 1-January 31), resident owls occupying burrows in Proposed Project impact areas may either be avoided, or passively relocated to alternative habitat. If the applicant chooses to avoid active owl burrows within the impact area during the non-breeding season, a 50-meter disturbance-free buffer would be established around these burrows, or alternate avoidance measures implemented in consultation with CDFW. The buffers would be enclosed with temporary fencing and would remain in place until a qualified biologist determines that the burrows are no longer active. If the applicant chooses to passively relocate owls during the non-breeding season, this activity would be conducted in accordance with a relocation plan prepared by a qualified biologist.</p>	<p align="center">(September 1- January 31)</p>		<p align="center">Tranquillity Irrigation District</p>		
Giant Garter Snake					
<p>Temporal Avoidance. If possible, construction activity within the canal prism should be conducted between May 1 and October 1.</p>	<p align="center">May 1 and October 1.</p>		<p align="center">Tranquillity Irrigation District</p>		
<p>Worker Training. Construction personnel shall receive worker environmental awareness training regarding listed species, including giant garter snake. This training instructs workers to recognize giant garter snakes, their habitat, and their protected status.</p>			<p align="center">Tranquillity Irrigation District</p>		

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Avoidance. Vehicles shall travel at 15mph or less when in the Proposed Project Area. Vehicle operators shall be alert for the presence of snakes and shall safely avoid snakes when operating vehicles.			Tranquillity Irrigation District		
Pre-construction Survey. 24-hours prior to construction activities, the Proposed Project area shall be surveyed for giant garter snakes by a qualified biologist. Survey of the Proposed Project area shall be repeated if a lapse in construction activity of two weeks or greater has occurred. The survey shall include uplands and any burrows of fossorial mammals in areas that would be exposed to ground disturbance or over travel by vehicles, or heavy equipment shall be flagged, and if possible, avoided.	Pre-construction		Tranquillity Irrigation District		
Avoidance. If a giant garter snake is encountered during construction, activities shall cease, and the snake shall be allowed to volitionally leave area that could be affected. A photograph of the snake should be obtained from a distance if that can be done without disturbing the snake. Reclamation and U.S. Fish and Wildlife Service (Service) biologists shall be notified immediately at (559-262-0300) (Reclamation) and (916) 414-6600 (Service), respectively. Further construction may not proceed until an appropriate course of action is determined through coordination between Reclamation and the Service, or consultation, as may be required.			Tranquillity Irrigation District		
San Joaquin kit fox					
Worker Training. Construction personnel shall receive worker environmental awareness training regarding all listed species, including San Joaquin kit fox. This training instructs workers to recognize kit fox, their habitat, and their protected status in addition to all other potential listed species on site or in the area.		Once	Tranquillity Irrigation District		
Pre-construction Survey. A pre-construction/pre-activity survey shall be conducted on the Proposed Project site and surrounding areas, including at least 200 feet from the Proposed Project footprint. The survey shall be conducted by a	Pre-construction		Tranquillity Irrigation District		

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<p>qualified biologist no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities. A report of the survey findings shall be submitted to Reclamation and the Service within 5 days of the survey.</p>					
<p>Avoidance. If a natal/pupping den is discovered within the Proposed Project area or within 200-feet of the Proposed Project boundary, Reclamation and Service biologists shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. Upon discovery of an active den, Reclamation and Service biologists can be contacted at (559-262-0300) and at (916-414-6600), respectively. Construction may not proceed until an appropriate course of action is determined through consultation between Reclamation and the Service and authorization is obtained.</p>			<p align="center">Tranquillity Irrigation District</p>		
<p>Avoidance. If a San Joaquin kit fox is encountered during construction, but is clearly moving through the area, work activities shall cease until the fox volitionally leaves the Proposed Project area. Reclamation and Service Biologists shall be notified within one workday of the observation.</p>			<p align="center">Tranquillity Irrigation District</p>		
<p>Avoidance. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more over-night periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until Reclamation and Service biologists have been consulted.</p>			<p align="center">Tranquillity Irrigation District</p>		
<p>Avoidance. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Proposed Project site. No firearms shall be allowed on the Proposed Project site. No pets, such as dogs or cats, shall be permitted on the Proposed Project site to</p>			<p align="center">Tranquillity Irrigation District</p>		

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prevent harassment or mortality of kit foxes, or destruction of dens.					
Cultural Resources					
<p>In the event that archaeological remains are encountered during Proposed Project development or ground-moving activities within any portion of the APE, all work in the vicinity of the find should be halted until a qualified archaeologist can identify the discovery and assess its significance. In addition, if human remains are uncovered during construction, the Fresno County Coroner is to be notified to arrange their proper treatment and disposition. If the remains are identified—on the basis of archaeological context, age, cultural associations, or biological traits—as those of a Native American, California Health and Safety Code 7050.5 requires that the coroner notify the Native American Heritage Commission within 24 hours of discovery. The Native American Heritage Commission would then identify the Most Likely Descendent, who would be afforded the opportunity to recommend means for treatment of the human remains following protocols in California Public Resources Code 5097.98.</p>	During construction		Tranquillity Irrigation District		
Geology and Soils					
<p>Tranquillity ID will acquire a Stormwater Pollution Prevention Plan (SWPPP) if the construction footprint is one acre or more. If under one acre, a waiver must be received from the State Water Board. As part of the SWPPP, Tranquillity ID would be required to provide Best Management Practices to further protect the topsoil.</p>	Prior to construction		Tranquillity Irrigation District		