

# Mitigation Monitoring and Reporting Program

## Major Modification No. MM 13-017 to Conditional Use Permit No. CUP 02-001 Liberty Packing

### Purpose of and Need for Monitoring

In compliance with CEQA, an Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the proposed project. The (IS/MND) identified potentially significant impacts in the resource areas listed below, and mitigation measures to reduce these impacts to a less-than-significant level.

Project-level significant impacts pertaining to the following resource areas would be reduced to a less-than-significant level by mitigation measures identified in the IS/MND:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils

Greenhouse Gas Emissions CEQA requires that a lead agency adopt an MMRP for the measures the agency has proposed to avoid or mitigate significant environmental effects (CEQA Guidelines Section 15097). The purpose of the MMRP is to ensure that the mitigation measures identified in the Negative Declaration are implemented and to identify who is responsible for their implementation.

Table MMRP-1, which follows this introductory section, identifies the mitigation measures for the proposed project, the parties responsible for implementing and monitoring the measures, the timing of each measure, and a summary of the actions necessary to implement and monitor each measure.

### Mitigation Monitoring and Reporting Program

The MMRP has been prepared for the proposed project in accordance with Public Resources Code 21081.6, which 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 21081.6 further specifies that the MMRP will “ensure compliance during project implementation.”

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 and operation of the proposed project.

**Table MMRP-1.** Mitigation Monitoring and Reporting Plan

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<b>Air Quality</b>				
<p><b>Mitigation Measure AQ-1: Prepare and implement a Dust Control Plan to comply with SJVAPCD Regulation VIII requirements to control construction emissions of PM10.</b></p>	During construction	Applicant	County of Merced	Verify periodically during construction
<p>To control the generation of construction-related PM10 emissions, construction contractors will prepare and submit for approval a dust control plan to the SJVAPCD at least 30 days prior to any earthmoving or construction activities. Potential measures that might be included in the dust control plan could include, but are not limited to:</p>				
<ul style="list-style-type: none"> <li>● Pre-activity.               <ul style="list-style-type: none"> <li>○ Pre-water the work site and phase work to reduce the amount of disturbed surface area at any one time.</li> </ul> </li> <li>● Active operations.               <ul style="list-style-type: none"> <li>○ Apply water to dry areas during leveling, grading, trenching, and earthmoving activities.</li> <li>○ Construct and maintain wind barriers and apply water or dust suppressants to the disturbed surface areas.</li> </ul> </li> <li>● Inactive operations, including after work hours, weekends, and holidays.               <ul style="list-style-type: none"> <li>○ Apply water or dust suppressants on disturbed surface areas to form a visible crust, and vehicle access will be restricted to maintain the visible crust.</li> </ul> </li> <li>● Temporary stabilization of areas that remain unused for seven or more days.               <ul style="list-style-type: none"> <li>○ Restrict vehicular access and apply and maintain water or dust suppressants on all un-vegetated areas.</li> <li>○ Establish vegetation on all previously disturbed areas.</li> <li>○ Apply and maintain gravel at all previously disturbed areas.</li> </ul> </li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<ul style="list-style-type: none"> <li>○ Pave previously disturbed areas.</li> <li>● Unpaved Access and haul roads, traffic and equipment storage areas.               <ul style="list-style-type: none"> <li>○ Apply water or dust suppressants to unpaved haul and access roads.</li> <li>○ Post a speed limit of not more than 15 miles per hour, using signs at each entrance and again every 500 feet.</li> <li>○ Water or dust suppressants will be applied to vehicle traffic and equipment storage areas.</li> </ul> </li> <li>● Wind events.               <ul style="list-style-type: none"> <li>○ Water application equipment will be used to apply water to control fugitive dust during wind events, unless unsafe to do so.</li> <li>○ Outdoor construction activities that disturb the soil will cease whenever visible dust emissions cannot be effectively controlled.</li> </ul> </li> <li>● Outdoor handling of bulk materials.               <ul style="list-style-type: none"> <li>○ Water or dust suppressants will be applied when handling bulk materials.</li> <li>○ Wind barriers with less than 50 percent porosity will be installed and maintained, and water or dust suppressants will be applied.</li> </ul> </li> <li>● Outdoor storage of bulk materials.               <ul style="list-style-type: none"> <li>○ Water or dust suppressants will be applied to storage piles.</li> <li>○ Storage piles will be covered with tarps, plastic, or other suitable material and anchored in such a manner that prevents the cover from being removed by wind action.</li> <li>○ Wind barriers with less than 50 percent porosity will be installed and maintained around the storage piles, and water or dust suppressants will be applied.</li> <li>○ A three-sided structure with less than 50 percent porosity that is at</li> </ul> </li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
least as high as the storage piles will be used.				
<ul style="list-style-type: none"> <li>● On-site transporting of bulk materials.               <ul style="list-style-type: none"> <li>○ Vehicle speed will be limited on the work site.</li> <li>○ All haul trucks will be loaded such that the freeboard is not less than 6 inches when transported across any paved public access road.</li> <li>○ A sufficient amount of water will be applied to the top of the load to limit visible dust emissions.</li> <li>○ Haul trucks will be covered with a tarp or other suitable cover.</li> </ul> </li> <li>● Off-site transporting of bulk materials.               <ul style="list-style-type: none"> <li>○ The following practices will be performed:                   <ul style="list-style-type: none"> <li>▪ The interior of emptied truck cargo compartments will be cleaned or covered before leaving the site.</li> <li>▪ Spillage or loss of bulk materials from holes or other openings in the cargo compartment’s floor, sides, and tailgates will be prevented.</li> </ul> </li> </ul> </li> <li>● Outdoor transport using a chute or conveyor.               <ul style="list-style-type: none"> <li>○ No open chutes or conveyors will be used.</li> <li>○ Chutes or conveyors will be fully enclosed.</li> <li>○ Water spray equipment will be used to sufficiently wet the materials.</li> <li>○ Transported materials will be washed or screened to remove fines (PM10 or smaller).</li> </ul> </li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<b>Biological Resources</b>				
<p><b>Mitigation Measure BIO-1: Develop a Worker Awareness Program.</b></p> <p>Prior to construction, a Worker Awareness Program must be conducted to inform construction project workers of their responsibilities regarding sensitive environmental resources. Such a program shall include environmental education about the giant garter snake, western pond turtle, burrowing owl, Swainson’s hawk, American badger, San Joaquin kit fox, and nesting birds. The Worker Awareness Program is to be prepared by a qualified biologist and is the responsibility of the applicant to implement. The applicant shall submit the draft program to the Planning and Economic Development for adequacy review and approval prior to issuance of the building permit.</p>	<p>Prior to and during construction</p>	<p>Applicant</p>	<p>County of Merced</p>	<p>Review draft program prior to construction. Verify periodically during construction</p>
<p><b>Mitigation Measure BIO-2: Avoid effects on giant garter snake.</b></p> <p>The following measures will be implemented to avoid effects on giant garter snake.</p> <ul style="list-style-type: none"> <li>• Disturbance to suitable aquatic and upland sites in or near the project footprint will be avoided to the extent feasible, and the loss of aquatic habitat and associated upland vegetation will be minimized through adjustments to project design, as practicable. A map of the areas of concern is included in the IS/MND as Figure 3, Liberty Packing Property.</li> <li>• To the extent practicable, construction activities will be avoided within 200 feet of the banks of giant garter snake aquatic habitat, which would include the irrigation ditch and perennial marsh in the northern part of the project area. Ground disturbance will be confined to the minimal area necessary to facilitate construction activities. Giant garter snake habitat will be clearly designated with construction fencing and signage identifying these areas as sensitive.</li> <li>• Twenty-four hours prior to construction activities, suitable habitat in the project area should be surveyed for giant garter snakes. Survey of the</li> </ul>	<p>24-hours prior to and during construction</p>	<p>Applicant</p>	<p>County of Merced</p>	<p>Verify periodically during construction</p>

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>project area should be repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed. Any sightings will be reported to the USFWS and CDFW within 24 hours.</p>				
<ul style="list-style-type: none"> <li data-bbox="184 500 1142 813">● A USFWS- and CDFW-approved biologist will determine where exclusion fencing will be installed to protect giant garter snake habitat adjacent to the defined project footprint and to minimize the potential for giant garter snakes to enter the construction work area. The perimeter of construction sites will be fenced with giant garter snake exclusion fencing between May 1 and September 1 (well in advance of snakes seeking overwintering refugia). The giant garter snake exclusion fencing will be shown on the final construction plans. Where construction access is necessary, gates will be installed with the exclusion fence.</li> <li data-bbox="184 841 1142 1044">● A biological monitor and construction foreman will be responsible for checking the exclusion fencing around the work areas daily to ensure that they are intact and upright. This will be especially critical during rain events, when flowing water can easily dislodge the fencing. Any necessary repairs will be immediately addressed. The giant garter snake exclusion fencing will remain in place for the duration of construction.</li> <li data-bbox="184 1071 1142 1352">● If exclusion fencing is found to be compromised, a survey will be conducted immediately preceding construction activity that occurs in designated giant garter snake habitat or in advance of any activity that may result in take of the species. The biologist will search along exclusion fences and in pipes and beneath vehicles before they are moved. Any giant garter snake found will be captured and relocated to suitable habitat a minimum of 200 feet outside of the work area in a location that is identified by a qualified biologist and approved by USFWS and CDFW prior to commencement of construction.</li> <li data-bbox="184 1377 1142 1401">● The ditches associated with the cultivated lands in the expansion areas will</li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>be dewatered and remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.</p> <ul style="list-style-type: none"> <li>• After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-project conditions.</li> <li>• Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.</li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p><b>Mitigation Measure BIO-3: Avoid and minimize effects on western pond turtle.</b></p> <p>Effects on western pond turtle will be avoided and minimized by many of the same measures listed above in Mitigation Measure BIO-2. In addition to these measures, the cooling pond should be dewatered prior to commencing any construction activities in the pond to allow pond turtle to relocate to nearby suitable habitat, which would include the perennial marsh and irrigation ditch to the north, and the Volta Wildlife Area to the east. The Volta Wildlife Area is accessible from the project site via the irrigation ditch in the northern portion of the project site.</p>	Prior to construction	Applicant	County of Merced	Verify before issuance of grading/constructi on permit
<p><b>Mitigation Measure BIO-4: Avoid and minimize effects on Swainson’s hawk.</b></p> <ul style="list-style-type: none"> <li>● A protocol-level survey will be conducted in conformance with the “Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley,” Swainson’s Hawk Technical Advisory Committee (May 31, 2000) prior to construction. This protocol prescribes minimum standards for survey equipment, mode of survey, angle and distance to tree, speed, visual and audible clues, distractions, notes and observations, and timing of surveys.               <ul style="list-style-type: none"> <li>○ Nesting surveys can only be performed between January 1 and July 30 and will vary depending on seasonal conditions and the actual nesting period.</li> <li>○ Surveys must be performed by a biologist with experience in identifying Swainson’s hawks and their nests.</li> <li>○ A written report with the pre-construction survey results will be provided to CDFW within 30 days prior to commencement of construction-related activities. The report shall include: the date of the report, authors and affiliations, contact information, introduction, methods, study location, including map, results, discussion, and</li> </ul> </li> </ul>	Prior to construction	Applicant	County of Merced	Verify before issuance of grading/constructi on permit Verify periodically during construction

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
literature cited.				
<ul style="list-style-type: none"> <li>● If active nests are documented during the surveys, within the CNDDDB or other source, the following measures should be implemented:               <ul style="list-style-type: none"> <li>○ <b>No intensive new disturbances</b> (for example, heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities), habitat conversions, or other project-related activities that may cause nest abandonment or forced fledging, should be initiated within 0.5 mile of an active nest between March 1 and September 15, or sooner if authorized by CDFW.</li> <li>○ <b>Nest trees shall not be removed</b> unless there is no feasible way of avoiding it. If a nest tree must be removed it should be done between October 1 and February 1.</li> <li>○ <b>If disturbances, habitat conversions, or other project-related activities</b>, that may cause nest abandonment or forced fledging, are necessary, within the nest protection buffer zone, monitoring of the nest site by a biologist with Swainson’s hawk experience, would be done to determine if the nest is abandoned. If the nest is abandoned, but the nestlings are still alive, the project proponent is required to fund the recovery and hacking that is the controlled release of captive reared young of the nestling.</li> <li>○ <b>Routine disturbances</b> such as agricultural activities, commuter traffic, and routine maintenance activities within 0.25 mile of an active nest are not prohibited.</li> </ul> </li> </ul>				

Table MMRP-1. Continued

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions						
<p><b>Mitigation Measure BIO-5: Compensate for loss of Swainson’s hawk foraging habitat.</b></p> <p>As described above, known nesting trees are located within one mile of the project site, and therefore the project site qualifies as foraging habitat. The Merced County Planning and Economic Development Department has developed a standard Swainson’s hawk mitigation measure that, when implemented, will mitigate for the loss of suitable foraging habitat. Compensation for the permanent loss of foraging habitat is based on the distance from the nearest nest, as provided in the table below. The specific compensation ratio will be based on the results of the preconstruction survey described in Mitigation Measure BIO-4.</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th colspan="2">Distance from Project Boundary Mitigation Acreage Ratio<sup>a</sup></th> </tr> </thead> <tbody> <tr> <td>Within 1 mile</td> <td>1.00:1<sup>b</sup></td> </tr> <tr> <td>Between 1 and 5 miles</td> <td>0.75:1</td> </tr> </tbody> </table> <p>Notes                      Ratio means [acres of mitigation land] to [acres of foraging habitat impacted]                      This ratio shall be 0.5:1 if the acquired lands can be actively managed for p</p> <p>Compensation can be provided through fee title acquisition or conservation easement acquisition of comparable foraging habitat with implementation of a County-approved habitat management plan. Alternatively, mitigation credits may be purchased from a County-approved mitigation bank for Swainson’s hawk foraging habitat in Merced County or other San Joaquin Valley county. An offsite habitat mitigation plan describing the method of compensation must be submitted to the Merced County Planning and Economic Development Department within 30 days of its execution or prior to the start of construction-related activities, whichever is earlier.</p>	Distance from Project Boundary Mitigation Acreage Ratio <sup>a</sup>		Within 1 mile	1.00:1 <sup>b</sup>	Between 1 and 5 miles	0.75:1	Prior to construction	Applicant	County of Merced	Verify before issuance of grading/construction permit
Distance from Project Boundary Mitigation Acreage Ratio <sup>a</sup>										
Within 1 mile	1.00:1 <sup>b</sup>									
Between 1 and 5 miles	0.75:1									
<p><b>Mitigation Measure BIO-6: Avoid and minimize effects on western burrowing owl.</b></p> <p>The methods described below are consistent with the current accepted survey</p>	14 days and again 24-hours prior to ground	Applicant	County of Merced	Verify before issuance of grading/construction permit						

Table MMRP-1. **Continued**

<b>Mitigation Measure</b>	<b>Timing</b>	<b>Implementing Party</b>	<b>Monitoring Party</b>	<b>Monitoring Actions</b>
<p>protocol for western burrowing owl (California Burrowing Owl Consortium 1993).</p> <p>Prior to any ground disturbance related to project activities, a qualified biologist will conduct preconstruction surveys within the project area. The purpose of the preconstruction survey is to document the presence or absence of western burrowing owls on the project site. Preconstruction surveys should be conducted no less than 14 days prior to ground disturbing activities with an additional survey within 24 hours of ground disturbance. Occupied burrows will be considered fully avoided if construction activity is more than 500 meters from an active nest. However, this distance may be reduced after consultation with CDFW.</p> <p>If occupied burrows can't be avoided, an exclusion plan must be developed in consultation with CDFW to passively relocate owls. Passive relocation will not be allowed while owls are actively nesting.</p>	<p>disturbing activities</p>			<p>Verify periodically during construction</p>

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p><b>Mitigation Measure BIO-7: Avoid and minimize effects on nesting tricolored blackbird, yellow-headed blackbird, northern harrier, white-tailed kite and other nesting migratory birds and raptors.</b></p>	<p>5 days prior to start of construction</p>	<p>Applicant</p>	<p>County of Merced</p>	<p>Verify before issuance of grading/construction permit Verify periodically during construction</p>
<p>To avoid and minimize impacts on nesting special-status birds and migratory birds and raptors, which are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Codes, the following surveys and restrictions will be implemented.</p>				
<ul style="list-style-type: none"> <li>• If construction activities are scheduled to occur during the breeding season for migratory birds and raptors (generally between January 1 and August 31), a wildlife biologist will conduct nesting surveys before the start of construction. Because only a minimal amount of natural vegetation will be removed (the seasonal wetland) and the other areas consist of cultivated and developed lands, a single survey should be conducted in the 5 days prior to the start of construction. This survey will occur in the project area and include any trees and shrubs immediately adjacent to the project area. Surveys for nesting raptors will occur in the project area and a 500 foot area around the project site. Surveys should occur during the height of the breeding season (March 1 to June 1).</li> <li>• If no active nests are detected during these surveys, no additional mitigation is required.</li> </ul>				
<p>If active nests are found in the survey area, a no-disturbance buffer will be established around the site to avoid disturbance or destruction of the nest site until the end of the breeding season (August 31) or until after a qualified wildlife biologist determines that the young have fledged and moved out of the project area (this date varies by species). The extent of these buffers will be determined by the biologist in coordination with California Department of Fish and Wildlife and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors will be analyzed to make an appropriate decision on buffer distances. Suitable</p>				

Table MMRP-1. **Continued**

<b>Mitigation Measure</b>	<b>Timing</b>	<b>Implementing Party</b>	<b>Monitoring Party</b>	<b>Monitoring Actions</b>
buffer distances may vary between species.				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p><b>Mitigation Measure BIO-8: Avoid and minimize effects on American badger and San Joaquin kit fox.</b></p> <p>Because American badger and San Joaquin kit fox use similar habitats, the measures developed for avoiding effects on San Joaquin kit fox are considered sufficient to avoid and minimize effects on badgers.</p> <p>The following measures are based on the USFWS’s Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox prior to or during Ground Disturbance (U.S. Fish and Wildlife Service 2011).</p> <p>Within 14 to 30 days prior to ground disturbance related to the project, a qualified biologist with experience surveying for and observing the species will conduct a preconstruction survey in the undeveloped portions of the project site. The biologist will survey the project footprint and the area within 250 feet beyond the footprint to identify known or potential San Joaquin kit fox dens. Adjacent parcels under different land ownership will not be surveyed unless access is granted within the 250-foot radius. The biologists will conduct these searches by systematically walking 30- to 100-foot-wide transects throughout the survey area; transect width will be adjusted based on vegetation height and topography. The biologist will conduct walking transects such that 100 percent visual coverage of the project footprint is achieved. Dens will be classified in one of the following four den status categories.</p> <ul style="list-style-type: none"> <li>● <b>Potential den.</b> Any subterranean hole within the species’ range that has entrances of appropriate dimensions for which available evidence is sufficient to conclude that it is being used or has been used by a kit fox. Potential dens comprise any suitable subterranean hole or any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use. If a potential den is found, the biologist will establish a 50-foot buffer using flagging.</li> <li>● <b>Known den.</b> Any existing natural den or artificial structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records; past or current radiotelemetry or</li> </ul>	<p>14 to 30 days prior to ground disturbance</p>	<p>Applicant</p>	<p>County of Merced</p>	<p>Verify before issuance of grading/constructi on permit</p> <p>Verify periodically during construction</p>

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>spotlighting data; kit fox sign such as tracks, scat, and/or prey remains; or other reasonable proof that a given den is being or has been used by a kit fox.</p>				
<ul style="list-style-type: none"> <li>● <b>Natal or pupping den.</b> Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two; therefore, for purposes of this definition, either term applies. If a natal den is discovered, a buffer of at least 200 feet will be established using fencing.</li> <li>● <b>Atypical den.</b> Any artificial structure that has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings. If an atypical den is discovered, the biologist will establish a 50-foot buffer using flagging.</li> </ul>				
<p>Disturbance to all San Joaquin kit fox dens will be avoided, to the extent possible. Limited destruction may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed.</p>				
<ul style="list-style-type: none"> <li>● If a suitable San Joaquin kit fox den is discovered in the project footprint, the den will be monitored for 4 days by a USFWS- and CDFW-approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used.</li> <li>● Unoccupied dens will be destroyed immediately to prevent subsequent use. The den will be fully excavated by hand, filled with dirt, and compacted to ensure that San Joaquin kit foxes cannot reenter or use the den during the construction period.</li> <li>● If an active or natal or pupping den is found, USFWS and CDFW will be</li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>notified immediately. The den will not be destroyed until the pups and adults have vacated and then only after further coordination with USFWS and CDFW.</p>				
<ul style="list-style-type: none"> <li data-bbox="197 391 1142 954"> <p>• If kit fox activity is observed at the den during the initial monitoring period, den use will be actively discouraged, as described below, and monitoring will continue for an additional 5 consecutive days from the time of the first observation to allow any resident animals to move to another den. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after 5 or more consecutive days of plugging and monitoring, the den may have to be excavated by hand when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal’s normal foraging activities). If at any point during excavation a kit fox is discovered inside the den, the excavation activity will cease immediately and monitoring of the den, as described above, will 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.</p> </li> <li data-bbox="197 980 1142 1117"> <p>• Construction and operational requirements from <i>Standardized Recommendations for Protection of the San Joaquin Kit Fox prior to or during Ground Disturbance</i> (U.S. Fish and Wildlife Service 2011) or the latest guidelines will be implemented.</p> </li> <li data-bbox="197 1143 1142 1414"> <p>• If suitable dens are identified in the project footprint or within a 250-foot buffer, exclusion zones around each den entrance or cluster of entrances will be demarcated. The configuration of exclusion zones will be circular, with a radius measured outward from the den entrance(s). No covered activities will occur within the exclusion zones. Exclusion zone radii for atypical dens and suitable dens will be at least 50 feet and will be demarcated with four to five flagged stakes. Exclusion zone radii for known dens will be at least 100 feet and will be demarcated with staking and</p> </li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>flagging that encircle each den or cluster of dens but do not prevent access to the den by the foxes.</p> <ul style="list-style-type: none"> <li>Written results of the surveys will be submitted to USFWS within 5 calendar days of the completion of surveys and prior to the beginning of ground disturbance and/or construction activities likely to affect San Joaquin kit foxes.</li> </ul>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<b>Cultural Resources</b>				
<p><b>Mitigation Measure CUL-1: Stop work if buried cultural deposits are encountered during construction activities.</b></p> <p>If buried cultural resources such as chipped or ground stone, historic debris, or building foundations, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within a 100-foot radius of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop a Response Plan, with appropriate treatment measures, in consultation with the County, the State Historic Preservation Officer (SHPO), and other appropriate agencies. Preservation in place shall be the preferred treatment method per CEQA Guidelines Section 15126.4(b) (avoidance, open space, capping, easement). Data recovery of important information about the resource, research, or other actions determined during consultation, is allowed if it is the only feasible treatment method.</p>	During construction	Applicant	County of Merced	Verify periodically during construction
<p><b>Mitigation Measure CUL-2: Stop work if buried paleontological resources are encountered during construction activities.</b></p> <p>If buried paleontological resources are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the significance of the find and, if necessary, develop responsible treatment measures in consultation with Merced County and other appropriate agencies.</p>	During construction	Applicant	County of Merced	Verify periodically during construction
<p><b>Mitigation Measure CUL-3: Stop work if human remains are encountered during construction activities.</b></p> <p>If human skeletal remains are encountered, ground disturbing activities stop within a 100 foot radius of the discovery. The County Coroner must be contacted immediately and is required to examine the discovery within 48 hours. If the County Coroner determines that the remains are Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) within 24 hours. A qualified archaeologist (QA) should also be contacted immediately. The Coroner is required to notify and seek out a</p>	During construction	Applicant	County of Merced	Verify periodically during construction

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>treatment recommendation of the NAHC-designated Most Likely Descendant (MLD).</p> <ul style="list-style-type: none"> <li>• If the NAHC identifies an MLD, and the MLD makes a recommendation, and the landowner accepts the recommendation, then ground-disturbing activities may resume after the QA verifies and notifies the County that the recommendations have been completed.</li> <li>• If the NAHC is unable to identify the MLD, or the MLD makes no recommendation, or the landowner rejects the recommendation, and mediation per Public Resources Code (PRC) 5094.98(k) fails, then ground disturbing activities may resume, but only after the QA verifies and notifies the County that the landowner has completely reinterred the human remains and items associated with Native American burials with appropriate dignity on the property, and ensures no further disturbance of the site per PRC 5097.98(e) by county recording, open space designation, or a conservation easement.</li> </ul>				
<p>If the coroner determines that no investigation of the cause of death is required and that the human remains are not Native American, then ground-disturbing activities may resume, after the Coroner informs the County of Merced of such determination. According to state law, six or more human burials at one location constitute a cemetery and disturbance of Native American cemeteries is a felony. Refs: PRC secs. 21083.2, 5094.98, 5097.5, 5097.9; H&amp;S Code sec. 7050.5, 7052.</p>				

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<b>Geology and Soils</b>				
<p><b>Mitigation Measure GEO-1: Prepare a design-level geotechnical investigation report.</b></p> <p>Prior to the issuance of any site-specific building permits, a design-level geotechnical investigation will be prepared by the project applicant and submitted to the Merced County Building and Safety Division for review and confirmation that the proposed development fully complies with the California Building Code. The report will address potential seismic hazards such as groundshaking, liquefaction, and expansive soils. The report will identify building techniques appropriate to minimize seismic damage. The project applicant shall ensure that the seismic safety recommendations of this report are included as conditions of building permit issuance.</p>	Project design, prior to issuance of building permits	Applicant	County of Merced	Verify before issuance of construction permit
<b>Greenhouse Gas Emissions</b>				
<p><b>Mitigation Measure GHG-1: Implement GHG Best Management Practices for construction.</b></p> <p>The project applicant will require all construction contractors to implement the Best Management Practices to reduce GHG emissions. Emission reduction measures will include, at a minimum, the following three measures.</p> <ul style="list-style-type: none"> <li>● Use alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet.</li> <li>● Recycle at least 50 percent of construction waste.</li> <li>● Use at least 10 percent local building materials (from within 100 miles of the project site).</li> </ul>	At least 30 days prior to construction and during construction	Applicant	County of Merced	Require in grading and building permits Verify periodically during construction
<p><b>Mitigation Measure GHG-2: Implement GHG reduction measures to reduce operation-related GHG emissions by 6,000 metric tons of CO<sub>2</sub>e per year.</b></p>	Prior to construction and during	Applicant	County of Merced SJVAPCD <sup>2</sup>	Verify periodically during construction

<sup>2</sup> SJVAPCD: San Joaquin Valley Air Pollution Control District

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<p>The project applicant will identify and implement feasible strategies to reduce GHG emissions generated by operation of the proposed project. When taken together, the strategies shall reduce operation-related GHG emissions by 6,066 metric tons CO<sub>2</sub>e, or by 27.17 percent, relative to BAU conditions. The project applicant will determine the nature and form of the strategies in consultation with the SJVAPCD. Specific strategies that could be incorporated into the project design are summarized below. Quantitative information on the potential capacity of each strategy is provided when available.</p>	construction			
<ul style="list-style-type: none"> <li data-bbox="195 578 1142 824">● <b>Strategy-1: Renewable Energy Purchase Agreement:</b> Enter into a power purchase agreement with PG&amp;E to purchase electricity from renewable sources. Renewable sources must be zero emissions energy sources (e.g., wind, solar, hydro) and may not be accounted to utility RPS goals. Sufficient renewable resources exist within the state (currently 30,005 gigawatt-hours per year) to offset 100 percent of net emissions generated by operational electricity (185 MT CO<sub>2</sub>e from Table 6-11 in Appendix A).</li> <li data-bbox="195 846 1125 1092">● <b>Strategy-2: On-site Renewable Energy:</b> Develop an on-site renewable energy system (rooftop solar, ground-mounted photovoltaic) capable of supplying a portion or all of the required electrical demand for the proposed project (10,060 megawatt-hour [MWh]). In order to offset net electricity emissions generated by the project (185 MT CO<sub>2</sub>e from Table 6-11 in Appendix A), a 902-MWh system would need to be installed.<sup>1</sup> Larger systems could potentially achieve greater reductions.</li> <li data-bbox="195 1114 1142 1321">● <b>Strategy-3: Energy Efficiency Upgrades:</b> Develop and implement an energy efficiency upgrade to improve facility wide energy efficiency by 15 percent, relative to current energy consumption levels. Measures should target existing boilers and other equipment that utilize natural gas. Other options could include cool or green roofs, as well as solar orientation and shading.</li> </ul>				

<sup>1</sup> Calculated by dividing the net annual electricity emissions (185 MT CO<sub>2</sub>e) by the Renewables Portfolio Standard-adjusted emission factor for CO<sub>2</sub>e.

Table MMRP-1. **Continued**

Mitigation Measure	Timing	Implementing Party	Monitoring Party	Monitoring Actions
<ul style="list-style-type: none"> <li>● <b>Purchase Carbon Offsets:</b> In partnership with offset providers, purchase carbon offsets. Offset protocols and validation could tier off existing standards (e.g., Climate Registry Programs) or could be developed independently, provided such protocols satisfy basic criteria of additionally (i.e., the reductions would not happen without the financial support of purchased offset credits). CARB is currently in the process of establishing a Cap and Trade registry that will identify qualified providers and Assembly Bill 32 (AB 32) projects. It is estimated that between 2012 and 2020, 2.5 billion allowances will be made available within the state (Legislative Analyst’s Office 2012). The national and international carbon markets are likely greater. Potential offset programs could include the following.               <ul style="list-style-type: none"> <li>○ AB 32 U.S. Forest and Urban Forest Project Resources</li> <li>○ AB 32 Livestock Projects</li> <li>○ AB 32 Ozone Depleting Substances Projects</li> <li>○ AB 32 Urban Forest Projects</li> <li>○ Other-California Based Offsets</li> <li>○ United States Based Offsets</li> <li>○ International Offsets (e.g., clean development mechanisms)</li> </ul> </li> </ul>				
<p>This measure is inherently scalable based on the volume of offsets purchased and could potentially offset 100 percent of the required emissions reduction (227.17 percent of operational emissions, equating to 6,066 metric tons CO<sub>2</sub>e). The project applicant shall coordinate with the SJVAPCD to determine the total carbon offsets that would need to be purchased annually throughout the project lifetime.</p>				