

**MITIGATION MONITORING
AND REPORTING PROGRAM
FOR THE
MERCED BIOGAS UPGRADE FACILITY AND
PIPELINE PROJECT
CONDITIONAL USE PERMIT APPLICATION NO. CUP19-003**

**COUNTY OF MERCED
DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
2222 'M' Street
Merced, CA 95340**

Prepared with the Technical Assistance of:



2934 Gold Pan Court, Suite 3
Rancho Cordova, CA 95670

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TABLE OF CONTENTS

Chapter	Page
1 Introduction.....	1-1
1.1 Purpose of the Mitigation Monitoring and Reporting Program	1-1
1.2 Description of Project	1-1
1.3 Organization and Format.....	1-1
1.4 Implementation of the Mitigation Monitoring and Reporting Program	1-2
1.5 Documentation.....	1-2
2 Inventory of Mitigation Measures.....	2-1
2.1 Air Quality	2-1
2.2 Biological Resources	2-1
2.3 Cultural Resources.....	2-12
2.4 Hazards and Hazardous Materials	2-13
2.5 Hydrology and Water Quality.....	2-14
2.6 Transportation and Circulation.....	2-14
3 Implementation Schedule and Checklist.....	3-1

LIST OF TABLES

Table 3-1	Mitigation Measure Implementation Schedule and Monitoring Checklist.....	3-2
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1 INTRODUCTION

1.1 PURPOSE OF THE MITIGATION MONITORING AND REPORTING PROGRAM

Section 21081.6 of the California Public Resources Code requires that:

A public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. This mitigation monitoring program applies to mitigation measures adopted as part of EIRs or negative declarations.

The purpose of the Mitigation Monitoring and Reporting Program is to ensure that the mitigation measures included in the Initial Study/Mitigated Negative Declaration (IS/MND) for the Merced Biogas Upgrade Facility and Pipeline project (State Clearinghouse # 2019109012) are implemented.

1.2 DESCRIPTION OF PROJECT

The project applicant has applied to Merced County for a Conditional Use Permit (CUP19-003) to construct and operate a biogas upgrade facility and up to 34 miles of associated pipeline located in unincorporated Merced and Madera Counties¹, over 41 square miles stretching south of the City of Merced to south of the Merced/Madera County line and State Route 152. The proposed pipeline would transport biogas to a single biogas upgrading facility from a cluster of individual dairy digesters in the surrounding area. The upgraded biomethane would be piped to an injection point with a PG&E gas transmission pipeline or a private pipeline utility. The proposed project considers two alternate locations for the biogas upgrading and metering equipment.

1.3 ORGANIZATION AND FORMAT

This program describes the requirements and procedures to be followed to ensure that all mitigation measures adopted as part of this project will be implemented as described in the IS/MND and adopted by Merced County Planning Commission.

This Mitigation Monitoring and Reporting Program contains the following chapters:

- **Chapter 2 - Inventory of Mitigation Measures.** This section contains a list of all mitigation measures included in the IS/MND as adopted by the Merced County Planning Commission in numerical order.
- **Chapter 3 - Implementation Schedule and Monitoring Checklist.** This section contains a summary description of the required mitigation measures in checklist format. The timing of implementation of mitigation measures is indicated, in addition to implementation and monitoring responsibility.

¹ Up to approximately five miles of pipeline would be located within Madera County.

1.4 IMPLEMENTATION OF THE MITIGATION MONITORING AND REPORTING PROGRAM

The Director of the Community and Economic Development Department shall assign staff to manage the Merced Biogas Upgrade Facility and Pipeline project Mitigation Monitoring and Reporting Program under the Department's responsibility.

Responsible staff shall have overall responsibility for ensuring implementation of measures under their jurisdiction and verification of such measures. Responsible staff may delegate duties and responsibilities to other Department staff, state regulatory agencies, consultants, the project sponsor, or other authorities as necessary and appropriate.

1.5 DOCUMENTATION

All mitigation measures will be included on the project construction plans as prepared by a qualified engineer and submitted to the County for review.

1.5.1 IMPLEMENTATION SCHEDULE AND MONITORING CHECKLIST

Chapter 3 contains a mitigation measure implementation schedule and monitoring checklist. Responsible Community and Economic Development Department staff may use the checklist as a summary of the measures to be implemented and the entities responsible for mitigation implementation and monitoring and to check off mitigation implementation as it is completed.

2 INVENTORY OF MITIGATION MEASURES

This section contains all of the required mitigation measures identified in the Initial Study/Mitigated Negative Declaration (IS/MND) for the Merced Biogas Upgrade Facility and Pipeline project. The mitigation measures are listed in numerical order and by issue area.

2.1 AIR QUALITY

Mitigation Measure AQ-1:

Prior to the release of the first-issued building permit, the applicant shall provide to the County a receipt of a SJVAPCD approved Dust Control Plan or Construction Notification form in compliance with Regulation VIII – Fugitive Dust PM₁₀ Prohibitions. Additional applicable SJVAPCD Rules and Regulations may include: Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations), and Rule 4002 (National Emission Standards for Hazardous Air Pollutants). The project applicant will be required to implement measures of applicable SJVAPCD Rules and Regulations as noted.

Mitigation Measure AQ-2:

Implement Mitigation Measure AQ-1, which would require that the project comply with all applicable SJVAPCD regulations.

2.2 BIOLOGICAL RESOURCES

Mitigation Measure BIO-1:

- A. If pipeline installation at the natural drainage crossing locations (drainage crossing #6, 8, and 23-28) are avoided using alternate alignments, or installed using drilling techniques or open cut trench excavation within the disturbed or paved roadway or shoulder, and all ground disturbance is located in developed lands and/or upland areas outside of potential special-status plant species habitat, implementation of the project is expected to have a less than significant impact to special-status plants, and no mitigation is required. For the purposes of this measure, the “disturbed or paved roadway or shoulder” is defined as the paved section of the roadway or unvegetated road shoulder immediately adjacent to the paved section of Healy Road on the west side of the roadway.
- B. If pipeline installation at the natural drainage locations (drainage crossing #6, 8, and 23-28) involves trench excavation across the waterways (creeks, channels, swales), or any other ground disturbance within natural waterway crossings or vernal pools and swales, even if conducted when dry, the following measures will be implemented:
 1. Pre-construction special-status species plant surveys shall be conducted in natural waterway crossing impact areas; particularly in vernal pool and swale habitats that have the potential to support special-status plants, prior to initiating project activities. All surveys will be conducted in accordance with agency approved survey protocols. If no special-status species are identified in protocol surveys, no mitigation is required.
 2. If special-status plants are identified within project impact areas, one of the following measures shall apply:

- 2.1 If feasible, the project will be adjusted to avoid impacts to special-status plants. If adjustment of construction areas or methods is not feasible, the applicant will develop species-specific measures to minimize the effects of construction. This may include; seasonal construction restrictions, erection of protective barriers, collection and relocation of individual plants or seeds, site monitoring during construction, site restoration, and/or implementation of construction practices that would avoid specific areas.
- 2.2 If there is no feasible alternative to the disturbance to special-status plants, the applicant will mitigate for impacts to special-status plants. All impacts associated with pipeline installation are expected to be short-term, temporary impacts that would be restored to pre-project conditions upon completion of construction. The applicant shall prepare a site restoration plan that provides for plant salvage and replanting, seed collection and replanting, and/or topsoil collection and replacement as appropriate for species identified within the project impact area. The final restoration plan would, at a minimum, restore the temporary impact areas to pre-project conditions that would support special-status species populations. The restored habitat would be monitored consistent with the requirements of the site restoration plan to ensure that performance criteria established are achieved and maintained through the monitoring period. No permanent impact to special-status plants will occur.
3. If listed species are identified (e.g. federal- or state-listed endangered, threatened, or candidate species) the applicant will consult with the USFWS and/or CDFW to secure proper authorization. Any project component that would jeopardize the continued existence of a listed plant species will be eliminated from consideration.

Mitigation Measure BIO-2:

Construction of the pipeline alignment along Healy Road, Rahilly Road, and Whitegate Drive may require the following mitigation measures for direct or indirect impacts on VPBs depending on pipeline location and construction methodologies used:

- A. If pipeline construction is entirely sited within the paved roadway or disturbed shoulder at the swale crossing locations (natural drainage crossings #24-28) along Healy Road, or pipeline is installed using drilling techniques under these drainages (with all ground disturbance located outside suitable VPB habitat); and pipeline installation along Whitegate Drive is sited on the south side of the paved roadway (opposite the grassland areas supporting vernal pool habitat); and pipeline installation along Rahilly Road is sited on the north side of the paved roadway (opposite the grassland areas supporting vernal pool habitat); then implementation of the project is expected to have a less than significant impact to VPBs, and no mitigation is required. For the purposes of this discussion, the prescribed locations defined for full avoidance of direct and indirect impacts to listed VPBs include the paved section of the roadway or unvegetated road shoulder immediately adjacent to the paved section of Healy Road on the west side of the roadway; the south side of the roadway on Whitegate Drive between the east and west entrance driveways of the Red Rock Dairy; and the north side of the roadway on Rahilly Road from the eastern edge of the existing feedlot to the entrance driveway of the Vander Woude Dairy.
- B. If full avoidance of direct or indirect impact to VPB habitat as outlined in BIO-2A is not feasible the following mitigation scenarios may apply:

1. If installation of the pipeline involves excavation in grassland areas within 250 feet of vernal pools or swales that provide suitable habitat for VPBs and without any disturbed or developed land barriers (e.g. disturbed or paved roadway) between construction activities and suitable VPB habitat, there is potential for indirect impact to listed VPBs through alteration of the watershed or damage to subsurface impervious layer, and the following measures shall be implemented:
 - (a) Applicant shall consult with USFWS prior to implementation of the project to obtain all required regulatory permits and authorizations for potential indirect impact to listed species.
 - (b) All work will be conducted during the dry season when potential habitat features on or near the proposed pipeline installation areas are dry.
 - (c) Adequate fencing will be placed and maintained around any vernal pool habitat not approved for impact to prevent encroachment.
 - (d) Environmental Awareness Training Program will include information regarding the presence of listed VPB species and the importance of avoiding impacts to these species and their habitat.
 - (e) A USFWS-approved biologist will monitor pipeline installation activities in potential VPB habitat or in proximity to known or potential VPB habitat to ensure that no unnecessary take or destruction of habitat occurs. The biologist will have authority to stop activities if necessary, to implement appropriate corrective measures.
 - (f) Storm water BMPs (silt fencing and straw wattles) will be placed around excavations and dirt stockpiles to reduce potential for erosion and sedimentation into potential VPB habitat features.
 - (g) No application of water (e.g., dust suppression) will occur in vernal pool habitat without additional measures (such as barriers and/or use of low flow water truck nozzles) in place to keep water out of potential or known VPB habitat features during the dry season.
 - (h) Any groundwater encountered within the trench excavation will be pumped into a water truck or other containment device and will be discharged offsite or in upland areas outside of vernal pool grassland habitat.

2. If pipeline installation at the swale locations (drainage crossing #24-28) involves trench excavation or any other ground disturbance within the swales, even if conducted when dry, there is potential for direct impact to listed VPBs, through direct habitat modification, and the following measures shall be implemented:
 - (a) Applicant shall consult with USFWS prior to implementation of the project to obtain all required regulatory permits and authorizations for potential direct impact to listed species.
 - (b) All work will be conducted during the dry season when potential habitat features on or near the proposed pipeline installation areas are dry.
 - (c) Adequate fencing will be placed and maintained around any vernal pool habitat not approved for impact to prevent encroachment.
 - (d) Environmental Awareness Training Program will include information regarding the presence of listed VPB species and the importance of avoiding impacts to these species and their habitat.
 - (e) A USFWS-approved biologist will monitor pipeline installation activities in potential VPB habitat or in proximity to known or potential VPB habitat to ensure that no

- unnecessary take or destruction of habitat occurs. The biologist will have authority to stop activities if necessary, to implement appropriate corrective measures.
- (f) Storm water BMPs (silt fencing and straw wattles) will be placed around excavations and dirt stockpiles to reduce potential for erosion and sedimentation into potential VPB habitat features.
 - (g) No application of water (e.g., dust suppression) will occur in vernal pool habitat without additional measures (such as barriers and/or use of low flow water truck nozzles) in place to keep water out of potential or known VPB habitat features during the dry season.
 - (h) Any groundwater encountered within the trench excavation will be pumped into a water truck or other containment device and will be discharged offsite or in upland areas outside of vernal pool grassland habitat.
 - (i) Prior to excavation within potential VPB habitat (vernal pools and swales), the uppermost soil layer that may contain branchiopod eggs (cysts) will be collected, labelled, and stored under appropriate climatic conditions until the pipeline installation has been completed. Topsoil will be placed back in the feature from which it was collected. Additional details regarding appropriate collection and storage methods shall be outlined in a project-specific site restoration plan.
 - (j) Project activities in potential or known branchiopod habitat will be conducted when the soil is dry to the touch both at the surface and one inch below the surface. After any precipitation event of greater than 0.2-inch, Project activities within habitat areas will be halted and only resumed after the soil has dried sufficiently, and no sooner than 48 hours after the rain event ends.
 - (k) For temporary impacts to VPB habitat, the applicant shall prepare a vernal pool and swale habitat restoration and monitoring plan. This plan shall outline appropriate methods for salvage and storage of topsoil with VPB eggs (cysts). The vernal pool and swale habitat restoration and monitoring plan shall, at a minimum, provide for restoration of temporary impact areas to pre-project conditions and restoration of populations of VPBs to pre-project levels or better. The habitat restoration and monitoring plan would outline monitoring methods and performance criteria to ensure success of the restoration. The restored habitat would be monitored for a minimum of five years to ensure that performance criteria established in the habitat restoration plan are achieved and maintained through the monitoring period. The vernal pool and swale habitat restoration and monitoring plan will be submitted to the USFWS during consultation for agency approval.
 - (l) All impacts associated with pipeline installation are expected to be minimal, temporary, and fully restored; however, if compensatory mitigation is required for temporal loss of vernal pool habitat or unsuccessful restoration of vernal pool habitat, the applicant may satisfy all or a portion of species mitigation through the purchase of “credits” at a mitigation bank approved by the USFWS for compensatory mitigation of impacts to listed species, or through other means, such as on-or off-site vernal pool creation, conservation easement, contribution to approved in-lieu habitat fund, etc. If compensatory mitigation is required, the mitigation plan must provide a minimum of 1:1 creation or restoration of listed VPB habitat and 2:1 preservation of listed VPB habitat and must be approved by the USFWS. Ratios may be higher if applicant responsible offsite mitigation is proposed.

Mitigation Measure BIO-3:

Construction of the pipeline will require excavation within 165 feet of a blue elderberry shrub; however, to minimize project impacts to VELB, a minimum 20-foot exclusion zone extending from the dripline of the shrub will be maintained during construction. Consistent with measures outlined by the USFWS to mitigate potential impacts to VELB when working within 165 feet of a blue elderberry shrub, but outside the 20-foot core area the following measures shall be implemented:

- A. Applicant shall consult with USFWS prior to implementation of the project to obtain all regulatory permits and authorizations for potential impact to listed species.
- B. Fence and flag elderberry shrubs to be avoided and provide a minimum setback of at least 20 feet from the dripline of each elderberry plant for ground disturbance activities (e.g. trenching) to ensure that activities will not damage or kill the elderberry shrub.
- C. Brief the contractors and key employees of the need to avoid any impacts to the elderberry plants, and to advise them of penalties associated with damage or destruction of the plants. Instruct work crew about the status of the VELB and the need to protect its elderberry host plant, and possible penalties for non-compliance with avoidance and minimization measures.
- D. A qualified biologist will monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring will depend on the project and should be determined in coordination with the USFWS biologist.
- E. As much as feasible, all activities within 165 feet of an elderberry shrub, will be conducted outside the flight season of the VELB (March-July).
- F. Continue to protect both core and buffer avoidance areas after construction from adverse effects of the project.
- G. No insecticides, herbicides, fertilizers, or other chemicals that might harm the VELB or its host plant should be used within 100 feet of any elderberry plant with a stem measuring 1.0 inch or greater in diameter at ground level.
- H. Mechanical vegetation removal within the dripline of an elderberry shrub will be limited to the season when adult VELB are not active (August-February) and will avoid damaging the elderberry.
- I. Erosion control will be implemented, and the affected construction area will be revegetated with appropriate native plants.

Mitigation Measure BIO-4:

- A. If pipeline installation at the swale crossing locations (drainage crossing #24-28) along Healy Road are avoided by using drilling techniques or open cut trench excavation within the disturbed or paved roadway or shoulder, and all ground disturbance is located in developed lands outside of potential amphibian dispersal corridors, implementation of the project is expected to have a less than significant impact to CTS and western spadefoot, and no mitigation is required. For the purposes of this measure, the “disturbed or paved roadway or shoulder” is defined as the paved section of the roadway or unvegetated road shoulder immediately adjacent to the paved section of Healy Road on the west side of the roadway.

- B. If pipeline installation at the swale crossing locations (drainage crossing #24-28) involves trench excavation or any other ground disturbance within the swales, the following measures shall be implemented:
1. Construction for pipeline installation adjacent to vernal pool grasslands will be completed during the dry season when amphibians are not expected to be dispersing and are expected to be in their summer refugia (June 15 and October 31).
 2. A pre-construction survey for CTS and western spadefoot will be conducted by a qualified biologist along pipeline segments adjacent to vernal pool grassland habitat and drainage crossing locations. Surveys will be completed within 48 hours prior the onset of work activities in these locations.
 3. If CTS is observed within the construction work area, the biologist will coordinate with CDFW and USFWS to ensure that the individuals are not harmed. If relocation of CTS is necessary, they will be relocated the shortest distance possible to a location that contains suitable habitat that will not be affected by activities associated with the proposed project. Any CTS relocation must be pre-approved by the USFWS and CDFW and be conducted by an agency approved permitted biologist.
 4. If western spadefoot is observed within the construction work area, the biologist will coordinate with CDFW to ensure that the individuals are not harmed. If relocation of western spadefoot is necessary, they will be relocated the shortest distance possible to a location that contains suitable habitat that will not be affected by activities associated with the proposed project. Any western spadefoot relocation must be pre-approved by the CDFW and be conducted by an agency approved biologist.

Mitigation Measure BIO-5:

- A. If pipeline installation at the natural drainage crossing locations (drainage crossing #6, 8, and 23-28) are installed using drilling techniques or open cut trench excavation within the disturbed or paved roadway or shoulder, and all ground disturbance is located in upland areas outside of potential pond turtle habitat or the drainage crossing are dry at the time of construction, implementation of the project is expected to have a less than significant impact to western pond turtle and no mitigation is required. For the purposes of this measure, the “disturbed or paved roadway or shoulder” is defined as the paved section of the roadway or unvegetated road shoulder immediately adjacent to the paved section of Healy Road on the west side of the roadway.
- B. If pipeline installation at the natural drainage locations (drainage crossing #6, 8, and 23-28) involves trench excavation across the waterways with water present (creeks, channels, swales), or any other ground disturbance within natural waterway crossings or vernal pools and swales, the following measures will be implemented:
1. A qualified biologist shall conduct preconstruction surveys for western pond turtles if construction activities will result in impacts to any of the natural drainages (e.g. Chowchilla River, Dutchman Creek, or unnamed natural drainages). Surveys shall be conducted within 48 hours of the start of construction at these locations.
 2. If western pond turtle is found within the construction work area the biologist will coordinate with CDFW to ensure that the turtles are not harmed. If relocation of individuals is necessary, turtles will be relocated the shortest distance possible to a

location that contains suitable habitat and will not be affected by activities associated with the proposed project. Relocation of turtles will be pre-approved by the CDFW and will be conducted by an agency approved biologist.

Mitigation Measure BIO-6:

To reduce project related impacts to active bird nests and to reduce the potential for construction activities to interrupt nesting and rearing behaviors of birds, the following measures shall be implemented prior to and during construction activities:

- A. A preconstruction survey shall be conducted to determine the presence of nesting birds if vegetation removal or construction activities will be initiated during the breeding season (February 15 through September 15). The project site and potential nesting areas within 100 feet of the site for MBTA protected passerines and 500 feet for raptors shall be surveyed within seven days prior to the initiation of construction. Surveys will be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds.
- B. Construction shall not occur within a 500-foot buffer surrounding nests of raptors or a 100-foot buffer surrounding nests of MBTA protected passerines (including killdeer, house finch, mourning dove, etc.).
- C. If construction within these buffer areas is required, prior approval must be obtained from the CDFW.

Mitigation Measure BIO-7:

Due to the disturbance within 100 feet of potential breeding habitat, the following measures shall be implemented prior to and during construction activities:

- A. If ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15), a preconstruction survey shall be conducted to determine presence / absence of TCBB. This measure is also required for all MBTA protected nesting birds, as indicated above. If no TCBB nesting occurrences are found, no further mitigation is required.
- B. If a TCBB nest colony is discovered during preconstruction surveys, the following measures shall be implemented:
 1. Applicant shall consult CDFW to determine the appropriate avoidance buffer and or required mitigation.
 2. Project shall avoid construction activities within the established avoidance buffer of TCBB colonies until young have fledged.

Mitigation Measure BIO-8:

- A. If construction work occurs after August 30 and ends before March 1 (outside of the breeding season), impacts to the Swainson's hawk would be avoided. Surveys would not be required for work conducted during this part of the year, and no further mitigation for nest disturbance is required.
- B. *Protocol Surveys:* For work that begins between March 1 and August 30, a qualified biologist with expertise in Swainson's hawk shall conduct protocol surveys of potential nesting habitat within 0.5 mile of any construction activities prior to initiation of such activities. The project applicant shall conduct a protocol-level survey 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 (<https://www.wildlife.ca.gov/conservation/survey-protocols#377281284-birds>) (May 31, 2000) hereby incorporated by reference. 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.

A written report with the pre-construction survey results must be provided to the Planning Department and CDFW within 30 days of the 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 literature cited.

If the required protocol surveys show there are no active Swainson’s hawk nests within the 0.5-mile of construction activities, then no further mitigation for nest disturbance will be required. If protocol surveys show that there are no active Swainson’s hawk nests within 10 miles of the site, then no further mitigation for foraging impacts will be required.

C. *Nest Avoidance*: If nesting Swainson’s hawks are observed within 0.5-mile of the project site during the protocol surveys, the project applicant must implement CDFW pre-approved mitigation measures to avoid nest impacts during construction. These measures include:

1. All project-related activities with the potential to cause nest abandonment or forced fledging of young shall be avoided until the young have fledged.
2. If disturbances, habitat conversions, or other project-related activities, that may cause nest abandonment or forced fledging, are necessary, within the nest protection buffer zone (0.5-mile), monitoring of the nest site by a qualified raptor biologist, funded by the project applicant, shall be required 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.
3. The project applicant shall be required to coordinate with CDFW to determine if project activities with the potential to cause disturbance to nesting Swainson’s hawks within the 0.5-mile buffer may proceed with a reduced nest buffer and an approved biological monitor. CDFW may authorize a reduced nest buffer with the presence of a monitoring biologist during construction activities to ensure that the nest is not disturbed.
4. Routine disturbances such as agricultural activities, commuter traffic, and routine maintenance activities within 0.5-mile of an active nest are not prohibited.

D. *Foraging Impacts*: If nesting occurrences of Swainson’s hawks occur within 10 miles of the permanent impact areas (e.g. the Biogas Upgrade Facilities) mitigation for loss of foraging habitat is required. Generally, CDFW requires mitigation for loss of Swainson’s hawk foraging habitat based on the presence of active nests within 10 miles of the project. If an active nest site is identified within ten miles of the Biogas Upgrade Facility Project Site Boundary, the project proponent will be required by CDFW to provide off-site foraging habitat management lands at a specified Mitigation Ratio that is based on nest proximity to the project site, as follows:

Distance from Project Boundary	Mitigation Acreage Ratio*
Within 1 mile	1.00:1**
Between 1 and 5 miles	0.75:1
Between 5 and 10 miles	0.50:1
*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 prey production.	

CDFW provides options for off-site habitat management by fee title acquisition or conservation easement acquisition with a CDFW-approved management plan, and by the acquisition of comparable habitat. Mitigation credits may be pursued through a CDFW-approved mitigation bank for Swainson's hawk impacts in Merced County².

The CDFW pre-approved CEQA mitigation measures are found in the "DFG Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California," CDFW³.

The Merced County Community and Economic Development Department may negotiate Management Conditions that differ from the foregoing CDFW pre-approved mitigation measures if such conditions are consistent with California Fish and Wildlife Commission and the state legislative policy and such conditions are approved by CDFW prior to reaching agreement with the project applicant.

Mitigation Measure BIO-9:

- A. If pipeline installation across the Chowchilla River (drainage crossing # 8) is installed using drilling techniques, and all ground disturbance is located in upland areas more than 100 feet from the bridge, or the alternate pipeline alignment is selected which avoids Chowchilla River crossings, then implementation of the project is expected to have a less than significant impact to bats and no mitigation is required.
- B. If pipeline installation across the Chowchilla River (drainage crossing # 8) is installed using trench excavation across the waterways within 100 feet of the bridge or the pipeline will span the Chowchilla River and be attached to the bridge, the following measures will be implemented:
 1. A preconstruction visual survey shall be conducted to determine presence / absence of roosting bat species at the Chowchilla Bridge (during the maternity season (March 1 - August 31). The survey shall be conducted within 14 days of proposed impacts within 100 feet of the Chowchilla Bridge.
 2. If a visual survey indicates that the Chowchilla Bridge is being used by bats; an acoustic bat survey to determine the species of bat utilizing the bridge will be conducted. If the acoustic survey determines that the bats onsite are Pallid bats or any other CSC-listed bat species, CDFW will be notified of the presence of sensitive bat species and construction within 100 feet of the Chowchilla Bridge will take place outside of the maternal roosting season (March 1 - August 31).

² Go to: www.dfg.ca.gov/habcon/conplan/mitbank/catalogue.

³ Go to: http://www.madera-county.com/mma/archives/uploads/1188143775_Document_upload_23w.pdf (November 8, 1994).

Mitigation Measure BIO-10:

Because there is the potential for San Joaquin kit fox and American badgers to occur within the project area, the *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS, 2011) shall be followed. The measures that are listed below have been excerpted from those guidelines and will protect San Joaquin kit fox and American badgers.

- A. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and state and federal highways; this is particularly important at night when kit foxes are most active. Night-time operations should be minimized to the extent possible. However, if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.
- B. To prevent inadvertent entrapment of San Joaquin kit foxes or other animals, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured San Joaquin kit fox is discovered, USFWS and CDFW shall be contacted as noted under Measure 13 referenced below.
- C. San Joaquin kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored at the site for one or more overnight 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 San Joaquin kit fox 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 only once to remove it from the path of construction activity, until the fox has escaped.
- D. 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 the project site.
- E. No firearms shall be allowed on the project site.
- F. If any San Joaquin kit fox or American badger, or their sign, are detected onsite, dogs and cats shall be kept off the project site to prevent harassment, mortality of San Joaquin kit foxes or American badgers, and/or destruction of their dens.
- G. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of San Joaquin kit foxes 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. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.
- H. 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 San Joaquin kit fox or who finds a dead, injured or entrapped San Joaquin kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the Service.

- I. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
- J. Upon completion of the project, all areas subject to temporary ground disturbance, including storage and staging areas, temporary roads, pipeline corridors, etc. should be recontoured if necessary, and revegetated to promote restoration of the area to pre-project conditions.
- K. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the USFWS should be contacted for guidance.
- L. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured or entrapped kit fox. The CDFW contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist at (530) 934-9309. The USFWS should be contacted at the numbers below.
- M. The Sacramento Fish and Wildlife Office and CDFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox 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, at the addresses and telephone numbers below. The CDFW contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.
- N. New sightings of San Joaquin kit fox shall be reported to the CNDDDB. A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the USFWS at the address below.
- O. Any project-related information required by the USFWS or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W2605, Sacramento, California, 95825-1846, (916) 414-6620 or (916) 414-6600.

Mitigation Measure BIO-11:

Implement Mitigation Measure BIO-2.

Mitigation Measure BIO-12:

Impacts to waters and/or wetlands may be reduced by project design avoidance and minimization measures such as: a) use of existing bridge to span channel to eliminate impact within jurisdictional areas; b) drill under streams and ditches to install new pipelines; or, c) realignment of pipelines to avoid jurisdictional areas. Once the pipeline alignment has been determined, construction methodology defined, and precise impact areas and extents identified, the following measures will be implemented:

- A. The applicant shall conduct a jurisdictional delineation of WoUS on the project site to confirm the limits of jurisdictional areas and potential project impacts. The delineation shall be verified by the Corps. The verified delineation will provide the applicant with the extent of federal jurisdiction within the defined Project Study Area boundary and the impact acreage necessary for preparing a WoUS/Wetland Mitigation Plan and/or permit application if impacts to jurisdictional areas cannot be avoided, or the jurisdictional boundaries to further refined the project to avoid impact to jurisdictional areas. If the Project is able to avoid impact to jurisdictional waters and wetlands based on the verified delineation, no further mitigation is required.
- B. If project impacts to federal and state jurisdictional areas are identified and unavoidable, the applicant shall obtain all necessary permits for impacts to WoUS and wetlands from the Corps and the RWQCB and/or for impacts to the Streambed from CDFW prior to project implementation. The project must comply with all permit conditions. Compensatory mitigation, if required, must be consistent with the Corps' standards pertaining to mitigation type, location, and ratios, but will be accomplished with a minimum of 1:1 replacement ratio.
 1. If compensatory mitigation is needed, the applicant may satisfy all or a portion of WoUS and wetlands mitigation through the purchase of "credits" at a mitigation bank approved by the Corps, RWQCB, and/or CDFW for compensatory mitigation of impacts to hydrologically similar WoUS, or through other means, such as on- or off-site wetland creation, conservation easement, contribution to approved in-lieu habitat fund, etc. The mitigation plan must be approved by the permitting agencies.

2.3 CULTURAL RESOURCES

Mitigation Measure CUL-1:

- A. If buried cultural resources such as chipped or ground stone, midden deposits, historic debris, building foundations, human bone, or paleontological resources are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist or paleontologist can assess the significance of the find and, if necessary, develop responsible treatment measures in consultation with Merced County and other appropriate agencies.
- B. If remains of Native American origin are discovered during proposed project construction, it shall be necessary to comply with state laws concerning the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (NAHC). If any human remains are discovered or recognized in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - The County coroner has been informed and has determined that no investigation of the cause of death is required; and
 - If the remains are of Native American origin:
 - ✓ The most likely descendants of the deceased Native Americans have made a recommendation to the landowner or person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98; or
 - ✓ The NAHC has been unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified.

- C. According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the NAHC.

Mitigation Measure CUL-2:

Monitoring during ground-disturbing activities within 300 meters (approximately 1,000 feet) on each side of the following creek and river crossing locations shall be conducted by a fully qualified archaeologist that meets the Secretary of the Interior's Standards in Archaeology. In the event that undiscovered cultural resources are found in the area of direct impact of the proposed project, the responsible field manager shall order discontinuation of all activities within a minimum of 30 meters (approximately 100 feet) of the discovery, and promptly contact the monitoring archaeologist regarding evaluation of the find. The archaeologist will consult with all interested parties, including Native Americans, and develop a recovery or mitigation plan, which the applicant shall implement.

- Mariposa Creek at the Hogendam Dairy on the border between Sections 16 & 17, T8S R14E
- Deadman Creek along Healy Road on the border between Sections 33 and 34, T8S R14E
- Dutchman Creek near the Healy Road/Sandy Mush Road intersection at the Rock Star Dairy on the border of Sections 33 and 34, T8S R14E and the NW ¼ NW ¼ of Section 3, T9S R14E
- Chowchilla River on Ivy Road/Avenue 8 on the border between Sections 25 and 26, T9S R14E
- Chowchilla River on W. Washington Road on the border of Section 26 and 35, T9S R14E.

2.4 HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure HAZ-1:

If soil, groundwater, or any other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant or their contractor shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant or their contractor shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies), implementation of actions to identify the nature and extent of contamination, and remediation as necessary. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of Merced County or other governmental regulatory agency, as appropriate.

Mitigation Measure HAZ-2:

Implement Mitigation Measure TRA-1.

2.5 HYDROLOGY AND WATER QUALITY

Mitigation Measure HYD-1:

The applicant shall be required to submit permit registration documents for the Construction General Permit Order 2009-0009-DWQ to the SWRCB, and comply with all requirements of the permit. The annual fees are based on total disturbed area of the construction project in acres. A Legally Responsible Person (LRP) shall electronically submit Permit Registration Documents (PRD) prior to building permit issuance in the Stormwater Multi-Application Report Tracking System. PRDs consist of the Notice of Intent, Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the LRP, and the first annual fee. All requirements of the site specific SWPPP shall be included in construction documents for the project.

Mitigation Measure HYD-2 (West Option):

Following construction of the proposed biogas upgrading facility West Option (should it be selected) and prior to commencement of project operations, the project applicant shall obtain a flood proofing certificate in accordance with Section 18.34.050 of the Merced County Code from the Merced County Public Works Building Department. If any portion of the facility is found not to comply with flood proofing requirements, the project applicant shall complete flood proofing as necessary to obtain the flood-proofing certificate from the County.

2.6 TRANSPORTATION AND CIRCULATION

Mitigation Measure TR-1:

Prior to the initiation of construction, the project applicant will obtain an encroachment permits from Merced and Madera counties for work within the respective county ROW. The project applicant and/or its construction contractor will prepare a Traffic Control Plan that meets the requirements of Merced County and/or Madera County. The TCP shall include all required topics, including: traffic handling during each stage of construction, maintaining emergency service provider access by, if necessary, providing alternate routes, repositioning emergency equipment, or coordinating with nearby service providers for coverage during construction closures, and covering trenches during the evenings and weekends. A component of the TCP will involve public dissemination of construction-related information through notices to the nearby residences, press releases, and/or the use of changeable message signs. The project contractor will be required to notify all affected residences, post the construction impact schedule, and place articles and/or advertisements in appropriate local newspapers regarding construction impacts and schedules.

3 IMPLEMENTATION SCHEDULE AND CHECKLIST

This section contains an abbreviated description of each mitigation measure presented in tabular, checklist format. A complete description of each measure is contained in the preceding Chapter 2, *Inventory of Mitigation Measures*, contained within this document.

The mitigation measures to be implemented by the project applicant(s) and successor's in interest are separated into the following phases:

- Prior to Issuance of Building Permit
- Prior to Construction
- During Construction

A summary of the checklist is presented below. Some measures have components that are to be implemented during several project phases. These measures are noted in each category. For mitigation measures that require implementation of a different mitigation measure required for the project, only the measure monitored is listed below.

Timing of Implementation of Measure	Mitigation Measure Number
Prior to Issuance of Building Permit	AQ-1, HYD-1
Prior to Construction	BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, BIO-10, BIO-12, HYD-1, TR-1
During Construction	AQ-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, BIO-10, BIO-12, CUL-1, CUL-2, HAZ-1, HYD-1, TR-1

Table 3-1 Mitigation Measure Implementation Schedule and Monitoring Checklist

Timing of Verification (To occur prior to the following actions)	Measure Complete? (check)	Mitigation Measures	Responsibility - Implementation	Responsibility - Monitoring
Prior to Issuance of Building Permit / During Construction		Mitigation Measure AQ-1 and AQ-2: Consult with the SJVAPCD to identify and implement applicable SJVAPCD Rules and Regulations.	Project Applicant	SJVAPCD, MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-1: Follow construction practices to minimize potential impacts to special-status plant species.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-2: Follow construction practices to minimize potential impacts to special-status vernal pool branchiopod species.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-3: Create a minimum 20-foot exclusion zone around the identified blue elderberry shrub and maintained throughout the construction period. Follow USFWS measures to mitigate potential impacts to VELB.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-4: Follow construction practices to minimize potential impacts to Western pond turtle.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-5: Follow construction practices to minimize potential impacts to California tiger salamander and/or Western spadefoot.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-6: Use preconstruction surveys and avoidance measures to minimize potential impacts to nesting birds.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-7: Use preconstruction surveys and avoidance measures to minimize potential impacts to Tricolored blackbirds.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-8: Comply with CDFW permit requirements to mitigate impacts to Swainson's hawk nesting and foraging habitat.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-9: Use preconstruction surveys and avoidance measures to minimize potential impacts to roosting bats.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-10: Use preconstruction surveys and avoidance measures to minimize potential impacts to San Joaquin kit fox and/or American badger.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-11: Implement Mitigation Measure BIO-2 to minimize potential impacts to the Northern claypan vernal pool sensitive natural community.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure BIO-12: Delineate wetlands and obtain permits as necessary to avoid or minimize impacts to waters and/or wetlands.	Contractor, Project Applicant	MCCEDD, Corps, CDFW, USFWS
During Construction		Mitigation Measure CUL-1: Stop work if cultural resources and/or human remains are found during construction and contact appropriate agencies.	Contractor, Project Applicant	MCCEDD

Table 3-1 Mitigation Measure Implementation Schedule and Monitoring Checklist				
Timing of Verification (To occur prior to the following actions)	Measure Complete? (check)	Mitigation Measures	Responsibility - Implementation	Responsibility - Monitoring
During Construction		Mitigation Measure CUL-2: A qualified archaeologist shall conduct monitoring within 300 meters on each side of identified creek and river crossing locations. In the event that undiscovered cultural resources are found, the archaeologist shall consult with all interested parties, including Native Americans, to develop a recovery or mitigation plan.	Contractor, Project Applicant	MCCEDD
During Construction		Mitigation Measure HAZ-1: Should environmental contamination be encountered during construction, follow construction practices to minimize potential exposure of construction workers to hazardous materials.	Contractor, Project Applicant	MCCEDD
Prior to Construction / During Construction		Mitigation Measure HAZ-2: Implement Mitigation Measure TR-1 to minimize traffic conflicts during project construction.	Contractor, Project Applicant	MCCEDD
Prior to Issuance of Building Permit / Prior to Construction / During Construction		Mitigation Measure HYD-1: Submit permit registration documents for the Construction General Permit Order 2009-0009-DWQ to the SWRCB and comply with all requirements of the permit.	Project Applicant	MCCEDD; SWRCB
Prior to Construction / During Construction		Mitigation Measure TR-1: Obtain encroachment permits from Madera County and Merced County for work within the respective county right-of-way. Prepare a Traffic Control Plan that meets county requirements, notify all affected residences, and publish notices in appropriate local newspapers regarding construction impacts and scheduled.	Contractor, Project Applicant	MCDPW

Notes: MCCEDD = Merced County Community and Economic Development Department, MCDPW = Merced County Department of Public Works, CDFW = California Department of Fish and Wildlife, USFWS = United States Fish and Wildlife Service, SWRCB = State Water Resources Control Board

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