

Attachment B San Joaquin Valley Communication System Upgrade Project (CUH10201) Mitigation Monitoring and Reporting Program					
Mitigation Measure	Location (Site No.)	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
Cultural and Paleontological Resources					
Mitigation Measure M-CP-2: Accidental Discovery of Archaeological Resources For all project sites , the following mitigation measure is required to avoid any potential adverse effect from the project on accidentally discovered buried or submerged historical resources as defined in CEQA Guidelines Section 15064.5(a)(c). The SFPUC shall distribute the San Francisco Planning Department archaeological resource "ALERT" sheet to the project prime contractor and require the prime contractor to distribute it to any project subcontractor (including demolition, excavation, grading, foundation, and pile driving) firms or utilities firm involved in soils-disturbing activities within the project site. Prior to any soils-disturbing activities being undertaken, each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The SFPUC shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the "ALERT" sheet. Should any indication of an archaeological resource be encountered during any soils-disturbing activity of the project, the project Head Foreman and/or the SFPUC shall immediately notify the ERO and shall immediately suspend any soils-disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken. If the ERO determines that an archaeological resource may be present within the project site, the SFPUC shall retain the services of a qualified archaeological consultant meeting the Secretary of Interior standards for archaeology. The archaeological consultant shall advise the ERO as to whether the discovery is an archaeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archaeological resource is present, the archaeological consultant shall identify and evaluate the archaeological resource. The archaeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the SFPUC. Measures might include preservation in situ of the archaeological resource, an archaeological monitoring program, or an archaeological testing program. If an archaeological monitoring program or archaeological testing program is required, it shall be subject to review by the ERO. The ERO may also require that the SFPUC immediately implement a site security program if the archaeological resource is at risk from vandalism, looting, or other damaging actions. The project archaeological consultant shall submit a Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report. Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey NWIC shall receive one copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the San Francisco Planning Department shall receive one bound copy, one unbound copy, and one unlocked searchable PDF copy on CD of the FARR, along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the California or Registers. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.	All project sites (1-20)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that contract documents include measures related to archaeological discoveries.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Ensure that all project personnel attend environmental training prior to beginning work, receive "ALERT" sheet, and sign the training sign-in sheet. Maintain file of signature sheets for submittal to ERO. Monitor to ensure that the contractor implements measures in contract documents, report noncompliance, and ensure corrective action.	2. Preconstruction and Construction
		3. SFPUC CMB/BEM (Archaeologist)	3. SFPUC BEM and ERO	3. Ensure that all potential discoveries are reported as required and that the contractor suspends work in the vicinity. Mobilize an archaeologist to the area if the ERO determines that an archaeological resource may be present.	3. Construction
		4. SFPUC CMB/BEM (Archaeologist)	4. SFPUC BEM and ERO	4. In the event of a potential discovery, evaluate the potential discovery and advise ERO as to the significance of the discovery. Proceed with recommendations, evaluations, and implementation of additional measures in consultation with ERO. Prepare and submit Final Archaeological Data Recovery Report.	4. Construction
Mitigation Measure M-CP-3: Unanticipated Discovery Measures for Paleontological Resources At the Throttle 2, MP 56.51 Tie-In, Emery Cross Over , and Oakdale Office sites, if construction crews discover fossils or fossil-like material during excavation and earth-moving operations, all earthwork and other types of ground disturbance within 50 feet of the find shall stop immediately until a qualified paleontologist, as defined by Society of Vertebrate Paleontology guidelines, can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and activities occurring on the site. If treatment and salvage is required, recommendations will be consistent with Society of Vertebrate Paleontology guidelines and currently accepted scientific practice. If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report describing the finds. The paleontologist's recommendations shall be subject to review and approval by the ERO or designee. The SFPUC and/or its contractor will be responsible for ensuring that treatment is implemented. If no report is required, the SFPUC and/or its contractor will nonetheless ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.	Throttle 2 (7), MP 56.51 Tie-In (8), Emery Cross Over (9), and Oakdale Office (11)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that the contract documents include measures applicable to paleontological discovery.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Monitor to ensure that the contractor implements measures in contract documents, report noncompliance, and ensure corrective action.	2. Construction
		3. SFPUC CMB/BEM (Paleontologist)	3. SFPUC BEM and ERO	3. Ensure that potential discoveries are reported and that the contractor suspends work in the vicinity. In the event of a potential discovery, mobilize a qualified paleontologist to the area to evaluate the find and advise ERO as to the significance of the discovery. Proceed with recommendations and evaluations.	3. Construction
		4. SFPUC CMB/BEM (Paleontologist)	4. SFPUC BEM	4. Ensure that ERO approved treatment is implemented and that resultant report or find information is placed in a location readily available to the scientific community.	4. Construction
Mitigation Measure M-CP-4: Unanticipated Discovery Measures for Human Remains, Associated or Unassociated Funerary Objects For all project sites , the treatment of human remains and of associated or unassociated funerary objects discovered during any soils-disturbing activity shall comply with applicable state laws. Such treatment would include immediate notification of the applicable county Coroner and, in the event of the Coroner's determination that the human remains are Native American, notification of the NAHC who shall appoint a Most Likely Descendant (Public Resources Code [PRC] Section 5097.98). The archaeological consultant, SFPUC, and Most Likely Descendant shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects [(CEQA Guidelines Section 15064.5(d)]. The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. The PRC allows 48 hours to reach agreement on these matters. If the Most Likely Descendant and the other parties cannot agree on the reburial method, the SFPUC shall follow Section 5097.98(b) of the PRC, which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance." All archaeological work performed under this mitigation measure shall be subject to review by the ERO or designee.	All project sites (1-20)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that contract documents include measures related to discovery of human remains.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Monitor to ensure that the contractor implements measures in contract documents, report noncompliance, and ensure corrective action.	2. Construction
		3. SFPUC CMB/BEM (Archaeologist)	3. SFPUC BEM	3. If potential human remains are encountered, temporarily redirect activities. Mobilize an archaeologist to confirm existence of human remains.	3. Construction
		4. SFPUC CMB/BEM (Archaeologist)	4. SFPUC BEM and ERO	4. If human remains are confirmed, perform required coordination and notifications including reporting to ERO.	4. Construction

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Air Quality					
Mitigation Measure M-AQ 2a: SJVAPCD Applicable Regulation VIII Fugitive Dust Reduction Measures At the Throttle Station 1-3, Throttle Station 2, MP 56.51 Tie-In, Emery Cross Over, Warnerville Yard, Oakdale Office, Albers Road Valve House, Roselle Cross Over, Modesto 2 ATC, San Joaquin Valve House, Pelican Cross Over, and Tesla Treatment Facility Tower sites, project construction activities shall comply with SJVAPCD's Regulation VIII (Dust Control) in effect at the time of project construction. The required control measures from Regulation VIII applicable to the project may include the following: • All disturbed areas that are not being actively used for construction purposes, including storage piles, will be effectively stabilized for dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover, or vegetative ground cover. • All onsite unpaved roads and offsite unpaved access roads will be effectively stabilized for dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scarping, excavation, land leveling, grading, and cut and fill will be effectively controlled for fugitive dust emissions using an application of water or by presoaking. • When materials are transported offsite, all material will be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container will be maintained. • All operations will limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) • Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized for fugitive dust emissions using sufficient water or chemical stabilizer/suppressant. • Within urban areas, track-out will be immediately removed when it extends 50 feet or more from the site, and at the end of each workday. • Excavation and grading activities shall be suspended when winds exceed 20 miles per hour unless utilizing engineering controls such as spraying water for dust control and air monitoring. Regardless of wind speed, the SFPUC and its contractors must comply with Regulation VIII's 20 percent opacity limitation, which states that visible dust emissions from the work site may not be greater than 20 percent opacity.	Throttle Station 1-3 (6), Throttle Station 2 (7), MP 56.51 Tie-In (8), Emery Cross Over (9), Warnerville Yard (10), Oakdale Office (11), Albers Road Valve House (12), Roselle Cross Over (13), Modesto 2 ATC (14), San Joaquin Valve House (15), Pelican Cross Over (16), and Tesla Treatment Facility Tower (17)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that SJVAPCD's dust control measures are included in contract documents.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Monitor compliance with all applicable SJVAPCD dust control measures. Report non-compliance and ensure corrective action.	2. Construction
Mitigation Measure M-AQ 2b: BAAQMD Basic Construction Measures At the Mt. Diablo SBA, Sunol Ridge ATC, and Calaveras Substation sites, the SFPUC shall post one or more publicly visible signs with the telephone number and person to contact at the SFPUC with complaints related to excessive dust or vehicle idling. This person shall respond to complaints and, if necessary, take corrective action within 48 hours. The telephone number and person to contact at the BAAQMD's Compliance and Enforcement Division shall also be provided on the sign(s) in the event that the complainant also wishes to contact the applicable air district. In addition, to limit dust and equipment exhaust emissions associated with project construction, the following BAAQMD-recommended Basic Construction Measures shall be included in the construction contract specifications for the project: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material offsite shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • Onsite vehicle speeds on unpaved areas shall be limited to 15 miles per hour. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times for construction equipment (including vehicles) shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes. Clear signage of this requirement shall be provided for construction workers at all access points to construction areas. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic.	Mt. Diablo SBA (18), Sunol Ridge ATC (19), and Calaveras Substation (20)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that BAAQMD Basic Construction Measures, including the requirement to post signs, are included in contract documents.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Ensure that the contractor posts publically visible signs and responds to dust complaints within 48 hours of receipt.	2. Preconstruction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor compliance with BAAQMD Basic Construction Measures. Report non-compliance and ensure corrective action.	3. Construction
Utilities and Service Systems					
Mitigation Measure M UT 3: Waste Management/Recycling Plan The SFPUC shall prepare, or require its contractor to prepare, a Waste Management Plan identifying the types of wastes that would be generated by project construction and how all waste streams would be handled. In accordance with the priorities of AB 939, the plan shall emphasize source reduction measures followed by recycling and composting methods to reduce the amount of waste being disposed of in landfills. The plan shall specify that at least 50 percent of inert solids (asphalt, concrete, dirt, fines, rock, sand, and soil) must be diverted from landfills. Upon completion, the contractor shall document achievement of the stated waste reuse and recycling goals.	All project sites (1-20)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that the requirement for contractor to prepare and submit a waste management plan is included in contract documents.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Ensure that contractor submits a waste management plan.	2. Preconstruction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor to ensure that the contractor implements measures in contract documents and waste management plan, report noncompliance, and ensure corrective action.	3. Construction

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Mitigation Measure	Location (Site No.)	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
Biological Resources					
Mitigation Measure M-BI-1a: Designated Work Areas, Vehicle Access, and Equipment Staging Areas This measure shall be implemented during construction at the Oakdale Portal, Throttle Station 1-3, Throttle Station 2, MP 56.51 Tie-In, Emery Cross Over, Tesla Treatment Facility Tower, Mt. Diablo SBA, Sunol Ridge ATC, and Calaveras Substation . Construction specification drawings shall illustrate site boundaries, staging area locations, and vehicle and equipment access routes. Movement of vehicles and equipment to and from the project site will be restricted to the identified routes and established roadways to minimize habitat disturbance. To reduce the likelihood of amphibian and reptile mortality from vehicles and equipment, project-related vehicles shall observe a 20-mile-per-hour speed limit within designated work areas and on-site roads. All heavy equipment, vehicles, and supplies will be stored within the designated project limits or other developed location at the end of each work period. At no time will project materials or equipment enter or be stored in Environmentally Sensitive Areas, such as vernal pools, seasonal wetlands, and seasonal streams.	Oakdale Portal (5), Throttle Station 1-3 (6), Throttle Station 2 (7), MP 56.51 Tie-In (8), Emery Cross Over (9), Tesla Treatment Facility Tower (17), Mt. Diablo SBA (18), Sunol Ridge ATC (19), and Calaveras Substation (20)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that construction drawings include boundaries, staging area locations, and vehicle and equipment access routes, and that contract documents identify mitigation requirement.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Monitor to ensure that the contractor implements the measure as specified in the contract document, report noncompliance, and ensure corrective action.	2. Construction
Mitigation Measure M-BI-1b: Pre-construction Surveys for Special-status Amphibians and Reptiles Prior to the commencement of construction activities at Oakdale Portal, Throttle Station 1-3, Throttle Station 2, MP 56.51 Tie-In, Emery Cross Over, Tesla Treatment Facility Tower, Mt. Diablo SBA, Sunol Ridge ATC, and Calaveras Substation sites, a qualified biologist shall conduct a survey for amphibians and reptiles within and immediately adjacent to these project sites in areas deemed suitable habitat for the presence of special-status amphibians and reptile species (detailed below). Based on the general absence of habitat, there is a low likelihood that a federal or State-listed wildlife species would be encountered at project sites. However, if California tiger salamander or California red-legged frog are identified during preconstruction surveys, work at the individual site will be temporarily suspended and the CDFW and/or USFWS (depending upon species) shall be contacted for guidance within 24 hours. Similarly, the SFPUC environmental compliance manager shall be contacted immediately if special-status species are observed within a project site. Due to the generally disturbed condition of most project sites, a passive or active relocation approach may be accepted by the resource agencies to avoid impacts to these species. The SFPUC shall notify the appropriate resource agency immediately if any federal or State-listed species are accidentally taken (killed or injured) onsite, and shall submit a report that includes date(s), location(s), habitat description, and any corrective measures taken to protect the species found. If non-listed amphibians or reptiles are encountered, such as foothill yellow-legged frog, western spadefoot, or San Joaquin coachwhip, identified animals shall be relocated to suitable off-site habitat by the qualified biologist without consulting the resource agencies. Project sites shall be re-inspected by the biologist whenever a lapse in construction activity of two weeks or greater has occurred. Project locations and species requiring pre-construction surveys are summarized in FMND Table 16, and species that may occur at each site are as follows: • Oakdale Portal: California tiger salamander, Foothill yellow-legged frog, Western spadefoot toad • Throttle Station 1-3, Throttle Station 2, MP 56.51 Tie-In: Western spadefoot toad • Emery Cross Over: Western spadefoot toad, California tiger salamander • Tesla Treatment Facility Tower: San Joaquin coachwhip, California red-legged frog, Western spadefoot toad • Mt. Diablo SBA: San Joaquin coachwhip, California tiger salamander, California red-legged frog • Sunol Ridge ATC and Calaveras Substation: California tiger salamander, California red-legged frog	Oakdale Portal (5), Throttle Station 1-3 (6), Throttle Station 2 (7), MP 56.51 Tie-In (8), Emery Cross Over (9), Tesla Treatment Facility Tower (17), Mt. Diablo SBA (18), Sunol Ridge ATC (19), and Calaveras Substation (20)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that contract documents include requirement for contractor to provide advance notification to SFPUC of construction activities to allow SFPUC to perform preconstruction surveys.	1. Design
		2. SFPUC CMB/BEM (Biologist)	2. SFPUC BEM	2. Obtain and review resume or other documentation of consulting biologist's qualifications. Conduct preconstruction surveys, species relocation (if appropriate and approved by resource agencies), and monitoring. Document activities in monitoring logs.	2. Preconstruction and Construction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor to ensure that the contractor implements measures in contract documents. Report noncompliance and ensure corrective action.	3. Construction
Mitigation Measure M-BI-1c: Wildlife Exclusion Fencing and Construction Monitoring At Oakdale Portal, Throttle Station 1-3, Throttle Station 2, MP 56.51 Tie-In, Emery Cross Over, Tesla Treatment Facility Tower, and Calaveras Substation sites, prior to the commencement of construction activities, temporary wildlife exclusion fencing (e.g., silt fencing) shall be installed at locations as determined by a qualified biologist to prevent amphibians and reptiles from entering the site during construction work. At Calaveras Substation, fencing is required only for the staging area outside of the developed substation facility. For short duration disturbances (e.g., trenches that are open for several hours and not overnight), work activities may occur without wildlife exclusion fencing provided that a qualified biologist is present during ground disturbance. The location of exclusion fencing shall be approved by a qualified biologist and included in final construction specification drawings. The biologist shall inspect fencing to ensure proper installation and placement. SFPUC shall ensure that the temporary fencing is continuously maintained until construction activities are completed. Note that wildlife exclusion fencing at three sites, Oakdale Portal, Throttle Station 1-3 and Throttle Station 2, may additionally satisfy the need to fence wetlands at these sites (see Mitigation Measure M-BI-3: Wetland Protection). Each of these sites shall be monitored for biological resources during initial ground disturbance by the project biologist and thereafter on a weekly basis to verify species absence from the site and ensure proper fence functioning. A trained construction worker who has attended the Biological Resources Awareness Training shall perform daily biological inspections and notify the SFPUC environmental compliance manager if special-status species are observed within the project site.	Oakdale Portal (5), Throttle Station 1-3 (6), Throttle Station 2 (7), MP 56.51 Tie-In (8), Emery Cross Over (9), Tesla Treatment Facility Tower (17), and Calaveras Substation (20)	1. SFPUC HHEM	1. SFPUC BEM	1.Ensure that contract documents include measures to install and maintain required wildlife exclusion fencing.	1. Design
		2. SFPUC CMB/BEM (Biologist)	2. SFPUC BEM	2. Obtain and review resume or other documentation of consulting biologist's qualifications. Conduct monitoring during initial ground disturbance and thereafter on a weekly basis. Document activities in a monitoring log.	2. Preconstruction and Construction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor to ensure that contractor implements measures in contract documents. Report noncompliance and ensure corrective action.	3. Construction

Attachment B
San Joaquin Valley Communication System Upgrade Project (CUH10201)
Mitigation Monitoring and Reporting Program

Mitigation Measure	Location (Site No.)	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
Mitigation Measure M-BI-1d: Mandatory Biological Resources Awareness Training At Oakdale Portal, Throttle Station 1-3, Throttle Station 2, MP 56.51 Tie-In, Emery Cross Over, Tesla Treatment Facility Tower, Mt. Diablo SBA, Sunol Ridge ATC, and Calaveras Substation sites, a worker education program shall be implemented to familiarize all construction workers about the importance of avoidance of harm to special-status species and sensitive natural communities. The training shall be provided to all personnel before working at the site and include information regarding the importance of maintaining speed limits, appropriate disposal of trash and waste materials, keeping construction equipment and materials within the designated project boundaries, and respecting exclusion zones. SFPUC and its construction contractor shall confirm that all workers have been trained appropriately.	Oakdale Portal (5), Throttle Station 1-3 (6), Throttle Station 2 (7), MP 56.51 Tie-In (8), Emery Cross Over (9), Tesla Treatment Facility Tower (17), Mt. Diablo SBA (18), Sunol Ridge ATC (19), and Calaveras Substation (20).	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that the contract documents include the requirement to attend training.	1. Design
		2. SFPUC CMB/BEM (Biologist)	2. SFPUC BEM	2. Develop biological resources awareness training. Ensure that all personnel attend awareness training prior to beginning work at the job site(s). Require workers to sign the training program sign-in sheet. Maintain copies of sign-in sheets.	2. Preconstruction and Construction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor to ensure that the contractor implements measures in contract documents. Report noncompliance and ensure corrective action.	3. Construction
Mitigation Measure M-BI-1e: Nesting Raptor and Other Nesting Bird Survey At Moccasin Peak, Red Mountain Bar, Rock River Lime Plant, Oakdale Portal, Roselle Cross Over, San Joaquin Valve House , and Tesla Treatment Facility Tower , SFPUC will retain a qualified wildlife biologist to conduct pre-construction surveys for nesting raptors and migratory birds prior to the commencement of construction activities that will occur between March 1 and August 31 of any given year. The surveys will be conducted a minimum of 14 days prior to the start of construction during nesting season. A ½-mile survey area will be surveyed for nesting Swainson's hawks, a 500 foot survey area in addition to the work limit area will be surveyed for nesting raptors; a 150 foot survey area in addition to the work limit area will be surveyed for other nesting birds. If no active nests are detected, no additional mitigation measures will be required. If surveys indicate that migratory bird or raptor nests occur in areas where construction activities will take place, a no-work buffer will be established around the nest site to avoid disturbance or destruction of the nest site until after a qualified biologist determines that the young have fledged. Generally, the buffer zones are 100 feet for nesting passerine birds, 250 feet for nesting raptors other than golden eagles, 500 feet for golden eagles, and ¼-mile for Swainson's hawks. The size of nest buffers and need for biological monitoring will be determined on a case-by-case and shall consider the professional opinion of the qualified biologist, 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. Active nests within buffer zones will be periodically monitored during construction by the on-site monitor. If construction activities have the potential to threaten the viability of an active nest discovered during the survey, then either a minimum buffer will be flagged around the active nest and designated a construction-free zone until the nest is no longer active or other appropriate avoidance measures, developed in coordination with CDFW, will be implemented to ensure that the nest is adequately protected. These measures would ensure compliance with the Migratory Bird Treaty Act and California Fish and Game Code 3503.5.	Moccasin Peak (1), Red Mountain Bar (2), Rock River Lime Plant (4), Oakdale Portal (5), Roselle Cross Over (13), San Joaquin Valve House (15), and Tesla Treatment Facility Tower (17)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that requirements related to nesting raptor and other nesting bird protection are included in contract documents.	1. Design
		2. SFPUC CMB/BEM (Biologist)	2. SFPUC BEM	2. Obtain and review resume or other documentation of consulting biologist's qualifications. Conduct surveys as required. If occupied nests are identified, establish buffer zones and monitor as appropriate in coordination with CDFW. Document monitoring activities in logs.	2. Preconstruction/ Construction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor to ensure that the contractor implements measures in contract documents. Report noncompliance and ensure corrective action.	3. Construction
Mitigation Measure M-BI-1f: Pre-construction Surveys for Burrowing Owls At the MP-56.51 Tie-In and Roselle Cross-Over sites, pre-construction surveys for burrowing owls shall be conducted by a qualified biologist within 30 days prior to the start of work activities where land construction is planned in known or suitable habitat. This survey can be conducted concurrently with the bird surveys described in Mitigation Measure M-BI-1e. The survey area shall include the project limit of work, along with a 250-foot buffer zone. If construction activities are delayed for more than 30 days after the initial preconstruction surveys, a new preconstruction survey shall be required. All surveys shall be conducted in accordance with the 2012 CDFW Staff Report on Burrowing Owl Mitigation survey protocols. If burrowing owls are discovered in the project site or buffer zone, the SFPUC environmental compliance manager shall be notified immediately. Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either: (1) the birds have not begun egg laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. If these criteria are not met, occupied burrows during the nesting season will be avoided by the establishment of a no-work buffer of 250 feet around the occupied/active burrow. Where maintenance of a 250-foot no-work buffer zone is not practical, the SFPUC shall consult with the CDFW to determine appropriate avoidance measures. Where work is continued with CDFW concurrence, burrows occupied during the breeding season will be closely monitored by the biologist until the young fledge (leave the nest). The onsite biologist shall have the authority to stop work if it is determined that construction-related activities are disturbing the owls. If criterion 1 or 2 above are met and, if CDFW concurs, the biologist shall undertake passive relocation techniques by installing one-way doors in active and suitable burrows, allowing owls to escape but not re-enter. Owls should be excluded from the project site limit of work, including a 250 foot buffer zone, by having one-way doors placed over the entrance to potential burrows in order to prevent owls from inhabiting those burrows. For construction activities that occur outside of nesting season, passive relocation techniques (installation of one-way doors) in active and suitable burrows shall take place. Construction activities may occur once a qualified biologist has determined that the burrows are unoccupied.	MP-56.51 Tie-In (8) and Roselle Cross-Over (13)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that contract documents include measures to protect burrowing owls.	1. Design
		2. SFPUC CMB/BEM (Biologist)	2. SFPUC BEM	2. Obtain and review resume or other documentation of consulting biologist's qualifications. Conduct preconstruction surveys and biological monitoring. If occupied burrows or nests are identified, conduct passive relocation or establishment of buffer zones in coordination with CDFW. Document monitoring activities in logs.	2. Preconstruction/ Construction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor to ensure that the contractor implements measures in contract documents, report noncompliance and ensure corrective action.	3. Construction

Attachment B San Joaquin Valley Communication System Upgrade Project (CUH10201) Mitigation Monitoring and Reporting Program					
Mitigation Measure	Location (Site No.)	Responsible Party	Reviewing and Approving Party	Monitoring and Reporting Actions	Implementation Schedule
Mitigation Measure M-BI-3: Wetland Protection At Oakdale Portal, Throttle Station 1-3, Throttle Station 2 , and San Joaquin Valve House , wetland protection measures shall be applied to protect potential jurisdictional wetlands. These measures shall include the following: • A protective barrier shall be erected around the on-site wetland feature to isolate it from construction activities. The barrier shall include water quality protection materials, such as silt fencing. • Signs that read "Environmentally Sensitive Area – Keep Out" shall be installed on the fencing to identify sensitive habitat; • No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the project site until a representative of SFPUC has inspected and approved the wetland protection fencing; and, • SFPUC shall ensure that the temporary fencing is continuously maintained until all construction activities are completed. A fencing material meeting the requirements of both water quality protection and wildlife exclusion may be used.	Oakdale Portal (5), Throttle Station 1-3 (6), Throttle Station 2 (7), and San Joaquin Valve House (15)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that wetland protection measures are included in contract documents.	1. Design
		2. SFPUC CMB	2. SFPUC BEM	2. Ensure the contractor erects protective barriers around on-site wetland features and installs signs on barriers before construction activity begins.	2. Preconstruction
		3. SFPUC CMB	3. SFPUC BEM	3. Monitor to ensure that temporary barriers are continuously maintained until all construction activities are completed.	3. Construction
Geology and Soils					
Mitigation Measure M-GE-3: Tower Foundation Engineering Design For the new radio towers proposed at the Red Mountain Bar, Rock River Lime Plant, Oakdale Portal, Throttle Station 1-3, Throttle Station 2, MP 56.51 Tie-In, Emery Cross Over , and Oakdale Office sites, the SFPUC and/or its contractor shall conduct appropriate site-specific geotechnical investigations, including, as necessary, subsurface exploration and soil testing. The information provided by the geotechnical studies will inform the final foundation designs and ensure that the proposed structures comply with the CBC and SFPUC's general seismic design requirements. The geotechnical evaluation shall perform adequate testing to identify the presence, if any, of potentially adverse soil conditions such as expansive, corrosive, compressible, liquefiable, or collapsible soils. Based on the nature, location, and severity of adverse soil conditions, the geotechnical study shall recommend appropriate and feasible design elements necessary to reduce the potential for unfavorable soil conditions to adversely affect project facilities. Such features may include the use of corrosion-resistant materials and coatings; the use of non-corrosive, non-expansive soil backfills; soil-treatment processes to increase bearing strength; specific soil compaction procedures and densities; and/or any other combination of soil preparation methods or foundation designs necessary to avoid or reduce the adverse effects of soils on project structures. Studies shall be conducted by a California Registered Geotechnical Engineer, and shall be in accordance with generally accepted geotechnical engineering principles and practices. Soil and rock sampling and testing shall conform to applicable standards set forth by the American Society for Testing and Materials (ASTM). Geotechnical findings and recommendations shall be provided for review and approval by the SFPUC at least 60 days before final project design. Approved geotechnical recommendations for foundation design shall become part of the proposed project.	Red Mountain Bar (2), Rock River Lime Plant (4), Oakdale Portal (5), Throttle Station 1-3 (6), Throttle Station 2 (7), MP 56.51 Tie-In (8), Emery Cross Over (9), and Oakdale Office (11)	1. SFPUC HHEM	1. SFPUC BEM	1. Ensure that the requirement for contractor to prepare and implement site-specific geotechnical investigations is included in contract documents.	1. Design
		2. SFPUC HHEM (California-licensed Geotechnical Engineer)	2. SFPUC BEM	2. Ensure that a California-licensed Geotechnical Engineer conducts geotechnical investigations. Incorporate approved geotechnical recommendations into proposed project.	2. Design
Mandatory Findings of Significance					
Implement Mitigation Measures M-BI-1a, M-BI-1b, M-BI-1c, M-BI-1d, M-BI-1e, M-BI-1f, M-BI-3, M-CP-2, M-CP-3, M-CP-4, M-AQ-2a, M-AQ-2b, M-UT-3, M-GE-3					
Cumulative					
Implement Mitigation Measures M-BI-1a, M-BI-1b, M-BI-1c, M-BI-1d, M-BI-1e, M-BI-1f, M-BI-3, M-CP-2, M-CP-3, M-CP-4					

Notes:
- In accordance with the requirements of CEQA Guidelines sections 15091(d) and 15097, the SFPUC shall ensure that the corresponding monitoring and reporting actions are completed in accordance with the identified mitigation measure. The SFPUC construction management team includes onsite compliance monitoring by quality assurance inspectors, environmental inspectors, and specialty environmental monitors (e.g., archeologists, paleontologists, biologists, etc.).

BAAQMD = Bay Area Air Quality Management District
CDFW = California Department of Fish and Wildlife
SJVAPCD = San Joaquin Valley Air Pollution Control District
USFWS = U.S. Fish and Wildlife Service
ERO = (SF Planning Department) Environmental Review Officer

SFPUC = San Francisco Public Utilities Commission
BEM = (SFPUC) Bureau of Environmental Management
CMB = (SFPUC) Construction Management Bureau
HHEM = (SFPUC) Hetch Hetchy Engineering & Maintenance
PMB = (SFPUC) Project Management Bureau