

**APPENDIX A-1**

**CONSTRUCTION MANAGEMENT REQUIREMENTS (CMRs)  
FOR BIOLOGICAL AND CULTURAL RESOURCES**

---



---

**TABLE OF CONTENTS**

<b>PREFACE</b> .....	<b>1</b>
<b>CONSTRUCTION MANAGEMENT REQUIREMENTS (CMRs)</b> .....	<b>2</b>
<b>BIOLOGICAL RESOURCES - CONSTRUCTION MANAGEMENT REQUIREMENTS (CMRs)</b> .....	<b>2</b>
BIO CMR 1: Pre-Construction Survey for Nesting Birds .....	2
BIO CMR 2: Golden Eagle ( <i>Aquila chrysaetos</i> ) and Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) .....	2
BIO CMR 3: Burrowing Owl ( <i>Athene cuniculria</i> ) .....	3
BIO CMR 4: Pre-Construction Surveys and Avoidance Measures for Western Snowy Plovers .....	5
BIO CMR 5: Pre-Construction Surveys and Avoidance Measures for Bats.....	6
BIO CMR 6: Construction Monitoring.....	7
BIO CMR 7: Non-listed Amphibians, Reptiles, and Small Mammals .....	8
BIO CMR 8: Open Trenches and Ditches .....	9
BIO CMR 9: Establish Habitat Protection Zones .....	10
BIO CMR 10: Protect Native Vegetation .....	10
BIO CMR 11: Limit the Spread of Invasive Plants.....	11
BIO CMR 12: Post-construction Noxious Weed Survey .....	11
BIO CMR 13: Mohave Ground Squirrel ( <i>Xerospermophilus mohavensis</i> ).....	11
BIO CMR 14: Desert Tortoise ( <i>Gopherus agassizii</i> ) Preconstruction Surveys and Monitoring .....	12
BIO CMR 15: Avoidance Measures for Arroyo Toad ( <i>Bufo microscaphus californicus</i> ) .....	13
BIO CMR 16: Monarch Butterfly ( <i>Danaus plexippus</i> ) .....	15
BIO CMR 17: Wetlands and Other Waters .....	15
BIO CMR 18: Hazardous Substance Management.....	16
BIO CMR 19: Coastal California Gnatcatcher ( <i>Polioptila californica californica</i> ) .....	17

---

<b>NOTES:</b> .....	<b>17</b>
<b>REFERENCES FOR BIOLOGICAL RESOURCES CMRS</b> .....	<b>18</b>
<b>CULTURAL RESOURCES - CONSTRUCTION MANAGEMENT REQUIREMENTS (CMRs)</b> .....	<b>20</b>
CRM CMR 1: Potential Prehistoric Archaeological Sites in Project Area of Potential Effect.....	20
CRM CMR 2: Potential Historic Archaeological Sites in Project Area of Potential Effect.....	20
CRM CMR 3: Archaeological Materials Encountered .....	20
CRM CMR 4: Human Remains.....	21
CRM CMR 5: Potential Paleontological Resources in Area .....	22
CRM CMR 6: Attaching Equipment to Historic Buildings .....	23
<b>DEFINITIONS</b> .....	<b>24</b>
<b>REFERENCES FOR CULTURAL   HISTORIC RESOURCES CMRS</b> .....	<b>24</b>

## **PREFACE**

This appendix presents a series of Construction Management Requirements (CMRs) that have been developed to prevent adverse environmental impact associated with construction and operation of the Los Angeles Regional Interoperable Communication System's Long Term Evolution (LTE) project. The CMRs are part of the project, and incorporated in the construction contract. These CMRs minimize or avoid potential effects to biological and cultural resources, during LTE construction activities.

## CONSTRUCTION MANAGEMENT REQUIREMENTS (CMRS)

### BIOLOGICAL RESOURCES - CONSTRUCTION MANAGEMENT REQUIREMENTS (CMRS)

#### **BIO CMR 1: Pre-Construction Survey for Nesting Birds**

To the extent feasible, the Contractor shall schedule construction activity on non-urban sites (as defined in the attached CMR matrix) outside of nesting bird season. If construction takes place during the bird nesting season (determined by CDFW to be February 15 to August 31 for non-raptors and February 1 to August 31 for raptors) a qualified avian biologist shall perform preconstruction surveys for bird nesting activity, within seven days before construction activity begins at a project site. If nesting birds are detected, the avian biologist shall determine appropriate, additional measures from those listed, below. These additional measures shall be implemented by the Contractor and may include any combination of the following:

1. If during the preconstruction survey, no breeding or nesting activities (e.g., territorial displays, courtship, the carrying of nesting material, nest construction, or brooding) are detected within 500 feet of the proposed work and staging areas, construction activities that do not involve the clearing or removal of vegetation may proceed.
2. If bird breeding/nesting activity is confirmed, work activities within 250 feet for non-raptors, 500 feet for non-state or federally listed raptors, 0.5 mile for listed raptors and fully protected species shall be delayed until the young birds have fledged and left the nest. A work area buffer zone around any active nests shall be demarcated, indicating where work may not occur. The buffer distances may be reduced if warranted for the continuation of work based on site characteristics such as topography, location or existing structures, and/or additional CMRs such as sound barriers and/or blinds that minimize disturbance to the nesting birds. Reductions of buffers for listed or sensitive species, raptors and fully protected nesting species shall be developed in cooperation with USFWS and/or CDFW, depending on the species. Project activities may resume in this area once the biological monitor has determined that the nest(s) is no longer active.
3. For sites with a high potential for nesting birds, due to a high prevalence of potentially suitable nest site, follow-up surveys for nesting birds will be performed weekly during the peak of the nesting season (March 1 – June 15).

#### **BIO CMR 2: Golden Eagle (*Aquila chrysaetos*) and Bald Eagle (*Haliaeetus leucocephalus*)**

Status of Golden Eagle: *California Department of Forestry and Fire Protection Sensitive, California Department of Fish and Wildlife Fully Protected, California Department of Fish and Wildlife Species of Special Concern, California Department of Fish and Wildlife Watch List.*

Status of Bald Eagle: *Federally Delisted, State Endangered, California Department of Forestry and Fire Protection Sensitive, California Department of Fish and Wildlife Fully Protected, U.S. Forest Service Sensitive, U.S. Fish and Wildlife Service Bird of Conservation Concern.*

Bald Eagle Nesting Season: January 1 – August 31 (CDFW 2013).

Golden Eagle Nesting Season: January 1 – September 30 (Digital Desert 2013).

To the extent feasible, the Contractor shall schedule construction activity on sites identified in the attached CMR matrix as of concern for bald and golden eagles outside of nesting season. An approved avian biologist shall conduct preconstruction surveys for bald and golden eagle if work occurs during the nesting season(s). Nest surveys shall be conducted within a radius of 4,000 feet from the project footprint, within 7 days prior to the onset of construction. If nests of golden or bald eagles or nesting activity (e.g., territorial displays, courtship, the carrying of nesting material, nest construction, or brooding) are detected within 0.5 mile of the site, non-disturbance measures shall be developed in cooperation with the appropriate wildlife agency, as determined by the Project Biologist. Such measures may consist of blinds to shield construction activities from the nest or performing construction work outside of the golden or bald eagle nesting season.

**BIO CMR 3: Burrowing Owl (*Athene cuniculria*)**

Status: *California Species of Special Concern, Bureau of Land Management Sensitive, U.S. Fish and Wildlife Service Bird of Conservation Concern.*

Nesting Season: February 1 – August 31.

To the extent feasible, the Contractor shall schedule construction activity on sites identified in the attached CMR matrix as of concern for burrowing owl outside of burrowing owl nesting season.

Measures for detecting nesting and resident burrowing owls and preventing project related impacts were developed using the guidance presented in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). An approved biologist shall perform preconstruction surveys for nesting and resident burrowing owls no more than 30 days prior to the onset of construction activities.

The 2012 CDFG Staff Report on Burrowing Owl Mitigation lists the following activities as examples of those that have the potential to take burrowing owls, their nests or eggs, or destroy or degrade burrowing owl habitat: grading, disking, cultivation, earthmoving, burrow blockage, heavy equipment compacting and crushing burrow tunnels, levee maintenance, flooding, burning and mowing (if burrows are impacted), and operating wind turbine collisions (collectively hereafter referred to as “projects” or “activities” whether carried out pursuant to CEQA or not). In addition, the following activities may have impacts to burrowing owl populations: eradication of host burrowers; change in vegetation degradation of nesting, foraging, over-wintering or other habitats; destruction of natural burrows and burrow surrogates; and disturbance which may result in harassment of owls at occupied burrows.

**Pre-construction Surveys**

Pre-construction surveys for nesting burrowing owls shall take place in suitable habitats within 1,640 feet (500 meters) of the project footprint if the project takes place during the nesting season (Feb 1-August 31). Preconstruction surveys for resident burrowing owls shall take place within 500 feet (152 meters) if construction takes place outside of the breeding season (September 1 – January 31). Surveys for nesting or resident owls will be conducted within 7 days prior to the onset of construction.

**Site Surveillance**

Burrowing owls may attempt to colonize or re-colonize areas within the survey area; thus, ongoing surveillance will be conducted daily within the project footprint by the biological monitor, and

weekly outside of the project footprint, within the 1,640 foot survey area during the nesting season, and 500 feet outside of the nesting season. The surveillance frequency/effort should be sufficient to detect burrowing owls if they return. Subsequent to their new occupancy or return to the site, take avoidance measures shall ensure with a high degree of certainty that individual owls will not be [injured or killed]. The frequency of site surveillance and size of the survey area may be reduced if conditions so warrant, in cooperation with CDFW, USFWS, and or BLM, as appropriate. Circumstances that may warrant a reduction in surveillance frequency or reduction in size of the survey area include low quality of habitat for burrowing owls and site features that would substantially reduce the potential for burrowing owls to be affected by project related activities, such as terrain, buildings, or other visual and sound obstructions.

### **Avoidance**

1. The project shall avoid disturbing occupied burrows during the nesting period (February 1 - August 31) and shall avoid impacting burrows occupied during the non-breeding season by migratory or non-migratory resident burrowing owls (September 1 - January 31).
2. The project may not fumigate, use treated bait or other means of poisoning nuisance animals in areas where burrowing owls are known or suspected to occur (e.g., sites observed with nesting owls, designated use areas).
3. An approved, avian biologist with experience and expertise in burrowing owl ecology and management shall develop a worker awareness program to increase the worker's recognition of and commitment to burrowing owl protection. The worker awareness program will consist of a short presentation at the worker safety tailboard meeting prior to the commencement of construction activities and will be provided to new workers as they are assigned to the project site.
4. If the preconstruction surveys described above detect burrowing owl during the nesting season (i.e., within 1,640 feet (500 meters) of the project footprint or, if surveys outside of the nesting season detect resident burrowing owls within 500 feet (152 meters), the location of the burrowing owl dens shall be mapped and the CDFW, USFWS, and or BLM, as appropriate shall be informed by the approved biologist of their location, as well as measures that are being taken in order to avoid impacts to the owls.
5. Outside of the breeding season, a biological monitor assigned to the site shall mark a non-disturbance buffer circle around the burrow using signage and flagging for the burrowing owl dens. The diameter of the buffer shall be determined on a case-by-case basis in cooperation with CDFW, USFWS, and or BLM, as appropriate, but shall typically range from 160 feet (50 meters) to 1,640 feet (500 meters) depending on the type and extent of the disturbance, duration and timing of the impact, visibility and sensitivity of the burrowing owls to the impact, and environmental factors such as nest site availability, predators, prey availability, burrowing mammal presence and abundance, and threats from other extrinsic factors such as human disturbance, urban interface, feral animals, invasive species, disease or pesticides.
6. During the breeding season, a biological monitor assigned to the site shall mark a non-disturbance buffer circle around the burrow using signage and flagging for the burrowing owl dens. The diameter of the buffer shall be determined on a case-by-case basis in cooperation with CDFW, USFWS, and or BLM, as appropriate, but shall typically range from

250 feet (76 meters) to 1,640 feet (500 meters) depending on the type and extent of the disturbance, duration and timing of the impact, visibility and sensitivity of the burrowing owls to the impact, and environmental factors such as nest site availability, predators, prey availability, burrowing mammal presence and abundance, and threats from other extrinsic factors such as human disturbance, urban interface, feral animals, invasive species, disease or pesticides.

#### **BIO CMR 4: Pre-Construction Surveys and Avoidance Measures for Western Snowy Plovers**

To the extent feasible, the Contractor shall schedule construction activity on sites identified below and in the attached CMR matrix outside of western snowy plover nesting season.

One site (LALG100) is located within USFWS Designated Critical Habitat for the Western Snowy Plover (SNPL). Another site (LALG300) is located approximately 100 feet east of USFWS Designated Critical Habitat for the SNPL. Another site (LALG-HQ) is not located near USFWS Designated Critical Habitat for the SNPL, but is located on a public beach. These sites are all in locations where human visitation is intensive and nesting by the SNPL is unlikely. However, if work is scheduled to take place during the western snowy plover nesting season (February 15 – August 30), the following measures will be implemented:

1. Permitted biologist(s) shall perform a preconstruction survey for the western snowy plover within 500 feet of the project footprint. If SNPL are detected during preconstruction surveys and the permitted biologist confirms nesting activity (prolonged occupation of the site, courtship behavior, territorial displays, brooding), the following measures shall be implemented by the Contractor under the direction of permitted biologists and in cooperation with the USFWS. If SNPL are determined to be present within 500 feet of project footprint, background noise levels shall be measured. Construction noise levels will be measured and monitored to ensure that SNPL are not subjected to sound levels above 60 dBA Leq, or an increase above background if background noise levels are higher than 60 dBA Leq. If SNPL would be subject to such noise levels, the Contractor shall implement the following measures:
2. Sound barriers such as ¾-inch plywood or hay bales, limiting the time and duration of construction activity, modifying construction methods, and/or delaying construction until the end of the nesting season.
3. If after construction of sound barriers it is determined that construction work would nonetheless subject nesting SNPL to sound levels above 60 dBA Leq or background, if background levels are already higher than 60 dBA Leq, the work shall be completed outside of the nesting season (between September 1 and February 14).
4. All areas identified as potentially suitable SNPL habitat including USFWS Designated Critical Habitat shall be strictly avoided. These areas will have been marked by approved biologists, using highly visible means such as flagging and signage prior to the onset of construction activities.
5. Construction or installation work at these sites during the nesting season shall be monitored at least weekly by a permitted biologist who will immediately implement measures for nesting SNPL should evidence of nesting activity activities be observed.



6. Any construction or installation work at these sites shall limit noise, dust, nighttime lighting, and human presence to the greatest extent possible.
7. Monthly monitoring letter reports of construction activities and their effects on biological resources shall be provided to the appropriate wildlife agency (USFWS/CDFW).

**BIO CMR 5: Pre-Construction Surveys and Avoidance Measures for Bats**

To the extent feasible, the Contractor shall schedule construction activity on sites identified in the attached CMR matrix as of concern roosting bats outside of bat roosting season.

Within 30 days prior to construction activities (including vegetation clearing and/or trimming), an approved biologist shall conduct a pre-construction survey for the presence of roosting bats within 500 feet of the project footprint.

**Active Nursery Roosts:**

1. If active nursery roosts are found (typically between April 15 and August 1) within 500 feet of the project footprint, a work exclusion buffer of 500 feet would be cordoned off by the approved biologist. No work may be conducted within the work exclusion buffer until an approved biologist, in consultation with the Project Biologist, has determined that the juvenile bats are able to forage independently.

**Non-maternal Roosts:**

1. If the approved biologist finds evidence of roosting bats within 500 feet of the project site, prior to initiation of construction, a biological monitor shall be designated to monitor construction activities and advise construction personnel of the procedures for protecting bats and their habitats during the project, so long as the bat roost is in use by bats. If, as a result of pre-construction surveys, exclusion zones around trees or buildings are established to protect roosting bats, the biological monitor shall advise the construction crews of those areas, the requirement to maintain work exclusion zones (#4) and shall enforce the maintenance of those zones.
2. The biological monitor shall provide at least one bat safety training for the entire crew and shall provide the training for construction workers who are new to the site, prior to their starting work. The biological monitor shall also provide onsite direction for addressing habitat- or species-specific issues.
3. Workers shall be instructed regarding health risks and to avoid direct contact with bats.
4. Because bats are nocturnal, work activities shall not be conducted within 100 feet of any structure or tree identified as bat roosts (where evidence of present roosting bats has been identified) between sunset and sunrise. Airspace access to and from any bat roost is to remain approximately the same. Bird-exclusion netting must not be used and access for bats shall not be blocked off. No clearing and grubbing shall occur within 100 feet of bat roosts. Night lighting for construction activities is not to be used within 100 feet of any bat roost. Internal combustion equipment, such as generators, pumps, and vehicles are not to be parked, nor operated, under or adjacent to any occupied roosts. Personnel are not to be within 100 feet of a bat roost between sunset and sunrise.

5. Under the supervision of the biological monitor, workers should cover unoccupied spaces that may later become bat roosts using material that will not trap birds or bats, such as plywood or tarps. Bird netting must not be used.

### **BIO CMR 6: Construction Monitoring**

A biological monitor is required to be present whenever project related activities have the potential to impact sensitive or native species; and to verify applicable CMRs which avoid this potential are implemented. Note that the timing of construction activities may affect whether this CMR is required.

The biological monitor has the authority to halt, or limit, or adjust the timing or duration of work related activities at the site they are monitoring, or to suggest alternative methods, in order to fully and effectively implement CMRs. This authority applies to discrete work related activities up to and including all work activities at the site. However, the biological monitor is required to work with the construction crews to assist them in the completion of the project in a legal and timely manner while avoiding potential impacts to native flora, fauna, or habitats. Any unresolved disagreement between the Contractor and biological monitor shall be brought to the attention of the Project Biologist, who oversees and directs the work of all of the approved biologists, biological monitors, and permitted biologists, who will seek to resolve the problem and will also contact LA RICS if necessary.

The biological monitor shall conduct pre-construction meetings with equipment operators to address project specific biological constraints including the following:

1. Avoidance and protection measures for native vegetation removal.
2. Locations of habitat protection zones.
3. Avoidance and protection measures for known bird nests or other faunal resources.
4. Avoidance and protection measures for wetlands or other protected waters.
5. Work time restrictions.
6. Noise level restrictions.
7. Lighting restrictions.
8. Specific protection measures for fauna if they occur in the work area.
9. Contact information for approved and permitted biologists, and the Project Biologist (business cards, phone numbers, etc.).

The biological monitor shall be present at all times during ground disturbing activities such as grading or vegetation removal. In the event that state or federally listed wildlife species or species of special concern are detected within 500 feet of the project site, or CDFW Fully Protected Species are detected within 0.5 mile of the project site, project activities shall cease pending resolution of the potential for impacts, which would consist of measures listed under the headings for individual species mentioned in this document. Resolution may include notification of, and coordination with, the appropriate state or federal regulatory agencies.

The Project Biologist shall determine appropriate timing for and conduct sweeps of the project work areas to detect any small mammals, birds, or herpetological fauna that may have entered ditches, trenches, equipment, etc.

The biological monitor shall monitor and inspect the installation of exclusion fencing and construction activities that occur within close proximity to the identified project area.

Whenever he/she is on-site, the biological monitor shall complete Construction Monitoring Forms detailing that day's construction activities, whether activities were compliant with the aforementioned project design features, and any corrections and/or discussions made with site personnel. The biological monitor shall provide photo documentation for significant monitoring activities.

1. Following ground disturbing activities, the frequency and duration of monitoring shall be based on the nature of the work being performed and its potential effect on protected biological resources. Appropriate timing for frequency and duration of monitoring shall be determined by the Project Biologist, in consultation with the biological monitor. The Contractor shall designate appropriate personnel to maintain communications with the biological monitor and the Project Biologist. For sites where CMRs have been implemented for special status species, the biological monitor shall remain on-site for the installation of all physical CMRs and during periods when construction equipment is active on site.
2. For non-urban sites with the potential for non-listed small mammals, amphibians or reptiles to enter the site, the biological monitor shall ensure that physical CMRs are in good repair and are functioning as intended to prevent unlisted faunal species from entering work areas. For sites where CMRs have been implemented for non-special status species, the biological monitor shall remain on-site for the installation of all physical CMRs and at least for the first three days of construction in order to ensure the proper function of all CMRs and to make any necessary adjustments or repairs. However, if after several days there have been no incidences of non-listed species entering work areas, the Project Biologist may determine a reduction in monitoring is warranted. If a non-listed species is detected on site and a biological monitor is not present at the site, the Contractor's designee shall contact the Project Biologist, who shall immediately arrange for an approved biologist to go the site and determine appropriate handling or monitoring for the animal.

The biological monitor shall ensure that designated habitat protection zones and exclusion areas are conspicuously marked so as to indicate where no construction activities are permitted.

In the event that exclusion fencing is required, the biological monitor shall be responsible for monitoring and inspecting the fence on an appropriate schedule, and making minor repairs to the fence whenever necessary.

#### **BIO CMR 7: Non-listed Amphibians, Reptiles, and Small Mammals**

Non-listed amphibians, reptiles, and small mammals will be protected using the following measures:

1. A biological monitor, assigned to the project site will perform daily sweeps prior to construction activities to ensure that any non-listed amphibians, reptiles, and small mammals are not in the work area and will remove any that are detected. These animals

will be moved to a location either on the site (but out of the work area), or immediately off-site, where they are not in any apparent danger from project related activities or non-project related threats such as pets, vehicular traffic, or predation.

2. Any amphibian, reptiles, and small mammal translocation will be conducted by the biological monitor. Workers will not be allowed to handle, harm, or kill any wildlife encountered on the project site.
3. Prior to the start of the first work day, the biological monitor shall train the crew on procedures for protecting non-listed amphibians, reptiles, and small mammals. New crew members will be trained immediately following morning tailboard safety meetings as they are assigned to the project site. The biological monitor will ensure that the project foreman or site superintendent has his/her and the Project Biologist's cell phone number.
4. Site specific CMRs shall be developed if necessary and feasible by the biological monitor and project foreman or site superintendent. Such CMRs may include barrier silt fencing in strategic areas to keep animals from entering work areas.
5. The frequency and duration of biological monitoring for amphibians, reptiles and small mammals may be reduced by the Project Biologist if after several days it has become apparent that the project does not pose a potential harm to these species.

#### **BIO CMR 8: Open Trenches and Ditches**

Small mammals, amphibians, and reptiles may enter open trenches and ditches. Large mammals may be injured by falls into these features, if the open ditches and trenches are left open when work sites are unattended. To avoid and minimize the amount of the open trenches, the following measures must be adhered to by the Contractor:

1. Do not leave trenches open overnight, or for extended periods when personnel will not be present at the site. Cover trenches if they cannot be filled at the close of the work day.
2. Keep trenching and back-filling crews close together at any given time.
3. If trenches cannot be back-filled immediately, escape ramps should be constructed at least every 90 meters. Escape ramps can be short lateral trenches sloping to the surface or wooden planks extending to the surface. The slope should be less than 45 degrees. Trenches that have been left open overnight should be inspected and animals removed prior to back-filling using methods consistent with project CMRs.
4. For non-listed species, biological monitors and/or qualified biologists may utilize active removal techniques as a complement to passive removal techniques (e.g., placement of barriers) to avoid unreasonable delays to construction. Active removal techniques include placing small mammals or herpetofaunal species in a bucket for relocation out of harm's way.
5. Any observation of listed species will be reported to the Project Biologist within 24 hours, who in turn will notify the USFWS and other regulatory agencies, as appropriate, within 48 hours of occurrence. All work will cease if a federally-listed species is detected onsite. Work will only resume after the qualified biologist confirms the animal is off-site and would not be adversely affected.

6. For listed species, biological monitors and/or qualified biologists may restrict access of listed small mammals or herpetofaunal species to the work area using non-harassment, passive techniques, such as placing a barrier (e.g., boards) between the organism and the active excavation area.

#### **BIO CMR 9: Establish Habitat Protection Zones**

To avoid impacts to sensitive or native habitats outside of, but adjacent to the work area, the Contractor is required to implement the following measures:

1. Construction activities shall begin only after a biologist has established and clearly marked habitat protection zones using highly visible means such as signage, flagging, and temporary fencing where necessary, explained the significance of the habitat protection zones and explained the responsibilities of the Contractor in avoiding these areas, and approved the work area(s).
2. The Contractor shall ensure that all personnel and equipment stay out of the habitat protection zones, which shall have been clearly marked using signs, flagging, and/or temporary fencing.
3. A biological monitor shall be present during grading or any modification to vegetation (including non-native, previously-disturbed, ornamental, and landscaped vegetation) in order to ensure that non-approved work areas are not entered and that native vegetation is not removed, trimmed, or disturbed and no rare plants or host plants are accidentally damaged or destroyed.

#### **BIO CMR 10: Protect Native Vegetation**

Disturbance to native vegetation is not anticipated to occur on this project. An approved biologist shall ensure that native vegetation adjoining the project footprint has been clearly marked using highly visible means such as signage, flagging or fencing. Construction personnel shall not be allowed into habitats with native vegetation except under supervision by the biological monitor. No equipment may be staged within the native habitat areas and they shall not be used for storage. Additionally, the Contractor shall implement or comply with the following measures:

1. Do not remove and/or grade plants or topsoil where stands of native vegetation occur.
2. Erosion caused by construction activities upslope from native vegetation shall be minimized by means of weed-free straw wattling, silt fencing, or other barriers as necessary to prevent runoff into the native habitat.
3. Avoid project activities that unnecessarily disturb or compact the soil surface which could increase erosion, sediment transport, and make future native plant establishment more difficult.
4. Clearance of landscaped or non-native plants shall be conducted under the supervision of a qualified biological monitor, and consistent with the other requirements of these CMRs, to ensure that direct and indirect impacts to wildlife and their habitat are avoided.
5. Utilize existing access roads, pads, and previously developed or disturbed areas as much as feasible in order to avoid impacts to sensitive vegetation.

6. Disturbance of heavily infested non-native and ruderal vegetation areas should be avoided to reduce potential to spread invasive “weedy” species as determined by the California Invasive Plant Council 2011 and California Department of Food and Agriculture lists (containing federally listed-species). Any disturbance in these areas would require presence of a biological monitor.

#### **BIO CMR 11: Limit the Spread of Invasive Plants**

To minimize the spread and establishment of invasive plant species into the project area, all off-road heavy equipment used by the Contractor during project implementation should be free of noxious or exotic weeds and seeds before entering the project area. Vehicle washing, in compliance with site-specific guidelines shall be implemented for all ground disturbing activities. Site specific guidelines shall be identified and selected by the Project Biologist and may include some or all of the following measures:

1. Equipment used on the project shall be subject to inspection prior to transiting to or entering project sites to prevent introduction of weed species. Vehicles will be free of mud, dirt and seed when they arrive on site.
2. Provide a vehicle and equipment washing station away from the project site.
3. Use washing equipment at commercial car or truck washing facility.
4. Post-construction landscaping or revegetation shall not include the use of invasive, exotic plant species listed on the California Department of Food and Agriculture’s (CDFA) Noxious Weed List (CDFA, 2011) or in the California Invasive Plant Inventory (Cal-IPC 2006).

#### **BIO CMR 12: Post-construction Noxious Weed Survey**

Post-construction surveys for noxious weeds shall be conducted to determine the presence of invasive species. Surveys shall cover the project footprint and will take place during April – May, when the greatest proportion of noxious plant species are growing and identifiable, but have not set seed. Any populations of noxious weeds shall be immediately treated under the direction of a botanist.

#### **BIO CMR 13: Mohave Ground Squirrel (*Xerospermophilus mohavensis*)**

Status: *California Department of Fish and Wildlife Threatened*

To the extent feasible, the Contractor shall schedule construction activity on site BRK during the aestivation period for Mohave ground squirrel. Because multiple species (including Mohave ground squirrel, desert tortoise, and nesting birds) have potential to occur near this site, recommended timing for construction at this site is December and January.

As of July 5, 2013, habitat assessments for the Mohave ground squirrel have been completed for the PSBN project and no sites have been identified as having suitable habitat for the Mohave ground squirrel. However, as-per the CMR spreadsheet, suitable habitats for the Mohave ground squirrel have been identified within 500 feet of some sites. For these sites, the following measures shall be implemented by the Contractor in order to protect Mohave ground squirrels.



1. A temporary fence shall be constructed meeting CDFW specifications that would greatly reduce the potential for a Mohave ground squirrel from accidentally entering the site. The construction of this fence would be overseen by a biologist who is familiar with the CDFW specifications.
2. A biological monitor shall ensure that Mohave ground squirrels that make their way into the fenced enclosure do not remain there. The biological monitor shall be responsible for opening the fence and allowing the animal to leave on its own. However, if the animal needs to be handled, a biologist with the appropriate permits and permission from CDFW shall be contacted to remove and release it outside of the enclosure.
3. The biological monitor shall have the authority to stop work at the project site, and must stop work related activities that could potentially harm the animal until it has left the site. The biological monitor shall remain present for the duration of construction activities.
4. The Contractor shall designate appropriate personnel to maintain communications with the biological monitor and the Project Biologist. If the Contractor's designee determines that the removal of a Mohave ground squirrel is required and a biological monitor is not present at the site, he/she shall contact the Project Biologist, who shall immediately arrange, after consultation with CDFW and BLM, for an approved biologist to go the site and determine appropriate handling or monitoring for the animal.

**BIO CMR 14: Desert Tortoise (*Gopherus agassizii*) Preconstruction Surveys and Monitoring**

Status: *U.S. Fish and Wildlife Service Threatened, California Department of Fish and Wildlife Threatened.*

To the extent feasible, the Contractor shall schedule construction activity on site BRK during the aestivation period for desert tortoise. Because multiple species (including Mohave ground squirrel, desert tortoise, and nesting birds) have potential to occur near this site, recommended timing for construction at this site is December and January; however, federally-listed species could be encountered at any time of year.

The following avoidance measures shall apply to the Contractor:

1. A qualified biologist under contract to LA-RICS shall perform preconstruction surveys for the desert tortoise within 30 days prior to the implementation of the project, and day-of-construction sweeps of the site for the species.
2. Exclusionary fencing meeting the specifications described in the Desert Tortoise Field Manual (USFWS 2009) shall be constructed under the supervision of a qualified biologist who is familiar with the construction requirements. Exclusionary fencing shall be placed surrounding all project areas subject to vehicle and heavy equipment access, including access roads, work areas, and staging areas.
3. A qualified biologist shall be present through the duration of construction activity.
4. All vehicles shall observe a speed limit of 5 miles-per-hour in the project footprint and on non-public access roads.

5. All on-site personnel shall thoroughly check for desert tortoises under any parked vehicle or equipment immediately prior to moving or operating the vehicle or equipment. In areas the qualified biologist determines there is a high likelihood of encountering the desert tortoise, vehicles will be inspected more frequently, with particular attention to surveying for small desert tortoise individuals.
6. No persons on the site are authorized to “take” a desert tortoise. “Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Attempts to approach or touch a desert tortoise are prohibited. During the pre-construction meeting as described in BIO CMR 6, the biological monitor shall describe the general biology of the desert tortoise and the project restrictions designed to avoid adverse effects to the species.
7. All measures described in BIO CMR 6 (*Constructing Monitoring*), BIO CMR 7 (*Non-listed Amphibians, Reptiles, and Small Mammals*), BIO CMR 8 (*Open Trenches and Ditches*), BIO CMR 9 (*Establish Habitat Protection Zones*), and BIO CMR 18 (*Hazardous Substance Management*) shall be adhered to by the Contractor.
8. In the event a desert tortoise is detected on the site after installation of exclusionary fencing, the animal shall be allowed to exit on its own by leaving an opening in the fence. All work shall cease until the animal is off-site. The qualified biologist must be onsite to confirm the animal has retreated from the project site on its own. Work may resume only after approval by the qualified biologist.
9. All trash shall be properly contained, removed from the work site, and disposed of on a daily basis.
10. The Contractor shall designate appropriate personnel to maintain communications with the biological monitor, qualified biologist, and the Project Biologist. Any observation of desert tortoise will be reported to the Project Biologist within 24 hours, who in turn will notify USFWS and other regulatory agencies, as appropriate, within 48 hours of occurrence.

**BIO CMR 15: Avoidance Measures for Arroyo Toad (*Bufo microscaphus californicus*)**

Status: *U.S. Fish and Wildlife Service Endangered, California Department of Fish and Wildlife Species of Special Concern*

To the extent feasible, the Contractor shall schedule construction activity on sites identified in the attached CMR matrix as of concern for arroyo toad during the aestivation period for the species. Aestivation generally occurs between August and January. Though not expected to occur on site (habitat does not occur within 500 feet of any PSBN site), one site (LACF076) is less than 1,000 feet from potential habitat. In the event that construction activities cannot occur during the aestivation period, the following measures shall apply. These conservation measures are consistent with the Recovery Plan for the Arroyo Southwestern Toad (USFWS 1999).

1. Prior to commencement of construction activities, a qualified biologist (knowledgeable of the ecology of arroyo toads and other local amphibians) shall conduct a training session for all construction personnel and the biological monitors. At minimum, the training shall include: (1) a description of arroyo toad habitat; (2) avoidance measures being



implemented for the arroyo toad; and (3) identification of the boundaries of permitted access and work areas.

2. A qualified biologist shall be present at the work site at all times until construction is completed.
3. The Contractor shall designate appropriate personnel to maintain communications with the biological monitor, qualified biologist, and the Project Biologist. Any observation of arroyo toad will be reported to the Project Biologist within 24 hours, who in turn will notify the USFWS and other regulatory agencies as appropriate, within 48 hours of occurrence.
4. No persons on the site are authorized to “take” an arroyo toad. “Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Attempts to approach or touch an arroyo toad are prohibited.
5. In the event an arroyo toad is detected on the site, the animal shall be allowed to exit on its own by leaving an opening in the fence. All work shall cease until the animal has moved off-site. Work may resume only after approval by a qualified biologist.
6. Daily pre-construction sweeps of the construction area shall be conducted by a qualified biologist.
7. All trash shall be properly contained, removed from the work site, and disposed of on a daily basis.
8. All fueling and vehicle/equipment maintenance involving the transfer or replenishment of fluids shall be completed within existing paved areas or designated fueling areas designed to contain fuel drips farther than 100 feet from any watercourse. Prior to the onset of work, the Project Biologist under contract to LA-RICS shall ensure that the Contractor has prepared a plan to allow for a prompt and effective response to any accidental spills into the drainage. All workers shall be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.
9. Maintenance of vehicles other than the transfer or replenishment of fluids and other equipment, and staging areas, shall be located offsite and more than 60 feet from any drainage connecting to the aquatic habitat.
10. Access routes, staging areas, temporary grading, and the extent of all construction-related activity shall be limited to the minimum necessary to complete the project. Routes and boundaries shall be clearly demarcated and located outside of the riparian corridor.
11. Entry shall not be permitted into any wetlands, streams, arroyos, ephemeral drainages, or riparian areas by workers or equipment. Any such habitats will be clearly marked to aid the construction crew, using signage, flagging, and/or temporary fencing.
12. A “drift fence” of silt fence material at least two feet high shall be installed wherever construction is taking place in the vicinity of suitable arroyo toad habitat. The fence shall be constructed by the Contractor and must be in place far enough ahead of the construction to effectively exclude toads from the workspace for a period of 24 hours prior to construction. This fence shall exclude foraging arroyo toads from the work area and shall be cleared

every morning by a qualified biologist before construction begins. The placement of the silt fencing and its construction shall be directly supervised by a qualified biologist.

13. Construction shall be limited to daylight hours.
14. Vehicle, truck, and equipment speeds shall be 15 miles/hour or below within all work areas and on non-public access roads that have been clearly marked with signage and/or flagging by qualified biologists. Speed limits may be further reduced at the discretion of the biological monitor or a qualified biologist.
15. The project construction shall avoid stream channels entirely. Stream channels will be clearly marked using signage, flagging, and/or temporary fencing.

#### **BIO CMR 16: Monarch Butterfly (*Danaus plexippus*)**

Status: *None*

Exhaust and low frequency vibrations, inherent to the operation of heavy equipment, as well as activities involved with the trimming/removal of trees on the project site, may disturb and/or dislodge roosting monarchs during the overwintering season (Oct 1 – Feb 28), should they be present. This would increase colony disturbance and butterfly mortality. The severity of this impact shall depend on the distance of roosting butterflies from the area where the equipment is being operated.

Preconstruction surveys for monarch butterflies will be performed by approved biologists concurrently with nesting bird surveys. If monarch butterfly overwintering colonies are found within 100 feet of the project footprint, avoidance measures will be developed in cooperation with CDFW.

#### **BIO CMR 17: Wetlands and Other Waters**

None of the sites in the PSBN Project contain potentially disturbed wetlands or waters within the work area or the PSBN site boundary. Soil disturbance, if any, at PSBN sites will be less than 0.1 acres. To avoid impacts to wetlands and other waters, BMPs shall be selected by the Project Biologist and implemented by the contractor to control sediment and pollutants in stormwater and non-stormwater runoff associated with construction. BMPs for sediment and pollutant control may include, but are not limited to, the following.

#### **COMMON BEST MANAGEMENT PRACTICES FOR STORM WATER POLLUTION CONTROL**

<b>BMP (designation)</b>	<b>Description</b>
Silt Fence (SE-1)	Woven geotextile attached to supporting poles to detain coarse sediment entrained in sheet flow.
Sediment Basin (SE-2)	Temporary basin formed by excavation or by constructing an embankment so that sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out before the runoff is released.

<b>BMP (designation)</b>	<b>Description</b>
Fiber Rolls (SE-5)	Straw, coir, or other materials bound into a tight tubular roll wrapped by netting placed at the face or toe of slopes along the contours to intercept runoff, reduce flow velocity, release runoff as sheet flow, and capture sediment.
Gravel Bag Berm (SE-6)	Series of gravel-filled bags placed along a contour to intercept runoff, reduce flow velocity, release runoff as sheet flow, and capture sediment.
Sandbag Barrier (SE-8)	Series of sand-filled bags placed along a contour to intercept runoff, reduce flow velocity, release runoff as sheet flow, and capture sediment.
Straw Bale Barrier (SE-9)	Straw bales placed along a contour, usually at the base of slopes, to intercept sheet flows, pond sheet-flow runoff, and allow sediment to settle.
Storm Drain Inlet Protection (SE-10)	Sediment filter or an impounding area in, around or upstream of a storm drain or other inlet that temporarily ponds runoff, and allows sediment to settle before runoff enters the storm drain or inlet.

**Source:** CASQA. 2012. Storm Water Best Management Practice Handbook Portal: Construction: California Storm Water Quality Association. July update. Portal available only by purchase at <https://www.casqa.org/>. Accessed January 2014.

Barrier materials used in BMPs shall be certified as weed-free.

### **BIO CMR 18: Hazardous Substance Management**

Hazardous substances shall be managed in accordance with applicable federal and state regulations. BMPs shall be selected by the Project Biologist and implemented by the Contractor to prevent or reduce the discharge of hazardous substances to drainage systems or watercourses to avoid “take” or “harm” to special status species, and substantial adverse effect or adverse modification of habitat areas. BMPs to prevent or reduce the discharge of hazardous substances to drainage systems or watercourses may include, but are not limited to, the following.

#### **COMMON BEST MANAGEMENT PRACTICES FOR HAZARDOUS SUBSTANCES**

<b>BMP (designation)</b>	<b>Description</b>
Material Use (WM-2)	Prevent or reduce the discharge of pollutants to watercourses from material use by using non-hazardous products, minimizing hazardous material use onsite, and training employees and subcontractors.
Stockpile Management (WM-3)	Reduce or eliminate stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as Portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub-base or pre-mixed aggregate, asphalt minder and pressure treated wood by covering the stockpiles with plastic covers that

BMP (designation)	Description
	would withstand weather and sunlight for the anticipated duration of use.
Spill Prevention and Control (WM-4)	Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

**Source:** CASQA. 2012. Storm Water Best Management Practice Handbook Portal: Construction: California Storm Water Quality Association. July update. Portal available only by purchase at <https://www.casqa.org/>. Accessed January 2014.

### **BIO CMR 19: Coastal California Gnatcatcher (*Polioptila californica californica*)**

Status: Federal Threatened, *California Species of Special Concern*, *Migratory Bird Treaty Act*

Nesting Season: February 15 – August 30.

To the extent feasible, the Contractor shall schedule construction activity construction activity on sites identified in the attached CMR matrix as of concern for coastal California gnatcatcher outside of nesting season for the species.

When construction activities may affect breeding or non-breeding coastal California gnatcatchers, the following measures will apply:

- The following sites (CLM, LACF056, LACF099, LACF108, and LACF194) have potential for coastal California gnatcatcher (*Polioptila californica californica*) within 500 feet of the project work area. Nesting or non-breeding coastal California gnatcatcher could be present. At these sites, a Permitted Biologist will survey for the coastal California gnatcatcher within 10 days prior to initiating construction activities. In the event species are detected, the results of the survey will be submitted to the USFWS for review and approval prior to initiating any construction activities within 500 feet of occupied habitat.
- If an active nest is located, a 500-foot no-construction buffer will be established around each nest site. No construction activities will take place within this buffer zone until the nest is no longer active. However, if construction must take place within the 500-foot buffer, a Biological Monitor will monitor noise at the edge of the occupied gnatcatcher habitat. If the noise meets or exceeds the 60 dB(A) Leq, or if the Biological Monitor determines that the activities in general are disturbing the nesting activities, the Biological Monitor will have the authority to halt construction activities and will contact the Project Biologist who will in turn contact LA RICS, who will contact the USFWS to devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting gnatcatchers and the activities, and working in other areas until the young have fledged.

### **NOTES:**

Biological monitors and qualified and permitted biological resources personnel shall be provided by the Contractor. The Contractor is responsible for submitting lists of biologists with appropriate

qualifications to serve in these positions to LA-RICS. Submissions must provide sufficient time for LA RICS to review and approve the biologists to serve in these positions, and to coordinate with resources agencies if required. LA RICS will provide the Project Biologist and may use the services of the Project Biologist to review biologists' respective qualifications. LA-RICS will require all biologists to attend project-specific training regarding the nature of biological resources in the vicinity of the project sites.

Biological Monitor. A biologist whose duty is to monitor construction activities to ensure all CMRs are being implemented appropriately and completely.

PSBN Site. This is a publically-owned real property parcel, portion of a parcel, or combination of parcels used to define the outer bound of where work could occur at a given PSBN site. Each PSBN site has been pre-designated by LA-RICS, and each contains the work area and project footprint.

Permitted Biologist. A biologist permitted by the U.S. Fish and Wildlife Service or in possession of a valid permit or Memorandum of Agreement with the California Department of Fish and Wildlife, to conduct permit-specific activities that could affect special-status species.

Project Biologist. An LA-RICS resource, the biologist with ultimate responsibility for verification of compliance with applicable regulations, and compliance with CMRs. This individual coordinates the biological resource monitoring work and serves as primary conduit for communication regarding biological resources issues between monitors and specialty biologists, Contractor, regulatory agencies, and LA-RICS authority for the project.

Project Footprint. The actual area that is potentially disturbed during the process of construction. The project footprint is limited to a maximum of 3,600 square feet per site and bounds the actual area where construction and staging occurs. It does not include private or public access roads when they are only used as a means of ingress and egress to and from the project site.

Qualified Biologist. A biologist maintaining specialized skills or experience to perform certain functions using these acquired skills. Biologists experienced with the Desert tortoise or Arroyo toad is considered to be within this definition. They are not allowed to capture or handle any listed species.

Special Status Species. Any species reviewed for this project regulated under FESA, BGEPA, MBTA, managed as Forest Service Sensitive or BLM Sensitive, regulated under CESA, NPPA, or regulated by the state of California as a Fully Protected Species.

Work Area. An area generally defined as that contained within a PSBN site that does not contain native vegetation or serve as habitat for special-status species. These areas will be determined by the Project Biologist during preconstruction surveys. Work area also represents the maximum area on a PSBN site where work could occur.

## **REFERENCES FOR BIOLOGICAL RESOURCES CMRS**

California Burrowing Owl Consortium 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines*. Website: <http://www.dfg.ca.gov/wildlife/nongame/docs/boconsortium.pdf>. Accessed: June 5, 2013.

- CDFW 2013. California Department of Fish and Wildlife. *Bald Eagles in California*. Website: [http://www.dfg.ca.gov/wildlife/nongame/t\\_e\\_spp/bald\\_eagle/](http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/bald_eagle/). Accessed May 14, 2013.
- Digital Desert 2013. *Golden Eagle; distribution, Abundance, and Seasonality*. Website: <http://digital-desert.com/wildlife/golden-eagle.html>. Accessed June 21, 2013.
- Halterman, M. D., M. J. Johnson, and J. A. Holmes. 2011. *A Natural History Summary and Survey Protocol for the Western Yellow-billed Cuckoo Population*. Draft May 2011.
- USFWS 2013. Desert Tortoise (Mohave Population) Field Manual, Chapter 8 Exclusion Fence. Website: [http://www.fws.gov/ventura/species\\_information/protocols\\_guidelines/docs/dt/dt\\_field\\_manual/CHAPTER%208.pdf](http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/dt/dt_field_manual/CHAPTER%208.pdf). Accessed June 5, 2013.
- USFWS 2001. *Least Bell's Vireo Survey Guidelines*. Website: [http://www.fws.gov/ventura/species\\_information/protocols\\_guidelines/docs/lbv/leastbel lsvireo\\_survey-guidelines.pdf](http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/lbv/leastbel lsvireo_survey-guidelines.pdf). Accessed June 5, 2013.
- USFWS 2000a. *Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers*. Website: [http://www.fws.gov/habitatconservation/com\\_tow\\_guidelines.pdf](http://www.fws.gov/habitatconservation/com_tow_guidelines.pdf). Accessed June 5, 2013.
- USGS 2012. *A Natural History Summary and Survey Protocol for the Southwestern Shallow Flycatcher*. Website: <http://pubs.usgs.gov/tm/tm2a10/>. Accessed June 5, 2013.
- USFWS 1997. *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Guidelines February 28, 1997*. Website: [http://www.fws.gov/ventura/species\\_information/protocols\\_guidelines/docs/cagn/coastal-gnatcatcher\\_survey-guidelines.pdf](http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/cagn/coastal-gnatcatcher_survey-guidelines.pdf). Accessed June 5, 2013.
2010. *A Natural History Summary and Survey Protocol for the Southwestern Shallow Flycatcher*. Website: <http://pubs.usgs.gov/tm/tm2a10/pdf/tm2a10.pdf>. Accessed June 5, 2013.
- Wikipedia 2013. *Golden Eagle*. Website: [http://en.wikipedia.org/wiki/Golden\\_Eagle](http://en.wikipedia.org/wiki/Golden_Eagle). Accessed May 14, 2013.



---

## **CULTURAL RESOURCES - CONSTRUCTION MANAGEMENT REQUIREMENTS (CMRS)**

### **CRM CMR 1: Potential Prehistoric Archaeological Sites in Project Area of Potential Effect**

At sites that the California Historic Resources Inventory Information Center (CHRIS IC) records indicate the potential presence of prehistoric archaeological material (artifacts and/or features) in the Area of Potential Effect (APE), qualified archaeological and Native American monitors shall be present during all subsurface excavation for tower or monopole foundations, and during grading for access roads and structure foundations. The APE is defined as a one-half-mile radius surrounding the project location. The Contractor will be informed which locations require the presence of monitors well in advance of construction (see PSBN Construction Management Requirements by Project Location Table).

In the event that prehistoric archaeological material is discovered within the APE, the procedures set forth in CRM CMR 3 shall be followed. The archaeological monitor will, at a minimum, have a B.A. in anthropology or related field or will have successfully completed an archaeological field methods school. The monitor will work under the supervision of a Project Archaeologist who meets or exceeds the Secretary of the Interior's Standards and Qualifications. These professional qualifications standards have been published in the Code of Federal Regulations, 36 CFR Part 61. The LA-RICS Authority will have review and refusal over the cultural resource management (CRM) firm to be engaged by the Contractor, which will provide all archaeological personnel described in these CMRs.

### **CRM CMR 2: Potential Historic Archaeological Sites in Project Area of Potential Effect**

At sites that CHRIS IC records indicate the known presence of a National Register of Historic Places listed or eligible site, or other historic structure, in the APE, thereby indicating the potential presence of historic archaeological material (artifacts and/or features), a qualified archaeological monitor shall be present during all subsurface excavation for tower or monopole foundations, and during grading for access roads and structure foundations. The APE is defined as a one-half-mile radius surrounding the project location. The Contractor will be informed which locations require the presence of monitors well in advance of construction (see PSBN Construction Management Requirements by Project Location Table).

In the event that historic archaeological material is discovered within the APE, the procedures set forth in CRM CMR 3 shall be followed. The monitor will, at a minimum, have a B.A. in anthropology or related field or will have successfully completed an archaeological field methods school. The monitor will work under the supervision of a Project Archaeologist who meets or exceeds the Secretary of the Interior's Standards and Qualifications. These professional qualifications standards have been published in the Code of Federal Regulations, 36 CFR Part 61. The LA-RICS Authority will have review and refusal over the cultural resource management (CRM) firm to be engaged by the Contractor.

### **CRM CMR 3: Archaeological Materials Encountered**

In the event that a previously unidentified buried archaeological resource is uncovered, the following actions shall be taken:

1. All ground disturbing work within 165 feet (50 meters) of the discovery shall be halted. The qualified archaeological monitor will mark the immediate area with highly visible flagging.

2. The LA-RICS Project Archaeologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, the resource shall be documented on California State Department of Parks and Recreation cultural resource record forms and no further effort shall be required.
3. If the resource cannot be avoided and may be subject to further impact, the archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historical resource for the purposes of CEQA); or (2) a “unique” archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor an historic resource, work may commence in the area following collection and recording of the artifacts.
4. If the resource meets the criteria for either historical or unique archaeological resources, or both, work shall remain halted, and the archaeologist shall consult with LA-RICS Authority staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). Preservation in place, i.e., avoidance, is the preferred method of ensuring that there are no substantial adverse impacts to cultural resources and shall be required unless there are other equally effective methods. If the archaeological material appears to represent a site, defined as a feature or three or more artifacts in an intact deposit, an archaeological test program (Phase II) may be necessary. The Project Archaeologist will make this determination. Other methods include evaluation, collection, recordation, and analysis of any significant cultural materials in accordance with a Cultural Resources Management Plan prepared by the archaeologist. The methods and results of evaluation or data recovery work at an archaeological find shall be documented in a professional level technical report to be filed with CHRIS.
5. Work may commence upon completion of treatment. Copies of the archaeological survey, study or report shall be submitted to: South Central Coastal Information Center (SCCIC), Department of Anthropology at California State University Fullerton, as approved by the LA-RICS Authority.

#### **CRM CMR 4: Human Remains**

In the event that human remains are discovered during construction excavation activities, the following procedure shall be observed:

1. All construction activity shall stop immediately and the Project Archaeologist will contact the Los Angeles County Coroner.
2. The Coroner has two working days to examine human remains after being notified by the responsible person. If the coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours.
3. The NAHC will immediately notify the person it believes to be the Most Likely Descendent (MLD) of the deceased Native American.
4. The MLD has 48 hours to make recommendations to the property owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.



5. If the MLD does not make recommendations within 48 hours the owner shall reenter the remains in an area of the property secure from further disturbance following procedures required by the Public Resources Code, Sections 5097.94, 5097.98, 5097.99, and Health and Safety Code, Section 7050.5.
6. If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC.

#### **CRM CMR 5: Potential Paleontological Resources in Area**

At sites that Los Angeles County Museum of Natural History records indicate the potential presence of paleontological resources in the area, a qualified paleontological monitor shall be present during all subsurface excavation for tower or monopole foundations, and during grading for access roads and structure foundations. The Contractor will be informed which locations require the presence of a paleontological monitor in advance of construction (see PSBN Construction Management Requirements by Project Location Table). The LA-RICS Authority will have review and refusal over the paleontological cultural resource firm to be engaged by the Contractor.

In the event that a previously unidentified paleontological resource is uncovered, the following actions shall be taken:

1. All ground disturbing work within 165 feet (50 meters) of the discovery shall be halted. The LA-RICS-approved, qualified paleontological monitor shall divert or direct construction activities in the area of an exposed fossil in order to facilitate evaluation and, if necessary, salvage of the exposed fossil.
2. A paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, no further effort shall be required.
3. If the resource cannot be avoided and may be subject to further impact, the paleontologist shall evaluate the resource and determine whether it is "unique" under CEQA, Appendix G, Part V. If the resource is determined to not be unique, work may commence in the area.
4. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with LA-RICS Authority staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource. Preservation in place, i.e., avoidance, is the preferred method of ensuring that there are no substantial adverse impacts to the resource and shall be required unless there are other equally effective methods. Other methods include ensuring that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards.
5. Due to the small nature of some fossils, a fine mesh screen may be used at the discretion of the paleontologist at project-specific inspections to collect matrix samples for processing.
6. Provisions for preparation and identification of any fossils collected shall be made before donation to a suitable repository.

7. All recovered fossils shall be curated at a local accredited and permanent scientific institution according to Society of Vertebrate Paleontology standard guidelines standards. Work may commence upon completion of treatment, as approved by LA-RICS.

#### **CRM CMR 6: Attaching Equipment to Historic Buildings**

1. When running new exterior wiring to a historic building, utilize existing entry points when feasible. If a new entry point is required, consider placing the entry at the rear of the building or in an unobtrusive area on the side of the building.
2. When installing wireless nodes, antennas, microwave or satellite dishes, etc. on historic buildings, utilize existing mounting points when possible. For new mounts, the preferred option is the use of non-penetrating mounts.
3. Consider using existing building features to conceal equipment.
4. Equipment should be placed in a location that does not detract from the building's overall appearance; the best practice is to place roof mounted equipment where it will not be visible from accessible locations at grade. Ensure that there is adequate structural support for the new equipment and design, and install a system that minimizes the number of cutouts or holes in structural members and historic material.
5. The preferred alternative for new equipment installations on a historic building that will be visible is to paint the equipment and color match it to the surrounding building materials.
6. Color match any supports or brackets for new equipment to the existing materials.
7. Minimize visible exterior wiring; where unavoidable, the best practice is to color match the wiring to the original building material to reduce the visual impact.
8. Never anchor equipment directly into stone or brick; use mortar joints for anchoring the equipment.
9. Use rust resistant mounts to prevent staining of the building materials.
10. Use only reversible mounting techniques to avoid damage to building materials.
11. When installing cable or conduit underground at a historic property, the work should be undertaken in a manner that gives consideration to the stability of the historic building, including limiting any new excavations adjacent to historic foundations that could undermine the structural stability of the building, and avoiding landscape or other changes that could alter drainage patterns and cause water-related damage to the building.
12. Best alternative for new interior wiring is to utilize space in existing chases, closets or shafts.
13. Install equipment and systems so that it causes the least alteration possible to the building's floor plan, and the least damage to the historic building material.
14. Install the vertical runs of conduit and cables in closets, service rooms, and wall cavities when possible. Bear in mind, however, that the concept of complete invisibility, which

necessitates hiding conduit and cables within wall and floor systems, may not always be appropriate for historic buildings because of the damage that often results. Every effort should be made to design a system that will require the least intrusion into the historic fabric of the building and that can be updated or altered without major intervention into the wall and floor systems.

The Contractor will be informed which locations include historic-age buildings well in advance of construction (see PSBN Construction Management Requirements by Project Location Table).

## **DEFINITIONS**

Archaeological Monitor. A qualified archaeologist whose duty is to monitor construction activities to ensure all cultural CMRs will be implemented appropriately and completely.

Cross Trained Archaeological/Paleontological Monitor. A qualified archaeologist who has been trained to observe and record paleontological specimens and can demonstrate experience in this task whose duty is to monitor construction activities to ensure all CMRs will be implemented appropriately and completely.

Native American Monitor. A qualified Native American representing the local Tribal people trained in cultural resources identification whose duty is to monitor construction activities to ensure cultural CMRs will be implemented appropriately and completely.

Paleontological Monitor. A qualified paleontologist whose duty is to monitor construction activities to ensure the paleontological CMR will be implemented appropriately and completely.

Project Archaeologist. The archaeologist working for the LA-RICS Authority who coordinates and supervises cultural resource monitoring work, and serves as primary conduit for communication between Contractor, regulatory agencies, and applicant involving cultural resources for the project to ensure all CRM CMRs will be implemented appropriately and completely.

## **REFERENCES FOR CULTURAL | HISTORIC RESOURCES CMRS**

*The Secretary of the Interior's Standards for Rehabilitation*: Website:  
<http://www.nps.gov/history/hps/tps/tax/rhb/stand.htm>. Accessed July 10, 2013.

*National Park Service Preservation Briefs* (for detailed guidance on preserving, rehabilitating and restoring historic buildings and specific types of historic building materials): Website:  
<http://www.nps.gov/history/hps/tps/briefs/presbhom.htm>. Accessed July 10, 2013.