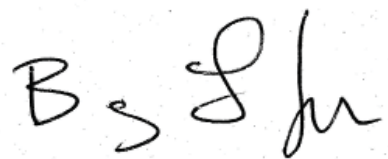


Squaw Mountain Road Bridge Repair Project

General Biological Resources Assessment Report

September 3, 2014



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1.0 INTRODUCTION

This report provides the County of Riverside (County; California Environmental Quality Act [CEQA] lead agency), resource agencies, and public with current biological data to satisfy review of the proposed Squaw Mountain Road Bridge Repair project (Project) under CEQA and other federal, state, and local regulations. The report describes sensitive biological resources (including vegetation communities, plants, and animals detected on the project site), and potential direct and indirect project impacts. Consistency with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP; Dudek and Associates [Dudek] 2003) will also be addressed.

1.1 SITE LOCATION AND DESCRIPTION

The Squaw Mountain Road Bridge is located in unincorporated southwestern Riverside County, south of the City of Corona, California. The project site is located in Temescal Canyon west of Interstate 15 (Figure 1), in the community of Painted Hills. The project site is located in Sections 2 and 3, Township 5 South, Range 6 West on the U.S. Geological Service Lake Matthews 7.5-minute quadrangle (Figure 2), and comprises 0.94-acre in Assessor's Parcel Numbers 290-050-030, 290-190-028, and 290-190-047. The project site consists of the Squaw Mountain Road Bridge where it crosses Coldwater Wash, portions of Coldwater Wash disturbed by bridge repair, and an adjacent unnamed small tributary.

The Project site is located within the boundaries of the Western Riverside County Multiple Species Conservation Plan (MSHCP) Temescal Canyon Area Plan. The project is not within any Criteria Cells, Public/Quasi Public Lands, or Riverside Conservation Authority (RCA) conserved lands. This project is for the repair of the Squaw Mountain Road Bridge.

The project site is located east of Temescal Canyon Road (Figure 3), which is the closest cross street. The center of the project site is located at Latitude 33°46'6.575" N, Longitude 117°29'9.924" West. The bridge was originally constructed as part of the Painted Hills Residential Development project.

1.2 PROJECT DESCRIPTION

The existing Squaw Mountain Road Bridge is in need of repair due to erosion by Coldwater Wash. The scouring at the bridge was discovered after a large storm in January 2012. The proposed repairs would consist of lining the channel bottom below the bridge with concrete, connecting the concrete-lined channel to the existing bridge abutments, placing a quarter-ton riprap on the upstream and downstream sides of the concrete-lined portion of the channel (some of which will be buried by fill), and installing riprap slope protection on the northwest slope. As part of the repairs, an existing asphalt access road would be extended approximately 40 feet.

There is also a small tributary to Coldwater Wash that was realigned as part of the original Painted Hills Residential Development project and was intended to flow parallel to Squaw Mountain Road before entering the wash. As a result of significant degradation of the Coldwater Wash channel, the side channel has head-cut back from the wash and is now eroding into the

slope of the Squaw Mountain Road embankment. The proposed repairs would consist of regrading the tributary channel upstream (south) of Squaw Mountain Road to the appropriate elevation, and leaving this portion of the channel as a natural drainage. Flows will then be collected in a basin and conveyed to Coldwater Wash in a pipe that will discharge at the base of the Squaw Mountain Road embankment upstream of the bridge.

The proposed project has been designed to avoid as much of the extant riparian vegetation as possible while still providing a hydraulically stable channel over the long term. Permanent impacts to jurisdictional areas will result from the installation of concrete lining below the bridge, connecting the concrete-lined channel to the existing bridge abutments, placing a quarter-ton riprap on the upstream and downstream sides of the concrete lined portion of the channel, and installing riprap slope protection on the northwest slope.

2.0 METHODS

2.1 NOMENCLATURE AND LITERATURE REVIEW

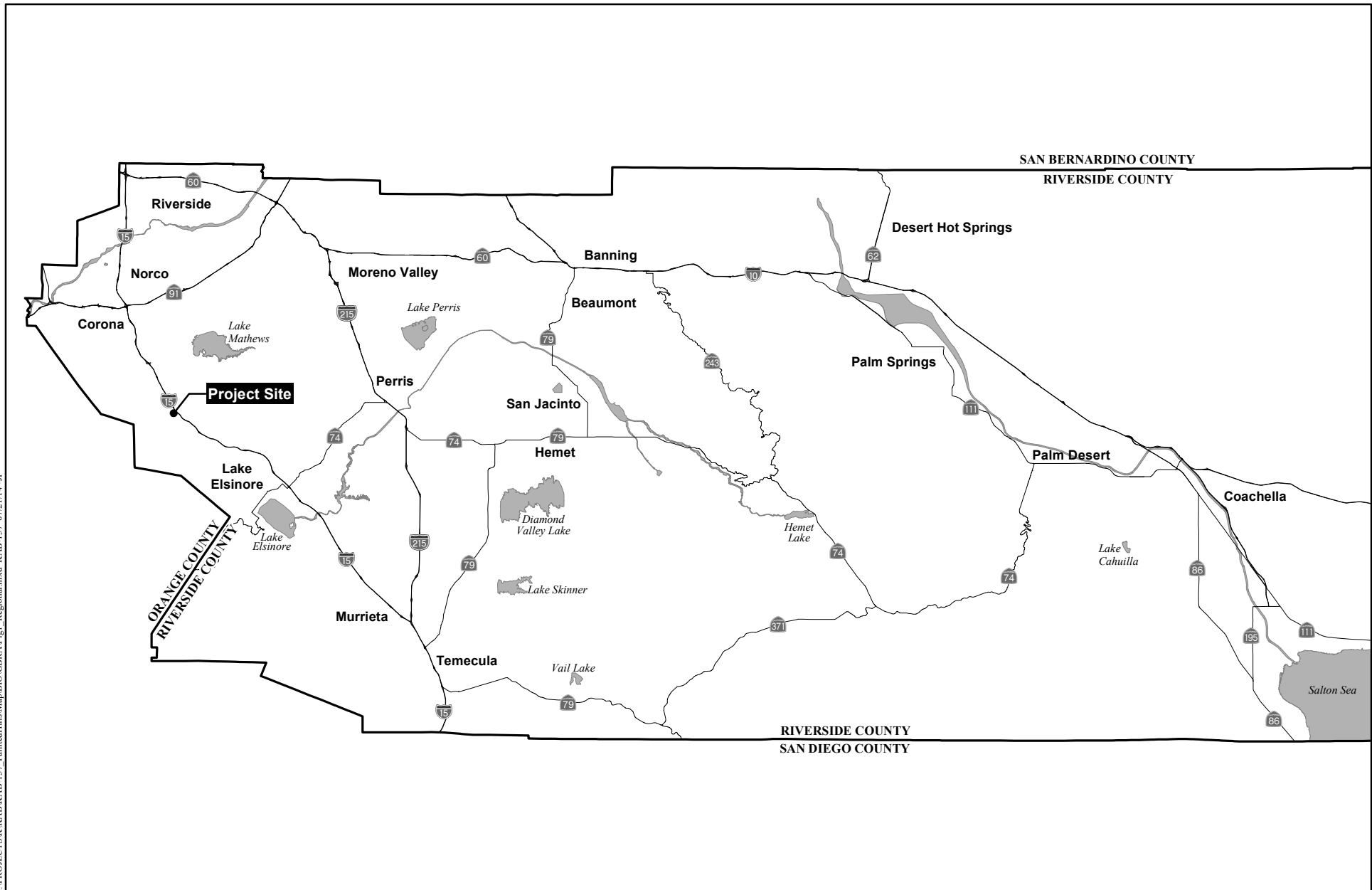
Nomenclature for this report follows Baldwin, et al. (2012) for plants and the MSHCP (Dudek 2003) for vegetation community classifications, with additional vegetation community information taken from Oberbauer (2008) and Holland (1986). Animal nomenclature follows Emmel and Emmel (1973) for butterflies, Center for North American Herpetology (Collins and Taggart, 2012) for reptiles and amphibians, American Ornithologists' Union (2007) for birds, and Baker, et al. (2003) for mammals. Sensitive plant and animal status is taken from the California Natural Diversity Database (CNDDDB) of the California Department of Fish and Wildlife (CDFW; 2013b, c, d and 2011). Soils classifications are obtained from Knecht (1971). The CDFW CNDDDB (2013a), California Native Plant Society's (CNPS) online database (2013), and HELIX's in-house database were searched to obtain a list of sensitive animal and plant species with potential to occur on the property.

A review of the soil survey of Riverside County (Knecht 1971) and the U.S. Department of Agriculture (USDA) Web Soil Survey online database was reviewed prior to field surveys. This soil data was used to aid in the habitat assessments.

2.2 VEGETATION MAPPING

Vegetation communities were mapped according to vegetation community classifications in the MSHCP (Dudek 2003) with additional information from Oberbauer (2008) and Holland (1986). Vegetation communities were mapped by HELIX biologist Larry Sward on August 27, 2012 to one-tenth of an acre (0.1 acre) with the exception of wetland communities that were mapped to one-hundredth of an acre (0.01 acre). The vegetation mapping was updated by HELIX biologist Rob Hogenauer on April 16, 2013.

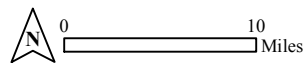
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Regional Location Map

SQUAW MOUNTAIN ROAD

Figure 1





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Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Project Vicinity Map

SQUAW MOUNTAIN ROAD



Figure 2



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Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Aerial Photograph

SQUAW MOUNTAIN ROAD

2.3 JURISDICTIONAL DELINEATION

A jurisdictional delineation (JD) was prepared by HELIX. Prior to beginning fieldwork, aerial photographs (1"=200' scale) and topographic maps (1"=200' scale) were reviewed to determine the location of potential jurisdictional areas that may be affected by the proposed project. Mr. Sward conducted the delineation on August 27, 2012 in accordance with the methods described below.

Waters of the U.S. (WUS) wetland boundaries were determined using the three criteria (vegetation, hydrology, and soils) established for wetland delineations, as described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (U.S. Army Corps of Engineers [USACE] 2008).

Areas were determined to be non-wetland WUS if there was evidence of regular surface flow (e.g., bed and bank), but neither the vegetation nor soils criterion was met. Jurisdictional limits for these areas were defined by the ordinary high water mark (OHWM), which is defined in 33 CFR Section 329.11 as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas.” The USACE has issued further guidance on the OHWM (Riley 2005; Lichvar and McColley 2008), which also has been used for this delineation. The OHWM widths were measured to the nearest foot at various locations along mapped drainages.

Waters of the state (WS) jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation” (Title 14, Section 1.72). This definition for CDFW jurisdictional habitat allows for a wide variety of habitat types to be jurisdictional, including some that do not include wetland species (e.g., oak woodland and alluvial fan sage scrub). Streambed widths were measured to the nearest foot at various locations along the channel. The CDFW publication on dryland watersheds (Vyverberg 2010) was used as an aid to map streambeds. Areas that were mapped as CDFW jurisdictional are also considered Riparian/Riverine under the MSHCP.

2.4 RIPARIAN/RIVERINE AND VERNAL POOL HABITAT ASSESSMENT

Mr. Hogenauer conducted the Riparian/Riverine and vernal pool habitat assessment, and associated surveys on March 11 and April 16, 2013. The project impact area was assessed for habitat that had potential to support Riparian/Riverine and Vernal Pool Species per Section 6.1.2 of the MSHCP.

Riparian/Riverine Plants

The MSHCP lists 23 sensitive plant species that have potential to occur in Riparian/Riverine and Vernal Pool habitats. These species are:

- California black walnut (*Juglans californica* var. *californica*),
- Engelmann oak (*Quercus engelmannii*),
- Coulter's matilija poppy (*Romneya coulteri*),
- San Miguel savory (*Satureja chandleri*),
- spreading navarretia (*Navarretia fossalis*),
- graceful tarplant (*Holocarpha virgata* ssp. *elongata*),
- California Orcutt grass (*Orcuttia californica*),
- prostrate navarretia (*Navarretia prostrata*),
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*),
- Orcutt's brodiaea (*Brodiaea orcuttii*),
- thread-leaved brodiaea (*Brodiaea filifolia*),
- Fish's milkwort (*Polygala cornuta* var. *fishiae*),
- lemon lily (*Lilium parryi*),
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*),
- ocellated Humboldt lily (*L. humboldtii* ssp. *ocellatum*),
- Mojave tarplant (*Deinandra mohavensis*),
- vernal barley (*Hordeum intercedens*),
- Parish's meadowfoam (*Limnathes gracilis* var. *parishii*),
- slender-horned spineflower (*Dodecahema leptoceras*),
- Santa Ana River woolly-star (*Eriastrum densifolium* spp. *sanctorum*),
- Brand's phacelia (*Phacelia stellaris*),
- mud nama (*Nama stenocarpum*), and
- smooth tarplant (*Centromadia pungens laevis*)

Invertebrates

Mr. Hogenauer conducted a habitat assessment for Riverside fairy shrimp (*Streptocephalus woottoni*) and vernal pool fairy shrimp (*Branchinecta lynchi*) on March 11 and April 16, 2013. Riverside fairy shrimp and vernal pool fairy shrimp are restricted to seasonal vernal pool, ephemeral ponds, or similar seasonally ponded habitat. These habitats often occur on clay soils. The Riverside fairy shrimp prefers warm long lasting ponds, while the vernal pool fairy shrimp prefer cool often short lived pools. No appropriate habitat for these species occurs on site and focused surveys were not required.

Fish

Mr. Hogenauer conducted a habitat assessment for the Santa Ana sucker (*Catostomus santaanae*) on March 11 and April 16, 2013. The Santa Ana sucker is found in shallow streams with permanent year round flow. No appropriate habitat for this species occurs on site and focused surveys were not required.

Amphibians

The MSHCP Section 6.3.2 requires surveys for arroyo toad (*Anaxyrus californicus*), mountain yellow-legged frog (*Rana muscosa*), and California red-legged frog (*Rana draytonii*) for projects that are within the amphibian survey area for these species. The project is not within the amphibian survey area for any of the aforementioned amphibian species, therefore no amphibian surveys are required. No additional discussion of amphibian surveys is included in this document.

Riparian Birds

The property was assessed on March 11 and April 16, 2013 for habitat that could support the least Bell's vireo (LBV; *Vireo bellii pusillus*), southwestern willow flycatcher (WIFL; *Empidonax traillii extimus*), and western yellow-billed cuckoo (YBCU; *Coccyzus americanus occidentalis*). Typical habitat for LBV consists of well-developed riparian scrub, woodland, or forest dominated by willows (*Salix* spp.), mule fat (*Baccharis salicifolia*), and western cottonwood (*Populus fremontii*). The LBV will also use small patches of trees adjacent to dense riparian habitat. The WIFL and YBCU require mature riparian forest with a stratified canopy and nearby water. The site was not considered suitable for these species and no focused surveys were conducted.

In accordance with MSHCP Section 6.1.2, Mr. Hogenauer also assessed the project site for habitat with potential to support bald eagle (*Haliaeetus leucocephalus*) and peregrine falcon (*Falco peregrinus*). Both the bald eagle and peregrine falcon occur primarily in and adjacent to open water habitats, with the peregrine falcon possibly occurring in riparian areas. The peregrine falcon nests on large cliffs that are generally 200 to 300 feet in height. No appropriate habitat for these species occurs on site and focused surveys were not required.

2.5 NARROW ENDEMIC PLANT SPECIES

The Project site is in Narrow Endemic Plant Species Survey Area (NEPPSA) 1 and requires surveys and/or habitat assessments for the following species: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumilla*), slender-horned spine flower (*Dodecahema leptoceras*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), San Miguel savory (*Satureja chandleri*), Hammitt's clay-cress (*Sibaropsis hammittii*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). Mr. Hogenauer conducted a habitat assessment and rare plant survey on March 11 and April 16 in accordance with the requirements of MSHCP Section 6.1.3

2.6 BURROWING OWL HABITAT ASSESSMENT

In accordance with MSHCP Section 6.3.2, Mr. Hogenauer conducted a burrowing owl (*Athene cunicularia*) habitat assessment on April 16, 2014. Burrowing owl habitat consists of open expanses of sparsely vegetated area (less than 30 percent cover of trees and shrubs), gently rolling terrain, an abundance of small mammal burrows, especially those of California ground squirrel (*Spermophilus beechyi*), and fence posts, rock or other low perching locations.

Burrowing owls will also use pipes and debris piles for burrow locations. Burrowing owls will also use openings in vertical cliff faces but are generally not known to utilize steep (non-vertical) slopes.

2.7 CRITERIA AREA SPECIES

The project is not within a Criteria Area Species Survey Area (CASSA). No CASSA surveys are required. No additional CASSA discussion is included in this document.

2.8 MAMMALS

The MSHCP Section 6.3.2 requires surveys for Aguanga kangaroo rat (*Dipodomys merriami collinus*), San Bernadino kangaroo rat (*Dipodomys merriami parvus*), and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) for projects that are within the mammal survey area for these species. The project is not within the mammal survey area for any of the aforementioned mammal species, therefore no mammal surveys are required. No additional discussion of mammal surveys is included in this document.

3.0 RESULTS

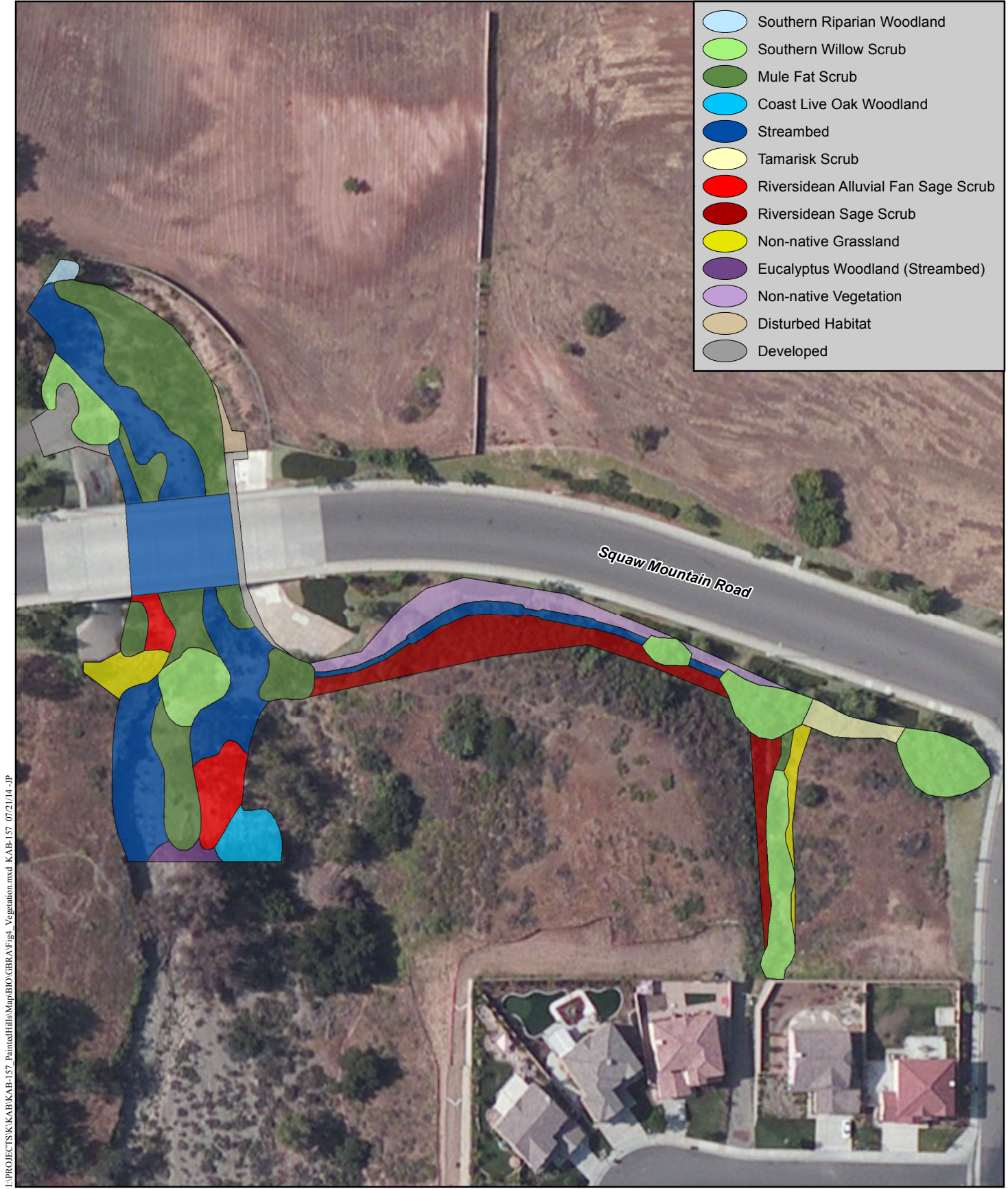
Research and survey results are reported below with their relevance discussed in later sections of this document.

3.1 SOILS

Soils on the Project site include Arbuckle gravelly loam (8 to 15 percent slopes), Cortina gravelly loamy sand (2 to 8 percent slopes), Arbuckle gravelly loam (2 to 8 percent slopes), and Terrace escarpments.

3.2 VEGETATION COMMUNITIES

Eight vegetation communities, as well as disturbed and developed areas, occur in the Project site (Figure 4; Table 1): mule fat scrub, Riversidean alluvial fan sage scrub, southern willow scrub, streambed, tamarisk scrub, Riversidean sage scrub, non-native grassland, and non-native vegetation. Except for uplands, all of these are considered Riparian/Riverine habitats in the MSHCP and jurisdictional areas by the USACE and CDFW.



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Vegetation

SQUAW MOUNTAIN ROAD

Figure 4

Table 1 VEGETATION COMMUNITIES IN THE SQUAW MOUNTAIN ROAD BRIDGE REPAIR PROJECT SITE	
COMMUNITY	AREA
Mule fat scrub	0.20
Riversidean alluvial fan sage scrub	0.02
Southern Willow Scrub	0.16
Streambed	0.33
Tamarisk scrub	0.01
Riversidean sage scrub	0.08
Non-native grassland	0.03
Non-native vegetation	0.07
Disturbed	0.01
Developed	0.03
TOTAL	0.94

3.2.1 Mule Fat Scrub

Mule fat scrub is a depauperate, shrubby riparian scrub community dominated by mule fat and interspersed with small willows. This vegetation community occurs along intermittent stream channels with a fairly coarse substrate and moderate depth to the water table. This early seral community is maintained by frequent flooding, the absence of which would lead to a cottonwood or sycamore dominated riparian woodland or forest (Holland 1986), provided the requisite hydrology is present to support the greater water needs of those habitats. Mule fat scrub occupies 0.20 acre of the Project site.

3.2.2 Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub is a community that occurs on outwash fans and riverine deposits along the coastal side of major mountains in southern California. It grows on sandy, rocky alluvium that is deposited by streams that periodically flood. This periodic flooding results in the removal of the vegetation on the adjacent terraces. During less severe flooding, the vegetation on the more protected terraces is not removed. This pattern of flooding results in a mosaic of plant communities, from pioneer communities that occur in the washes and are subjected to frequent flooding and scouring to intermediate and mature communities that are exposed to relatively less frequent flooding. Persistence of pioneer and intermediate seral communities is dependent upon this periodic flooding. If periodic flooding is prevented by stream channelization or damming, these early seral communities will develop into Riversidean coastal sage scrub or chaparral communities.

The floristic composition of alluvial fan sage scrub is unique in that it is an assemblage of species that do not commonly coexist in other plant communities. Scalebroom (*Lepidospartum squamatum*) is a shrub that is very restricted to alluvial scrub communities and occurs in the flood-abraded channels. White sage (*Salvia apiana*) is a co-dominant shrub that occurs in the

more intermediate seral communities. Another co-dominant, California buckwheat (*Eriogonum fasciculatum*), occurs throughout all the seral communities. Holly-leaved cherry (*Prunus ilicifolia*), western sycamore, mountain mahogany (*Cercocarpus betuloides*), felt leaf yerba santa (*Eriodictyon crassifolium*), and chamise (*Adenostoma fasciculatum*) are all species that occur on the more protected terraces and normally do not coexist in other habitats. This community occupies 0.02 acre of the Project site south of the bridge.

3.2.3 Southern Willow Scrub

Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows in association with mule fat, and with scattered emergent cottonwood and western sycamores. This vegetation community appears as a single layer; it lacks separate shrub and tree layers and generally appears as a mass of short trees or large shrubs. It occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland 1986). In the absence of periodic flooding, this early seral type would be succeeded by southern cottonwood or western sycamore riparian forest, provided that the requisite hydrology is present to support the greater water needs of those habitats. This community occupies 0.16 acre of the Project site, mostly in the small tributary.

3.2.4 Tamarisk Scrub

Tamarisk scrub is typically composed of shrubs and/or small trees of exotic tamarisk species (*Tamarix* spp.) but may also contain willows, salt bushes (*Atriplex* spp.), catclaw acacia (*Acacia greggii*), and salt grass. This habitat occurs along intermittent streams in areas where high evaporation rates increase the salinity level of the soil. Tamarisk is a phreatophyte, a plant that can obtain water from an underground water table. Because of its deep root system and high transpiration rates, tamarisk can substantially lower the water table to below the root zone of native species, thereby competitively excluding them. As a prolific seeder, it may rapidly displace native species within a drainage (Holland 1986). This community occupies 0.01 acre in the eastern tip of the Project site.

3.2.5 Streambed

Streambeds convey ephemeral, intermittent, or perennial stream flows through drainages. The ephemeral and intermittent streams may support upland vegetation after winter and spring floods or are unvegetated. There is 0.33 acre of streambed habitat in the channels of both Coldwater Wash and the small tributary.

3.2.6 Riversidean Sage Scrub

Riversidean sage scrub is the most xeric expression of coastal sage scrub south of Point Conception, California. Typical stands are fairly open and dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), and foxtail chess (*Bromus madritensis* ssp. *rubens*), each attaining at least 20 percent cover. Riversidean sage scrub is typically found on xeric sites such as steep slopes, severely drained

soils, or clays that release stored soil moisture only slowly. Several small pockets of Riversidean sage scrub totaling 0.08 acre occur on site.

3.2.7 Non-native Grassland

Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Species present on site include oats (*Avena* spp.), ripgut grass (*Bromus diandrus*), soft chess (*Bromus madritensis* ssp. *rubens*), doveweed, evening primrose (*Camissonia* sp.), California aster (*Corethrogyne filaginifolia*), nit grass (*Gastridium phleoides*), wild carrot, telegraph weed (*Heterotheca grandiflora*), lilac mariposa lily (*Calochortus splendens*), narrow-leaf filago (*Logfia gallica*), filarees (*Erodium* spp.), miniature lupine (*Lupinus bicolor*), Spanish-clover, and several other grasses and forbs. A total of 0.03 acre of non-native grassland occurs on site.

3.2.8 Non-native Vegetation

Non-native vegetation consists of existing landscaping along Squaw Mountain Road and totals 0.07 acre.

3.2.9 Disturbed

A small area mapped as disturbed habitat because of the highly weedy nature of the patch occurs on site and totals 0.01 acre.

3.2.10 Developed

This consists of 0.03 acre of the existing maintenance access ramp.

3.3 JURISDICTIONAL DELINEATION

Jurisdictional habitats within the Project site include mule fat scrub, alluvial fan sage scrub, southern willow scrub, streambed, and tamarisk scrub.

3.3.1 Federal Jurisdiction

Federal (USACE) jurisdictional areas in the Project site include 0.21 acre of non-wetland WUS (Figure 5; Table 2).

Table 2	
WATERS OF THE U.S. IN THE SQUAW MOUNTAIN ROAD BRIDGE REPAIR PROJECT SITE	
JURISDICTIONAL AREAS	AREA1 (acres)
Non-Wetland	
Waters of the U.S.	0.33
TOTAL	0.33

1 Rounded to nearest one-hundredth.

3.3.2 State Jurisdiction

State (CDFW) jurisdictional areas in the Project site total 0.72 acre of wetlands and streambed (Figure 6, Table 3).

Table 3	
WATERS OF THE STATE IN THE SQUAW MOUNTAIN ROAD BRIDGE REPAIR PROJECT SITE	
HABITAT	AREA1 (ACRES)
Mule fat scrub	0.20
Riversidean alluvial fan sage scrub	0.02
Southern Willow Scrub	0.16
Streambed	0.33
Tamarisk Scrub	0.01
TOTAL	0.72

1 Rounded to nearest one-hundredth.

3.4 RIPARIAN/RIVERINE AND VERNAL POOL HABITAT ASSESSMENT

The identification of Riparian/Riverine habitats is based on potential for the habitat to support, or be tributary to habitat that support, Riparian/Riverine Covered Species, which are identified in MSHCP Section 6.1.2.

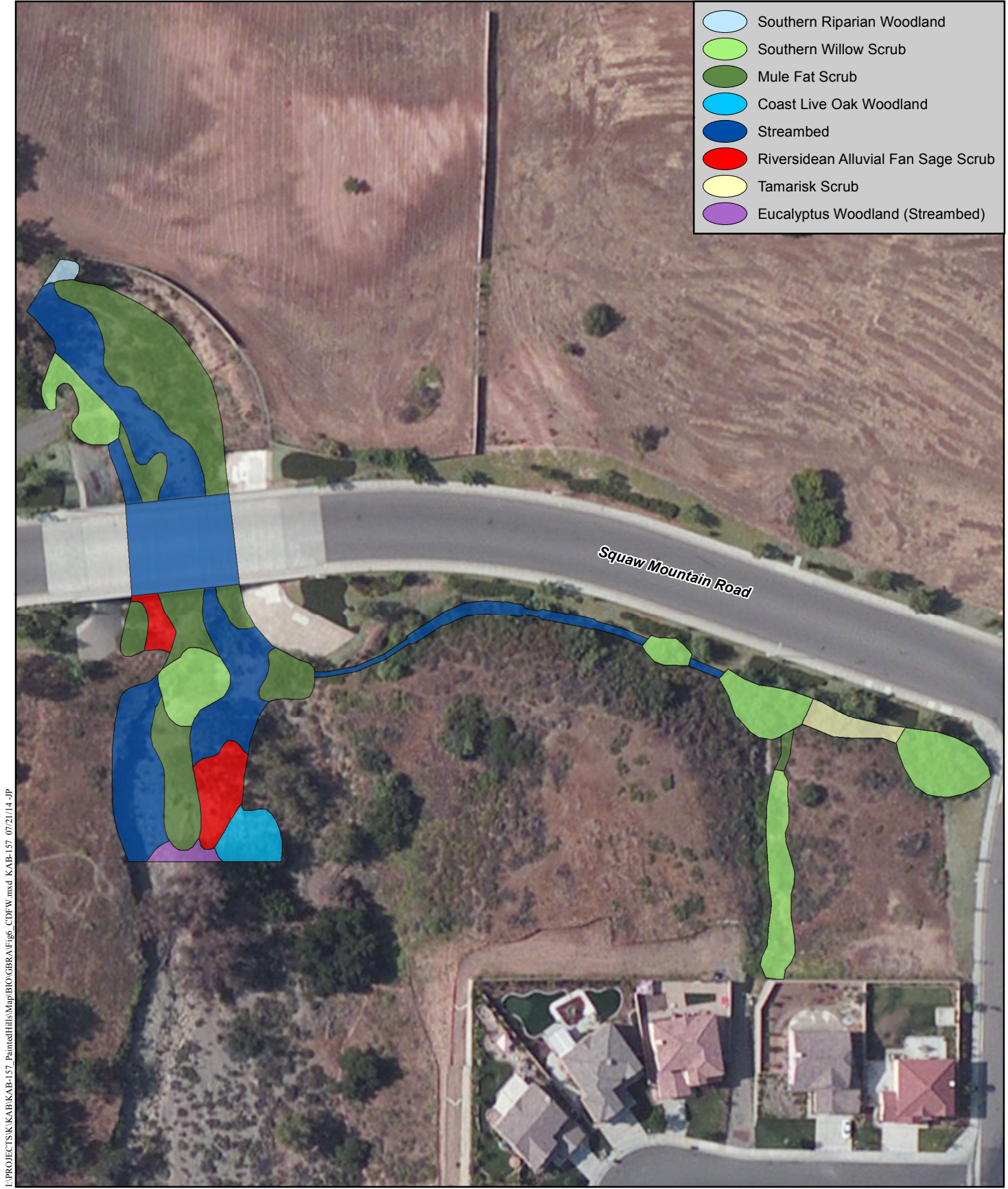
The Riparian/Riverine habitat assessment for the Project site identified 0.72 acre of Riparian/Riverine habitat, which corresponds to the areas delineated as CDFW jurisdiction (Table 3). No vernal pool habitat, ephemeral pond or similar habitat is present within the project site.



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USACE Jurisdiction

SQUAW MOUNTAIN ROAD



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CDFW Jurisdiction

SQUAW MOUNTAIN ROAD

Plants

Twenty-three plant species are identified in the MSHCP as potentially occurring in Riparian/Riverine and Vernal Pool habitats. The 2013 surveys revealed that none of these are present or have the potential to occur on the Project site.

California black walnut, Engelmann oak, and Coulter's matilija poppy are conspicuous species that would have been seen if present in the Project site. California Orcutt grass, spreading navarretia, thread-leaved brodiaea, San Miguel savory, graceful tarplant, prostrate navarretia, San Diego button-celery, Orcutt's brodiaea, Fish's milkwort, lemon lily, San Jacinto Valley crownscale, Mojave tarplant, Brand's phacelia, Santa Ana River woolly-star, vernal barley, and Parish's meadowfoam occur in habitats that do not occur on the property (e.g., vernal pools) or have distributions well outside of the property. Mud nama is restricted to muddy embankments of marshes and swamps and within lake margins and riverbanks, none of which occur on site. Ocellated Humboldt lily is associated with riparian corridors in coniferous forest and chaparral habitats. Within Western Riverside County, ocellated Humboldt lily is restricted to canyons along the east slope of the Santa Ana Mountains and the north slope of the Palomar Mountains.

Slender-horned spineflower is typically found in mature alluvial scrub with sandy soils but is also found in rocky soils and open chamise chaparral. Ideal habitat is thought to be benches or terraces that receive overbank flow every 50 to 100 years. Potential habitat for this species occurs in the alluvial fan scrub located upstream in Coldwater Wash. This species was not observed during the surveys conducted for the project and given the highly disturbed nature of the site and lack of sandy soils, this species is not expected to occur. Smooth tarplant is found in southwestern California and northwestern Baja California, Mexico (Baja), and occurs in San Bernardino, Riverside, and San Diego counties. This species occurs in open spaces within a variety of habitats, including alkali scrub and playas, riparian woodland, watercourses, and grasslands with alkaline affinities (Dudek 2003; CNPS 2007). This species was not observed during the surveys conducted by HELIX for the project and the site lacks alkali soils, and this species is presumed to be absent from the Project site.

Invertebrates

Riverside fairy shrimp and vernal pool fairy shrimp habitat consists of vernal pools, ephemeral ponds and other seasonally ponded habitats. No suitable habitat for fairy shrimp occurs in the Project site.

Fish

The Santa Ana sucker (*Catostomus santaanae*) is restricted to the Santa Ana River watershed with year-round flows. Cold Water Wash is subject to long periods with no surface flow, reducing the potential for Santa Ana Sucker to occur. Additionally, the USFWS species profile shows that the Santa Ana Sucker is not known to occur south of Lake Mathews (USFWS 2013). This species is not expected to occur on site.

Amphibians

Arroyo toad habitat requirements include streams with persistent water from March to mid June (Dudek 2003). No appropriate habitat for the three amphibian species listed under MSHCP 6.1.2 occurs on site, and none of these species has any potential to occur on site.

Birds

The LBV, WIFL, and YBCU are found in southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, and arroyo willow riparian forest habitats that typically feature dense cover. The riparian habitat on site was determined not to have potential to support LBV, WIFL, and YBCU because of the limited vegetative cover within riparian habitats on site.

The property lacks the steep rocky cliffs associated with peregrine falcon habitat. The riparian habitat along Coldwater Wash is potential foraging habitat for the peregrine falcon. No suitable habitat occurs on site for the bald eagle.

3.5 NARROW ENDEMIC PLANTS

The habitat assessment and survey revealed that none of the Area 1 NEPSSA species occur within the project site, and many do not have habitat within the project site. Rare plant surveys were negative for all NEPSSA Area 1 species. The project will not impact any NEPSSA Area 1 plant species as none occur within the project area, therefore, the project is in compliance with Section 6.1.3 of the MSHCP. The NEPSSA Area 1 plant species are not expected to occur on the project site for the following reasons:

Munz's Onion

Munz's onion is restricted to clay and cobbly clay soils associated with Altamont, Auld, Bosanko, Claypit, and Porterville series soils. Munz's onion occurs in scattered locations at Estelle Mountain, Gavilan Plateau, hills of Lake Elsinore to Paloma Valley, and Skunk Hollow/Lake Skinner area. The Project site does not include suitable soils and this species is not expected to occur.

San Diego Ambrosia

San Diego ambrosia is associated with river terraces, vernal pools, and alkali playas on Garretson gravelly fine sandy loams and Las Posas loams in close proximity to Willows series soils. The only known extant populations of this species in Riverside are in the Alberhill area of Lake Elsinore and Skunk Hollow. No Garretson gravelly fine sandy loams or Las Posas loams occur on site, and this species is not expected to occur.

Slender-horned Spineflower

Slender-horned spineflower is restricted to mature alluvial scrub habitats that are periodically flooded. It is restricted to Arroyo Seco and Kolb creeks, Temescal Wash at Indian Creek, central

Bautista Creek, Vail Lake, and the upper San Jacinto River. This species was not observed in the Project site and is not expected to occur given the highly disturbed nature of the site and lack of sandy soils within the project footprint.

Many-stemmed Dudleya

Many-stemmed dudleya is restricted to clay and cobbly clay soils associated with Altamont, Auld, Bosanko, Claypit, and Porterville series soils. This species occurs in scattered locations primarily in the Temescal Canyon, Gavilan Plateau, and Alberhill areas and the Santa Ana Mountains. The Project site does not include suitable soils and this species is not expected to occur.

Spreading Navarretia

Primary habitat for spreading navarretia is vernal pools/depressions and ditches in areas that once supported vernal pools. Riverside County supports the largest remaining populations, which are associated with the largest areas of available habitat in the U.S. The closest known population is along the San Jacinto River just west of I-215. No vernal pools occur on site or are known within the vicinity. There is no potential for this species to occur on site.

California Orcutt Grass

California orcutt grass is restricted to vernal pools, which do not occur on site. It is known from the Santa Rosa Plateau, Skunk Hollow, and Upper Salt Creek in Riverside County, and also occurs in San Diego County. There is no potential for this species to occur on site.

San Miguel Savory

San Miguel savory is restricted to rocky, gabbroic, and metavolcanic substrates. Most populations within the MSHCP Plan Area occur in the Santa Rosa Plateau and Santa Ana Mountains. The Project site does not include suitable soils and this species is not expected to occur.

Hammitt's Clay-cress

Hammitt's clay-cress is restricted to clay soils and is only known from the Elsinore Peak area of the Santa Ana Mountains. The Project site does not include suitable soils and this species is not expected to occur.

Wright's Trichocoronis

According to the MSHCP reference document (MSHCP Volume 2, Section B), the middle section of the San Jacinto River and Salt Creek in the Hemet area represent the two core areas for Wright's trichocoronis. This species is limited to alkali soils, which are not present on site.

3.6 BURROWING OWL HABITAT ASSESSMENT AND SURVEY

The Project site is primarily comprised of Coldwater Wash and its banks that have a shrub and tree cover that exceeds the burrowing owl habitat requirements. Burrowing owls are not known to utilize vegetated stream habitat. The burrowing owl habitat assessment concluded that the project site does not support suitable habitat for burrowing owl, and this species is not expected to occur.

4.0 REGULATORY CONTEXT

4.1 FEDERAL GOVERNMENT

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a “take” under the ESA. Section 9(a) of the ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” “Harm” and “harass” are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species’ behavioral patterns.

Sections 4(d), 7, and 10(a) of the federal ESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect listed species. In this case, take can be authorized via a letter of Biological Opinion (BO), issued by the USFWS for non-marine related listed species issues. A Section 7 consultation is required when there is a nexus between federally listed species’ use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows issuance of permits for “incidental” take of endangered or threatened species. The term “incidental” applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity. The MSHCP is the Section 10(a) permit for this portion of Riverside County, including the subject property.

All migratory bird species that are native to the United States or its territories are protected under the Migratory Bird Treaty Act (MBTA), as amended under the MBTA of 2004 (FR Doc. 05-5127). This law is generally protective of migratory birds from the direct physical take of the species.

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the Clean Water Act (CWA). The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all WUS. Permitting for projects filling WUS (including wetlands and vernal pools) is overseen by the USACE under Section 404 of the CWA. Projects may be permitted on an individual basis or may be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action,

amount of fill, etc. Individual Permits typically require substantial time (often longer than 6 months) to review and approve, while Nationwide Permits are pre-approved if a project meets appropriate conditions. A CWA Section 401 Water Quality Certification, which is administered by the State Water Resources Control Board, must be issued prior to any 404 Permit. This project will require a Nationwide Permit.

4.2 STATE OF CALIFORNIA

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the California ESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes. The MSHCP is the regional 2081 for this portion of the County, including the subject property. The golden eagle and white-tailed kite (*Elanus leucurus*) are considered State Fully Protected Species. Fully Protected species may not be taken or possessed at any time and no state licenses or permits may be issued for their take except for collecting these species necessary for scientific research and relocation of the bird species for the protection of livestock (Fish and Game Code Sections 3511, 4700, 5050, and 5515).

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed.

The California ESA followed the NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated threatened under the California ESA.

The California Fish and Game Code (Section 1600 et seq.) requires an agreement with CDFW for projects affecting riparian and wetland habitats through issuance of a Streambed Alteration Agreement. It is assumed that the project will require a 1602 Agreement from CDFW.

4.3 WESTERN RIVERSIDE MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The MSHCP is a comprehensive multi-jurisdictional effort that includes Riverside County and multiple cities, including the City of Corona in western Riverside County. Rather than address sensitive species on an individual basis, the MSHCP focuses on the conservation of 146 species, proposing a reserve system of approximately 500,000 acres and a mechanism to fund and implement the reserve system (Dudek 2003). Most importantly, the MSHCP allows participating entities to issue take permits for listed species so that individual applicants need not seek their own permits from the USFWS and/or CDFW. The MSHCP was adopted on June 17, 2003, by the Riverside County Board of Supervisors. The Incidental Take Permit was issued by both the USFWS and CDFW on June 22, 2004. As this property is in unincorporated Riverside County, the County is the lead agency/permittee.

The project is located within Subunit 1 (Estelle Mountain/Indian Canyon) of the Elsinore Area Plan and Subunit 3 (Temescal Wash West) of the Temescal Canyon Area Plan of the MSHCP, and lies outside of any Criteria Cells (Figure 7). Because the project is located outside of a

Criteria Cell, with the County of Riverside, an MSHCP signatory, as the lead agency, Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS) is not required under the MSHCP. Because there are impacts to Riparian/Riverine resources, a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be required. A brief discussion of MSHCP consistency is provided below.

4.3.1 MSHCP Conservation

As noted above, the project is not located within any MSHCP Criteria Cell, therefore it is not subject to the HANS discussed in MSHCP Section 6.1.1. Conservation for the assembly of the MSHCP reserve is not required for this project.

4.3.2 Riparian/Riverine and Vernal Pools

The project entails impacts to 0.72 acre of Riparian/Riverine resources. In accordance with Section 6.1.2 of the MSHCP, the impacts to these resources will be mitigated with the details of the mitigation to be presented in a DBESP report. A brief discussion of the impacts and mitigation is included below.

4.3.3 Protection of Narrow Endemic Plant Species (MSHCP Section 6.1.3)

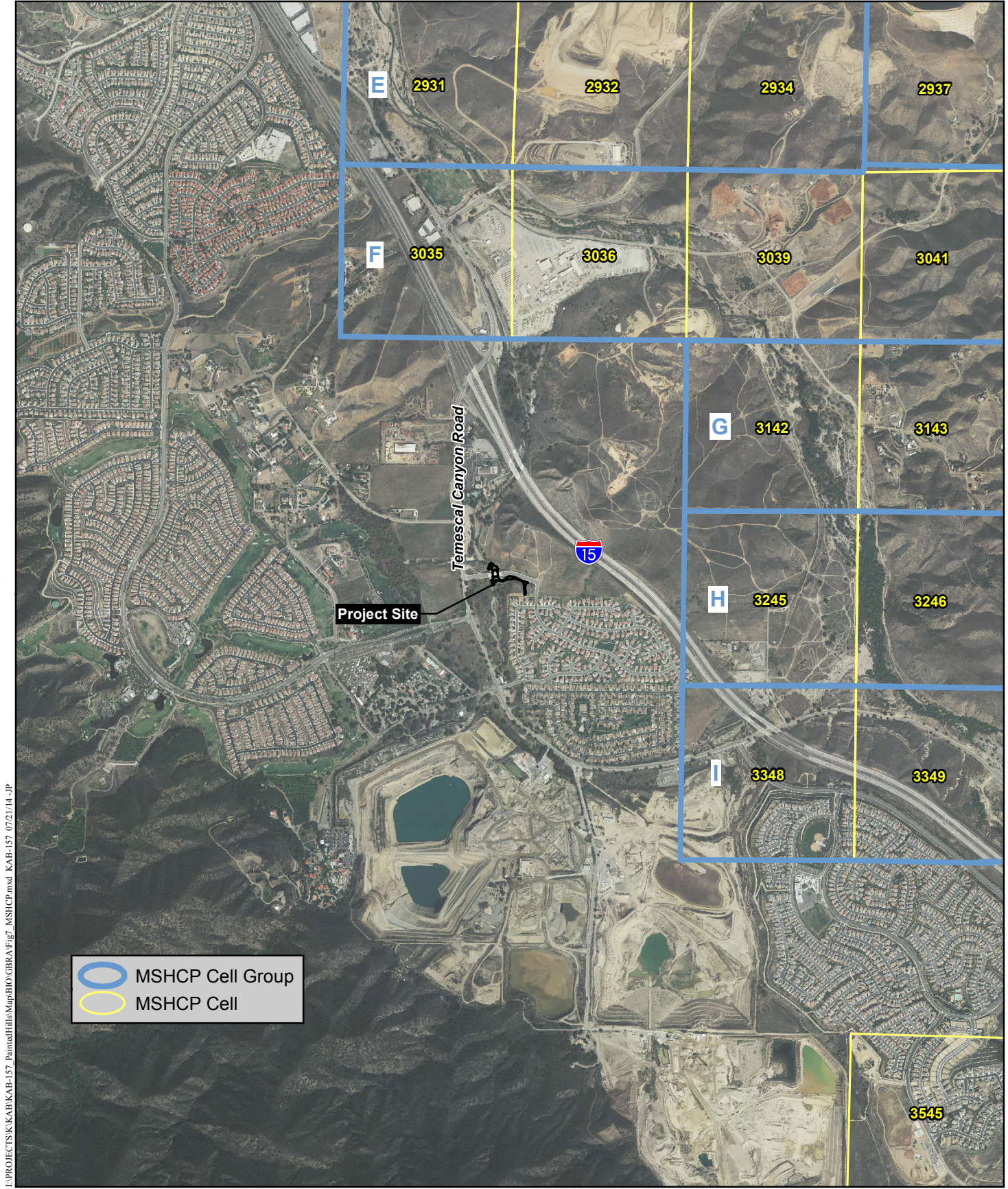
Based on the NEPSSA Area 1 habitat assessment and surveys discussed in detail in Section 3.5 above no NEPSSA plant species are expected to occur within the project site. No impacts to NEPSSA plant species are proposed, therefore, the proposed project is in compliance with MSHCP Section 6.1.3.

4.3.4 Urban/Wildland Interface Guidelines (MSHCP Section 6.1.4)

The Urban/Wildlands Interface Guidelines (UWIG) apply to project that occur adjacent to an MSHCP conservation area. The proposed project does not occur adjacent to conserved land or land proposed for conservation therefore the UWIG guidelines do not apply to the project. As the project entails the repair of an existing bridge the project does not propose development that will increase effects on the wildlands. The project will employ best management practices (BMPs) that include excluding fueling and maintaining equipment in or adjacent to the wash as well as Best Management Practices for erosion control. The project complies with MSHCP Section 6.1.4.

4.3.5 Additional Surveys (MSHCP Section 6.3.2)

The burrowing owl habitat assessment was negative. The property is not within an amphibian survey area or a mammal survey area. Species shown under MSHCP Section 6.3.2 do not occur in the Project site. The project is in compliance with MSHCP 6.3.2.



MSHCP Criteria Map

SQUAW MOUNTAIN ROAD

5.0 IMPACTS

This section describes potential direct and indirect impacts associated with the proposed project. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, animal behavioral changes, and night lighting. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent. It should be noted that a significant portion of the impact footprint is within the original impact footprint of the Painted Hills project (LSA 2000) from when the bridge and Squaw Mountain Road were originally constructed.

According to Appendix G of the CEQA Guidelines, project impacts to biological resources would be considered significant if they would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any special status species in local or regional plans, policies, or regulations, or by the CDFW and or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.1 VEGETATION COMMUNITIES

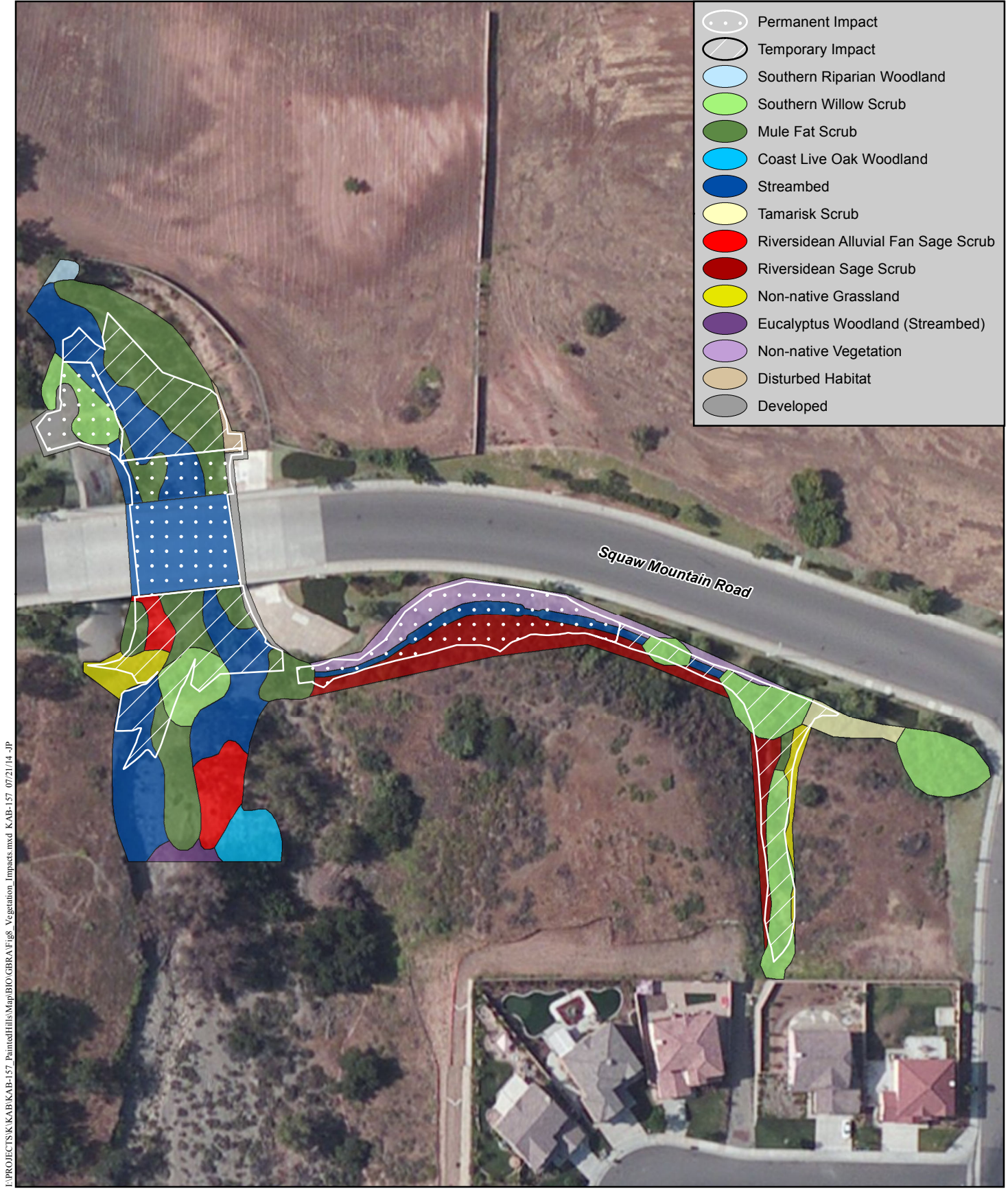
The Squaw Mountain Road Bridge repair project will result in unavoidable impacts to 0.94 acre of vegetation communities (Figure 8; Table 4). As noted above a majority of these impacts are to areas that were previously impacted when the bridge and Squaw Mountain Road were originally constructed.

Table 4 VEGETATION COMMUNITY IMPACTS FROM THE SQUAW MOUNTAIN ROAD BRIDGE REPAIR PROJECT		
COMMUNITY	EXISTING	IMPACTS
Mule fat scrub	0.20	0.20
Riversidean alluvial fan sage scrub	0.02	0.02
Southern willow scrub	0.16	0.16
Streambed	0.33	0.33
Tamarisk scrub	0.01	0.01
Riversidean sage scrub	0.08	0.08
Non-native grassland	0.03	0.03
Non-native vegetation	0.07	0.07
Disturbed	0.01	0.01
Developed	0.03	0.03
TOTAL	0.94	0.94

Impacts to mule fat scrub, Riversidean alluvial fan sage scrub, southern willow scrub, streambed, and tamarisk scrub are considered significant. Impacts to Riversidean sage scrub, non-native grassland, and non-native vegetation, disturbed and developed, are not considered significant because the small size of the impact and/or the low sensitivity of the vegetation type being impacted.

5.2 JURISDICTIONAL WATERS IMPACTS

The Project will result in impacts to 0.72 acre of habitats under the jurisdiction of USACE and CDFW (Table 5). The USACE jurisdictional impacts would total 0.33 acre consisting entirely of non-wetland WUS (0.13 acre of permanent impacts and 0.20 acre of temporary impacts; Table 5, Figure 9). The CDFW jurisdictional impacts total 0.72 acre and consist of permanent impacts to 0.27 acre of WS and temporary impacts to 0.45 acre of WS (Table 5; Figure 10). The CDFW jurisdictional areas affected consist of 0.20 acre mule fat scrub, 0.02 acre of Riversidean alluvial fan sage scrub, 0.16 acre of southern willow scrub, 0.33 acre of streambed, and 0.01 acre of tamarisk scrub.



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Vegetation Impacts

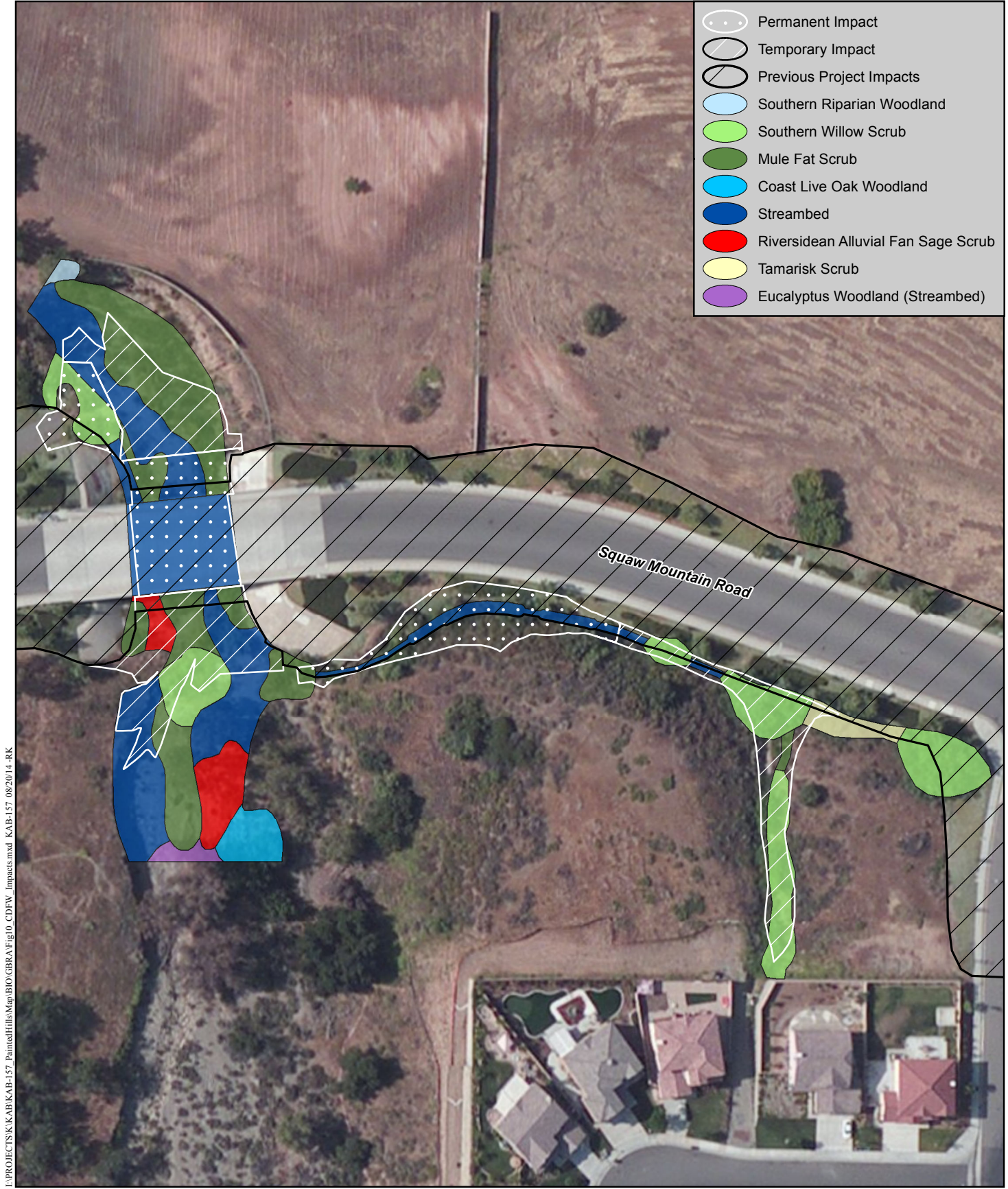
SQUAW MOUNTAIN ROAD



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USACE Impacts

SQUAW MOUNTAIN ROAD



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CDFW/Riparian/Riverine Impacts

SQUAW MOUNTAIN ROAD

**Table 5
IMPACTS TO JURISDICTIONAL WATERS FROM THE SQUAW MOUNTAIN ROAD
BRIDGE REPAIR PROJECT**

HABITAT	WATERS OF THE US			WATERS OF THE STATE*		
	Permanent	Temporary	TOTAL	Permanent	Temporary	TOTAL
Mule fat scrub	0	0	0	0.04	0.16	0.20
Riversidean alluvial fan sage scrub	0	0	0	<0.01	0.02	0.02
Southern willow scrub	0	0	0	0.03	0.13	0.16
Streambed	0.13	0.20	0.33	0.20	0.13	0.33
Tamarisk scrub	0	0	0	0	0.01	0.01
TOTAL	0.13	0.20	0.33	0.27	0.45	0.72

*CDFW jurisdictional impacts include USACE impacted areas.

The project proponent has submitted permit applications to the USACE under Section 404 of the federal Clean Water Act, to the CDFW under Section 1600 of the California Fish and Game Code, and to the RWQCB under section 401 of the federal Clean Water Act for impacts to jurisdictional areas.

5.3 MSHCP IMPACTS/CONSISTENCY

The Project site is not in a Criteria Cell and is, therefore, exempt from Area Plan and Subunit Biological Issues and Considerations, and Cell Group and Criteria Cell conservation goals and conditions.

5.4 RIPARIAN/RIVERINE AND VERNAL POOLS (MSHCP SECTION 6.1.2)

Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, states:

The purpose of the procedures described in this section is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that Habitat values for species inside the MSHCP Conservation Area are maintained.

Section 6.1.2 of the MSHCP focuses on protection of Riparian/Riverine areas and Vernal Pool habitats capable of supporting MSHCP covered species, particularly within the identified Conservation Area. No vernal pools exist on the site; therefore, no vernal pool species have the potential to occur and focused surveys are not required.

The Project site is located within and adjacent to Coldwater Wash along a riparian corridor that stretches both up- and down-stream of Squaw Mountain Road. The main drainage (Coldwater Wash) runs north to south with a tributary drainage located to the east of the wash just south of

Squaw Mountain Road. The tributary was realigned as part of the original development project and was intended to flow adjacent to Squaw Mountain Road before entering the wash. South of the bridge, riverine habitat extends the width of the channel for about 50 feet and then narrows to a 20-foot wide strip along the west side of the channel. The portion of the channel that is proposed for bridge and drainage repair currently contains jurisdictional areas comprising native wetland habitat types. Vegetation is sparse and open and there is also a substantial amount of unvegetated streambed. Typical plant species within this channel include native plants such as mulefat (*Baccharis salicifolia*), willows (*Salix* spp.), and mugwort (*Artemisia douglasiana*), and a minimal amount of non-native plants including tamarisk. In addition to wetlands, a small amount of native upland habitat would be impacted. Coldwater Wash currently contains wetland hydrology along the bottom of the channel.

The portion of the channel that is proposed for restoration currently provides various levels of wetland functions and services for groundwater recharge, nutrient removal, flood buffering, and sediment stabilization. Existing wildlife functions and services are reduced because of the erosional damage and channel scouring within the proposed mitigation area. Although currently disturbed, this area retains at least moderate functions and services for wildlife since it is contiguous with intact native wetland and upland habitats both up- and down-stream of the bridge that support a diverse assemblage of plant and animal species.

Impacts and Avoidance

The MSHCP states:

For identified and mapped resources not necessary for inclusion in the MSHCP Conservation Area, applicable mitigation under CEQA, which may include federal and state regulatory standards related to wetland functions and values, will be imposed by the Permittees. To ensure that these standards are met, Permittees shall ensure that, through the CEQA process, project applicants develop project alternatives demonstrating efforts that first avoid, and then minimize direct and indirect effects to the mapped wetlands and shall review these alternatives with the Permittee. An avoidance alternative shall be selected, if feasible. If an avoidance alternative is selected, measures shall be incorporated into the project design to ensure the long-term conservation of the areas to be avoided.

If an avoidance alternative is not feasible, a practicable alternative that minimizes direct and indirect effects to Riparian/Riverine areas and vernal pools and associated functions and values to the greatest extent possible shall be selected. Those impacts that are unavoidable shall be mitigated such that the lost functions and values as they relate to Covered Species are replaced as set forth below under the Determination of Biologically Equivalent or Superior Preservation.

The first priority for sensitive habitats under CEQA and the MSHCP is avoidance of direct impacts. Complete avoidance of the Riparian/Riverine resources is not feasible while still being able to repair the bridge.

The Project includes unavoidable impacts to 0.72 acre of Riparian/Riverine habitats (Table 6). As part of the project design process, impacts to the bridge repair were reduced from the original engineering approach. The current project design represents the minimum footprint necessary to provide for necessary protection of the bridge and to address significant erosion that is occurring in the side tributary. Additional avoidance is not feasible. This represents avoidance to the maximum extent practicable.

Table 6				
IMPACTS TO RIPARIAN/RIVERINE RESOURCES FROM THE SQUAW MOUNTAIN ROAD BRIDGE REPAIR PROJECT				
(ACRES)				
HABITAT	EXISTING	PERMANENT IMPACTS	TEMPORARY IMPACTS	TOTAL IMPACTS
Mule fat scrub	0.20	0.04	0.16	0.20
Riversidean alluvial fan sage scrub	0.02	<0.01	0.02	0.02
Southern Willow Scrub	0.16	0.03	0.13	0.16
Streambed	0.33	0.20	0.13	0.33
Tamarisk scrub	0.01	0	0.01	0.01
TOTAL	0.72	0.27	0.45	0.72

Required mitigation for the 0.72 acre of impacts would be accomplished through on-site restoration and purchase of credits from the Riverside-Corona Resource Conservation District In Lieu Fee Program (ILFP) as further described below. This option would provide mitigation within areas targeted for long-term conservation and would benefit species targeted for MSHCP conservation. The on-site restoration purchase of ILFP credits would meet the definition of a Biologically Equivalent Preservation Alternative consistent with MSHCP Section 6.1.2. Based on the above, the project is consistent with Section 6.1.2 of the MSHCP. The project will be required to obtain formal MSHCP approval through the DBESP process prior to initiating impacts to Riparian/Riverine resources.

5.5 BREEDING BIRD IMPACTS

Potential direct impacts to bird species covered under the MBTA could occur if brushing and grading occurs during the breeding season of most bird species (general breeding season is February 15 to August 31). These impacts are considered significant.

5.6 INDIRECT IMPACTS

Indirect impacts that may be caused by implementation of the proposed project are associated with edge effects. Edge effects occur when disturbance, development, or grading traverse an undeveloped area with substantial native lands surrounding the impact area. Edge effects for this project include invasive plant species, animal behavioral changes, night lighting, and decreased

water quality. Additionally, the proposed project has potential to cause temporary indirect impacts due to noise and fugitive dust.

5.6.1 Invasive Plants

Invasive plants have potential to spread from developed or disturbed areas to adjacent native habitats. Such invasive species can displace native vegetation reducing the diversity of native habitats and potentially increasing flammability, changing ground and surface water levels, and adversely affecting native wildlife. Because no invasive plant species would be utilized in the landscaping plans, and no species on the Cal-IPC “Invasive Plant Inventory” list shall be included in the erosion control plan, impacts due to plant invasions are expected to be less than significant.

5.6.2 Night Lighting

Night lighting exposes wildlife species to an unnatural light regime and may alter their behavior patterns, causing them to have lower reproductive success, and thus reducing species diversity. Night lighting is not proposed for construction of the project. Therefore, impacts due to night lighting will not occur.

5.6.3 Water Quality

The use of petroleum products (i.e., fuels, oils, lubricants) and erosion of land cleared during construction could potentially contaminate surface water, adversely affecting vegetation, aquatic animals, and terrestrial wildlife. However, implementation of BMPs per the County’s grading permitting requirements, as well as requirements under the 401 Water Quality Certification would reduce potential short-term water quality impacts to below a level of significance.

During construction, measures would be implemented as part of the project to control erosion, sedimentation, and pollution that could impact water resources on and off site. Prior to the commencement of grading, a Notice of Intent must be filed with the RWQCB for a National Pollutant Discharge Elimination System General Construction Storm Water Permit. Standard measures that may apply to the proposed project include:

- Erosion control measures associated with the project will include techniques for both long- and short-term erosion hazards. These include such measures as the short-term use of gravel bags, matting, mulches, berms, hay bales, or similar devices along all pertinent graded areas to minimize sediment transport.
- Native vegetation will be preserved whenever feasible, and all disturbed areas will be stabilized as soon as possible after completion of grading.
- A maintenance plan for temporary erosion control facilities will be established. This typically involves inspection, cleaning, and repair operations being conducted after runoff-producing rainfall.

- Specified fueling and maintenance procedures will be designated to preclude the discharge of hazardous materials used during construction (e.g., fuels, lubricants, and solvents). Such designations will include specific measures to preclude spill including proper handling and disposal techniques.

5.6.4 Fugitive Dust

Dust released during grading activities could cover vegetation in adjacent habitat areas. The resulting dust-induced shading could reduce native plant productivity, in turn displacing native vegetation, reducing diversity, encouraging weed invasion, adversely affecting wildlife, and increasing fire susceptibility. Dust control measures will be implemented as part of project construction. As a result, the effects of dust on surrounding vegetation are considered less than significant.

6.0 MITIGATION

The proposed project would significantly impact natural vegetation communities. Mitigation measures would be required to reduce these impacts to below a level of significance.

6.1 VEGETATION

Proposed mitigation for temporary impacts to 0.45 acre of Riparian/Riverine habitats (includes WUS and WS) would be accomplished through on-site restoration of 0.45 acre (Figure 11; Table 7), while mitigation for permanent impacts to 0.27 acre would be accomplished by participation in the Riverside-Corona Resource Conservation District ILFP. Mitigation for permanent impacts will occur at a 3:1 ratio for mule fat scrub and southern willow scrub, and at a 1:1 ratio for streambed and tamarisk scrub. These mitigation measures will reduce impacts to sensitive habitats to less than significant. These measures will also meet mitigation requirements under Section 6.1.2 of the MSHCP. A mitigation plan for on-site restoration has been prepared (HELIX 2013). The mitigation plan shall be reviewed and approved by the County Department of Transportation prior to implementation of the mitigation plan.

Table 7
MITIGATION FOR IMPACTS FROM THE SQUAW MOUNTAIN ROAD
BRIDGE REPAIR PROJECT

HABITAT	IMPACTS			MITIGATION		
	Permanent	Temporary	TOTAL	Permanent	Temporary	TOTAL
Mule fat scrub	0.04	0.16	0.20	0.12	0.16	0.28
Riversidean alluvial fan sage scrub	<0.01	0.02	0.02	0	0.02	0.02
Southern willow scrub	0.03	0.13	0.16	0.09	0.13	0.22
Streambed	0.20	0.13	0.33	0.20	0.13	0.33
Tamarisk scrub	0	0.01	0.01	0	0.01	0.01
TOTAL	0.27	0.45	0.72	0.41	0.45	0.86

6.2 BREEDING BIRDS

The clearing of vegetation shall occur outside of the bird breeding season (February 15 to August 31), unless a qualified biologist demonstrates to the satisfaction of the County that all nesting is complete through completion of a Nesting Bird Clearance Survey. A Nesting Bird Clearance Survey report shall be submitted to the County for review and approval prior to initiating clearing and grubbing during the breeding season. Clearing of upland vegetation outside of the bird breeding season will not require a nesting bird clearance survey.

6.3 CONSTRUCTION GUIDELINES

Section 7.5.3 of the MSHCP discusses construction guidelines for projects within the MSHCP Criteria Area and Public/Quasi Public lands. The proposed project does not occur within an MSHCP Criteria Area, Public/Quasi Public land or other area proposed for conservation under the MSHCP and is not subject to the guideline outlined in MSHCP Section 7.5.3.

The proposed project will follow standard BMPs to reduce potential impacts to the environment. These BMPs include but are not limited to:

- Equipment storage, fueling and staging areas will be sited on non-sensitive upland habitats with minimal risk of direct discharge into riparian habitats.
- The limits of project disturbance will be clearly defined and marked in the field.
- The footprint of the proposed project will be minimized to the maximum extent feasible.
- Construction related trash will be placed in appropriate trash receptacles and removed from the project site. No trash shall be discharged on to the project site.



- Riparian Scrub Restoration
- Southern Willow Scrub Restoration
- Upland Restoration

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On-site Restoration

SQUAW MOUNTAIN ROAD

7.0 CERTIFICATION/QUALIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

DATE:

9/3/14

SIGNED:



Barry L. Jones
Senior Consulting Biologist

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