

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

INITIAL STUDY FORM

1. **Project title:** Santa Ana Canyon – Below Prado Inland Empire Brine Line Protection Project¹
 (“Project”)

2. **Lead agency name and address:**
Riverside County Flood Control and Water Conservation District (District)
1995 Market Street
Riverside, CA 92501

3. **Contact person email address and phone number:**
Albert Martinez, Senior Civil Engineer
amart@rcflood.org
(951) 955-1299

4. **Project location:** The proposed Project consists of two separate linear sections, the Alternative RC3 Protection and Aliso Canyon Crossing Protection, located adjacent to the northern bank of the Santa Ana River, between the Prado Dam outlet and the Burlington Northern Santa Fe (BNSF) railroad bridge, (partially within APNs: 101-120-002 and 101-120-005) within Riverside County (**Figure 1, Vicinity Map; Figure 2, Project Location**). The proposed Project is located within Township 3 South, Range 7 West, Section 30 and Range 8 West, Section 25, Prado Dam/Black Star Quadrangle, San Bernardino Base and Meridian (**Figure 3, USGS Topographic Map**).

5. **Project sponsor’s name and address:**
Same as Lead Agency

6. **General plan designation:** The Project site is located within the Temescal Canyon (“TCAP”), as designated by the County of Riverside General Plan. The land use designations within the Project areas are Open Space – Conservation (OS-C). Additionally, the California Department of Parks and Recreation Chino Hills State Park General Plan currently does not have sub-classifications or formal land use designation within in.

7. **Zoning:** The associated zoning designation within the Project areas is Watercourse, Watershed and Conservation (W-1), as designated by the Riverside County Geographic Information System (Riv Co GIS). According to Chino Hills State Park’s General Plan Land Use Element the Project site is located within its Park Land Zones land use designation area.

8. **Project Description:** The Inland Empire Brine Line (Brine Line), aka Santa Ana Regional Interceptor Line (SARI), conveys primarily highly saline, non-domestic wastewater from industrial dischargers and municipal desalter facilities within Riverside and San Bernardino Counties to the Orange County Sanitation District wastewater treatment facility. The Brine Line is a key component in improving water quality in the watershed, and the expansion of reclaimed water use within the two counties. In the Project vicinity, the Brine Line is 48 inches in diameter and runs along the north side the Santa Ana River.

The U.S. Army Corps of Engineers (“ACOE”) Santa Ana River Mainstem project raised the crest of Prado Dam 28 feet and constructed new outlet works. These modifications, combined with future spillway improvements and planned changes in operational procedures, will result in increased discharges

¹ The Project has also been referred to as the “Inland Empire Brine Line Protection Project,” therefore various supporting technical studies refer to this shorter project name, which is the same project that is analyzed in this document. There were no changes to the proposed Project, only the project name.

to the Santa Ana River of up to 30,000 cfs. The proposed Project is necessary as these increased flows would result in lateral erosion and scour, which could undermine and damage the Brine Line and adversely impact water quality in the watershed. The overall objective of the proposed Santa Ana Canyon – Below Prado Inland Empire Brine Line Protection Project is to reduce the risk of damage to the Brine Line during operation of the Santa Ana River Mainstem project.

The Project was previously analyzed in a Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) prepared by the ACOE and Orange County in May 2009. The District is responsible for the final design, and construction of the Project. The Santa Ana Watershed Project Authority (SAWPA) will be responsible for the ongoing operations, inspection, and maintenance of the Project. In the ACOE/Orange County SEIS/EIR, only a portion of the proposed Project was analyzed, the ACOE Alternative RC3 Protection. Additionally, the ACOE/Orange County SEIS/EIR did not fully analyze compliance with the Western Riverside County MSHCP, nor did it analyze the installation of erosion protection for the Brine Line at the Aliso Canyon Crossing. Therefore, the District is preparing this CEQA document to fully analyze the construction, operation, and maintenance of the Project.

The Project consists of the installation of approximately 2,500 LF of AZ28-700 sheet pile, having a width of approximately two feet and an average toe depth of 55 feet (15 feet below the scour depth), with tiebacks spaced approximately every 10 feet. Construction will occur in two different locations along the existing Santa Ana River (SAR) Trail. The easternmost portion (near Prado Dam), will extend approximately 2,300 linear feet. The westernmost portion at the outlet to Aliso Canyon, will extend approximately 200 linear feet. (See **Figures 2 and 3**) A hydraulic jacking system, which uses a static load to install piles, will allow the piling work to be carried out silently and vibration-free. The tiebacks have an average length of approximately 50 feet. Each tieback will be installed by drilling a hole, starting 10 and 25 feet from the top of the sheet pile, approximately 50 foot back into the ground, then installing the tieback and grouting the hole. The tieback will then be tensioned by bolting it to the sheet pile. The top of the sheet pile will be covered with two feet of soil. The construction footprint anticipated is 25 to 30 feet on either side of the existing access/maintenance road, encompassing approximately 1.69 acres (for both locations). The sheet piles will be placed at the southerly edge of the existing road. Staging areas for the Project are along the existing road, within the construction footprint.

Site access will occur from the northbound State Highway 71 via an off ramp that provides access under the State Highway 71 and from the south bound State Highway 71 along an existing access/maintenance road for the Brine Line which also serves as a fire road and access for California State Parks patrol vehicles and CAL FIRE emergency vehicles and equipment. A gate control will be maintained for the duration of project construction and kept closed except for project construction entry and exit. The construction duration is expected to be six months. Proposed construction would take place during daylight hours in accordance with California State Parks construction operating procedures unless approved otherwise. Occasional overtime work may be required to maintain the construction schedule, but would be in compliance with local noise ordinances. The existing access road is also the Santa Ana River Trail (unimproved fire trail) that connects to the Lower Aliso Canyon Trail of the Chino Hills State Park. During construction access for emergency and patrol vehicles, and others having easements will be maintained. The existing road/trail pathway will be maintained for pedestrians, bicycles, and horses, when feasible. If the existing road/trail were temporarily blocked by construction equipment pedestrians, bicycles, and horses would be able to slightly detour around equipment and continue along route as there are not features such as dense vegetation or steep inclines that would preclude access. Signage of the temporary construction activities will be posted at the eastern and western limits of construction for the Alternative RC3 Protection portion of the Project (along the Santa Ana River Trail) and at the Aliso Canyon Crossing Protection portion of the Project (where the Lower Aliso Canyon Trail connects to the Santa Ana River Trail). In order to minimize potential fires from construction equipment, construction operations will follow the State Park's fire safety precautions, including a fire watch personnel (either safety officer or superintendent) to manage appropriate equipment for the entire duration of all equipment operation. In addition an on-call water truck must be on hand for construction activity.

The Project site is located within the MSHCP criteria area, Public/Quasi-Public designation, as well as the survey areas for Narrow Endemic Plant Species and the Western burrowing owl.

As part of the ongoing operations, inspection and maintenance of the Brine Line, SAWPA will inspect the sheet pile for displacement and exposure. In the event of catastrophic, lateral displacement due to ground movement, additional and separate CEQA review will be conducted and notifications submitted to regulatory agencies, as applicable.

- 9. Surrounding land uses and setting:** The Project area is within the County of Riverside within the Chino Hills State Park, which is operated by the California Department of Parks and Recreation, and is primarily characterized by open space conservation. Parts of the Project are in proximity to the Green River Golf Course. Elevation ranges from 440–556 feet mean sea level.

Adjacent Existing Land Use:

North: Open Space – Conservation

East: Open Space – Conservation

South: Open Space – Conservation, Open Space Recreation

West: Open Space – Conservation

Adjacent zoning:

North: Watercourse, Watershed and Conservation (W-1)

East: Watercourse, Watershed and Conservation (W-1)

South: Open Area (R-5), Open Space Recreation

West: Watercourse, Watershed and Conservation (W-1)

- 10.** Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

Federal Agencies

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

State Agencies

California Department of Parks and Recreation

California Department of Fish and Game

Santa Ana Regional Water Quality Control Board

City/County Agencies

Western Riverside County RCA (Joint Project Review)

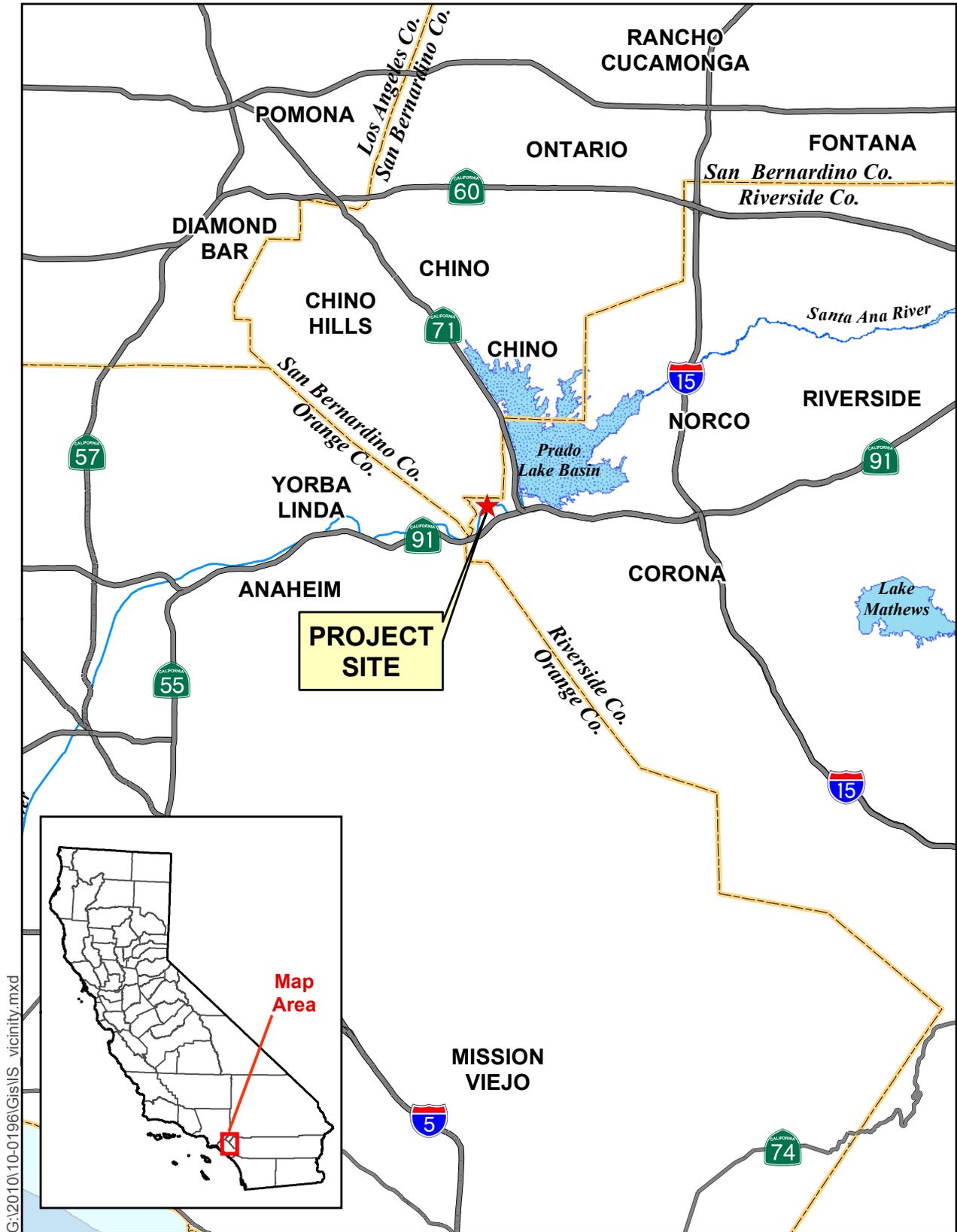
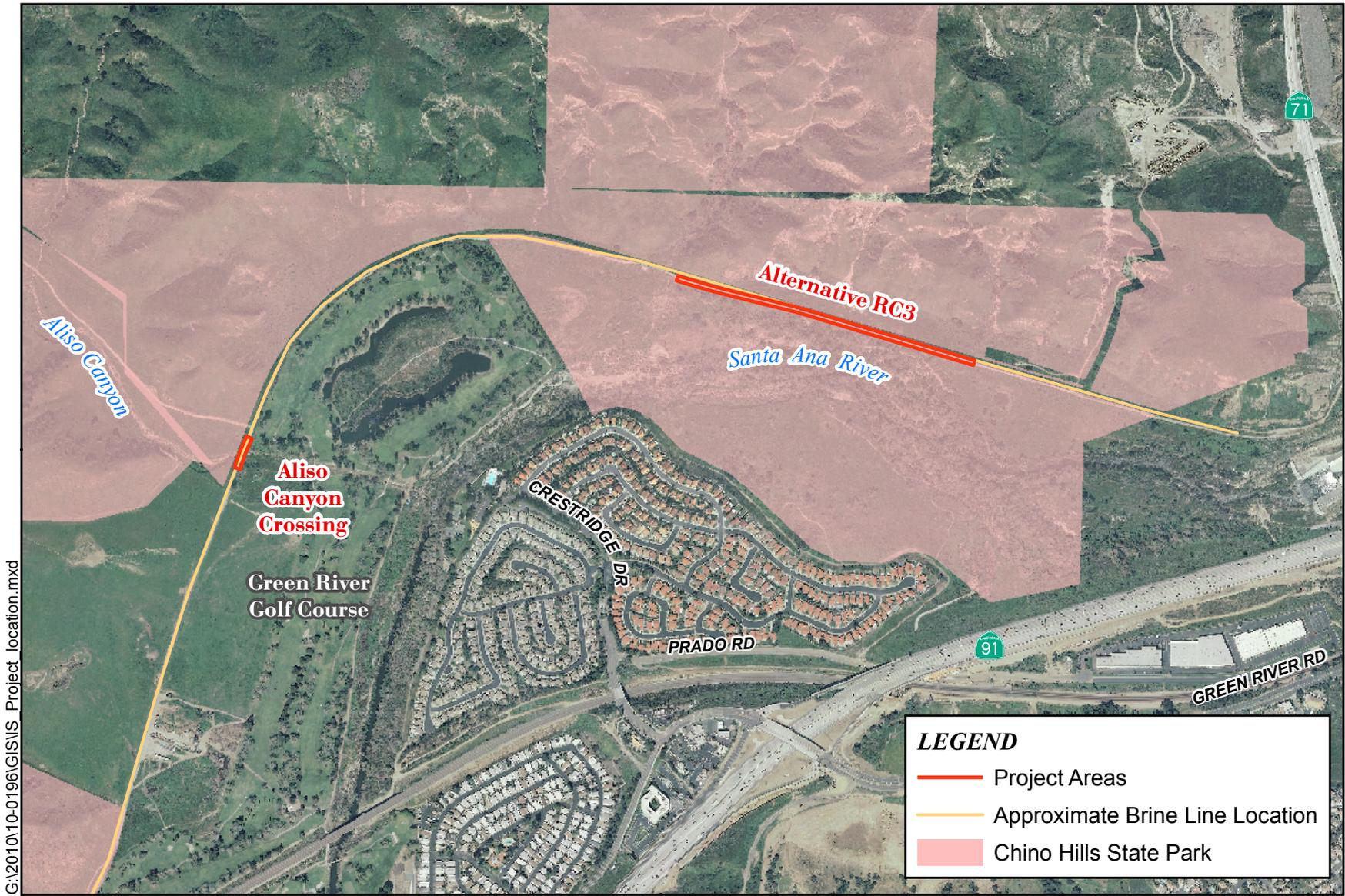


Figure 1. Vicinity Map
Inland Empire Brine Line Protection Project

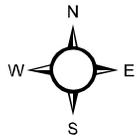


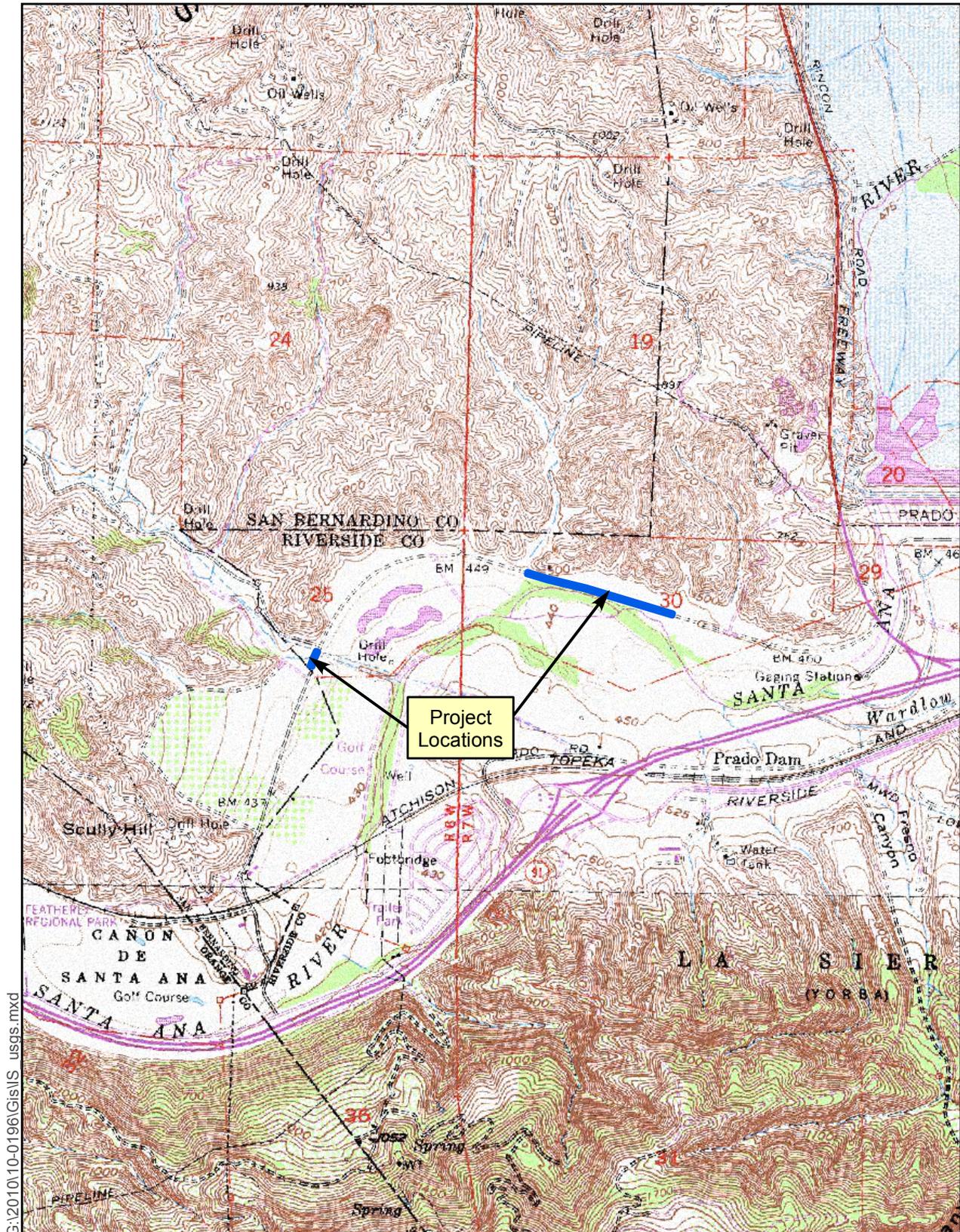
G:\2010\10-0196\GIS\15 Project location.mxd

Sources: County of Riverside, 2010;
Eagle Aerial, April 2010.

Figure 2. Project Location
Inland Empire Brine Line Protection Project

0 1,000 2,000 Feet



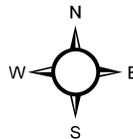


G:\2010\10-0196\Gis\IS usgs.mxd

Source: USGS 7.5min Quad DRGs:
Prado Dam / Black Star

Figure 3. USGS Topographic Map
Inland Empire Brine Line Protection Project

0 1,000 2,000 3,000
Feet



Photographs of the Project Areas taken November 17, 2010



Figure 3A – Westerly view of Aliso Canyon crossing. Access road is in the forefront.

ENVIRONMENTAL FACTORS:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
ordinance?				
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Biological Resource Discussion:

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Potentially Significant Impact Unless Mitigated. As outlined in the biological assessment reports (Appendix B), the Project site consists of an existing dirt road (and adjacent areas) that is situated above the Brine Line. The majority of the Project site is disturbed to some degree, with the existing road being un-vegetated, and the adjacent areas predominately supporting non-native vegetation and native ruderal vegetation. The Project site does contain some native plant species, including sparse riparian vegetation, although most of the native vegetation will not be impacted by the Project.

No special-status plants were observed on site during the focused plant survey (conducted on 6/30/2010), and none are expected to occur on site due to a lack of suitable habitat and/or the level of disturbance. The Project will temporarily impact foraging habitat for a number of special-status animals, including the trimming/removal of up to approximately 0.033 acre of riparian vegetation consisting of 0.004 acre of sparse mule fat shrubs in the Aliso Canyon crossing, and up to 0.029 acre of riparian vegetation occurring within the larger alignment (Alternative RC3 Protection). Approximately half of the riparian vegetation in the larger alignment consists of the canopies of trees (cottonwood, willow, coast live oak) that overhang into the Project footprint.

The federally and state listed least Bell’s vireo (LBV) occurs within the Santa Ana River in proximity to the Project site, and the southwestern willow flycatcher (SWWF) has the potential to occur within the adjacent portion of the Santa Ana River. The Project will temporarily affect only a very small amount of riparian vegetation (up to 0.029 acre) within the Project footprint. This area is assumed to be part of a larger off-site area of occupied habitat for the LBV, and potentially the SWWF. Temporary impacts to riparian vegetation will be restored following the completion of the Project. Following completion of construction activities, the affected streambed in Aliso Canyon will be restored to its pre-Project condition and riparian vegetation will be re-planted where impacts occur, ensuring that the riparian areas within the Project site will be biologically equivalent to the pre-Project condition. The restored habitat will maintain the pre-project habitat function for LBV and other riparian species.

In order to avoid any physical impact to individual LBV or SWWF, **MM Bio 1** ensures that the impact to riparian vegetation will occur outside of the LBV and SWWF nesting season, when those species would be absent from the overall area. Implementation of this mitigation measure will also ensure the project will not result in impacts to LBV and SWWF from construction activity and noise. However, if construction during the LBV and SWWF nesting season cannot be avoided, **MM Bio 1** also outlines the additional measures required to avoid impacts to LBV and SWWF.

MM Bio 1: In order to avoid impacts to the least Bell’s vireo and the southwestern willow flycatcher, all construction activities including vegetation removal for the Project shall be conducted outside of the least Bell’s vireo and southwestern willow flycatcher nesting season (March 15 to August 31). However, if any construction activities will occur during this time period then the construction contractor shall install noise barriers between construction areas and riparian habitat prior to March 1st and kept in place until all construction in the area is complete or the end of the nesting.

A habitat assessment and focused survey for the burrowing owl was conducted in August 2010. No burrowing owls were detected on site during focused surveys. Only two suitable burrows were detected within the Project site, occurring on the banks of the drainage within the Aliso Canyon Crossing Protection of the Project. No diagnostic owl sign (e.g., pellets, excrement, bones, feathers) was detected at the burrows. Although burrowing owls were not detected during the focused survey effort, the site contains suitable habitat and there is a potential that burrowing owls could occupy the site

prior to construction start. Therefore, implementation of mitigation measure **MM Bio 2** is required to ensure potential impacts to burrowing owl are reduced to less than significant levels.

MM Bio 2: A pre-construction presence/absence survey for burrowing owl within suitable habitat shall be conducted. Surveys will be conducted within 30 days prior to disturbance. Take of active nests shall be avoided. Passive relocation (use of one-way doors and collapse of burrows) will occur when owls are present outside the nesting season.

The project site contains trees, shrubs, and herbaceous vegetation with the potential to support nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. In order to avoid take of active nests protected under these regulations **MM Bio 3** is required.

MM Bio 3: In order to avoid violation of the MBTA and California Fish and Game Code, vegetation removal shall be avoided, to the greatest extent possible, during the nesting season (generally February 1 to August 31) of potentially occurring native and migratory bird species.

If site-preparation activities are proposed during the nesting/breeding season (February 1 to August 31), a pre-activity field survey shall be conducted within suitable habitat by a qualified biologist prior construction, to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone. If active nests are not located within the disturbance area and appropriate buffer (500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (non-listed), or within 100 feet of sensitive or protected songbird nests) construction may be conducted during the nesting/breeding season. However, if active nests are located during the pre-activity field survey, and the appropriate buffer is not feasible then the construction contractor shall install noise barriers between construction areas and active nests prior to February 1st and kept in place until all construction in the area is complete or until the nest(s) is no longer active.

Coast horned lizard, a State Species of Special Concern has been observed in the project area in the past. Coast horned lizard is also covered species under the MSHCP. There are no project level survey, avoidance, or conservation requirements for this species under the MSCHP. As the project is consistent with the plan (outlined in detail below), and with payment of mitigation fees any potential adverse impacts to the coast horned lizard are mitigated pursuant to CEQA through compliance with the MSHCP.

Source: GLA 1

- b) ***Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

Less Than Significant Impact. The Project site contains MSHCP riparian/riverine areas, but does not contain vernal pools. The Project site crosses Aliso Canyon, representing 0.013 acre of unvegetated riverine area and 0.004 acre of riparian vegetation consisting of a few mule fat shrubs. The larger portion of the Project site contains approximately 0.029 acre of riparian vegetation associated with the Santa Ana River, consisting of Fremont's cottonwood, black willow, arroyo willow, mule fat, and one coast live-oak tree. The Project will temporarily impact approximately 0.013 acre of unvegetated riverine areas associated with Aliso Canyon, and up 0.033 acre of riparian vegetation overall, including 0.004 acre of scattered mule fat shrubs in Aliso Canyon, and 0.029 acre of shrubs and trees within the Project footprint of the larger alignment.

Impacts to riparian/riverine areas require a Determination of Biologically Equivalent or Superior Preservation (DBESP); also performed by Glenn Lukos Associates and included as a section of the *Biological Technical Report, MSHCP Compliance Report, and DBESP Analysis* (Appendix B). According to the DBESP, the Project will result in temporary impacts to 0.013 acre of unvegetated streambed (riverine areas) at the Aliso Canyon crossing, and 0.004 acre of scattered mule fat shrubs. In addition, the Project will temporarily affect up to 0.029 acre of riparian vegetation adjacent to the Santa Ana River. However, the Project will not impact the streambed of the Santa Ana River.

The complete avoidance of MSHCP riparian/riverine areas by the proposed Project is not feasible. The purpose of the Project is to construct flood protection along the Brine Line, adjacent to the northern bank of the Santa Ana River, as well at the Aliso Canyon crossing. The construction footprint required is 25–30 feet on either side of the existing access/maintenance road. The Project will avoid all but a very small portion of riparian vegetation along the River, consisting of low shrubs occurring within the Project footprint. Since the purpose of the sheet piling in the Aliso Canyon

watercourse crossing is to prevent head-ward erosion from propagating up the Aliso Canyon streambed and undermining the Brine Line, the temporary impact to the unvegetated streambed and scattered mule fat shrubs is also unavoidable.

The Project will not adversely impact habitat function for riparian species. The sparse mule fat shrubs located at the Aliso Canyon crossing represent limited potential foraging habitat for smaller birds, but are unlikely to support bird nests. Riparian habitat in general within the adjacent Santa Ana River does represent important habitat for riparian species including the federal- and state-listed least Bell's vireo, and potentially the southwestern willow flycatcher, as well as numerous other non-listed, sensitive birds. However, the small amount of vegetation within the Project footprint has a low potential to support bird nests, and is not likely to support nests of the least Bell's vireo and/or the southwestern willow flycatcher. Regardless, the impact to vegetation would occur outside of the nesting season to ensure that no active bird nests would be removed. Temporary impacts to foraging habitat for riparian birds would be very minimal.

Following completion of construction activities, the affected streambed in Aliso Canyon will be restored to its pre-Project condition and riparian vegetation will be re-planted where impacts occur, ensuring that the riparian areas within the Project site will be biologically equivalent to the pre-Project condition. The restored habitat will maintain the pre-project habitat function for LBV and other riparian species.

Additional mitigation measures are not required and impacts are considered to be less than significant.

Source: GLA 1

- c) ***Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

Less Than Significant Impact. See IV. b), above. The ACOE jurisdiction associated with the Project totals approximately 0.014 acres, none of which consist of jurisdictional wetlands. The Project site contains one drainage feature (Aliso Canyon), which crosses a portion of the Project site. Drainage A is an ephemeral drainage that is a tributary to the Santa Ana River, which is a tributary to the Pacific Ocean. The majority of the Project site occurs adjacent to the Santa Ana River, but does not occur within the ordinary high water mark (OHWM) of the River.

CDFG jurisdiction associated with the Project totals approximately 0.046 acre (of which 0.033 acre consists of riparian vegetation) and includes all areas within ACOE jurisdiction (Aliso Canyon), as well as a small amount of riparian vegetation associated with the Santa Ana River.

Therefore, the Project will temporarily impact waters subject to the jurisdiction of the ACOE and CDFG, specifically the crossing at Aliso Canyon. Impacts to ACOE jurisdiction will require a Section 404 permit from the ACOE, and a Section 401 Water Quality Certification from the Regional Water Quality Control Board (Regional Board). Impacts to CDFG jurisdiction will require a Section 1602 Streambed Alteration Agreement. Project proponents will apply for a Section 404 permit from the ACOE, a 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from CDFG. The Project will not impact federally protected wetlands, therefore impacts are considered to be less than significant.

Source: GLA 1, 2

- d) ***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?***

Less Than Significant Impact. The proposed Project involves the installation of sheet pile protection (at Aliso Canyon Crossing Protection and Alternative RC3 Protection locations) below the ground surface, which will be buried after installation. The impact to vegetation would occur outside of the nesting season to ensure that no active bird nests would be removed. Temporary impacts to foraging habitat for riparian birds would be very minimal. Additionally, the majority of the Project site occurs adjacent to the Santa Ana River, but does not occur within the ordinary high water mark (OHWM) of the River.

Therefore, the proposed Project would not substantially interfere with the movement of resident or migratory fish or wildlife species.

Source: GLA 1; Project Design

e) ***Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

No Impact. The proposed Project is not subject to any local policies or ordinances protecting biological resources other than the MSHCP. Refer to IV. f), below, for a more detailed discussion of compliance with the MSHCP.

Source: Figure 2, Project Design

f) ***Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

Less Than Significant Impact. The Project site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP serves as a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP), pursuant to Section (a)(1)(B) of the ESA, as well as a Natural Communities Conservation Plan (NCCP) under the State NCCP Act of 2001. The plan encompasses all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. The overall biological goal of the MSHCP is to conserve covered species and their habitats, as well as maintain biological diversity and ecological processes while allowing for future economic growth within a rapidly urbanizing region.

As outlined in Section 6.1.1 of the MSHCP, *Payment of the mitigation fee and compliance with the requirements of Section 6.0 are intended to provide full mitigation under the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), Federal Endangered Species Act, and California Endangered Species Act for impacts to the species and habitat covered by the MSHCP pursuant to agreements with the U.S. Fish and Wildlife Service, the California Department of Fish and Game and/or any other appropriate participating regulatory agencies and as set forth in the Implementing Agreement for the MSHCP.*

The District is a permittee of the MSHCP and is required to ensure District projects comply with applicable sections of the MSHCP. As outlined in Section 13.4 of the Implementing Agreement, the District has the following obligations under the MSHCP and the Implementing Agreement (IA):

- *Adopt and maintain resolutions as necessary to implement the requirements and to fulfill the purposes of the Permits, the MSHCP and the IA for its Covered Activities. Such requirements include: (1) compliance with the policies of the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools as set forth in Section 6.1.2 of this document; (2) compliance with the policies of the protection of Narrow Endemic Plant Species as set forth in Section 6.1.3 of this document; (3) conduct surveys as set forth in 6.3.2 of this document; (4) compliance with all requirements of Section 7.3.7 of this document; (5) compliance with Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of this document; (6) compliance with the Best Management Practices and the siting requirements and design criteria as set forth in Section 7.0 and Appendix C of this document [MSHCP].*
- *Contribute mitigation through payment of three (3) percent of total capital costs for a Covered Activity. Such payment may be offset through acquisition of replacement Habitat or creation of new Habitat for the benefit of Covered Species, as appropriate. Such mitigation shall be implemented prior to impacts to Covered Species and their Habitats.*
- *Manage land owned or leased within the MSHCP Conservation Area that has been set aside for Conservation purposes pursuant to a management agreement to be executed between the District and the California Department of Fish and Game (CDFG).*
- *Carry out all other applicable requirements of the MSHCP, the IA and Permits. Notwithstanding the foregoing, nothing in the IA shall be construed to require the District to provide funding, or any other form of compensation, beyond the fees collected or dedicated lands required pursuant to the Permits, the IA and the MSHCP, consistent with the terms and conditions of the MSHCP.*
- *Participate as a member of the RMOC as set forth in Section 6.6.4 of this document.*

Section 6.1.2

The Project site consists primarily of an existing dirt road that is unvegetated. Areas north and south of the road are dominated by non-native grasses and forbs, as well as native ruderal vegetation, but also with some native shrubs, including coastal goldenbush (*Isocoma menziesii*), coastal sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and coyote brush (*Baccharis pilularis*). Based on the predominance of ruderal vegetation, the road and adjacent areas were lumped together as disturbed/ruderal vegetation, totaling approximately 1.812 acres (95.5%) of the Project site. Examples of non-native grasses and ruderal vegetation include ripgut brome (*Bromus diandrus*), wild oat (*Avena sp.*), Bermuda grass (*Cynodon dactylon*), red brome (*Bromus madritensis ssp. rubens*), soft chess (*Bromus hordeaceus*), tocalote (*Centaurea melitensis*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), summer mustard (*Hirschfeldia incana*), long-stemmed filaree (*Erodium botrys*), broad-leaved peppergrass (*Lepidium latifolium*), tumbling pigweed (*Amaranthus albus*), poison hemlock (*Conium maculatum*), doveweed (*Croton setiger*), smooth cat's ear (*Hypochaeris glabra*), lamb's quarters (*Chenopodium album*), sour clover (*Melilotus indica*), sow thistle (*Sonchus oleraceus*), rancher's fireweed (*Amsinckia menziesii var. intermedia*), Russian thistle (*Salsola tragus*), milk thistle (*Silybum marianum*), tree tobacco (*Nicotiana glauca*), and telegraph weed (*Heterotheca grandiflora*). Additional species include tarragon (*Artemisia dracunculus*), branching phacelia (*Phacelia ramosissima*), mugwort (*Artemisia douglasiana*), California croton (*Croton californicus*), wild cucumber (*Marah macrocarpus*), jimsonweed (*Datura wrightii*), and bur-sage (*Ambrosia acanthicarpa*). The Project will temporarily impact approximately 0.013 of unvegetated riverine areas associated with Aliso Canyon, and as much as 0.033 acre of riparian vegetation overall, including 0.004 acre of scattered mule fat shrubs in Aliso Canyon, and up to 0.029 acre of low shrubs that extend into the existing road along the Santa Ana River.

See IV. b), above for a complete discussion regarding protection of species associated with riparian/riverine areas and vernal pools.

Section 6.1.3

The proposed Project is located within the Narrow Endemic Plant Species Survey Area, Group 7. Habitat assessments are required for Brand's phacelia (*Phacelia stellaris*), San Miguel savory (*Satureja chandleri*), and San Diego ambrosia (*Ambrosia pumila*). A habitat assessment was conducted in June 2010 within the proposed Project site. Suitable habitat to support these three plant species was not recorded on site. Therefore, no additional plant surveys or conservation measures are required. The Project satisfies the Protection of Narrow Endemic Plant Species requirements of the MSHCP.

Section 6.3.2

The proposed Project is located within the Burrowing Owl Survey Area. Thus, a habitat assessment was conducted in February 2010. No direct burrowing owl observations or sign were recorded during the habitat assessment, however, potential nesting/foraging habitat for the burrowing owl is present and the site could be occupied by burrowing owl at anytime of the year (moderate occurrence potential). A focused survey was conducted in August 2010 and no direct burrowing owl observations or sign (pellets, fecal material, or prey remains) were recorded on site. However, because the burrowing owl is well known to occur in the site vicinity it may utilize portions of the site during various times of the year.

Because burrowing owls were not observed within the Project site during the focused survey effort, additional conservation measures are not required pursuant to the MSHCP. To avoid impacts to any active nests, a pre-construction survey shall be conducted in areas supporting suitable burrowing owl habitat. Implementation of mitigation measure **MM Bio 2** will ensure potential impacts to burrowing owls are less than significant. The proposed Project satisfies all the plant, mammal, amphibian, and bird Additional Survey Needs and Procedures requirements of the MSHCP.

Section 6.1.4

As outlined in the MSHCP, *The guidelines presented in this section are intended to address indirect effects associated with locating Development in proximity to the MSHCP Conservation Area, where applicable. Existing local regulations are generally in place that addresses the issues presented in this section.*

The MSHCP Conservation Area is made up of Criteria Area, Public/Quasi-Public Lands, Rural Mountainous Designations, and American Indian Lands. The Conservation Area is comprised of a variety of existing and proposed Cores, extensions of Existing Cores, Linkages, Constrained Linkages, and Noncontiguous Habitat Blocks. The Project is located within the Temescal Area Plan of the MSHCP. The Temescal Canyon Area Plan is divided into five Subunits. For each Subunit, target conservation acreages are established along with a description of Planning Species, biological Issues and Considerations, and Criteria for each Subunit (MSHCP, Vol. 1., p. 252). Portions of the Project are located in Subunit 2 – Prado Basin within Criteria Cell 1612 in Cell Group B. The Biological Issues and Considerations for Subunit 2 are the following (MSHCP, Vol 1., p. 253):

- Provide for and maintain connection(s) from Prado Basin and the Santa Ana River to Chino Hills State Park outside the Plan Area.
- Maintain linkage area for bobcat and mountain lion.
- Maintain Core and Linkage Habitat for coast ran newt and western pond turtle.

The Project site occurs within existing Public/Quasi-Public (PQP) Conserved Lands and is adjacent to the Santa Ana River. The Project will not permanently impact habitats and covered species associated with the PQP lands within the project footprint. The project footprint within PQP lands will be restored to pre-Project conditions; therefore, the project will not directly affect the biological conservation value of the PQP lands. With the implementation of measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (Volume I, Section 6.1.4 of the MSHCP) the Project is not expected to result in significant indirect impacts to sensitive biological resources and habitat and PQP lands. These guidelines are intended to address indirect effects associated with locating projects (particularly development) in proximity to the MSHCP Conservation Area. To minimize potential edge effects, the guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The proposed Project has the potential to result in temporary indirect impacts during construction, but would not result in long-term indirect impacts. Regardless, the Project will implement measures consistent with the MSHCP guidelines to address the following:

- Drainage
- Toxics
- Lighting
- Noise
- Invasives
- Barriers
- Grading/Land Development

Drainage

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to control runoff and water quality during construction. However, following the completion of activities, the Project area will not contain any developed or paved areas, and will not, in any way, result in increased drainage to the Santa Ana River, or affect the water quality of the River. As such, no measures would be required post-construction.

Toxics

Measures such as those employed to address drainage issues shall be implemented. The proposed Project will implement a SWPPP that will address runoff during construction.

Lighting

If night lighting is required during construction, shielding shall be incorporated to ensure ambient lighting in the MSHCP Conservation Area is not increased. The Project does not include lighting.

Noise

Noise generated during the construction phase may have the potential to indirectly affect wildlife within the adjacent Conservation Area. As noted above, several special-status birds occur within adjacent riparian areas, including the least Bell's vireo. The Project will not adversely impact habitat utilized by special-status species. However, excessive noise levels adjacent to the riparian habitat during the breeding season may have the potential to affect the least Bell's vireo, southwestern willow flycatcher and other riparian birds. A hydraulic jacking method, which uses a static load to install piles, will allow piling work to be carried out silently and vibration-free. Other activities generating noise that would exceed residential noise standards will be not occur during the LBV/SWWF breeding season (March 15 to August 31) adjacent to riparian habitat (**MM Bio 1**) or will be minimized through installation of noise barriers between construction activity and riparian habitat.

Invasives

Projects adjacent to the MSHCP Conservation Area shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in Volume I, Table 6-2 of the MSHCP. Re-vegetation at Aliso Canyon Crossing Protection crossing will include the replacement of existing native species. Re-vegetation will not include species listed in Table 6-2 of the MSHCP.

Barriers

Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual Project designs to minimize unauthorized public access, domestic animal predation, illegal trespassing or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms. This does not apply to the proposed Project.

Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area. The proposed Project does not include grading that would result in manufactured slopes in the Conservation Area.

Section 7.0 Design Criteria and Appendix C BMPs

Section 7.3.7 of the MSHCP outlines that flood control facilities (improvements and new construction) that are undertaken by a permittee in the Criteria Area is a covered activity; those outside of the Criteria Area are also covered activities. It also identifies potential flood control projects within the MSHCP criteria area and implementation is subject to the construction guidelines detailed in Section 7.5.3 and as well as the standard Best Management Practices (BMPs) contained in Appendix C.

Section 7.5 of the MSHCP sets forth the *Guidelines for Facilities Within the Criteria Area and Public/Quasi-Public Lands*. Section 7.5.3 outlines construction guidelines required when constructing facilities within the Criteria Area or within Public/Quasi-Public Lands. The proposed Project is located within existing Public/Quasi-Public (PQP) Conserved Lands. As discussed previously, the Project will implement applicable measures as it relates to temporary construction impacts to minimize adverse indirect impacts on special-status resources within Conserved Lands. The proposed Project will satisfy the standard BMP requirements of the MSHCP.

The Western Riverside County Regional Conservation Authority (RCA) completed a Joint Project Review for this Project. As outlined in the JPR the RCA found the Project to be consistent with the requirements of the MSHCP, “Consistency Conclusion: The proposed project demonstrates consistency with the requirements for covered flood control projects and with other requirements of the MSHCP.” (JPR p. 1)

Source: MSHCP; IA; GLA 1, 2, JPA

ENVIRONMENTAL FACTORS:	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
V. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cultural Resource Discussion:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Less Than Significant Impact. The State *CEQA Guidelines* state that the term “historical resources” applies to any such resources listed in or determined to be eligible for listing in the *California Register of Historical Resources*, included in a local register of historical resources, or determined to be historically significant by the Lead Agency. According to the ACOE SEIS/EIR for the Alternative RC3 portion of the proposed Project, the potential impact to buried former segments of the Anaheim Union Water Canal would be possible. However, these segments would have already been disturbed or