

3.3 Biological Resources

A Biological Technical Report (BTR; Appendix E to this EIR) was prepared by HELIX Environmental Planning, Inc. (HELIX; 2016), based upon the following biological resource surveys performed by HELIX and/or EDAW, Inc. (EDAW) within the Project site between 2000 and 2019: vegetation mapping; general botanical and zoological surveys; rare plant surveys; a jurisdictional delineation; protocol surveys for Quino checkerspot butterfly (*Euphydryas editha quino*; QCB), coastal California gnatcatcher (*Poliophtila californica californica*; CAGN), and San Diego and Riverside fairy shrimp (*Branchinecta sandiegonensis* and *Streptocephalus woottoni*, respectively), and focused surveys for burrowing owl (*Athene cunicularia*). In addition, monitoring of San Diego County's population of golden eagles (*Aquila chrysaetos*), including in the Project site vicinity, has been performed by the Wildlife Research Institute, Inc. since 1988. Data from 1991 plant and animal surveys by Ogden Environmental and Energy Services Company (Ogden) also were reviewed as historical data. The off-site parcel was surveyed as part of the Otay Crossings Commerce Park project (HELIX 2010).

3.3.1 Regulatory Framework

Biological resources within the Project site are subject to regulatory review by the Federal government, State of California and the County. The Federal government administers non-marine plant- and wildlife-related issues through the USFWS, while the Corps regulates Waters of the U.S. (including wetland and non-wetland) issues. California law relating to wetland, water-related and wildlife issues is administered by CDFW. The County is the lead agency for the CEQA environmental review process in accordance with State law and local ordinances.

3.3.1.1 Federal

Federal Endangered Species Act

Administered by the USFWS, the Federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Section 9 of the ESA and Federal regulation pursuant to Section 4(d) of the ESA prohibit the take of fish and wildlife species listed as endangered and threatened, respectively, without special exemption. Take as defined by the ESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the species, including significant habitat modification." The ESA includes mechanisms that provide exceptions to the Section 9 take prohibitions. These are addressed in the ESA under Section 7 (Federal actions) and Section 10 (non-Federal actions).

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, issued by the USFWS for non-marine related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species' (in this case, the CAGN) use of the site and impacts to Corps jurisdictional areas. It is likely that a Section 7 permit would be required for the Proposed Project given the nexus between Corps

jurisdictional areas and the federally listed QCB, CAGN and critical habitat for three species as noted below.

Section 10(a) allows issuance of permits for incidental take of endangered or threatened species with preparation of a habitat conservation plan (HCP). The term “incidental” applies if the taking of a listed species is incidental to, and not the purpose of, an otherwise lawful activity. An HCP demonstrating how the taking would be minimized and how steps taken would ensure the species’ survival must be submitted for issuance of Section 10(a) permits.

The USFWS identifies critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. Once an area is designated as critical habitat pursuant to the Federal ESA, all Federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat.

The County of San Diego has submitted an application to the USFWS for an amended incidental take permit (ITP) pursuant to Section 10(a)(1)(B) of the Federal ESA, as amended, for activities covered under the proposed Habitat Conservation Plan for the Otay Hills Project: Major Amendment to the Multiple Species Conservation Program County of San Diego Subarea Plan (Otay Hills HCP). The Otay Hills HCP addresses ten animal and eight plant species that are collectively referred to as the HCP Covered Species. The County has requested an amended ITP from USFWS to authorize the incidental take of ten covered animal species, including two that are federally listed and seven others that may become federally listed in the future. “Take” is defined by the Federal ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” and includes activities that could kill or injure wildlife through significant habitat modification.

The ITP would cover approximately 105 acres of the 410-acre proposed Project site located in San Diego County, California (Figure 1-1, *Regional Location*). Activities proposed to be covered by the ITP include land disturbance in association with mineral extraction as described in Chapter 2, Description of the Proposed Project and Alternatives. This development would occur on approximately 25 percent of the lands within the Project impact footprint, with the remaining 75 percent placed into conservation (Figure 1-2, *Aerial Photograph*).

The Migratory Bird Treaty Act (MBTA), as amended (16 U.S.C. 703-712) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protections of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful as is taking any parts, nests, or eggs of such birds. The definition of taking under the MBTA differs from the ESA definition and includes only the death or injury of individuals of a migratory bird species or its eggs.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668-668c; Eagle Act) prohibits the take of any eagles or any part, nest, or egg thereof. Take is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb.” Disturb is further defined in 50 CFR Part 22.3 as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause,

based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” An Eagle Act permit will not be required because implementation of the Proposed Project would not result in the take of eagles, eagle eggs, or any part of an eagle, as detailed in Subsection 4.3.3.1.

Clean Water Act

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 Waters of the U.S. Permitting for projects filling Waters of the U.S. (including wetlands) is overseen by the Corps under Section 404 of the CWA. Projects could be permitted on an individual basis or be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action, amount of fill, etc. and typically require substantial time (often longer than six months) to review and approve, while Nationwide Permits are pre-approved if a project meets appropriate conditions. It is assumed that an Individual Permit would be required for the Proposed Project for impacts to Corps jurisdictional areas. The CWA also requires 401 Certification from the Regional Water Quality Control Board (RWQCB).

3.3.1.2 State

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines). CEQA is a statute that requires State and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. CEQA applies to certain activities of State and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a project. A project is an activity undertaken by a public agency or a private activity which must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency which may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

Most proposals for physical development in California are subject to the provisions of CEQA, as are many governmental decisions that do not immediately result in physical development (such as adoption of a general or community plan). Every development project that requires a discretionary governmental approval will require at least some environmental review pursuant to CEQA, unless an exemption applies.

The California ESA prohibits take of wildlife and plants listed as threatened or endangered by the California Fish and Game Commission. Take is defined under the California Fish and Game Code as any action or attempt to “hunt, pursue, catch, capture, or kill.” Therefore, take under the California ESA does not include “the taking of habitat alone or the impacts of the taking.” Rather, the courts have affirmed that under the California ESA, “taking involves mortality.”

The California ESA allows exceptions to the take prohibition for take that occurs during otherwise lawful activities. The requirements of an application for incidental take under the California ESA are described in Section 2081 of the California Fish and Game Code. Incidental take of State-listed species may be authorized if an applicant submits an approved plan that minimizes and “fully mitigates” the impacts of this take.

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered (CDFW 1977). The NPPA regulates collection, transport, and commerce in listed plants. The California ESA follows the NPPA and covers both plants and animals designated as endangered or threatened with extinction. Plants listed as rare under NPPA were also designated rare under the California ESA.

The California Fish and Game Code (Sections 1600 through 1603) requires a CDFW agreement for projects affecting riparian and wetland habitats through issuance of a Streambed Alteration Agreement. It is assumed that the Proposed Project would require a 1602 Agreement from the CDFW for impacts to CDFW jurisdictional areas.

3.3.1.3 Local

The County regulates natural resources (among other resources) via the MSCP, Biological Mitigation Ordinance (BMO), and RPO as discussed below.

County MSCP Subarea Plan

The MSCP Plan for the southwestern portion of San Diego County was approved in 1997 and covers 85 species (County 1997). The Subarea Plan (County 1997) implements the MSCP within the unincorporated areas under County jurisdiction. It was adopted by the Board of Supervisors in March 1998. The County holds permits from the USFWS and State that authorize incidental take for MSCP Covered Species but not QCB. The County may extend take coverage to Third Party Beneficiaries for projects that are consistent with the Subarea Plan and its associated Implementing Agreement (IA) and permits. This requires the County’s review of proposed projects to ensure consistency with the Subarea Plan, IA, and permits including satisfying the requirements of the County’s BMO.

The Project site is located within the South County Segment of the Subarea Plan. Five Subarea Plan designations occur within the Project site: Major Amendment Area (286.8 acres), Minor Amendment Area (3.1 acres), Minor Amendment Area Subject to Special Consideration (40.7 acres), Take Authorization Area (0.4 acre), and Hardline Preserve (103.7 acres). Major Amendment Area (3.0 acres), Minor Amendment Area (1.6 acres) and Take Authorized Area (0.1 acre) occur on the Otay Crossings Commerce Park parcel off site.

The County, as the permittee under the Subarea Plan, must initiate any request for an amendment to the Subarea Plan, and development of the Proposed Project may only occur after an amendment to the Subarea Plan is completed. All major and minor amendments must conform to the MSCP and Subarea Plan requirements, and requests for amendments must be processed by the USFWS and CDFW in conformity with all applicable laws and regulations (including NEPA, CEQA and the Federal and State ESAs) in effect at the time the request for an amendment is received.

Major Amendment Areas

Major Amendment Areas include key core habitat areas that are vital to the continued existence of many of the MSCP Covered Species. Take cannot be authorized by the County within this type of amendment area until the respective amendment process has been completed. Major Amendments must conform to the MSCP and Subarea Plan, as well as the BMO (County 2010b). Major Amendments also must be authorized by the resource agencies and be in conformance with all applicable laws and regulations, including NEPA, CEQA, NCCP Act and Federal and California ESAs. Major Amendment Areas are shown on Figure 3.3-1.

Minor Amendment Areas

Minor Amendment Areas “contain habitat that could be partially or completely eliminated (with appropriate mitigation) without significantly affecting the overall goals of the Subarea Plan.” Minor Amendment Areas must meet the criteria and achieve the goals of linkages and corridors described in the Subarea Plan and provide mitigation consistent with the BMO. Development within Minor Amendment Areas requires approval from the USFWS Field Office Supervisor, CDFW NCCP Program Manager and County Board of Supervisors. Minor Amendment Areas are shown on Figure 3.3-1.

Minor Amendment Area Subject to Special Considerations

Minor Amendment Areas Subject to Special Considerations are limited to the East Otay Mesa Specific Plan (County 1994) area. These are transitional areas located between the Major and Minor Amendment Areas. Minor Amendment Areas Subject to Special Considerations on the Project site are shown on Figure 3.3-1.

Take Authorized Area

Take Authorized Areas are covered under the MSCP Subarea Plan, and no amendment process is required for incidental take of MSCP Covered Species. Take Authorized Areas are shown on Figure 3.3-1.

Hardline Preserve

Hardline Preserve areas represent precise preserve boundaries established by the Subarea Plan. Hardline Preserve on the Project site is shown on Figure 3.3-1 and is identified in section 3.3.3.14 of the Subarea Plan (i.e., O’Neal Canyon and Southerly Foothills Corridor).

Species Not Covered by the MSCP

The QCB was not covered by the MSCP nor the Subarea Plan because of “unknown conservation and lack of assurances that the Plan will protect preferred habitat (mesa tops/grassland) and connection to known source populations” (County 1997). QCB were detected during focused surveys for this species within the Project site between 2000 and 2008 and its host plant mapped. The Proposed Project would be required to address this species through ESA Section 10(a)(1)(B) process in order to proceed with development. This would be accomplished by amending the

County's existing Section 10 permit through the development of a habitat conservation plan and the major amendment process.

Biological Mitigation Ordinance

The BMO (dated April 2, 2010) is the mechanism by which the County implements the County MSCP Subarea Plan at the project level within the unincorporated area to attain the goals set forth in the Subarea Plan. The BMO contains design criteria and mitigation standards which, when applied to projects requiring discretionary permits, protect habitats and species and ensures that a project does not preclude the viability of the MSCP Preserve System. In this way, the BMO promotes the preservation of lands that contribute to contiguous habitat core areas or linkages.

Under the BMO definition, habitat is considered a Biological Resource Core Area (BRCA) if it meets one of the following criteria:

- It is considered a Pre-approved Mitigation Area (PAMA) on the wildlife agencies' PAMA area map;
- It contains biological resources that support or contribute to the long-term survival of sensitive species and is adjacent to the pre-approved mitigation area;
- It is part of a regional linkage/corridor;
- It is mapped as Very High or High shown on the Habitat Evaluation Map and links significant patches of habitat;
- It is part of a patch of habitat greater than 500 acres in area that contributes to the conservation of sensitive species; or
- It supports a high number of sensitive species and is contiguous to undisturbed habitats.

Approximately 88 percent of the Project site has been designated as High or Very High value habitat by the County; therefore, it meets the criteria of a BRCA. As such, the Project site is subject to the BMO's avoidance and mitigation requirements. According to the BMO, where complete avoidance of County List A and B sensitive plants is infeasible, encroachment may be authorized depending on the sensitivity of the individual species and the size of the population, except that encroachment shall not exceed 20 percent of a population on a site.

Resource Protection Ordinance

The County regulates natural resources (among other resources) via the RPO, the regulations of which cover wetlands, sensitive plants and animals, sensitive habitats and habitats containing sensitive animals or plants as sensitive biological resources. Wetland habitats are defined per the RPO, as described in Subchapter 3.3.2.3, above. Sensitive habitat lands are identified by the RPO as lands that "support unique vegetation communities, or habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the CEQA Guidelines." It is the intent of the RPO to increase the preservation and protection of the County's unique topography, natural beauty, biological diversity and natural and cultural resources. Pursuant to

Section 86.605(d) of the RPO, the Proposed Project would be exempt from RPO requirements provided that the following mitigation measures are required as conditions of the MUP:

- a. Any wetland buffer area shall be restored to protect environmental values of adjacent wetlands;
- b. In a floodplain, any net gain in functional wetlands and riparian habitat shall occur in or adjacent to the area of extraction;
- c. Native vegetation shall be used on steep slopes lands to revegetate and landscape cut and fill areas in order to restore substantially original habitat value, and slopes shall be graded to produce contours and soils that reflect natural landform consistent with the surrounding area; and
- d. Mature riparian woodland may not be destroyed or reduced in size due to sand, gravel, or mineral extraction.

The development footprint would impact 0.27 acre of cismontane alkali marsh, 0.01 acre of disturbed wetland, and 0.06 acre of tamarisk scrub, and the remaining 0.07 acre of the cismontane alkali marsh area and 0.04 acre of tamarisk scrub is proposed to be preserved in open space. There is no feasible buffer between the development footprint and the avoided cismontane alkali marsh since it is immediately adjacent; however, a fence to keep people out of the open space would be installed. The other RPO wetlands (tamarisk scrub and another small area of cismontane alkali marsh) all occur within the proposed open space at approximate distances of 500 to 700 feet from the development footprint. These wetlands occur within larger areas of non-native grassland and Diegan coastal sage scrub where no buffer restoration would be needed to protect their environmental values. Therefore, Measure “a” would not be required, although the proposed open space will benefit from invasive plant removal pursuant to the proposed RMP. The site is not located within a floodplain. As such, Measure “b” would not be required. Given that mature riparian woodland does not occur within the impact area of the Project site, Measure “d” also would not be required. Measure “c” is required for the Proposed Project and revegetation with native vegetation would be required on slopes between the quarry and proposed open space (see Sheet 7 of the Reclamation Plan for the Otay Hills Project [EnviroMINE 2019b]).

3.3.2 Environmental Setting

The undeveloped Project site consists of low hills at the western foothills of the San Ysidro Mountains. The presence of hills and taller mountains adjoining the Project site to the east create a diverse area with topography consisting of multiple canyons and ridgelines. Undeveloped open space surrounds the Project site to the north and east. The closest development to the Project site is a power plant on a lot abutting the northeastern edge of the property.

The Project site was burned during a fire that swept through the area in 1997; however, vegetation has largely recovered showing little sign of fire with moderate cover by perennial species. As a general characterization of the Project site, the south-facing slopes support thinner soils and are more sparsely vegetated. The north-facing slopes have deeper, heavier soils, support more vegetation and support the majority of the sensitive annual plant species. Openings in the vegetative canopy are common, especially on the south-facing slopes. In addition to natural

habitat, numerous dirt roads and an SDG&E easement cross the Project site. The Project site was not burned in the October 2007 Harris fire.

An additional 61-acre Additional Management Area (AMA) has an existing conservation easement in favor of the CDFW but lacks management funding and the Project is providing funding for management of this area. This AMA is not considered part of the Proposed Project site but is included in the description of areas being managed for conservation purposes (Figure 2-1).

3.3.3 Vegetation Communities

The Project site supports 13 vegetation communities/land use types: mule fat scrub, cismontane alkali marsh, southern interior cypress forest, tamarisk scrub, disturbed wetland, native grassland, Diegan coastal sage scrub (including disturbed), coastal sage-chaparral scrub, chamise chaparral, southern mixed chaparral, non-native grassland, disturbed habitat and developed land. Please see Figure 3.3-2 and Table 3.3-1, *Existing Vegetation Communities*, for locations and acreages of these vegetation communities. The off-site Otay Crossings Commerce Park area supports Diegan coastal sage scrub, non-native grassland and disturbed habitat. Descriptions of these communities are provided in Appendix E to this EIR.

Critical Habitat

Designated critical habitat occurs on the Project site and off-site parcel as follows: 199.3 acres for Otay tarplant, 402.2 acres for QCB and 262.1 acres for CAGN. Please see Figure 3.3-6, *Critical Habitat* for locations of these critical habitat areas.

3.3.4 Jurisdictional Areas

A formal jurisdictional delineation was conducted within a previously proposed Project impact footprint in 2004 (HELIX 2005). In February 2018 and March 2019, a jurisdictional delineation was conducted within the current project footprint (HELIX 2019a). The jurisdictional delineation also reflects December 2018 and March 2019 site visits with Corps and RWQCB staff. Areas considered Corps/RWQCB and CDFW jurisdictional and County Resource Protection Ordinance (RPO) wetland occur within the Project impact footprint. Jurisdictional habitats within the Project site exist in canyon bottoms, drainages and impoundments (Figures 3.3-3a through 3.3-3d—*Existing Waters of the U.S., Existing Regional Water Quality Control Board Jurisdictional Areas, Existing CDFW Jurisdictional Areas, and Existing County RPO Wetlands*, respectively—and Table 3.3-2, *Corps, RWQCB, and CDFW Jurisdictional Areas and County RPO Wetlands within the Project Site*).

3.3.4.1 Corps Jurisdiction

Jurisdictional delineation fieldwork was performed within the Project impact footprint according to Corps delineation guidelines. All areas with depressions or drainage channels were evaluated for the presence of Waters of the U.S., including jurisdictional wetlands. If an area was suspected of being a wetland, vegetation and hydrology indicators were noted, and a soil pit was dug and described. The area was then determined to be a Federal (Corps) wetland if it satisfied the three wetland criteria (vegetation, hydrology and soil) described within the Wetlands Delineation Manual (Environmental Laboratory 1987). Areas were determined to be non-wetland Waters of

the U.S. if there was evidence of regular surface flow (e.g., bed and bank) but the vegetation and/or soils criterion were not met. Non-wetland areas encompassed by the ordinary high water mark (OHWM) were measured and vegetation (if present) was noted. All non-wetland Waters of the U.S. were measured and mapped in the field. Wetland affiliations of plant species follow the National List of Vascular Plants that Occur in Wetlands (USFWS 1996). In most cases, two sample points were evaluated, one inside the suspected wetland and one where the hydrology and/or the vegetation criteria were not satisfied. Non-wetland Waters of the U.S. were mapped if there was evidence of regular surface flow (e.g., bed and bank) that was contiguous with Corps jurisdictional navigable waters but the vegetation and/or soil criteria was not met. Non-wetland Waters of the U.S. encompassed by the OHWM were measured and vegetation (if present) was noted.

Corps wetland jurisdictional areas within the Project site total 0.33 acre, including 0.23 acre of cismontane alkali marsh, 0.01 acre of disturbed wetland and 0.09 acre of tamarisk scrub. Additionally, 0.49 acre of non-wetland Waters of the U.S. occur within the Project site (Figure 3.3-3a and Table 3.3-2).

3.3.4.2 California Regional Water Quality Control Board

RWQCB takes jurisdiction over some areas under CWA Section 401 and other areas under the State Porter-Cologne Act. The reason there are two types of jurisdiction is that there are areas connected to downstream waters of the United States (WUS) and areas that are isolated from downstream WUS. Isolated areas with evidence of surface water inundation generally support at least one of the three Corps wetlands indicators but are considered isolated through the lack of surface water hydrology/connectivity downstream and are jurisdictional under the Porter-Cologne Act. Areas that are connected to downstream WUS are jurisdictional under Section 401 of the CWA. The RWQCB jurisdictional areas within the Project site total 0.88 acre, including 0.23 acre of cismontane alkali marsh, 0.01 acre of disturbed wetland, 0.09 acre of tamarisk scrub, 0.52 acre of streambed, 0.02 acre of pond, and 0.01 acre of intermittent pond (Figure 3.3-3b and Table 3.3-2).

3.3.4.3 CDFW Jurisdiction

CDFW 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 a streambed as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation” (CCR Title 14, Section 1.72). Riparian habitat is not defined in Title 14 but does refer to vegetation and habitat associated with a stream. The CDFW jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream.

CDFW wetland jurisdictional areas within the Project site total 0.45 acre, including 0.34 acre of cismontane alkali marsh, 0.01 acre of disturbed wetland and 0.10 acre of tamarisk scrub. Additionally, 0.53 acre of non-wetland Waters of the State (streambed and pond) occur within the Project site (Figure 3.3-3c and Table 3.3-2).

3.3.4.4 County RPO Wetlands

The County RPO includes protections for wetlands meeting one of the three following attributes: (1) at least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places); (2) the substratum is predominantly undrained hydric soil; or (3) an ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system. As explained in Subchapter 6.2, *Growth-inducing Impacts*, of this EIR, such areas are present within the Project site; however, the Proposed Project would be exempt from RPO requirements, pursuant to Section 86.605(d) in Chapter 6 of Ordinance 9842 of the RPO (County 2011a).

County RPO wetlands within the Project site total 0.45 acre, including 0.34 acre of cismontane alkali marsh, 0.01 acre of disturbed wetland and 0.10 acre of tamarisk scrub (Figure 3.3-3d and Table 3.3-2). The reader is referred to the discussion above in subsection 3.3.1.3 and Appendix E for additional information.

3.3.5 Plant Species

HELIX observed a total of 195 plant species within the Project site during the 2001 and 2004 sensitive plant surveys, as well as during other biological surveys (HELIX 2016). Appendix E of the BTR (EIR Appendix E) provides a list of plant species observed within the Project site during these surveys. Surveys by EDAW within the EOMSP area identified 202 plant species (EDAW 2001a).

3.3.6 Animal Species

A total of 101 animal species were observed/detected within the Project site during the HELIX 2001, 2004, and 2008 surveys, including 30 butterfly, 7 other invertebrate, 6 reptile, 1 amphibian, 52 bird, and 12 mammal species (HELIX 2016). A complete list of animals observed/detected during all HELIX surveys is included in Appendix F of the BTR (EIR Appendix E). All of the animal species were identified by direct observation or vocalizations, the presence of scat and/or tracks, or other signs. Surveys by EDAW within the EOMSP area identified 119 animal species (EDAW 2001b).

3.3.7 Habitat Connectivity and Wildlife Corridors

The Proposed Project site is part of a larger core area extending east and north into existing conserved lands on Otay Mountain and around Otay Lakes. Additionally, two types of wildlife corridors potentially occur within the Project site: local and regional. Local corridors provide animals with access to resources such as food, water, and shelter. Animals can use these corridors (such as the hillsides and tributary drainages within the Project site) to travel from riparian to upland habitats and back. Regional corridors allow for animal movement between large core areas of habitat that are regionally important. They include major creeks and rivers, ridges, valleys and large swaths of undeveloped land. The Proposed Project site lacks major creeks, rivers and valleys typically associated with corridors, but is part of a larger swath of undeveloped land that as described below does allow for wildlife movement throughout the region.

The Project site serves as key components enabling gene flow of many sensitive plant and animal species that move between the Project site and adjacent open space to the north and east. Existing development occurs adjacent to the northwestern portion of the development footprint. In addition, approved development occurs along the remainder of the western boundary of the development footprint. The area west of the project site is the industrial part of East Otay Mesa that is already either developed, approved for development, or designated for development by the Specific Plan, and is not designated or planned as habitat or as a wildlife corridor. This means that the area to the west of the Project site is neither a corridor for wildlife movement nor a destination for wildlife movement, although there is an existing, private open space parcel associated with the adjacent Otay Crossings Commerce Park that abuts the western boundary of the development footprint. The Project's activities within the development footprint would isolate this open space parcel from the Project's proposed mitigation open space to the east and other undeveloped land to the southeast and as a result this open space parcel has been added to the Project footprint and treated as fully developed.

The presence of several raptor nests within the Project site demonstrates the importance of the area to raptor species. These species forage in undeveloped lands within the Project site. Sightings of the federally listed endangered QCB over multiple years within the Project footprint and adjacent potential mitigation parcels demonstrate that this area contains habitat for this species. Designated public lands and private open space occur beyond these open space areas to the north and east. Animal species can use most habitats within the Project site and can access habitats off site without restriction at this time. The site is not part of a regional corridor because existing and approved development along the western boundary limits the movement of animals across the property to the west; however, it is part of a large contiguous block of open space that can support wide-ranging species and may act as a core wildlife area.

3.3.8 Sensitive Resources

Sensitive or special interest species are those considered rare, threatened, or endangered within the state or region by local, State, and/or Federal resource conservation agencies. Sensitive habitats, as identified by these agencies, are those that generally support the above-noted sensitive plant or wildlife species. Sensitive species and habitats are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance and degradation due to development or invasion by non-native species, or a combination of these factors. Sources used for the determination of sensitive biological resources include the County RPO (dated October 14, 2011), Guidelines for Determining Significance and Report Format and Content Requirements – Biological Resources (dated September 15, 2010), the BMO, and threatened and endangered species system listings (CDFW 2013 and California Native Plant Society 2013).

3.3.8.1 Sensitive Vegetation Communities

Sensitive habitat is defined as land, which supports unique vegetation communities, or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines. The following vegetation communities within the Project site are considered sensitive or are regulated by the Corps, CDFW, USFWS, and/or County: mule fat scrub, cismontane alkali marsh, southern interior cypress forest, native grassland, Diegan coastal sage scrub (including disturbed), coastal sage-chaparral scrub, chamise chaparral, southern mixed

chaparral, and non-native grassland. Although not considered a sensitive vegetation community, tamarisk scrub requires mitigation because tamarisk is a wetland indicator species and tamarisk scrub may provide habitat for riparian species. The AMA includes Diegan coastal sage scrub and southern mixed chaparral habitats.

3.3.8.2 Sensitive Plant Species

Sensitive species are those considered unusual or limited in that they are (1) only found in the San Diego region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region.

Observed Species

Eighteen sensitive plant species are known to occur within the Project site (Table 3.3-3, Existing Sensitive Plant Species, Figure 3.3-4a, Federal, State and County (List A and B) Sensitive Plant Species, and Figure 3.3-4b, County (List D) Sensitive Plant Species 2000 - 2010). Approximately 540 individuals of the federally listed threatened/State-listed endangered, County List A, MSCP Narrow Endemic Otay tarplant (*Deinandra conjugens*) occur within northwestern portion of the Project site. Two individuals of State-listed rare, County List A, MSCP Narrow Endemic Dunn's mariposa lily (*Calochortus dunnii*) occur in the eastern portion of the Project site. Approximately 4,987 individuals of the County List A, MSCP Narrow Endemic, variegated dudleya (*Dudleya variegata*) occur within the Project site. Approximately 12,388 individuals of the County List A, MSCP Narrow Endemic, San Diego goldenstar (*Bloomeria [Muilla] clevelandii*) occur on the north-facing slopes of the Project site. A small group of eight individuals of the County List A, MSCP Covered summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*) occur on the Project site. Approximately 92 individuals of the County List A, MSCP Covered Gander's pitcher sage (*Lepechinia ganderi*) occur on the Project site. Approximately 337 individuals of the County List B, MSCP Covered San Diego barrel cactus (*Ferocactus viridescens*) were observed within the Project site. Approximately 25 San Diego barrel cactus also were observed within the off-site parcel. A small population (290 individuals) of the County List B San Diego marsh-elder (*Iva hayesiana*) occurs in the flat area of the drainage within the Project site. Approximately 78 individuals of the County List A, MSCP Narrow Endemic Tecate cypress occur within the Project site. A group of 3,915 individuals of County List B Munz's sage (*Salvia munzii*) occurs within the Project site. Approximately 21 individuals of the County List B Orcutt's bird's beak (*Cordylanthus orcuttianus*) occur within the Project site. Approximately 1,596 individuals of the County List D San Diego needlegrass (*Achnatherum diegoense*) occur within the western edge of the Project site. Approximately 10 individuals of the County List D western dichondra (*Dichondra occidentalis*) occur within the Project site. A group of approximately 100 individuals of County List D Palmer's grapplinghook (*Harpagonella palmeri*) occur within the Project site. Approximately 21 individuals of the County List D southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*) occur in the northwestern corner of the Project site. A small population of 51 individuals of County List D Coulter's matilija poppy (*Romneya coulteri*) occurs within the Project site. Approximately 46,272 individuals of the County List D San Diego sunflower (*Viguiera laciniata*) occur within the Project site. Approximately 50 San Diego sunflowers also were observed within the off-site parcel. Small quantities (268 individuals) of the County List D ashy spike-moss (*Selaginella cinerascens*) occur within the Project site. Two locations of ashy spike-moss also were

observed within the off-site parcel. San Diego sunflower and San Diego barrel cacti occur within the AMA.

Species with a Potential to Occur

Because the Project site was burned in 1997, vegetation was open and plant species were readily observable during surveys. The potential for additional sensitive plant species to occur within the Project site is considered low because, if present, they are very likely to have been observed during the numerous plant surveys. Listed or sensitive plant species with potential to occur within the Project site are listed in Appendix G of the BTR (EIR Appendix E). Refer to Appendix I of the BTR for a listing and explanation of status codes.

3.3.8.3 Sensitive Animal Species

Observed/Detected Species

Nineteen sensitive animal species were observed/detected or assumed to occur within the Project site (Table 3.3-4, *Existing Sensitive Animal Species*, Figure 3.3-5a, *Existing Quino Checkerspot Butterfly [QCB] and Host Plant Locations*, and Figure 3.3-5b, *Existing Sensitive Animal Species [except QCB]*), including the federally listed endangered QCB and the federally listed threatened CAGN. Four species are listed as Birds of Conservation Concern by the USFWS: Bell's sage sparrow (*Amphispiza belli belli*), golden eagle, burrowing owl, and loggerhead shrike (*Lanius ludovicianus*). Five animal species observed/detected are listed as a State Species of Special Concern (SSC): red-diamond rattlesnake (*Crotalus ruber ruber*), coast horned lizard (*Phrynosoma blainvillii*), grasshopper sparrow (*Ammodramus savannarum*), northern harrier (*Circus cyaneus*) and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). (Note that although not observed on site, Belding's orange-throated whiptail [*Aspidoscelis hyperythra beldingi*; an SSC] is assumed to be present throughout the entire Project site.) Two species are designated as Watch List species by the American Bird Conservancy and include southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) and California horned lark (*Eremophila alpestris actia*; CDFW 2017). Five County sensitive species (Cooper's hawk [*Accipiter cooperii*], coastal whiptail [*Aspidoscelis tigris stejnegeri*], turkey vulture [*Cathartes aura*], common barn owl [*Tyto alba*] and southern mule deer [*Odocoileus hemionus fuliginata*]) also occur within the Project site. One coastal whiptail was also observed on the off-site parcel. QCB, CAGN, southern California rufous-crowned sparrow, California horned lark and black-tailed jackrabbit occur in the AMA.

In addition to its Federal status, QCB is also a County listed rare, narrow endemic animal species. Other rare, narrow endemic animal species observed within the Project site include burrowing owl and golden eagle.

Species with a Potential to Occur

Listed or sensitive animal species with potential to occur within the Project site are listed in Appendix H of the BTR (EIR Appendix E). The species are grouped into invertebrates and vertebrates (amphibians, reptiles, birds and mammals). Refer to Appendix I of the BTR (EIR Appendix E) for a listing and explanation of status codes.

**Table 3.3-1
EXISTING VEGETATION COMMUNITIES**

Vegetation Community ¹	Tier ²	Acreage ³		
		On Site	Off Site	Total
Mule fat scrub (63310)	I	0.03	--	0.03
Cismontane alkali marsh (52310)	I	0.34	--	0.34
Southern interior cypress forest (83330)	I	0.5	--	0.5
Disturbed wetland (11200)	I	0.01	--	0.01
Tamarisk scrub (63810)	I	0.10	--	0.10
Native grassland (42100)	I	1.2	--	1.2
Diegan coastal sage scrub (including disturbed; 32500)	II	284.1	2.5	286.6
Coastal sage-chaparral scrub (37G00)	II	5.4	--	5.4
Chamise chaparral (37200)	III	14.8	--	14.8
Southern mixed chaparral (37120)	III	38.6	--	38.6
Non-native grassland (42220)	III	45.4	2.0	47.4
Disturbed habitat (11300)	IV	18.4	0.2	18.6
Developed land (12000)	IV	0.7	--	0.7
TOTAL		409.7	4.7	414.4

Source: HELIX 2016

¹ Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).

² Tiers refer to County MSCP Subarea Plan habitat classification system.

³ Upland habitats are rounded to the nearest 0.1 acre, and wetland habitats are rounded to the nearest 0.01 acre; thus, totals reflect rounding.

**Table 3.3-2
CORPS, RWQCB, AND CDFW JURISDICTIONAL AREAS AND
COUNTY RPO WETLANDS WITHIN THE PROJECT SITE (acre)**

Habitat	Corps	RWQCB	CDFW	County
Wetlands				
Cismontane alkali marsh	0.23	0.23	0.34	0.34
Disturbed wetland	0.01	0.01	0.01	0.01
Tamarisk scrub	0.09	0.09	0.10	0.10
Subtotal	0.33	0.33	0.45	0.45
Non-wetlands				
Drainage/Streambed	0.47	0.52	0.51	0.00
Pond	0.02	0.02	0.02	0.00
Intermittent Pond	0.00	0.01	0.00	0.00
Subtotal	0.49	0.55	0.53	0.00
TOTAL	0.82	0.88	0.98	0.45

Source: HELIX 2016

**Table 3.3-3
EXISTING SENSITIVE PLANT SPECIES**

Species	Status¹	Existing within Project Site	Comments on Distribution in Project Site²
Otay tarplant (<i>Deinandra conjugens</i>)	FT/SE MSCP NE County List A Designated CH ³	540	Found in four primary populations on site.
Dunn's mariposa lily (<i>Calochortus dunnii</i>)	--/SR MSCP NE County List A	2	Not common on site. Few individuals on Parcel B.
Variegated dudleya (<i>Dudleya variegata</i>)	MSCP NE County List A	4,987	Limited mostly to Parcel A and small spot locations in other areas. Occurs in 6 primary populations on site.
San Diego goldenstar (<i>Muilla clevelandii</i>)	MSCP Covered County List A	12,388	Occurs on north-facing slopes in Parcels A, C and E and west of Parcel A. Occurs in 6 primary populations on site.
Summer holly (<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>)	County List A	8	Occurs in eastern portion of Parcel A.
Gander's pitcher sage (<i>Lepechinia ganderi</i>)	MSCP NE County List A	92	Found in Parcel C during 2011 surveys.
San Diego barrel cactus (<i>Ferocactus viridescens</i>)	MSCP Covered County List B	337 (25 more in off-site parcel)	Relatively common on south-facing slopes on site. Also present in the off-site parcel.
San Diego marsh-elder (<i>Iva hayesiana</i>)	County List B	290	Occurs in Parcel A.
Tecate cypress (<i>Cupressus forbesii</i>)	MSCP Covered County List A	78	Found in scattered locations on site.
Munz's sage (<i>Salvia munzii</i>)	County List B	3,915	Found abundantly in Parcels A, B and E.
Orcutt's bird's beak (<i>Cordylanthus orcuttianus</i>)	MSCP Covered County List B	21	A small population was observed in Parcel B.
San Diego needlegrass (<i>Achnatherum diegoense</i>)	County List D	1,596	Occurs at western edge of Parcel A and in Parcel B.
Western dichondra (<i>Dichondra occidentalis</i>)	County List D	10	Sparsely located in Parcels A and B and west of Parcel A.
Palmer's grapplinghook (<i>Harpagonella palmeri</i>)	County List D	100	Occurs in Parcel A.
Southwestern spiny rush (<i>Juncus acutus</i> ssp. <i>leopoldii</i>)	County List D	21	Occurs in the northwestern corner of Parcel A.
Coulter's matilija poppy (<i>Romneya coulteri</i>)	County List D	51	Occurs in Parcel C.

Table 3.3-3 (cont.) EXISTING SENSITIVE PLANT SPECIES			
Species	Status¹	Existing within Project Site	Comments on Distribution in Project Site²
San Diego sunflower (<i>Viguiera laciniata</i>)	County List D	46,272 (50 more in off-site parcel)	Occurs in Parcels A, B and west of Parcel A. Also in off-site parcel.
Ashy spike-moss (<i>Selaginella cinerascens</i>)	County List D	268 (2 more in off-site parcel)	Occurs in Parcel A and west of Parcel A. Also in off-site parcel.

Source: HELIX 2016

¹ CH = critical habitat; FT = federally listed threatened; NE = narrow endemic; SE = state listed endangered; SR = state listed rare.

² Project site consists of Parcels A, B, C, and E, as well as west of Parcel A, including the off-site Otay Crossings Commerce Park parcel (Figure 3.3-5b).

³ Designated Critical Habitat occurs within the Project site.

Table 3.3-4 EXISTING SENSITIVE ANIMAL SPECIES			
Species	Status¹	Existing within Project Site	Comments on Distribution in Project Site²
Quino checkerspot butterfly (<i>Euphydryas editha quino</i>)	FE/-- County Group 1 Designated CH ³	57 (409.5)	Observed throughout much of Project site in 2001 and 2008; sightings of species occurred less often in other years. There are approximately 1,192,307 individuals of dwarf plantain and 47 individuals of purple owl's clover on site.
Red-diamond rattlesnake (<i>Crotalus ruber ruber</i>)	--/SSC County Group 2	1 (392)	Observed in the Parcel A.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	--/SSC County Group 2	11 (392)	Observed in Parcel A and west of Parcel A.
Belding's orange-throated whiptail (<i>Aspidoscelis hyperythra beldingi</i>)	--/SSC County Group 1	Assumed present throughout site (392)	Not observed but expected to occur throughout entire site.
Coastal whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	--/-- County Group 2	9 (1 more in off-site parcel) (392)	Observed in Parcel A and west of Parcel A. Also in off-site parcel.
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	FT/SSC County Group 1 Designated CH*	5 pair (292)	One pair observed within development footprint in 2011; four pairs observed in northeastern portion of site.
Burrowing owl (<i>Athene cunicularia</i>)	BCC/SSC County Group 1	1 ⁴ (48.6)	One sighting west of SDG&E easement by EDAW (2001a).

**Table 3.3-4 (cont.)
EXISTING SENSITIVE ANIMAL SPECIES**

Species	Status ¹	Existing within Project Site	Comments on Distribution in Project Site ²
Golden eagle (<i>Aquila chrysaetos</i>)	BCC, BGEPA/ WL, Fully Protected County Group 1	1 (395.1)	Observed foraging over the site in 1991. A nesting pair reported to have a nest in O'Neal Canyon 1.2 miles east of Project site. Site lies within the pair's territory, and entire site and off-site parcel is eagle foraging habitat.
Bell's sage sparrow (<i>Amphispiza belli belli</i>)	BCC/WL County Group 1	9 (392)	Observed/detected in central portion of Parcel A.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	BCC/SSC County Group 1	13 (340.6)	Observed/detected in several locations in Parcel A and west of Parcel A.
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	--/SSC County Group 1	4 (48.6)	Observed/detected west of Parcel A.
Northern harrier (<i>Circus cyaneus</i>)	--/SSC County Group 1	1 (48.6)	Observed flying over Parcel A.
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>)	County Group 1	22 (392)	Observed/detected in Parcels A and E and west of Parcel A.
California horned lark (<i>Eremophila alpestris actia</i>)	County Group 2	6 (48.6)	Observed/detected in Parcels A and B and west of Parcel A.
Cooper's hawk (<i>Accipiter Cooperii</i>)	County Group 1	Assumed present throughout site (395.1)	Observed flying over the Project site during the 2012 Burrowing Owl Survey.
Turkey vulture (<i>Cathartes aura</i>)	County Group 1	1 (395.1)	Observed in Parcel A.
Common barn owl (<i>Tyto alba</i>)	County Group 2	1 (395.1)	Observed in Parcel A.
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	--/SSC County Group 2	17 (392)	Observed/detected in Parcel A and west of Parcel A.
Southern mule deer (<i>Odocoileus hemionus fuliginata</i>)	County Group 2	1 (392)	Observed/detected in Parcel A.

Source: HELIX 2016

⁺ Numbers in () are in acres of suitable habitat.

¹ CH = critical habitat; BCC = Birds of Conservation Concern; BGEPA = Bald and Golden Eagle Protection Act;

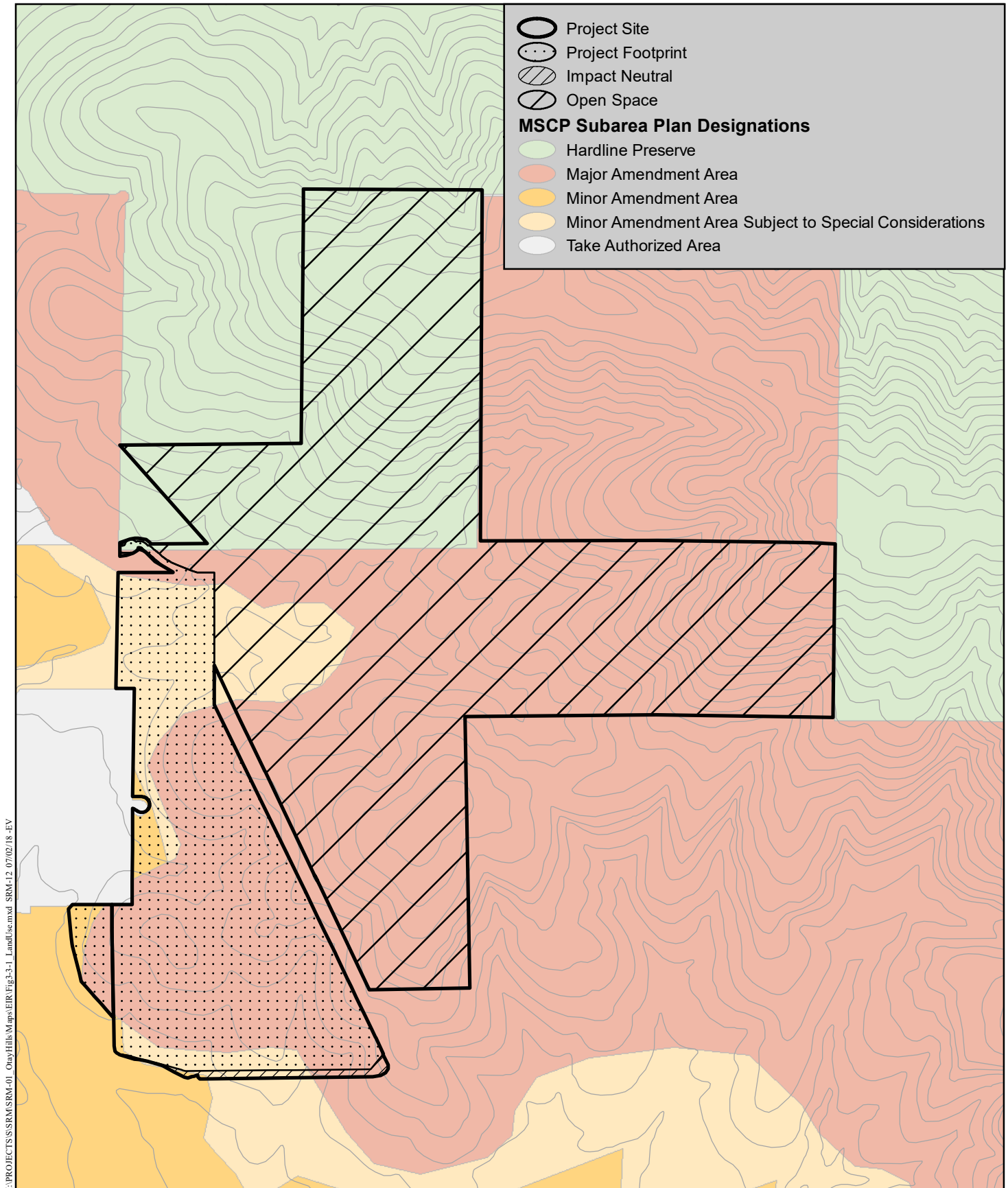
FE = federally listed endangered; FT = federally listed threatened; SSC = state species of special concern; WL = watch list

² Project site consists of Parcels A, B, C and E, as well as west of Parcel A, including the off-site Otay Crossings Commerce Park parcel (Figure 3.3-5b).

³ Designated Critical Habitat occurs within the Project site.

⁴ No burrowing owls were observed during 2012 protocol surveys.

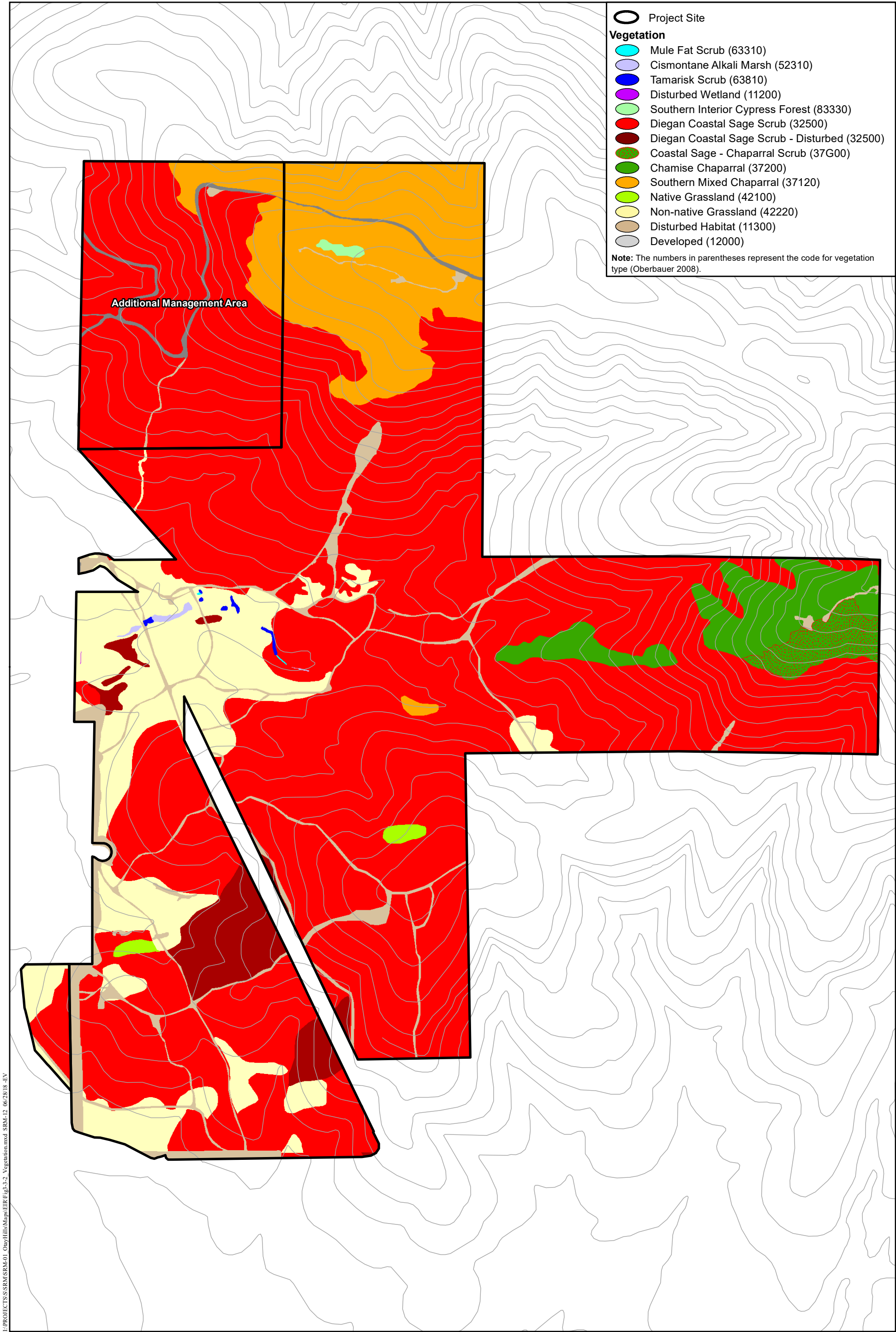
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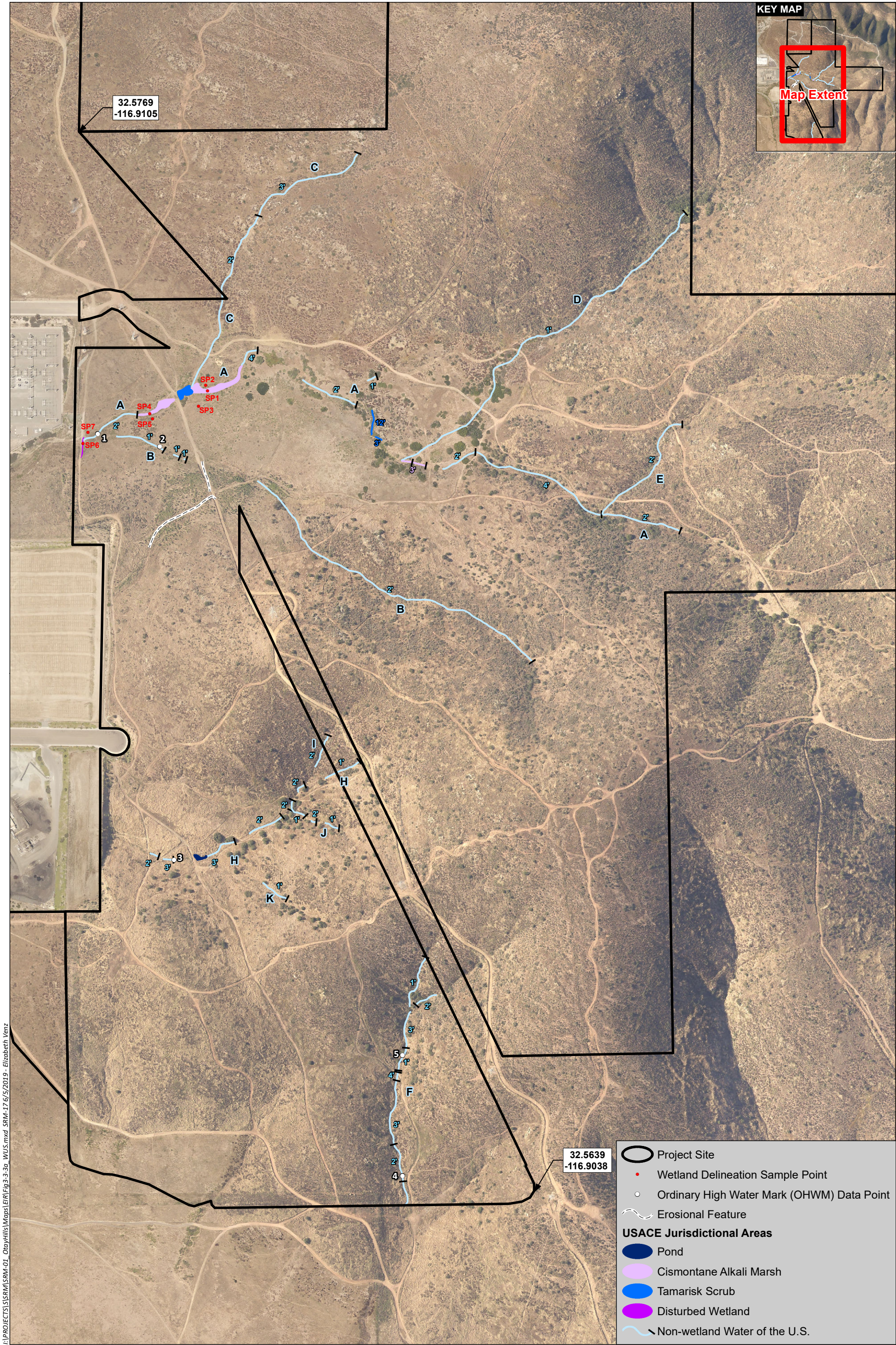
MSCP Subarea Plan Designations

OTAY HILLS EIR

Figure 3.3-1



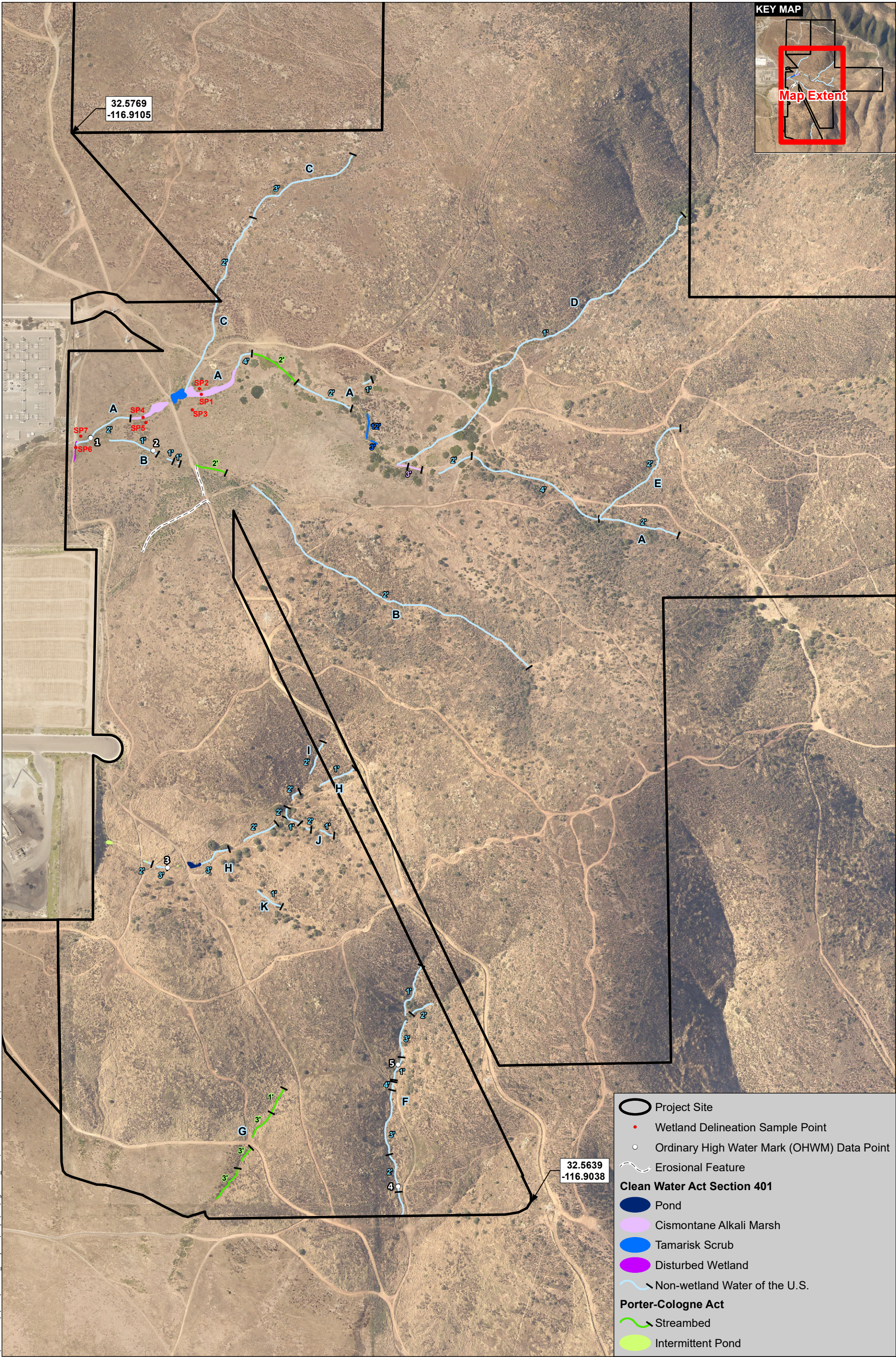
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Corps Jurisdictional Areas

OTAY HILLS EIR

Figure 3.3-3a



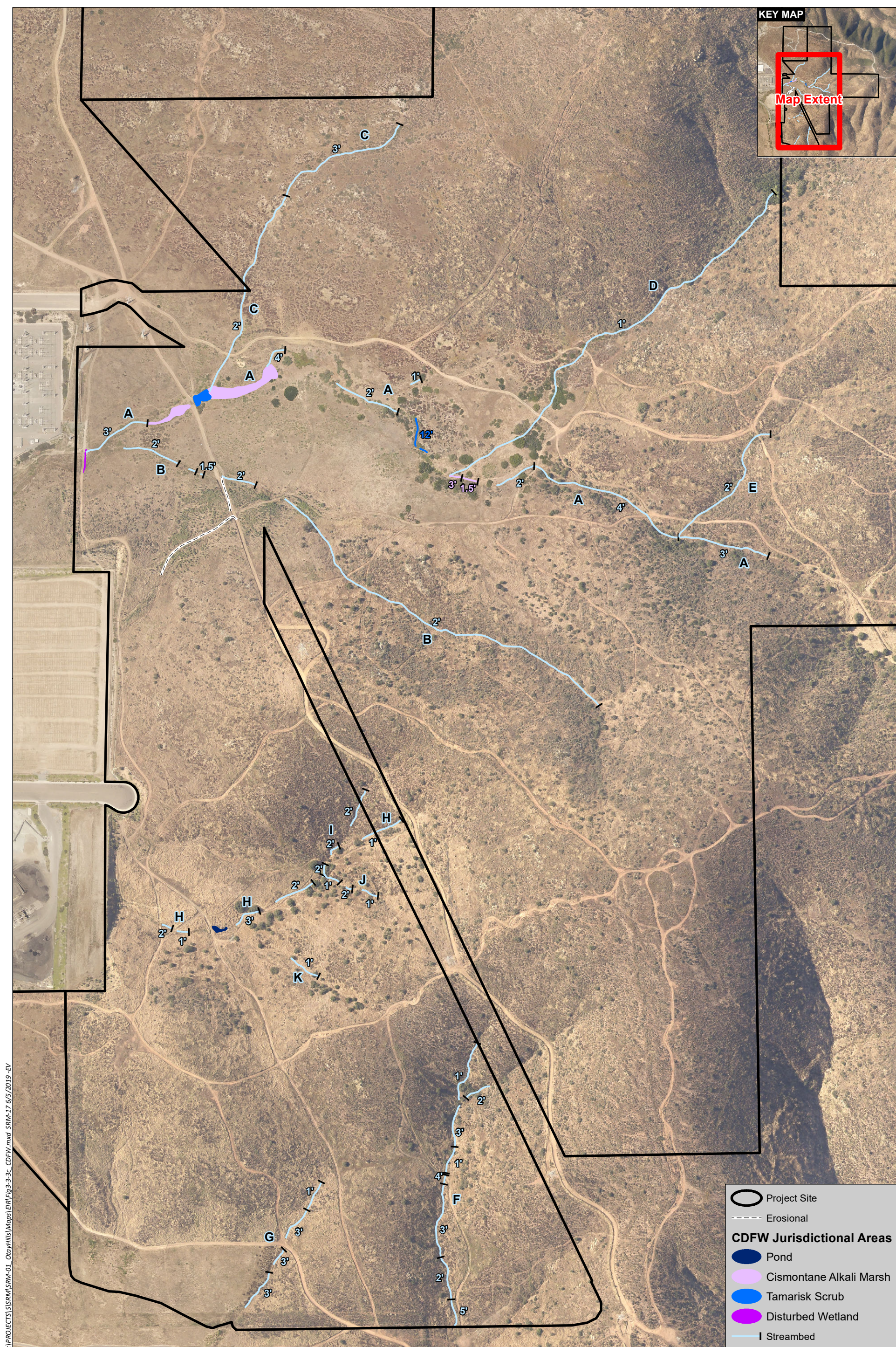
Regional Water Quality Control Board Jurisdictional Areas

OTAY HILLS EIR

Figure 3.3-3b

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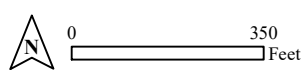
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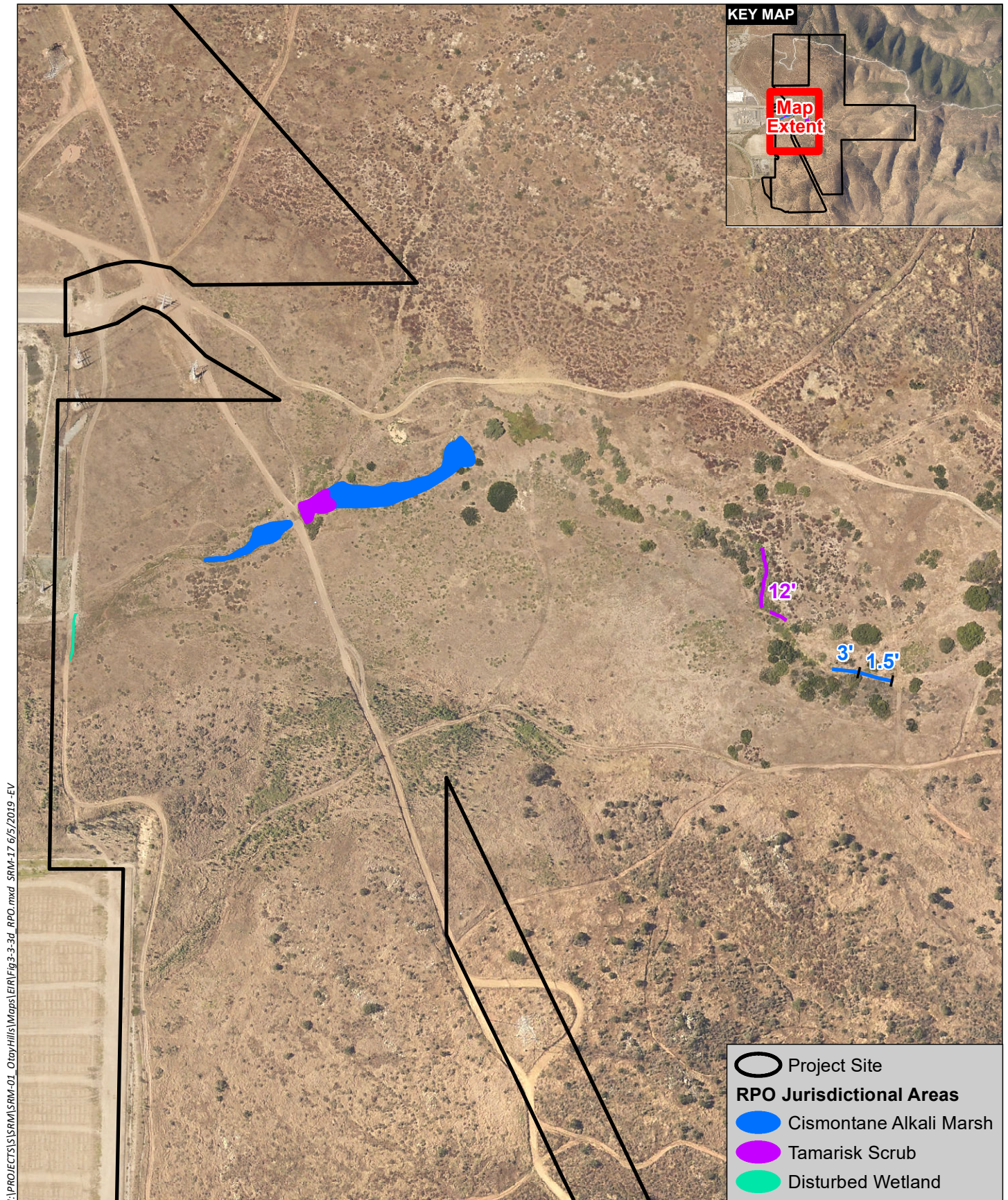


CDFW Jurisdictional Areas

OTAY HILLS EIR

Figure 3.3-3c



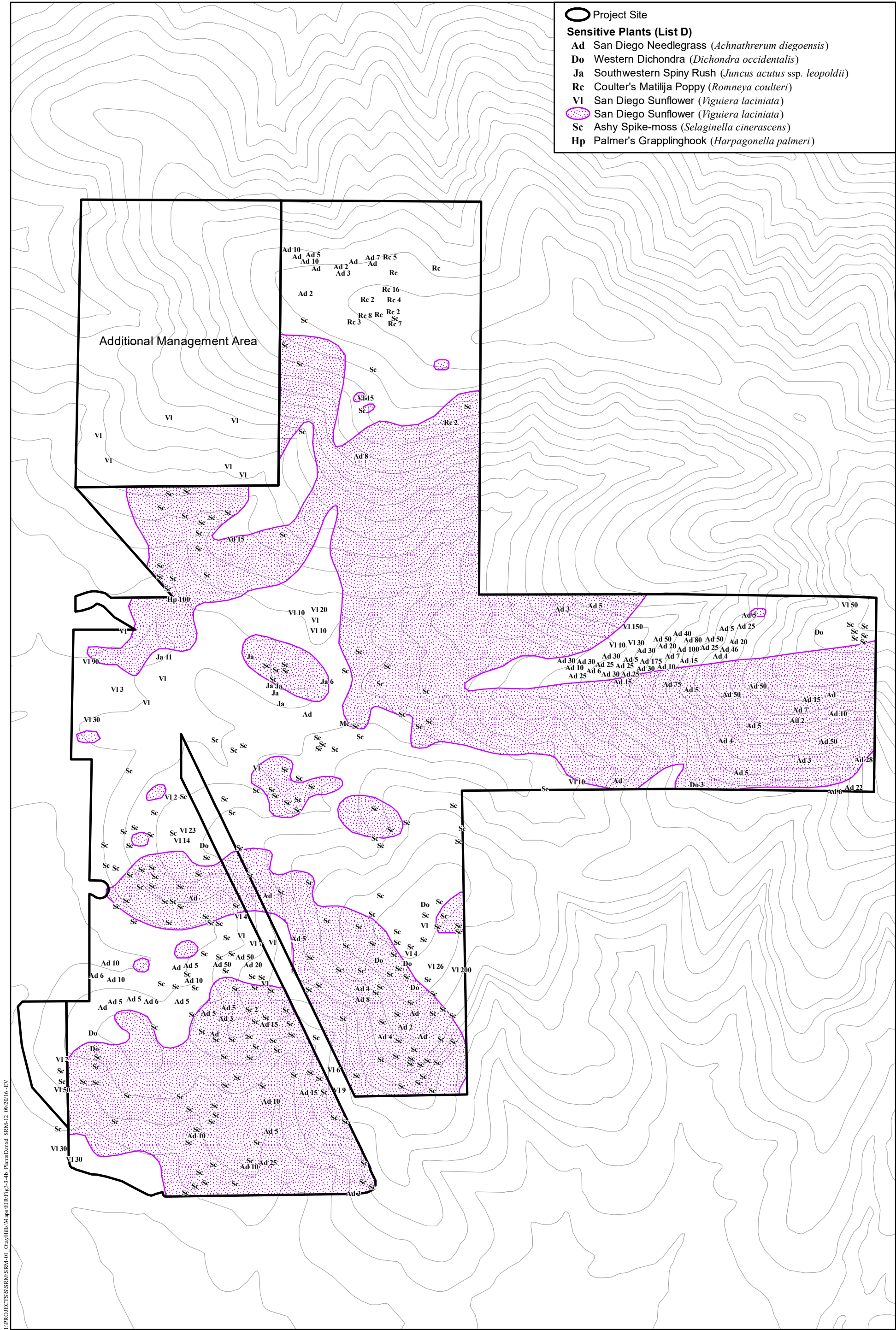


County RPO Wetlands

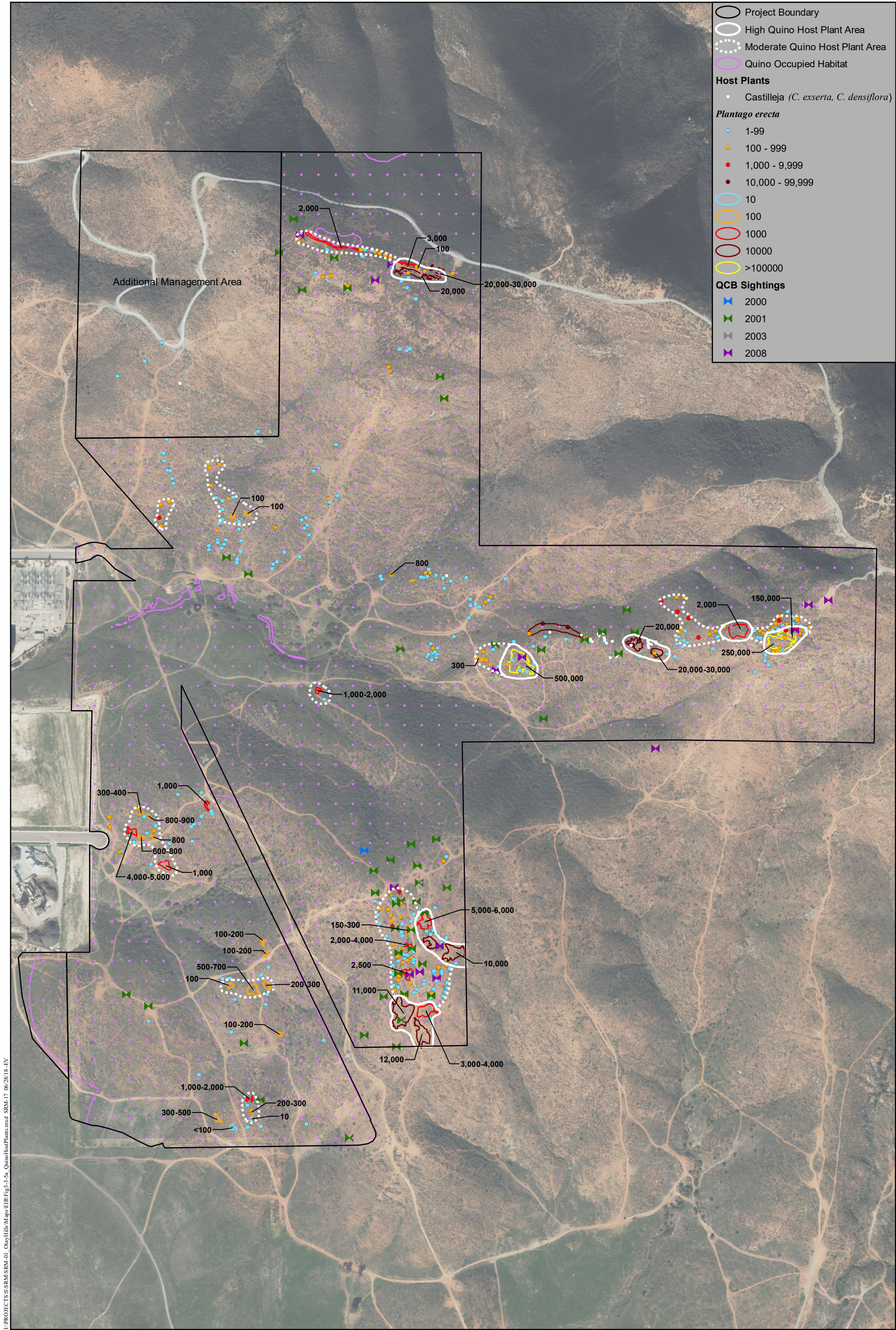
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Figure 3.3-3d





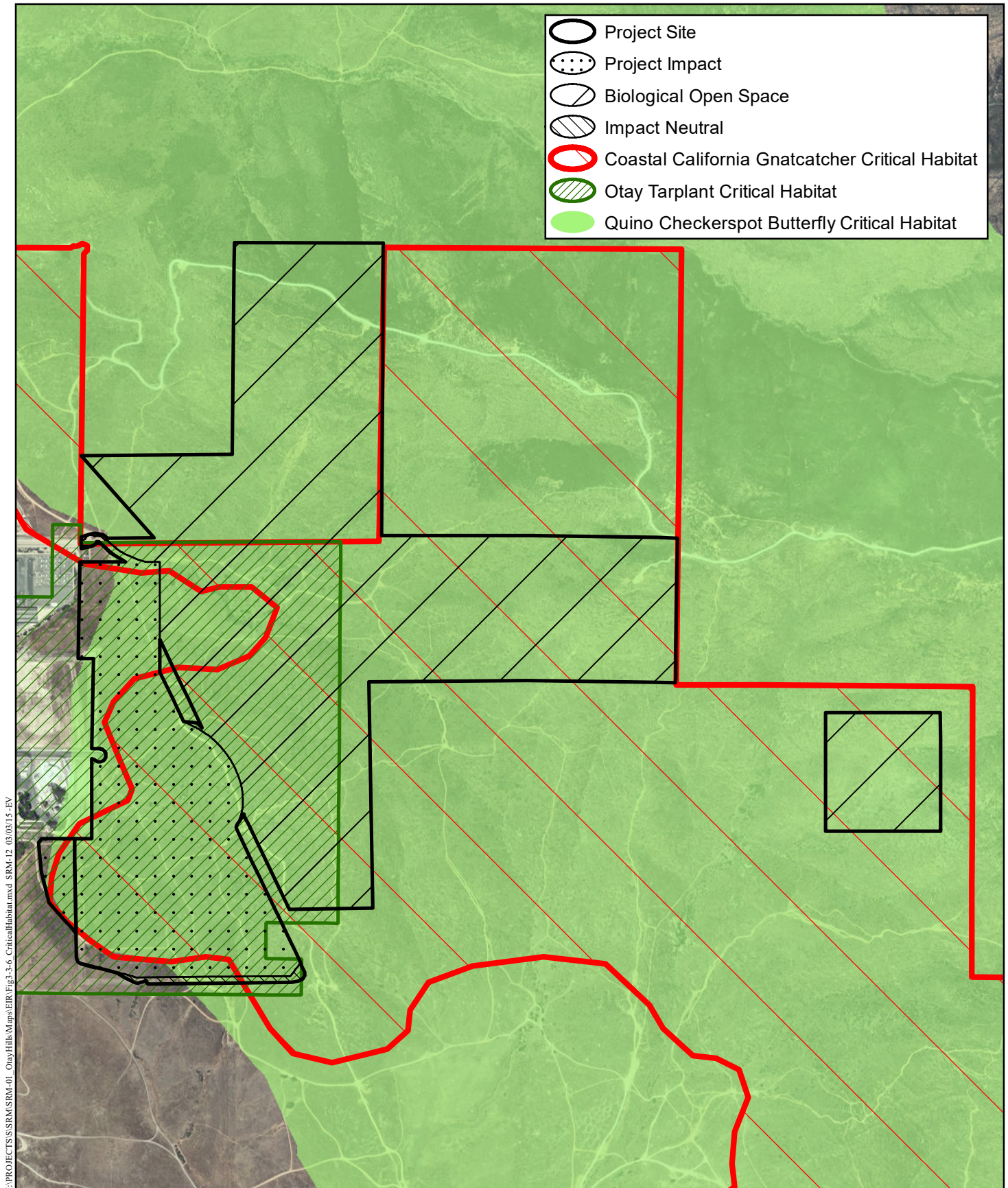
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Quino Checkerspot Butterfly Sightings and Host Plant Locations



OTAY HILLS EIR



Critical Habitat

OTAY HILLS EIR

Figure 3.3-6