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CHAPTER 4 – ENVIRONMENTAL IMPACT ASSESSMENT

4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Measures	Less-Than-Significant Impact	No Impact
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 United States Fish and Wildlife Service?	❒	❒	☑	❒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❒	❒	☑	❒
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?	❒	❒	☑	❒
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?	❒	❒	☑	❒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or 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?	❒	❒	❒	☑

4.4.0 Introduction

The section describes the biological resources in the vicinity of San Diego Gas & Electric Company's (SDG&E) South Bay Substation Relocation Project (Proposed Project), and identifies potential impacts to habitats and species that could result from the construction, operation, and maintenance of the Proposed Project. Additionally, potential impacts to riparian communities, jurisdictional wetlands and waters, and migratory wildlife corridors are addressed. The SDG&E Subregional Natural Community Conservation Plan (NCCP), Unified Port of San Diego (Port District) Master Plan, Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan, Chula Vista General Plan, and the Bayfront Specific Plan/City of Chula Vista Local Coastal Program (LCP) were also reviewed to confirm that the construction of the Proposed Project would not conflict with the aforementioned plans' goals, objectives, and policies. With the implementation of SDG&E's NCCP and the applicant-proposed measures (APMs) listed in Section 4.4.4 Applicant-Proposed Measures, impacts to biological resources from the Proposed Project would be reduced to a less-than-significant level.

4.4.1 Methodology

Data regarding biological resources for the Proposed Project area were obtained through a literature review of applicable reference materials, a reconnaissance-level general biological survey, and a site-specific wetland delineation conducted in accordance with all pertinent regulatory guidelines, including the United States (U.S.) Army Corps of Engineers (USACE) Wetlands Delineation Manual, the USACE Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, the California Coastal Commission (CCC) Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone, the CCC Statewide Interpretive Guidelines For Wetlands And Other Wet Environmental Sensitive Habitat Areas, the City of Chula Vista LCP, and the City of Chula Vista MSCP Subarea Plan.

Literature Review

Preliminary investigations included study of aerial photographs, U.S. Geological Survey (USGS) topographic maps, National Wetland Inventory (NWI) maps, and literature and database searches. Other sources of information included the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, and San Diego County Bird Atlas. In addition, any existing reports, maps, and data sheets that had been prepared previously for the Proposed Project were reviewed.

All planning documents that are relevant to the Proposed Project area, which include five San Diego County plans—the San Diego County MSCP, Chula Vista MSCP, Port District Master Plan, Chula Vista General Plan, and City of Chula Vista LCP—were reviewed. Environmental documents, including the Draft Environmental Impact Report for the Chula Vista Bayfront Master Plan, the SDG&E Otay Mesa Power Purchase Agreement Transmission Project Final Environmental Impact Report, and the SDG&E Silvergate Transmission Substation Project Draft Environmental Impact Report were also reviewed.

A search of the California Natural Diversity Database (CNDDB), maintained by the California Department of Fish and Game (CDFG), was conducted for all USGS quadrangle maps that lie within five miles of the Proposed Project area, including Point Loma, National City, Imperial

Beach, and Imperial Beach OEW. The results of this search within one mile of the Proposed Project area are depicted in Figure 4.4-1: CNDDB Occurrences Map.

Prior to conducting the field survey, target lists were prepared of special-status plants and animals with the potential to occur in the Proposed Project area. The Carlsbad office of the U.S. Fish and Wildlife Service (USFWS) also provided a list of threatened and endangered species known to occur near or within the Proposed Project area. This list is included in Attachment 4.4-A: USFWS Species Lists.

Determination of the potential occurrence for listed, sensitive, or noteworthy species was based upon known ranges and habitat preferences for the species, species occurrence records from the CNDDB, and species occurrence records from other sites in the vicinity of the survey area.

General Biological Surveys

Insignia Environmental biologists Jeffry Coward and Lauren Brudney conducted a reconnaissance-level biological survey of the entire Proposed Project area on March 9, 2010. Their survey included a total of approximately 96.8 acres that included all Proposed Project components, as depicted in Figure 4.4-2: Vegetation Communities Map. Project components surveyed include an approximately 12.4-acre Bay Boulevard Substation site, an approximately 7.3-acre existing South Bay Substation parcel, and all unpaved access roads and locations of proposed new access roads to the substation site. In addition, the existing easement for the proposed 69 kilovolt (kV) transmission line relocation, 230 kV loop-in, and the 138 kV extension were surveyed, including pole locations, work areas, fly yard, pull sites, staging areas, and existing and proposed access roads.

The surveyors documented the dominant plant communities and potential habitat for wildlife species. They also documented plant and animal species observed directly or detected from calls, tracks, scat, nests, or other signs. The wildlife surveys were performed during the day; therefore, nocturnal animals were identified by evidence that was apparent at the time of the surveys. Plant species that could not be identified in the field were identified later using taxonomic keys. The potential for sensitive plant and animal species, determined by the presence of diagnostic habitat elements, was documented.

Delineation of Jurisdictional Waters

A delineation of the Proposed Project area was conducted to identify any jurisdictional waters regulated under the federal Clean Water Act (CWA), California Porter-Cologne Water Quality Control Act, California Fish and Game Code Sections 1600 through 1606, the California Coastal Act, the City of Chula Vista LCP and the City of Chula Vista Wetlands Protection Program. A complete delineation of jurisdictional waters was conducted of the Proposed Project area, which included the proposed Bay Boulevard Substation site, transmission line corridor, and associated work areas. The results of the wetland delineation can be found in Attachment 4.4-B: Preliminary Wetland Delineation Report.

Merkel & Associates and Insignia Environmental wetland biologists performed the field investigation for the delineation and reconnaissance survey from March 8 through March 11 and May 3 through 5, 2010. The delineation was conducted in accordance with the USACE 1987

Wetland Delineation Manual and the Interim Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region. Wetlands were identified by observing the presence of wetland parameters—hydrophytic vegetation, wetland hydrology, and hydric soils. As applicable, a "three-parameter" approach was used to identify areas of potential USACE jurisdiction and a "single-parameter" approach was used to identify areas of potential CCC jurisdiction. These three parameters and other relevant factors, including connectivity with navigable waters, were utilized, as applicable, to determine the agencies that have jurisdiction over each wetland area. Non-wetland waters were delineated by identifying the ordinary high water mark (OHWM) for the waterbody. Evidence supporting jurisdictional determinations was recorded on wetland field data forms as provided in Attachment 4.4-B: Preliminary Wetland Delineation Report. A submeter-accurate global positioning system unit was used to record the jurisdictional boundaries of the wetlands and waters, and all jurisdictional wetlands and waters were photographed. The results are provided in Attachment 4.4-B: Preliminary Wetland Delineation Report.

4.4.2 Existing Conditions

Regulatory Setting

Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and wildlife that are listed as endangered or threatened by the USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service. The FESA prohibits take of endangered wildlife, where "take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (16 United States Code [U.S.C.] §§ 1532(19), 1538). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging-up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 U.S.C. § 1538(c)).

Under Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed species (including plants) or its critical habitat. Through consultation and the issuance of a Biological Opinion, the USFWS may issue an incidental take statement, allowing take of the species that is incidental to another authorized activity, provided that the action would not jeopardize the continued existence of the species. Section 10 of the FESA provides for issuance of incidental take permits to private parties with the development of a habitat conservation plan (HCP), such as SDG&E's NCCP.

Figure 4.4-1: CNDDB Occurrences Map — **South Bay Substation Relocation Project**

Substation Wall
12.42-Acre Parcel Boundary
SDG&E Easement
Former LNG Site
Existing South Bay Substation
1-Mile Buffer
Plant
Animal
Terrestrial Community

SDGE A Sempra Energy utility
INSIGNIA ENVIRONMENTAL

1:16,000

0 500 1,000 2,000 3,000 4,000 Feet

N W E S

Figure 4.4-1 CNDDB.mxd — *4/25/2010*

Figure 4.4-2: Vegetation Communities Map

South Bay Substation Relocation Project

Substation Wall
12.42-Acre Parcel Boundary
SDG&E Easement

Vegetation Community

- Developed
- Disturbed Coastal Coyote Bush Scrub
- Disturbed Habitat
- Emergent Wetland
- Eucalyptus woodland
- Non-native Grassland
- Ornamental vegetation
- Seasonal Pond

SDGE A Sempra Energy utility
INSIGNIA ENVIRONMENTAL

1:5,000

N W E S

0 200 400 800 1,200 Feet

Z:\GIS\Projects and Data\California\Projects\SDGE_South_Bay\MXDs\PEA\Fig4_4-2 Vegetation Communities.mxd

6/14/2010

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) recognizes international treaties between the U.S. and other countries that have been accorded to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities:

- Falconry
- Raptor propagation
- Scientific collecting
- Special purposes (rehabilitation, education, migratory game bird propagation, and salvage)
- Take of depredating birds, taxidermy, and waterfowl sale and disposal

The regulations governing migratory bird permits can be found in 50 Code of Federal Regulations (CFR) Part 13 (General Permit Procedures) and 50 CFR Part 21 (Migratory Bird Permits).

Clean Water Act

The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredge or fill material into Waters of the U.S. without a permit from the USACE. The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR § 328.3(b)). The U.S. Environmental Protection Agency has veto authority over USACE's administration of the Section 404 program and may override a USACE decision with respect to permitting.

Substantial impacts to Waters of the U.S. may require an Individual Permit. Projects that only minimally affect Waters of the U.S. may meet the conditions of one of the existing Nationwide Permits, provided such permits' other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions. For the Proposed Project, this certification or waiver would need to be issued by the San Diego Regional Water Quality Control Board (RWQCB).

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA. Section 2080 of the Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful projects. State lead agencies are

required to consult with the CDFG to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the CESA and the FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, including fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the CESA and/or the FESA. Fully protected species may not be taken or possessed at any time (Fish and Game Code § 4700).

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (Fish and Game Code §§ 1900–1913) was created with the intent to "preserve, protect, and enhance rare and endangered plants in this State." The NPPA is administered by the CDFG. The Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect them from take.

Fish and Game Code Sections 1600-1606

Sections 1601 through 1606 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration Agreement Application be submitted to the CDFG for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFG reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFG and applicant is a Lake or Streambed Alteration Agreement.

Fish and Game Code Sections 3503, 3503.5, 3513, and 3800

The State of California has incorporated the protection of birds in Sections 3503, 3503.5, 3513, and 3800 of the California Fish and Game Code.

Porter-Cologne Water Quality Act

The intent of the Porter-Cologne Act is to protect water quality and the beneficial uses of water, and applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as "Waters of the State", include isolated waters that are no longer regulated by the USACE. Any person discharging, or proposing to discharge, waste to Waters of the State must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

California Coastal Act

The California Coastal Act was enacted in 1976 to provide long-term protection of the California coastline and the coastal zone. Within the coastal zone, sensitive habitats, agricultural lands, and scenic values are protected through issuance of development permits, either by the CCC or by cities and counties in the coastal zone that have established LCPs with CCC approval. Even after an LCP has been approved, the CCC retains original permit authority over development within certain specified areas, such as tidelands and public trust lands. The CCC also retains appeal authority over certain types of development, including major energy facilities. LCPs specify appropriate location, type, and scale of new or changed land and water uses through a land use plan and implementation measures, such as zoning ordinances consistent with the California Coastal Act. Because some jurisdictions have subdivided their coastal zone jurisdictions, there are 126 separate LCPs. LCPs must include a description of sensitive coastal resources to be protected, a list of significant adverse impacts that could result from development, a map of the area indicating its size and location and appropriate implementing actions.

Chapter 3 of the California Coastal Act contains various policies regarding coastal resources planning and management. These policies constitute the standards by which the adequacy of LCPs and the permissibility of proposed development are determined. The policies contained in Chapter 3 set forth standards for development within coastal wetlands. A complete analysis of policies in the California Coastal Act is included in Table 4.9-2: Local Land Use Plans and Policies Consistency Analysis in Section 4.9 Land Use and Planning. Specifically, Section 30231 of the California Coastal Act states: "The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams." In addition, Section 30233 limits the circumstances under which development within coastal wetlands can occur. Under Section 30233, the filling of wetlands is permissible "where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to (1) New or expanded port, energy, and coastal-dependent industrial facilities… (4) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines…" The CCC classifies an area as a wetland if it displays any one of the three wetland parameters—hydrophytic vegetation, wetland hydrology, or hydric soils.

With regard to the greater Chula Vista Bayfront—where the Proposed Project is located—Chula Vista and the Port District have certified LCPs[1] applying to different Bayfront areas. Therefore, each entity can approve coastal development permits for the lands covered within their respective LCPs. The land on which the Proposed Project is located is within the City of Chula Vista LCP. Chapter 19.86 of the City of Chula Vista LCP implements California Coastal Act

[1] The Port Master Plan is a certified LCP, per the CCC.

Section 30240, which provides for the protection of environmentally sensitive habitat areas (ESHAs).

Local Regulations

San Diego Unified Port District Port Master Plan

The Port District Master Plan is intended to provide the official planning policies, consistent with a statewide purpose, for the physical development of the tide and submerged lands that have been granted in trust to the Port District. The Port District Master Plan study area includes all of the bay and its vicinity; however, the actual planning area addresses only the 5,480 acres of Port District tidelands. With regard to the greater Chula Vista Bayfront—where the Proposed Project is located—the Port District has jurisdiction; however, the Port District Master Plan does not address policies for this area.

City of Chula Vista General Plan

The City of Chula Vista Vision 2020 General Plan provides a broad framework of policies, objectives, and land use designations to guide the future development of the City of Chula Vista. The city's zoning ordinance further refines the general plan and provides additional detail pertaining to allowed and conditional uses and specific development standards for the various zoning districts. The Bayfront Master Plan and City of Chula Vista LCP further guide the development of land use, infrastructure, and water resources in the coastal zone. The City of Chula Vista Vision 2020 General Plan, zoning ordinance, Bayfront Master Plan, and City of Chula Vista LCP apply to the Proposed Project. Because the Proposed Project is located within the City of Chula Vista's LCP, the City has been delegated the authority to issue a coastal development permit for the Proposed Project.

The California Government Code requires general plans to include conservation, open space, noise, and safety elements. The conservation element of the plan should address both conservation and biological resources for a city. The conservation vision for the City of Chula Vista is to "preserve and enhance the unique features that give Chula Vista its character and identity, while at the same time improving our community and meeting opportunities and challenges that lie ahead." To address this vision, the City of Chula Vista adopted the City of Chula Vista MSCP Subarea Plan as part of their General Plan in May 2003. The Subarea Plan is the policy document through which the San Diego County MSCP Subregional Plan is implemented within the City of Chula Vista's jurisdiction.

City of Chula Vista Local Coastal Program

Chapter 19.86 of the City of Chula Vista LCP implements California Coastal Act Section 30240, which provides for the protection of ESHAs. Section 19.86.002 of the City of Chula Vista LCP acknowledges that with the acquisition of major wetlands and related sensitive habitat areas within the Chula Vista Bayfront area and the Sweetwater Marsh National Wildlife Refuge, "the focus of [the City of Chula Vista LCP] is reducing and mitigating impacts *on the refuge* from new development within the Bayfront" (emphasis added). Thus, the focus of wetlands regulation under the City of Chula Vista LCP is protecting the Sweetwater Marsh National Wildlife Refuge from impacts associated with new development.

The City of Chula Vista LCP contains detailed mitigation and biological resources management requirements that apply within areas delineated within the Midbayfront Subarea. These requirements do not apply within the Proposed Project site. The City of Chula Vista LCP notes, however, that sensitive habitats may exist in areas that have not been delineated, and requires that environmental professionals analyze all environmental resources. The City of Chula Vista LCP further requires that an environmental management plan be adopted prior to development, to protect any sensitive habitats that may exist.

The City of Chula Vista LCP limits the diking, dredging, or filling of wetland areas within the Midbayfront Subarea and the Inland Parcel Subarea, and does not permit any other diking, dredging or filling of wetlands or other wet ESHAs without prior CCC approval through the LCP amendment process. The wetland resources identified within the Proposed Project site do not constitute "wetlands or other wet environmentally sensitive habitat areas" within the meaning of the City of Chula Vista LCP or California Coastal Act, such that an amendment to the LCP is triggered. SDG&E will work with the City and Coastal Commission to verify this conclusion.

Chula Vista Multiple Species Conservation Program

The MSCP is a subregional plan under the California NCCP Act of 1991 that was developed to address the needs of multiple species and ensure the preservation of natural vegetation communities in San Diego County. The plan was prepared for the subregion, which includes 12 jurisdictions and approximately 580,000 acres. It is implemented through local Subarea Plans. The City of Chula Vista adopted their Subarea Plan as part of their general plan in May 2003. The plan was prepared pursuant to the general outline developed by USFWS and CDFG to meet the requirements of the NCCP. The Chula Vista MSCP forms the basis for a federal 10(a)(1)(B) permit and state 2835 permit. In addition, an Implementing Agreement (IA)—an agreement between the city and wildlife agencies that ensures the implementation of the plan—would be completed based upon the Subarea Plan. The Subarea Plan and its associated IA establish the conditions under which the City of Chula Vista would receive a long-term Take Authorization from the wildlife agencies. Any project that is approved by the City of Chula Vista must be in conformance with their Subarea Plan. In the event of conflict, the provisions of the Chula Vista Subarea Plan supersede those of the overall MSCP Subregional Plan. However, the plan does not apply to lands under the jurisdiction of the Port District.

A total of 86 sensitive species are considered to be adequately conserved under the Chula Vista Subarea MSCP. The Subarea Plan identifies lands that would conserve habitat for species covered by the MSCP. The plan also designates preserves and provides the regulatory framework for determining impacts to the preserve and sensitive habitats, as well as identifying mitigation to reduce these impacts. The Chula Vista Subarea Plan designates four types of areas with differing degrees of permissible development: 100 Percent Conservation Areas, 75-100 Percent Conservation Areas, Development Areas outside of Covered Projects, and Development Areas within Covered Projects. Mitigation requirements for sensitive habitat types and sensitive plant and wildlife species vary depending on the location of the impact and preservation areas and the sensitivity of the habitat. The Proposed Project area is considered a development area outside of covered projects under the City of Chula Vista MSCP Subarea Plan.

Additionally, the City of Chula Vista Wetlands Protection Program (WPP) is incorporated in the City of Chula Vista MSCP Subarea Plan, which is part of the City of Chula Vista General Plan. It provides wetlands protection through project entitlement reviews and the associated California Environmental Quality Act (CEQA) process. This process provides an evaluation of wetlands avoidance and minimization and ensures compensatory mitigation for unavoidable impacts, thereby achieving an overall "no net loss" of wetlands. Impact to wetlands must be avoided or minimized to the maximum extent practicable pursuant to the City of Chula Vista WPP, Section 5.2.4 of the Subarea Plan. Depending on the type of wetland, the City of Chula Vista would apply a wetland mitigation ratio based on habitat type as detailed in Table 5-6 of the Chula Vista Subarea MSCP Plan.

Development projects within the coastal zone—such as the Proposed Project—would be processed under the regulations of the City of Chula Vista's LCP and would also be subject to the Habitat Loss and Incidental Take Ordinance for mitigating potential impacts to upland and wetland habitats by the City of Chula Vista. However, the WPP component of the Subarea Plan is not intended to result in subjecting projects to additive or duplicative mitigation requirements for the same impacts that would be evaluated under the federal or state wetland permitting process. Therefore, the City of Chula Vista would enable a project applicant to substitute the mitigation measures imposed by a federal or state for those imposed by the City of Chula Vista, provided that the federal or state mitigation measures are equivalent or greater than those imposed by the City of Chula Vista.

San Diego Gas & Electric Company Subregional Natural Community Conservation Plan

Under Section 10(a) of the FESA, SDG&E developed this comprehensive multiple species and habitat NCCP to effectively preserve and enhance covered sensitive species and their native habitats during operation, maintenance, and expansion of its electric and natural gas transmission system (16 U.S.C. § 1539). In addition, the NCCP is also a permit issued pursuant to Fish and Game Code Section 2081[2] with an implementation agreement with the CDFG for the management and conservation of multiple species and their associated habitats as established according to the CESA and the state's NCCP Act.

The purpose of the Subregional NCCP is to establish and implement a long-term agreement between SDG&E, USFWS, and the CDFG for the preservation and conservation of sensitive species and their habitat while allowing SDG&E to develop, install, maintain, operate, and repair its facilities necessary to provide energy services to customers living within SDG&E's service area. The NCCP does not cover major expansions of SDG&E's electric system and only covers new electric substations that would result in no more than 20 acres of habitat disturbance.

The NCCP identifies 61 Operational Protocols designed to avoid and minimize potential impacts to sensitive species and their habitats, and to provide appropriate mitigation where such impacts are unavoidable, to ensure survivability and conservation of protected species and their habitat. These 61 protocols, as detailed in Attachment 4.4-C: SDG&E NCCP and Operational Protocols, include provisions for personnel training, pre-activity studies, maintenance, and repair and

[2] Fish and Game Code Sections 2081(b) and (c) allow the CDFG to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met. (*See also* CCR, tit. 14, § 783.4(a),(b).)

construction of facilities, including access roads, survey work, and emergency repairs. SDG&E's NCCP does not exempt projects subject to permits from the CPUC, the CCC, or several other federal and state agencies. Therefore, many projects, including the Proposed Project, will be subject to CEQA review. It is intended that the subsequent environmental reviews use the NCCP to evaluate the impacts to covered species and their habitats. SDG&E's NCCP has also defined habitat enhancement measures, as detailed in Attachment 4.4-C: SDG&E NCCP and Operational Protocols.

Under its NCCP, SDG&E consults with the USFWS and CDFG when impacts to narrow endemic species may occur. As described in the Implementing Agreement for the SDG&E NCCP, the USFWS, CDFG, and SDG&E agree that for absent unforeseen circumstances, the mitigation measures provided in SDG&E's NCCP constitute the only mitigation measures that shall be required for any activity covered by the Plan when the project results in an impact to a covered species or its habitat.

The Proposed Project falls within the area where SDG&E's utility operations are governed by the NCCP. For the Proposed Project, SDG&E has adopted the mitigation measures and Operational Protocols contained in the NCCP, as detailed in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. In addition, SDG&E would implement Project-specific APMs to further minimize potential impacts to ensure the protection and conservation of listed and covered species and their habitats. Project-specific APMs are detailed in Section 4.4.4 Applicant-Proposed Measures. While the Proposed Project is located within areas included in both the City of Chula Vista's General Plan and MSCP Subarea Plan, SDG&E's public utility activities, such as the Proposed Project, are generally not subject to the discretionary regulatory jurisdiction of such local governments; therefore, they are not governed by the terms and conditions of such plans. However, in implementing its NCCP for the Proposed Project, SDG&E would coordinate with the City of Chula Vista and other jurisdictions to achieve consistency to the extent feasible. Where consistency is not feasible, SDG&E's NCCP provides for appropriate protocols and mitigation measures to protect natural community and natural resource values in these conservation-planning areas.

Physical Setting

San Diego County is a biologically diverse region that supports rare and declining native habitats, numerous federally and state-listed plant and animal species, and an increasing amount of federally designated critical habitat for listed species.

The proposed Bay Boulevard Substation site is located adjacent to the Western Salt Works crystallizer ponds, which are located within the southern section of San Diego Bay. The Proposed Project is currently zoned as Industrial. The Proposed Project has been disturbed by previous industrial land uses; as a result, the vegetation communities within the Proposed Project area are highly degraded. The footprint of the Bay Boulevard Substation would occupy approximately 10 acres within a 12.42-acre portion of land to be acquired by SDG&E. The Bay Boulevard Substation site is part of a larger approximately 33-acre parcel presently owned by the Port District, and is located south of the existing South Bay Substation and west of Interstate 5. The approximately 33-acre parcel is the site of a former liquefied natural gas (LNG) plant. The foundations of the aboveground storage tanks still exist at this location. A containment berm and

basin was installed around the former LNG site storage tanks and continues to serve as a containment basin to protect water quality. Approximately 9.5 acres of the 33-acre parcel are within an existing SDG&E utility easement. The H & Bay Yard would be used for off-site storage of materials and was not included in the survey area, as it is an existing developed staging yard. Additionally, the fly yard associated with the Proposed Project was not included in the survey area, as it is an existing developed area.

The elevations for the Proposed Project area range from approximately 10 feet to 23 feet above mean sea level (MSL), with the lower elevations in the southwest corner of the former LNG bermed containment area, and the higher elevations at the top of the containment berm. The average elevation along the west side of the Proposed Project area is approximately 14 feet above MSL. Rainfall records from the nearest climatological station (Chula Vista) to the Proposed Project area show an average annual rainfall of 9.1 inches, with a minimum of 0.9 inches and a maximum of 16.1 inches.

A wide range of marine and biological resources exist in the vicinity of the Proposed Project area, primarily due to the San Diego Bay and the approximately 4,000-acre San Diego Bay National Wildlife Refuge (SDBNWR). The SDBNWR is a series of small National Wildlife Refuges (NWRs) that includes the South Bay NWR, Tijuana Slough NWR, Seal Beach NWR, and Sweetwater Marsh NWR. The SDBNWR protects mudflats, salt marshes, and eelgrass beds, which can provide attractive breeding habitat for a wide range of species. Additionally, the SDBNWR is located in the Pacific Flyway and provides suitable foraging habitat for many resident and migratory avian species.

Vegetation Communities and Sensitive Habitats

Eight vegetation communities—seasonal pond, emergent wetland, non-native grassland, disturbed coastal coyote bush scrub, eucalyptus woodland, ornamental vegetation, disturbed habitat, and developed land—occur within the Proposed Project area. Maps depicting the different vegetation communities in relation to the Proposed Project location are provided in Figure 4.4-2: Vegetation Communities Map. Plant community descriptions are characterized according to R.F. Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California, CDFG's Guide to Wildlife Habitats in California and California Wildlife Habitat Relationship System, and James Lightner's San Diego County Native Plants. Developed land is also present within the Proposed Project area.

Vegetation in an area is a prime factor in determining the suitability of a site for use by certain wildlife species and the occurrence of certain plant species. A description of each plant community, associated and observed wildlife species, and location of each community within the Proposed Project area follows.

Seasonal Ponds

Seasonal ponds are shallow depressions in the ground that contain standing water for all or usually, part of the year. The amount and duration of standing water varies among ponds and strongly influences the plant and animal associations present. Seasonal ponds are typically seasonally saturated due to heavy rains, shallow groundwater, and flat topography. Because the

ponds usually contain standing water for only part of the year, they are unable to support fish and, therefore, provide an ideal, predator-free, breeding habitat for many amphibian species.

Shallow depressions that appear to be seasonal ponds occur in various areas of the Proposed Project site. These seasonal ponds are likely associated with rainwater and/or the impoundment of water within bermed areas artificially lined with clay for potential contamination containment purposes. The seasonal ponds located at the Proposed Project site are wetland features. Four of the seasonal ponds are located within the detention basin in the Proposed Project area, and approximately 12 are located outside of this area. These four seasonal ponds are present due to the surrounding berm and the clay lining of the detention basin. The dominant plant species in the majority of these depressions is a non-native forb, grass poly (*Lythrum hysoppifolia*). Other hydrophytic plant species found in several of these seasonal ponds include alkali weed (*Cressa truxillensis*), saltmarsh sand-spurry (*Spergularia salina*) and curly dock (*Rumex crispus*). The depressions south of the bermed area also included species, such as hairy clover fern (*Marsilea vestita* ssp. *Vestita*), and spike rush (*Eleocharis* sp.). Within the bermed area, hydrophytic shrub species—mule fat (*Baccharis salicifolia*) and small-flower tamarisk (*Tamarix parviflora*)—were present in the area surrounding the ponded water. The seasonal pond features in the Proposed Project area are disturbed, are vegetated with many non-native plant species, and have relatively low biological productivity. A map depicting the seasonal ponds within the Proposed Project area is provided Figure 4.4-3: Hydrological Features Map.

Emergent Wetland

Typical freshwater emergent wetlands are characterized by erect water-loving plant species. Dominant vegetation is generally comprised of sparse year-round marsh plants up to six feet tall. All emergent wetlands are flooded frequently enough to support an anaerobic soil environment in which the roots of the associated plant species prosper. On the upper margins of the emergent wetlands, saturated or periodically flooded soils typically support hydrophytic plant species, including big leaf sedge (*Carex amplifolia*), baltic rush (*Juncus balticus*), and redroot nutgrass (*Cyperus erythrorhizos*). On more saturated sites, common cattail (*Typha latifolia*) and tule bulrush (*Schoenoplectus californicus*) are potential dominant species.

Emergent wetlands can be among the most productive wildlife habitats in California. They can provide food, cover, and water for more than 160 avian species and numerous mammals, reptiles, and amphibians. However, in the case of the on-site emergent wetlands, productivity and species diversity is relatively low.

Within the Proposed Project area, emergent wetland occurs in only one location—a man-made drainage ditch that parallels Bay Boulevard along the eastern Proposed Project boundary. This wetland is dominated by non-native hydrophytic species. Plant species observed within and around this wetland included dallis grass (*Paspalum dilatatum*), bermuda grass (*Cynodon dactylon*), and curly dock. In addition, some patches of the native Dombey's spike-rush (*Eleocharis montevidensis*) were observed in the drainage. The emergent wetland habitat within the Proposed Project area is disturbed, and productivity and species diversity is relatively low. A map depicting the area of emergent wetlands within the Proposed Project area are provided Figure 4.4-3: Hydrological Features Map.

Non-Native Grassland

Typical non-native grassland areas may have supported native grassland or other plant communities in the past, but they have been invaded by exotic annuals. The flora of non-native grasslands include a dense to sparse cover of introduced annual grasses, which may include numerous species of showy-flowered, non-native and native wildflowers. Typically, non-native grassland includes at least 50-percent cover of the entire herbaceous layer attributable to annual non-native grass species, although other plant species (native and non-native) may be intermixed. These annuals germinate with the onset of the rainy season and set seed in late winter or spring. Non-native grasslands are often associated with deep, fine-textured soils that contain some clay content.

Typical non-native grassland wildlife species include the mourning dove (*Zenaida macroura*), western meadowlark (*Sturnella neglecta*), and red-tailed hawk (*Buteo jamaicensis*).

At the Proposed Project site, non-native grassland occurs within the southern section of the Proposed Project area, within areas previously disturbed by grading and clearing activities. This vegetation is low-growing and dominated by species such as bermuda grass and barley (*Hordeum* spp.). A high composition of herbaceous species, including black mustard (*Brassica nigra*), white-stemmed filaree (*Erodium brachycarpum*), garland daisy (*Glebionis coronaria*), and peppergrass (*Lepidium* spp.), were intermixed with these grasses. Coyote bush (*Baccharis pilularis* ssp. *consanguinea*) was also observed in some areas of non-native grassland.

Disturbed Coastal Coyote Bush Scrub

A typical coastal scrub community is dominated by small- to medium-sized (three to six feet tall) shrubs with a lower level of shorter grasses and annual plant species. Both the density and the composition of the shrub cover vary from site to site as does the herbaceous understory. In some locations, the shrubs can form a dense almost impenetrable plant cover with a sparse amount of vegetation beneath, while in other places, the shrub canopy is much more open and there is a well-developed plant community beneath the shrub layer. These communities are found over an elevation range from near sea level to over 2,000 feet. Most plants of the southern coastal scrub communities are adapted to dry conditions and have a shallow root system. Growth in these communities occurs in the winter and spring when moisture is available. In summer months when soils dry out, the dominant plants lose some or all of their leaves and terminal portions of their stems die back.

Coastal coyote bush scrub is a sub-type of the coastal shrub community. As its name implies, this shrubland community is dominated by coyote bush and is typically composed of a more open shrub canopy. The herbaceous understory is also typically sparse. Coastal coyote bush scrub is usually indicative of disturbed conditions and is often found in moderately moist low-lying settings in Southern California. Other typical species that may be found in the shrub layer at lower cover can include California sagebrush (*Artemisia californica*), bush monkeyflower (*Mimulus aurantiacus*), sages (*Salvia* spp.), bush lupines (*Lupinus* spp.), and California buckwheat (*Eriogonum fasciculatum*). The understory is often dominated by non-native species, such as filaree (*Erodium* spp.) and canarygrass (*Bromus* spp.), and native species such as rushes (*Juncus* spp.) and deer grass (*Muhlenbergia rigens*).

Figure 4.4-3: Hydrological Features Map 1 of 3 South Bay Substation Relocation Project

Potential Jurisdictional Resources

- City of Chula Vista
- CDFG
- CDFG and City of Chula Vista
- RWQCB and City of Chula Vista
- RWQCB
- RWQCB and CDFG
- USACE, RWQCB, and CDFG
- USACE, RWQCB, CDFG and City of Chula Vista
- Exempt from All Wetland Regulation

Note: All wetlands and waters other than those classified as CDFG and Exempt from All Wetland Regulation are also under the jurisdiction of the California Coastal Commission (CCC).

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Figure 4.4-3: Hydrological Features Map 2 of 3 South Bay Substation Relocation Project

Potential Jurisdictional Resources

- City of Chula Vista
- CDFG
- CDFG and City of Chula Vista
- RWQCB and City of Chula Vista
- RWQCB
- RWQCB and CDFG
- USACE, RWQCB, and CDFG
- USACE, RWQCB, CDFG and City of Chula Vista
- Exempt from All Wetland Regulation

Note: All wetlands and waters other than those classified as CDFG and Exempt from All Wetland Regulation are also under the jurisdiction of the California Coastal Commission (CCC).

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Figure 4.4-3: Hydrological Features Map 3 of 3 South Bay Substation Relocation Project

Potential Jurisdictional Resources

- City of Chula Vista
- CDFG
- CDFG and City of Chula Vista
- RWQCB and City of Chula Vista
- RWQCB
- RWQCB and CDFG
- USACE, RWQCB, and CDFG
- USACE, RWQCB, CDFG and City of Chula Vista
- Exempt from All Wetland Regulation

Note: All wetlands and waters other than those classified as CDFG and Exempt from All Wetland Regulation are also under the jurisdiction of the California Coastal Commission (CCC).

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Wildlife species most often associated with coastal coyote bush scrub include such species as the California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), California thrasher (*Toxostoma redivivum*), and western scrub-jay (*Aphelocoma californica*). Scrub habitats also provide cover and forage for mammal species, including California ground squirrel (*Spermophilus beecheyi*) and desert cottontail rabbit (*Sylvilagus audubonii*). Side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*) are also commonly found in these habitats.

At the Proposed Project site, disturbed coastal coyote bush scrub occurs within the southern section of the Proposed Project area, within areas previously impacted by grading and clearing activities. The coyote bush scrub community within the Proposed Project area contains a large number of non-native and ornamental plants, including crystalline ice plant (*Mesembryanthemum crystallinum*), slender-leaved ice plant (*Mesembryanthemum nodiflorum*), bank catclaw (*Acacia redolens*), acacia cyclops (*Acacia cyclops*), small-flower tamarisk, and tree tobacco (*Nicotiana glauca*).

Eucalyptus Woodland

Typical eucalyptus Woodlands are dominated by several species of eucalyptus (*Eucalyptus* spp.). Eucalyptus trees are not native to California and are considered invasive species because of their rapid growth rate and broad cover. These trees were often planted as a windbreak and for aesthetic and horticultural purposes around houses and other developed areas. Many eucalyptus species, however, have become naturalized and have invaded the natural riparian areas. The understory within well-established groves of eucalyptus is usually very sparse due to the closed canopy and the allelopathic[3] nature of the leaf litter.

As a wildlife habitat, these woodlands provide nesting sites for a variety of raptors. During winter migrations, a large variety of warblers may be found feeding on the insects that are attracted to the eucalyptus flowers. The sparse understory; however, offers very limited wildlife habitat.

In the Proposed Project area, eucalyptus woodlands occur in two small patches and are primarily associated with disturbed and developed habitat. These areas are dominated by several species of eucalyptus, including blue gum (*Eucalyptus globules*). In the Proposed Project area, these trees were likely planted as a windbreak and for aesthetic purposes around developed areas.

Ornamental Vegetation

Ornamental vegetation typically consists of non-native plants that are planted for groundcover or as a windbreak. Wildlife species that are typically associated with ornamental species include Anna's hummingbird (*Calypte anna*), ruby-throated hummingbird (*Archilochus colubris*), house finch (*Carpodacua mexicanus frontalis*), and American goldfinch (*Spinus tristis*).

[3] Allelopathy is a biological phenomenon that is characteristic of some plants. An allelopathic plant produces certain biochemicals that influence the growth and development of other organisms. The biochemicals, called allelochemicals, can have a beneficial or detrimental effect on neighboring organisms.

At the Proposed Project site, ornamental vegetation occurs intermittently along the eastern edge of the Proposed Project area. This vegetation is dominated by species such as peppertree (*Schinus* spp.), acacia (*Acacia* spp.), common olive (*Olea europaea*), and oleander (*Nerium oleander*).

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads) or lands containing a preponderance of non-native plant species. This type of habitat can also include areas that are mowed or landscaped regularly and, thus, preclude the development of native vegetation communities.

Wildlife species typically found in disturbed habitats include common raven (*Corvus corax*), European starling (*Sturnus vulgaris*), house finch, house sparrow (*Passer domesticus*), northern mockingbird (*Mimus polyglottos*), and rock dove (*Columbia livia*).

Disturbed habitat was observed throughout the majority of the northern section of the Proposed Project area. Disturbed habitat includes all areas within the Proposed Project area or in the immediate Proposed Project vicinity that have been previously disturbed and have not returned to native habitat. This includes herbaceous annuals and grasses, such as black mustard, white-stemmed filaree, and castor bean (*Ricinus communis*).

Developed Land

Developed land includes areas where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is cleared, tended, and maintained. Developed land occurs in portions of the Proposed Project area. Developed land within the Proposed Project area includes areas such as the H & Bay Yard, existing South Bay Substation, and existing access roads.

General Biological Survey Results

Seven vegetation communities—seasonal pond, emergent wetland, non-native grassland, disturbed coastal coyote bush scrub, eucalyptus woodland, ornamental vegetation, and disturbed habitat—as described previously, occur within the Proposed Project area. Seasonal ponds, emergent wetland, non-native grassland, and disturbed coastal coyote bush scrub, occur within the southern portion of the Proposed Project area. Disturbed habitat occurs within the northern portion of the Proposed Project area. Ornamental vegetation and eucalyptus woodland occur intermittently throughout the Proposed Project area. Additionally, small portions of the Proposed Project area are developed land. Maps depicting the different vegetation communities in relation to the Proposed Project location are provided in Figure 4.4-2: Vegetation Communities Map.

The principal dominant shrub in the Proposed Project area is coyote bush. Bank catclaw, acacia cyclops, small-flower tamarisk, mule fat, and tree tobacco are all moderately locally abundant intermittent with coyote bush. Non-native grasses, including Bermuda grass, barley, and ryegrass are abundant within the Proposed Project area. A full list of plant species observed within the Proposed Project area during the March 2010 field surveys is provided in Attachment

4.4-D: Plant Species Observed. Wildlife species observed in the Proposed Project area during the March 2010 field survey include Anna's hummingbird, white-crowned sparrow, house finch, song sparrow (*Melospiza melodia*), California towhee, red-tailed hawk, European starling, and desert cottontail rabbit. A full list of wildlife species observed within or near the Proposed Project area during the March 2010 field survey is provided in Attachment 4.4-E: Wildlife Species Observed.

During the March 2010 field survey of the Proposed Project area, one songbird nest was found within the ornamental vegetation on the south eastern portion of the Proposed Project area. In addition, an owl pellet was observed below a transmission pole in the southern portion of the Proposed Project area.

Sensitive Vegetation Communities

Sensitive vegetation communities include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or designated by the CDFG and USFWS. Two sensitive natural communities, as defined by the USACE, RWQCB, CCC, and/or the City of Chula Vista, exist in the Proposed Project area—seasonal pond and emergent wetland—and are discussed in the Wetlands and Jurisdictional Waters section. One additional vegetation community, non-native grassland, is considered a Tier III Sensitive Habitat under the City of Chula Vista MSCP Subarea Plan. The Proposed Project was previously used for industrial purposes and is currently zoned as Industrial. The sensitive vegetation communities that exist within the Proposed Project area are highly degraded by previous development and disturbance and are unlikely to support rare plant species. This is supported by findings of the on-site general biological survey, which was conducted in early spring of 2010. Based on the results of the general survey, focused surveys were considered unnecessary.

Environmentally Sensitive Habitat Areas

The CCC protects ESHAs, as per Section 30240 of the California Coastal Act, which states that "…environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas." An ESHA is defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." Chapter 19.86 of the City of Chula Vista LCP implements Section 30240 of the California Coastal Act. The express focus of ESHA protection under the City of Chula Vista LCP is reducing and mitigating impacts on the Sweetwater Marsh National Wildlife Refuge. The City of Chula Vista LCP does not designate the Proposed Project site as an ESHA.

To provide for a conservative assessment of potential biological impacts, the Proposed Project site was studied to assess the potential impacts of the Proposed Project on the Sweetwater Marsh National Wildlife Refuge and the potential presence of any previously undiscovered ESHAs. In order for a particular habitat to qualify as environmentally sensitive per the CCC definition, it must be properly identified; largely undeveloped and otherwise relatively pristine; and part of a large, continuous block of relatively pristine native vegetation. However, for habitats that are rare or support individuals of rare species, it is not necessary to find that they are relatively pristine. The habitats on site were surveyed and accurately mapped by multiple professional

biologists. The site has historically been fully developed for industrial uses, which have been only partially removed from the site. The site itself is predominantly, if not fully, comprised of previously filled lands. All habitats on the site are disturbed and lack the full characteristics of pristine communities. This is due to the fact that the habitats present reflect relatively early stages of vegetation colonization and development on fill soils. As a result, vegetated communities are poorly developed. The site is isolated from contiguous blocks of relatively pristine native vegetation. It has a long history of industrial uses, as does the surrounding land. The site is located approximately 700 feet from the nearest tidal waters, a salt works drainage ditch, and more than 1,100 feet from the shoreline of the San Diego Bay. It is located approximately 2,000 feet from the nearest natural salt marsh habitat at Telegraph Creek marsh to the north, and over 7,000 feet from the nearest native upland habitat within the Otay River to the south.

ESHA designations are often based on the presence of rare habitats or on areas that support populations of rare, sensitive, or especially valuable species or habitats. The CDFG identifies rare habitats in their List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database (CDFG 2003). The site does not support habitats considered to be rare.

Rare species are defined as those that are listed under the CESA or FESA, those that are on Lists 1 or 2 of the CNPS, and those for which there is other compelling evidence of rarity such as published academic studies. The site is not known to support any species meeting the state definition of "rare" species. While a burrowing owl was reported on the site during the prior biological investigations, it was not observed during the March 2010 survey and is believed to have been a wintering migrant. California horned lark (*Eremophilia alpestris*), which is a California Species of Special Concern, was observed on site during the March 2010 survey. However, this species does not meet the definition of a rare species. No rare plants were found on site.

No portions of the study area were determined to be ESHAs. Factors contributing to this determination include the high degree of site disturbance, the lack of sensitive habitat types, the isolation of the habitat from other areas, and the lack of rare species or suitable habitat to support rare species.

Special-Status Species

Based on habitat suitability and CNDDB search results of all surrounding quadrangle maps, several special-status species, as described in the following subsections, have the potential to occur in the Proposed Project area. CNDDB occurrences within one mile of the Proposed Project area are depicted on the maps in Figure 4.4-1: CNDDB Occurrences Map.

Sensitive Plants

Special-status plant species include those species listed by the USFWS and CDFG as endangered, threatened, proposed, or candidate species, and those listed as sensitive or rare. In addition, sensitive plant species include those occurring on the CNPS Inventory of Rare and Endangered Vascular Plants of California (2001). Special-status plant species with the potential

to occur in the Proposed Project area appear in Table 4.4-1: Sensitive Plant Species with the Potential to Occur.

A total of 50 special-status plant species were originally identified as having potential to occur within the Proposed Project area. Of these, 41 sensitive species have a low potential to occur within the Proposed Project area. In addition, nine sensitive plant species were determined to have no potential to occur within the Proposed Project area. No special-status plant species were observed at the time of the March 2010 survey.

Sensitive Wildlife Species

Special-status wildlife species include those species listed by the USFWS or CDFG as endangered, threatened, proposed, those listed by CDFG as Fully Protected or Species of Special Concern, and those listed as regionally sensitive in SDG&E's NCCP. Potential special-status wildlife species are listed in Table 4.4-2: Sensitive Wildlife Species with the Potential to Occur. CNDDB occurrences within one mile of the Proposed Project area are depicted on maps in Figure 4.4-1: CNDDB Occurrences Map. The 41 special-status wildlife species with the potential to occur in the Proposed Project area include:

- 1 avian sensitive species that was present;
- 4 avian sensitive species, 1 reptilian species, and 2 mammalian species with a moderate potential to occur; and
- 1 amphibian, 5 reptilian, 2 invertebrate, 12 avian, and 4 mammalian sensitive species with a low potential to occur.

In addition, one invertebrate, five avian, and three mammalian species were determined to have no potential to occur within the Proposed Project area. Species known to occur and species with a moderate potential to occur within the Proposed Project area are discussed in detail as follows. Only one sensitive wildlife species—California horned lark (*Eremophilia alpestris*)—was observed at the time of the March 2010 survey.

Two-striped Garter Snake

The two-striped garter snake (*Thamnophus hammondii*) is distributed from central California to as far south as Baja California. In Southern California, the two-striped garter snake is cismontane and is found from the coast to the foothills and mountains. This is probably the most common snake in Southern California.

This snake is most frequently encountered in or near water such as streams, ponds, and lakes throughout their range. They can often be found in temporary bodies of water, such as vernal pools. Two-striped garter snake was not observed during the March 2010 field survey and there are no CNDDB records that document occurrences within one mile of the Proposed Project area. However, the Proposed Project area has numerous small water sources; therefore, suitable habitat for the two-striped garter snake exists within the Proposed Project area.

Short-eared Owl

Short-eared owls (*Asio flammeus*) are generally diurnal but most are active at dusk and also at night. Outside the breeding season, they may gather in flocks. Short-eared owls inhabit marshes and grassland habitats. Short-eared owls nest on the ground in the shelter of a grass mound, under a grass tuft, or among herbaceous ground cover. They typically eat small mammals, but sometimes take birds. Birds are probably more important when short-eared owls are hunting in marshes and coastal areas where they can target shorebirds. The species is regularly observed wintering in small numbers in the South Bay estuary.

Short-eared owls were not observed during the March 2010 field survey; however, an owl pellet from an unidentified species was found within the Proposed Project site. No CNDDB records are documented within one mile of the Proposed Project area. Suitable foraging habitat exists within and in the vicinity of the Proposed Project area. No suitable nesting habitat was observed in the Proposed Project area; therefore, the short-eared owl is not expected to breed in the area.

Northern Harrier

Northern harrier (*Circus cyaneus*) can be found foraging over meadows, grasslands, rangelands, desert sinks, and freshwater and emergent wetlands. Northern harriers nest on meadows and in both fresh and salt open marshlands. Nests are constructed on the ground and are typically comprised of sticks and grass. Northern harriers will also nest within marsh vegetation and raised mounds of reeds. Northern harrier feeds primarily on voles and other rodents, but also preys on insects, reptiles, and amphibians.

Northern harrier was not observed during the March 2010 field survey and there are no CNDDB records that document occurrences within one mile of Proposed Project area. However, the species is known to occur in the vicinity of the Proposed Project area. Additionally, suitable foraging habitat exists throughout the area. No suitable nesting habitat was observed within the Proposed Project area during the March 2010 field survey.

California Horned Lark

The California horned lark (*Eremophilia alpestris*) typically inhabits areas with sparse vegetation including sandy shores, grasslands, mesas, and agricultural lands. Breeding occurs during the months of March through July, with most activity occurring in May. The horned lark forages by walking and running on the ground, and feeds on spiders, insects, insect larvae, snails, buds, and berries. California horned larks typically forage in flocks, except during the breeding season.

Two flocks of California horned larks were observed during the March 2010 field survey. Additionally, the species has previously been observed in the Proposed Project area. Suitable foraging habitat exists within the Proposed Project area; however, the species is not expected to breed within the area. No CNDDB occurrences have been documented within one mile of the Proposed Project area.

Table 4.4-1: Sensitive Plant Species with the Potential to Occur

Species Name	Listing Status[4]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
San Diego thorn-mint (*Acanthomintha ilicifolia*)	1B.1 CE FT	Yes	Occurs in coastal scrub, valley and foothill grasslands, and vernal pools. Found at elevations between 30 and 3,000 feet in elevation. Blooms from April to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
California adolphia (*Adolphia californica*)	2.1	No	Occurs in chaparral, coastal scrub, and valley and foothill grasslands. Often occurs in clay substrate. Found at elevations from 150 to 2,500 feet. Blooms from December to May.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
San Diego bur-sage (*Ambrosia chenopodiifolia*)	2.1	No	Occurs in coastal scrubs. Found at elevations between 180 to 500 feet. Blooms from April to June.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Singlewhorl borrobrush (*Ambrosia monogyra*)	2.2	No	Occurs in chaparral and sonorant desert scrub. Typically found in sandy substrate. Found at elevations less than 1,600 feet. Blooms from August to November.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
San Diego ambrosia (*Ambrosia pumila*)	1B.1 FE	Yes	Occurs in coastal scrub, valley and foothill grassland, and vernal pools. Often occurs in disturbed areas and sometimes occurs in alkaline areas. Found at elevations less than 1,400 feet. Blooms from April to October.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Aphanisma (*Aphanisma blitoides*)	1B.2	Yes	Occurs in coastal bluff scrub, coastal dunes, and coastal scrub. Often found in sandy substrate. Found at elevations less than 1,000 feet. Blooms from March to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Dean's milk-vetch (*Astragalus deanei*)	1B.1	No	Occurs in cismontane woodland, coastal scrub, and riparian forest between 250 and 2,200 feet in elevation. Blooms from February to May.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Coastal dunes milk-vetch (*Astragalus tener* var. *titi*)	1B.1 FE CE	Yes	Occurs in coastal dunes and coastal prairie. Often found in vernally mesic areas. Found at elevations less than 165 feet. Blooms from March to May.	Marginal habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**

[4] Explanation of state and federal listing codes:

Federal listing codes:

-FE: Federally Endangered Species
-FT: Federally Threatened Species
-FC: Candidate for Federal listing

California listing codes:

-CE: State-listed as Endangered
-CR: State-listed as Rare

CNPS lists:

-1B.1: Rare, threatened or endangered in California or elsewhere; seriously threatened in California
-1B.2: Rare, threatened or endangered in California or elsewhere; fairly threatened in California
-1B.3: Rare, threatened or endangered in California or elsewhere; not very threatened in California
-2.1: Rare, threatened or endangered in California only; seriously threatened in California
-2.2: Rare, threatened or endangered in California only; fairly threatened in California

Species Name	Listing Status[4]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
Coulter's saltbush (*Atriplex coulteri*)	1B.2	No	Occurs in coastal dunes, coastal scrub, vernal pools, and valley and foothill grasslands. Typically found in alkaline or clay substrate. Found at elevations less than 1,500 feet. Blooms from March to October.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
South coast saltscale (*Atriplex pacifica*)	1B.2	No	Occurs in coastal dunes, coastal scrub, and playas. Usually the surrounding vegetation is coastal sage scrub. Found at elevations less than 500 feet. Blooms from March to October.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Golden-spined cereus (*Bergerocactus emoryi*)	2.2	No	Occurs in chaparral, coastal scrub, and closed-cone coniferous forests. Often found in sandy substrate. Found at elevations less than 1,300 feet. Blooms from May to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	2.2	Yes	Occurs in chaparral. Found at elevations less than 1,300 feet. Blooms from December to May.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*)	1B.1	No	Occurs in coastal dunes and coastal bluff scrub under 330 feet in elevation. Blooms from January to August.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Orcutt's spineflower (*Chorizanthe orcuttiana*)	1B.1 FE CE	Yes	Occurs in maritime chaparral, closed-cone coniferous forest, and coastal sage scrub. Typically found in sandy openings. Found at elevations less than 400 feet. Blooms from March to May.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)	1B.2	No	Occurs in coastal scrub, chaparral, meadows and seeps, valley and foothill grasslands, and vernal pools. Often found in clay substrate. Found at elevations less than 5,000 feet. Blooms from April to July.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Salt marsh bird's-beak (*Cordylanthus maritimus* ssp. *maritimus*)	1B.2 FE CE	Yes	Occurs in coastal dunes, salt marshes, and swamps. Often found in slightly raised hummocks in salt marsh habitat. Also known to occupy the edge of salt pans. Found at elevations less than 100 feet. Blooms from May to October.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Orcutt's bird's-beak (*Cordylanthus orcuttianus*)	2.1	Yes	Occurs in coastal scrub. Often found in seasonally dry drainages and upland adjacent to riparian habitat. Found at elevations less than 1,200 feet. Blooms from April to July. Can have rare blooms in March and September.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Sea Dahlia (*Coreopsis maritima*)	2.2	No	Occurs in coastal bluff scrub and coastal scrub. Found at elevations less than 500 feet. Blooms from March to May.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**

Species Name	Listing Status[4]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
San Diego sand aster (*Corethrogyne fiaginifolia* var. *incana*)	1B.1	No	Occurs in coastal scrub and chaparral at elevations less than 350 feet. Blooms from June to September.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Otay tarplant (*Deinandra conjugens*)	1B.1 FT CE	No	Occurs in coastal scrub, valley grasslands, and foothill grasslands. Often found in clay substrate. Found in elevations less than 1,000 feet. Blooms from May to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	1B.1	No	Occurs in coastal scrub, chaparral, and valley and foothill grassland. Often found in clay or serpentinite substrate. Found at elevations less than 1,500 feet. Blooms from April to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Variegated dudleya (*Dudleya variegata*)	1B.2	Yes	Occurs in cismontane woodland, coastal scrub, chaparral, valley and foothill grassland, and vernal pools. Usually grows in small areas quite devoid of shrub cover even though scrub elements may occur nearby. Often found in clay substrate. Found at elevations less than 2,000 feet. Blooms from April to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*)	1B.1	Yes	Occurs in coastal shrub typically in mesic areas. Found at elevations less than 2,000 feet. Blooms from July to November. July blooms are uncommon.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	1B.1 FE CE	Yes	Occurs in coastal scrub, valley and foothill grassland, and vernal pools. Typically in mesic areas. Found in elevations less than 2,000 feet. Blooms from April to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Cliff spurge (*Euphorbia misera*)	2.2	No	Occurs in coastal bluff scrub, coastal scrub, and Mojavean desert scrub. Often found in rocky substrate. Found at elevations less than 1,700 feet. Blooms from December to August.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
San Diego barrel cactus (*Ferocactus viridescens*)	2.1	Yes	Occurs in chaparral, coastal scrub, valley and foothill grasslands, and vernal pools. Optimal habitat appears to be Diegan sage scrub hillsides, often at the crest of slopes and growing among cobble. Prefers xeric situations. Found at elevations less than 1,500 feet. Blooms from May to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Palmer's frankenia (*Frankenia palmeri*)	2.1	No	Occurs in coastal dunes, coastal salt marshes and swamps, and playas. Found at elevations less than 50 feet. Blooms from May to July.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Mexican flannelbush (*Fremontodendron mexicanum*)	1B.1 FE CR	No	Occurs in chaparral, cismontane woodland, and closed-cone coniferous forests. Often occurs in gabbroic, metavolcanic, or serpentinite areas. Found at elevations less than 2,500 feet. Blooms from March to June.	Marginal habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**

Species Name	Listing Status[4]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
Beach goldenaster (*Hereotheca sessiliflora* ssp. *sessiliflora*)	1B.2	No	Occurs in coastal chaparral, coastal dunes, and coastal scrub. Found at elevations below 4,000 feet. Blooms from March to December.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*)	1B.2	No	Occurs in coastal scrub and chaparral. Often found in sandy substrate and disturbed areas. Found at elevations less than 450 feet. Blooms from April to November.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
San Diego marsh-elder (*Iva hayesiana*)	2.2		Occurs in marshes, swamps, and playas. Found at elevations between 35 and 1,700 feet. Blooms from April to October.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	1B.1	No	Occurs in coastal salt marshes and swamps, playas, and vernal pools. Found at elevations below 4,000 feet. Blooms from February to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	1B.2	No	Occurs in coastal scrub and chaparral below 2,900 feet in elevation. Blooms from January to July.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Nuttall's lotus (*Lotus nuttallianus*)	1B.1	Yes	Occurs in coastal dunes and coastal scrub. Usually occurs in sandy substrate. Found at elevations less than 100 feet. Blooms from March to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Spreading navarretia (*Navarretia fossalis*)	1B.1 FT	Yes	Occurs in chenopod scrub, playas, vernal pools, and marshes and swamps. Typically found in assorted shallow freshwater marshes and swamps. Found at elevations less than 4,300 feet. Blooms from April to June.	Marginal habitat is located along the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Mud nama (*Nama stenocarpum*)	2.2	No	Occurs along lake margins and riverbanks associated with marshes and swamps. Found at elevations less than 1,700 feet. Blooms from January to July.	Marginal habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Prostrate vernal pool navarretia (*Navarretia prostrata*)	1B.1	No	Occurs in coastal scrub, meadows and seeps, vernal pools, and valley and foothill grasslands. Typically found in alkaline grasslands and mesic areas. Found at elevations less than 2,300 feet. Blooms from April to July.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Coast woolly-heads (*Nemacaulis denudata* var. *denudata*)	1B.2	No	Occurs in coastal dunes. Found at elevations less than 350 feet. Blooms from April to September.	Marginal habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Slender cottonheads (*Nemacaulis denudata* var. *gracilis*)	2.2	No	Occurs in coastal dunes, desert dunes, and sonoran desert scrub. Found at elevations between 165 and 1,400 feet. Blooms from April to May. Can have rare blooms in March.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**

Species Name	Listing Status[4]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
Snake cholla (*Opuntia californica* var. *californica*)	1B.1	Yes	Occurs in chaparral and coastal scrub. Prefers xeric hillsides. Found at elevations between 100 and 500 feet. Blooms from April to May.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Baja California birdbush (*Ornithostaphylos oppositifolia*)	2.1 CE	No	Occurs in chaparral. Found in elevations between 180 and 2,700 feet. Blooms from January to April.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Brand's star phacelia (*Phacelia stellaris*)	1B.1 FC	No	Occurs in coastal dunes and coastal scrub. Found at elevations less than 1,500 meters. Blooms from March to June.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Nuttall's scrub oak (*Quercus dumosa*)	1B.1	No	Occurs in chaparral, coastal scrub, and closed-cone coniferous forest. Often found in sandy or clay loam substrate. Found at elevations between 50 to 1,300 feet. Blooms from February to April.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Small-leaved rose (*Rosa minutifolia*)	2.1 CE	Yes	Occurs in chaparral and coastal scrub. Found at elevations between 450 and 550 feet. Blooms from January to June.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Santa Catalina Island current (*Ribes viburnifolium*)	1B.2	No	Occurs in chaparral and cismontane woodland. Found at elevations between 100 to 1,000 feet. Blooms from February to April.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Chaparral ragwort (*Senecio aphanactis*)	2.2	No	Occurs in chaparral, cismontane woodland, and coastal scrub. Sometimes occurs in alkaline substrate. Found at elevations below 2,700 feet. Blooms from January to April.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Purple stemodia (*Stemodia durantifolia*)	2.1	No	Occurs in sonorant desert scrub. Often found in mesic and sandy areas. Found at elevations between 550 and 1,000 feet. Blooms from January to December.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Oil neststraw (*Stylocline citroleum*)	1B.1	No	Occurs in chenopod scrub, coastal scrub, and valley and foothill grassland. Often found in clay substrate. Found at elevations between 160 and 1,300 feet. Blooms from March to April.	The Proposed Project area is outside of the known elevation range for the species. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Estuary seablite (*Suaeda esteroa*)	1B.2	No	Occurs in coastal salt marshes and swamps. Found at elevations less than 20 feet. Blooms from May to October. Can have rare blooms in January.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**
Parry's tetracoccus (*Tetracoccus dioicus*)	1B.2	Yes	Occurs in coastal scrub and chaparral. Found at elevations between 540 and 3,300 feet. Blooms from April to May.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **Low Potential.**

Table 4.4-2: Sensitive Wildlife Species with the Potential to Occur

Species Name	Listing Status[5]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
Invertebrates				
Aquatic Invertebrate				
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	FE	Yes	Inhabit fresh or saltwater vernal pools, pot holes and other ephemeral pools. No individuals have been found in riverine waters, marine waters, or other permanent bodies of water. Well-adapted to living in arid areas where water is present for only part of the year.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Butterflies				
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE	No	Found from sea level to 3,000 feet in elevation. Requires open canopy scrub habitat with low-growing herbaceous annuals that include populations of the larval host plants, preferably dwarf plantain (*Plantago erecta*). Timing and abundance of rainfall affect host plant germination, growth, and senescence, which in turn affect survivorship of butterfly larvae. Typically requires a year to complete a life cycle, but the larvae can undergo long periods, possibly lasting years, in a dormant stage during especially dry winters or drought years. Cool, wet weather and winter rainfall stimulate host plant germination and feeding activities. Larval stage may be present in areas where the host plants are not in bloom.	Marginal habitat for host plants is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. In addition, the Proposed Project site is not located within the survey area recommended by the USFWS. **Low Potential.**
Wandering skipper (*Panoquina errans*)	Regionally Sensitive[6]	Yes	Found in salt marshes in coastal Southern California, coastal Baja California, and western Mexico. Utilizes saltgrass (*Distichlis spicata*), as well as other plant species, as a host plant during the larval stage.	Marginal habitat for this species is found on site, but saltgrass was not observed during the 2010 surveys or the wetland delineation. There are no known occurrences in the vicinity of the project area, and it was not observed during 2010 field surveys. **Low Potential.**
Vertebrates				
Reptiles				
Silvery legless lizard (*Anniella pulchra pulchra*)	CSC	No	Occurs in moist warm loose soil with plant cover. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees. Sometimes found in suburban gardens in Southern California.	Marginal habitat is located in southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**

[5] Explanation of state and federal listing codes

Federal listing codes:

-FE: Federally listed as Endangered
-FT: Federally listed as Threatened
-FC: Candidate for Federal listing

California listing codes:

-CE: State-listed as Endangered
-CT: State-listed as Threatened
-CSC: California State Species of Concern
-CFP: Fully Protected by the State of California

[6] Regionally sensitive is a listing status for narrow endemic species in SDG&E's NCCP. Narrow endemic species should be avoided, with the exception of work relating to emergencies and repairs of existing facilities.

Species Name	Listing Status[5]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
Belding's orange-throated whiptail (*Aspidoscelis* [*Cnemidophorus*] *hyperythrus beldingi*)	CSC	Yes	Frequents dry, often rocky hillsides; ridges and valleys that support coastal sage scrub; open chaparral; dry washes; and sparse grasslands mixed with sage scrub species.	Marginal habitat is located in the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Northern red-diamond rattlesnake (*Crotalus ruber ruber*)	CSC	Yes	Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, and cultivated areas. On the desert slopes of the mountains, ranges into rocky desert flats.	Marginal habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Coronado skink (*Eumeces skiltonianus interparietalis*)	CSC	Yes	Inhabits grassland, woodlands, pine forests, and chaparral, especially in open sunny areas such as clearings and the edges of creeks and rivers. Prefers rocky areas near streams with lots of vegetation. Also found in areas away from water.	Marginal habitat is located in the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
San Diego horned lizard (*Phrynosoma coronatum blainvillei*)	CSC	Yes	Typically found in open coastal sage scrub, chaparral, grasslands, and juniper and oak woodlands. It is more commonly found in open sandy washes with scattered shrubs used for cover. Typically require fine, loose, sandy soils where they can bury themselves, an abundance of native ants as a food source, and open areas for basking.	Marginal habitat is located in the Proposed Project area. CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Two-striped garter snake (*Thamnophus hammondii*)	CSC	Yes	Generally found around pools, creeks, cattle tanks, and other water sources. Often in rocky areas, oak woodland, chaparral, brushland, and coniferous forest.	Suitable habitat is located throughout the Proposed Project area. However; no CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Moderate Potential.**
Amphibians				
Western spadefoot (*Spea hammondii*)	CSC	Yes	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Requires rainpools which do not contain bullfrogs, fish, or crayfish.	Marginal habitat is located in the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Birds				
Cooper's Hawk (*Accipiter cooperi*)	CSC	Yes	Numerous in lowland and foothill canyons and in urban areas. Sparser in the mountains than in lower elevation. Found in coastal slopes wherever there are trees. Uses Eucalyptus (*Eucalyptus* spp.) and Oak (*Quercus* spp.) to nest.	Marginal habitat is located within the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Southern rufous-crowned sparrow (*Aimophilia ruficeps*)	CSC	Yes	Prefers coastal lowlands and foothills with sage scrub, broken chaparral, and grassland scattered with shrubs. Avoids flat valley floors and floodplains, impenetrable chaparral, woodland, and developed areas. Rare above 4,000 feet.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Short-eared owl (*Asio flammeus*)	CSC	No	Require broad expanses of open land with low vegetation, such as grasslands or low-structured open shrublands, for hunting and for nesting.	Suitable habitat is located within the southern portion of the Potential Project area. No CNDDB occurrences within one mile of the Proposed Project area. Not observed during 2010 field surveys; however, an owl pellet from an unidentified species was found within the Proposed Project site. **Moderate Potential.**

Species Name	Listing Status[5]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegense*)	CSC	Yes	Typically found on arid slopes with stands of cactus. Nests in cholla (*Opuntia* spp.) or other large branching cactus, yucca, or thorny shrubs and trees.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Western snowy plover (*Charadrius alexandrines nivosus*)	FT	Yes	Winters in California on sparsely vegetated sand beaches, dry salt flats, dredge spoils, and salt evaporation ponds. Breeding occurs on dune-backed beaches, barrier beaches, and salt evaporation ponds. Breeding may begin as early as February.	No suitable habitat is located in the Proposed Project area. However, CNDDB occurrences are within one mile of the Proposed Project area. May forage directly outside the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Northern harrier (*Circus cyaneaus*)	CSC	Yes	Forages over meadows, grasslands, rangelands, desert sinks, and freshwater emergent wetlands. Nests in meadows and in both fresh and salt open marshlands.	Suitable foraging habitat is located within the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Species area known to occur in the Proposed Project area, however; they were not observed during 2010 field surveys. **Moderate Potential.**
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FC CE	No	Prefers open woodlands with clearings and dense scrubby vegetation, often along water.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
White-tailed kite (*Elanus leucrurus*)	CFP	No	Favor agricultural areas, grasslands, marshes, savannas, and other open land or sparsely wooded areas. Nests in riparian woodland, oaks, and sycamores. Forage in open, grassy areas.	Marginal foraging habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
California horned lark (*Eremophilia alpestris*)	CSC	No	Sometimes found in areas that are sparsely vegetated naturally, but usually found where some disturbance has thinned the vegetation or created openings. Grazing, maintenance of firebreaks, and grading preceding development are all factors.	Suitable foraging habitat and marginal nesting habitat is located within the Proposed Project area. Species are known to occur in the Proposed Project area; however, no CNDDB occurrences are within one mile of the Proposed Project area. Two flocks of approximately fifteen individuals were observed during the 2010 field surveys in the central portion of the Potential Project area near the north gated entrance**.** **Present.**
American peregrine falcon (*Falco peregrinus*)	Delisted CFP	Yes	Found in a variety of habitats, most with cliffs for nesting and open areas for foraging. Uses large cities and nests on buildings.	Marginal foraging habitat is located within the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
California black rail (*Laterallus jamaicensis coturniculus*)	CT	No	Breed in salt or freshwater marshes, where the ground is moist but not entirely submerged and in grassy wet meadows. Migration and wintering habitats have not yet been observed, with the exception of the resident California Black Rail, which occupies similar territories year round.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Osprey (*Pandion haliaetus*)	CSC	No	Inhabits coastal areas and lowland lakes. Rarely found in foothill and mountain lakes. Tend to nest in manmade structures, generally found over water. Found mainly along the coast and coastal lowlands during the non-breeding season.	Marginal foraging and breeding habitat are located within the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**

Species Name	Listing Status[5]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)	CE	Yes	Year-round resident that nests in tidal salt marshes or around lagoons in low vegetation dominated by pickleweed (*Salicornia* spp.). Foraging occurs in nearby mud flats, beaches, rocks, and low coastal strand vegetation.	Suitable foraging habitat is located within the Proposed Project area; however, no suitable nesting habitat exists within the Proposed Project area. CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
California brown pelican (*Pelecanus occidentalis californicus*)	Delisted CFP	Yes	Nests in colonies on offshore islands that are free of mammalian predators and human disturbance, are of sufficient elevation to prevent flooding of nests, and are associated with an adequate and consistent food supply. Roost communally, generally in areas that are near adequate food supplies, have some type of physical barrier to predation and disturbance, and provide some protection from environmental stresses such as wind and high surf. Uses breakwaters, jetties, sand spits and offshore sand bars extensively as daily loafing and nocturnal roost areas. Rarely found away from salt water and does not normally venture more than 20 miles out to sea.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. One California brown pelican was observed to the west of the Proposed Project area during the 2010 field survey. **Low Potential.**
Coastal California gnatcatcher (*Polioptila californica californica*)	FT	Yes	Obligate, permanent resident of coastal sage scrub vegetation. Makes limited use of adjacent habitats outside of the breeding season.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Light-footed clapper rail (*Rallus longirostris levipes*)	FE CE	Yes	Very localized resident found primarily in lower salt marsh habitat, especially in areas dominated by cordgrass (*Spartina* spp.). Has also been found in virtually all marshlike habitat, including pickleweed (*Salicornia* ssp.) stands and freshwater marsh dominated by cattails (*Typha* spp.).	No suitable habitat is located in the Proposed Project area. However, CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Black skimmer (*Rynchops niger*)	CSC	No	Most breeding colonies are found on beaches, or sand islands, particularly in coastal Southern California. In other parts of their range they utilize sand bars, dredge spoil islands, or salt marshes where they will nest on mats of dead vegetation.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. May forage directly outside the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Western Burrowing owl (*Speotyto cunicularia hypugea*)	CSC	Yes	Lives in dry, open areas with no trees and short grass. Found on golf courses, cemeteries, airports, vacant lots, university campuses, pastures, and prairie dog towns. Nests in burrows, often dug by a mammal. Burrow can be several meters long, with numerous twists and turns. Often lined with horse or cow manure.	Potential foraging habitat is scattered throughout the Proposed Project area. No small mammal burrows were observed within the Proposed Project area, therefore; no suitable breeding habitat is present in the Proposed Project area. The species are known to occur in the Proposed Project area; however, there are no CNDDB occurrences are within a mile of Proposed Project area. During previous SDG&E field surveys of the Proposed Project area, one western burrowing owl was observed in 2005. Not observed during 2010 field surveys. **Moderate Potential.**
California least tern (*Sterna antillarum browni*)	FE CE	Yes	Nest mainly in colonies along the coast. Historically, preferred colony sites were located on barrier dunes at river mouths, lagoon entrances, and along sandy strips of sparse coastal strand vegetation.	No suitable habitat is located in the Proposed Project area. However, CNDDB occurrences are within one mile of the Proposed Project area. May forage directly outside the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**

Species Name	Listing Status[5]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
Elegant least tern (*Sterna elegans*)	CSC	Yes	Highly colonial nesters. Diverse nesting habitats include sandy and marshy coastal islands, sandy islets in salt lakes. During the winter, found foraging in most bays and protected areas of north San Diego County: including, but not limited to, the mouth of the Santa Margarita River, Oceanside Harbor, Buena Vista Lagoon, Agua Hedionada Lagoon and San Elijo Lagoon, south to La Jolla Cove and Mission Bay. Typically found foraging singly or in groups of two or three. At times, found foraging in the outer salt crystallizer ponds of the San Diego Bay Salt Works.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. May forage directly outside the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Gull-billed tern (*Sterna nilotica vanrossemi*)	CSC	No	Breeds on gravelly or sandy beaches. Winters in salt marshes, estuaries, lagoons and plowed fields. In winter, less frequently observed along rivers, around lakes, and in fresh-water marshes.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. May forage directly outside the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Least Bell's vireo (*Vireo bellii pusillus*)	FE CE	Yes	Breed locally in willow riparian thickets with good over- and understory vegetation. Critical habitat for the Bell's vireo has been designated along portions of the San Diego River and Sweetwater River.	No suitable habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. **No Potential.**
Mammals				
Pallid bat (*Antrozous pallidus*)	CSC	No	Inhabits deserts, grasslands, shrublands, woodlands, and forests. Most commonly found in open, dry habitats with rocky areas. Roosts in rocky outcrops, snags, and abandoned manmade structures.	Marginal foraging habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	CSC	Yes	Inhabits coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. Inhabits open, sandy areas of both the Upper and Lower Sonoran life zones of southwestern California and northern Baja California.	Marginal habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during the 2010 field surveys. **Low Potential.**
Mexican long-tongued bat (*Choeronycterus mexicana*)	CSC	No	Occurs in a wide variety of habitats from arid thorn scrub to tropical deciduous forest and mixed oak-conifer forest. Preferred roosting sites appear to be mines, caves and rock fissures.	No suitable foraging or roosting habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during the 2010 field surveys. **No Potential.**
Western mastiff bat (*Eumops perotis californicus*)	CSC	No	Inhabits arid and semiarid lowlands in the Lower Sonoran life zone of California. Primarily roosts in crevices in vertical cliffs, usually granite or consolidated sandstone, and in broken terrain with exposed rock faces. Also found occasionally in high buildings, trees and tunnels. Roost sites may change from season to season. Due to its large size, needs vertical faces to drop from in order to take flight. Nursery roosts are found in tight rock crevices.	No suitable foraging or roosting habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during the 2010 field surveys. **No Potential.**
San Diego black-tailed jackrabbit (*Lepus californicus bennetti*)	CSC	Yes	Generally occurs in open areas or semi-open country, typically in grasslands, agricultural fields, or sparse coastal sage scrub. Generally not found in chaparral or woodland habitats.	Suitable habitat is located throughout the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Moderate Potential.**

Species Name	Listing Status[5]	Covered under the NCCP (Yes/No)	Habitat Requirements	Potential to Occur
San Diego wood rat (*Neotoma lepida intermedia*)	CSC	Yes	Found in a variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Associated with cholla cactus (*Opuntia* spp.), used for water and dens.	Suitable habitat is located throughout the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Moderate Potential.**
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	CSC	No	Confined primarily to arid lowland areas. In California has been located only in the Lower and Upper Sonoran life zones, associated primarily with creosote bush and chaparral habitats. Found primarily in association with prominent rock features—very large boulder jumbles or rocky canyons. Crevice-dwelling species, usually associated with high cliffs and rugged rock outcroppings, also been found in caves and buildings.	No suitable foraging or roosting habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during the 2010 field surveys. **No Potential.**
Pacific pocket mouse (*Perognathus longimembris pacificus*)	FE CSC	Yes	Occur on fine-grain, sandy or gravelly substrates in the immediate vicinity of the Pacific Ocean. Known to occur on coastal strand, coastal dunes, river alluvium, and coastal sage scrub habitats on marine terraces. Occupied habitats for the three known populations are coastal sage scrub dominated by sagebrush (*Artemisia californica*) (Dana Point Headlands); mixed sage scrub and maritime chaparral sagebrush dominated by sagebrush and white sage (*Salvia apiana*) (San Mateo Creek), and the ecotone of coastal sage scrub and nonnative grassland, white sage and slender buckwheat (*Eriogonum elongatum*) (Santa Margarita). Sandy soil comprises 10 to 20 percent of occupied habitat, and the understory includes the California croton (*Croton californicus*), an indicator species of sandy soils.	Marginal habitat is located in the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during the 2010 field surveys. **Low Potential.**
American badger (*Taxidea taxus*)	CSC	Yes	Occurs primarily in grasslands, parklands, farms, and other treeless areas with friable soil and a supply of rodent prey. Also found in forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows. Sometimes found at elevations up to 12,000 feet (3,600 m) but are usually found in the Sonoran and Transition life zones (elevations lower and warmer than those characterized by coniferous forests). Occasionally found in open chaparral (with less than 50 percent plant cover) and riparian zones. Not usually found in mature chaparral.	Marginal habitat is located within the southern portion of the Proposed Project area. No CNDDB occurrences are within one mile of the Proposed Project area. Not observed during 2010 field surveys. **Low Potential.**

Western Burrowing Owl

Habitat for the Western burrowing owl (*Speotyto cunicularia hypugea*) typically includes dry, open, shortgrass areas that are associated with burrowing mammals. In San Diego, this species ranges through the coastal lowlands in grasslands, agricultural areas, and coastal dunes. The burrowing owl is nocturnal and perches during daylight at the entrance of its burrow or on low posts. Breeding typically occurs from March through August. Western burrowing owls are opportunistic feeders and often consume arthropods, small mammals, birds, and occasionally amphibians and reptiles.

Western burrowing owl was not observed during the March 2010 field survey; however, this species is known to occur within the Proposed Project area. Suitable foraging habitat exists within the Proposed Project area, but no mammal burrows for breeding habitat were observed during the field survey. No CNDDB occurrences have been documented within one mile of the Proposed Project area; however, one western burrowing owl was observed during a previous SDG&E field survey of the Proposed Project area.

San Diego Black-tailed Jackrabbit

The San Diego black-tailed jackrabbit (*Lepus californicus bennetti*) is typically found in desert, prairie, and chaparral communities, though it also commonly feeds in cultivated pastures and lawns. It is predominantly crepuscular and nocturnal in its habits. Diet includes cactus, sagebrush, mesquite, juniper berries, grasses, and crop plants such as clover and alfalfa. They drink very little, deriving most of their water from their food. Like most hares, black-tailed jackrabbits do not use burrows, but rest during the day in a shallow scrape dug into the soil, and usually under the cover of available vegetation.

San Diego black-tailed jackrabbit was not observed during the March 2010 field survey. Additionally, no CNDDB records are documented within one mile of the Proposed Project area. However, suitable habitat does exist throughout the Proposed Project area.

San Diego Desert Woodrat

The San Diego desert woodrat (*Neotoma lepida intermedia*) is restricted to coastal slopes with coastal sage scrub and chaparral habitats within San Diego County. Woodrats make middens (nests) of twigs, sticks, cactus parts, and rocks, depending on the availability of building materials. This species prefers to forage on live oak, chamise, and buckwheat.

San Diego desert woodrat was not observed during the March 2010 field survey; however, suitable woodrat habitat exists within the denser areas of eucalyptus woodland, ornamental vegetation, and disturbed coyote bush scrub within the Proposed Project area. No CNDDB occurrences have been documented within one mile of the Proposed Project area.

Critical Habitat

Under the FESA, to the extent prudent and determinable, the USFWS is required to designate critical habitat for endangered and threatened species (16 U.S.C. § 1533 (a)(3)). Critical habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated critical

habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter.

Designated critical habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Critical habitat designation delineates all suitable habitat, occupied or not, essential to the survival and recovery of the species.

There are no USFWS-designated critical habitats located in or within one mile of the Proposed Project area. Critical habitat for San Diego fairy shrimp (*Branchinecta sandiegonensis*), Western snowy plover (*Charadrius alexandrines nivosus*), Least bell's vireo (*Vireo bellii pusillus*), Coastal California gnatcatcher (*Polioptila californica californica*), Quino checkerspot butterfly (*Euphydryas editha quino*), and Otay tarplant (*Deinandra conjugens*) do not occur within the Proposed Project area, but exist within five miles of the Proposed Project area.

Wildlife Migration Corridors

Wildlife corridors are defined as areas that connect suitable habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features, such as canyon drainages, ridgelines, or areas with vegetation cover, provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetics between populations. Wildlife corridors are considered sensitive by resource and conservation agencies.

Avian migration routes are located just west of the Proposed Project area within the San Diego Bay. The presence of bodies of water and mudflats in the vicinity of the Proposed Project area attract species as part of the Pacific Flyway. The Pacific Flyway is one of the six major north-south migration routes for waterfowl in the U.S., Mexico, and Canada. The Pacific Flyway links breeding grounds in the north to more southerly wintering areas and is; therefore, utilized by an abundance of bird species during migration. As part of the Pacific Flyway, the San Diego Bay waterbodies provide high-quality rest and forage areas for numerous birds during the migratory seasons.

Terrestrial wildlife species tend to travel along natural drainages that provide protective cover from predators and a foraging source. There are no natural drainage features within the Proposed Project area. Furthermore, development occurs throughout the area; therefore, the quality of the site as a wildlife movement corridor for terrestrial species is diminished.

Riparian Communities

There are no riparian communities in the Proposed Project area.

Preserve Areas

There are no preserve areas in the Proposed Project area. A portion of an open space preserve that is a unit of the larger SDBNWR abuts the southern portion of the Proposed Project area. The Chula Vista Wildlife Reserve, San Diego Bay, and a portion of the SDBNWR lie to the west of the Proposed Project area.

Wetlands and Jurisdictional Waters

The Proposed Project site contains water features that may be subject to regulation by at least two of five agencies—the USACE, RWQCB, CDFG, CCC, and Chula Vista WPP—as wetlands or other jurisdictional waters. The waters under each agency's jurisdiction are described in the following paragraphs and are depicted in Figure 4.4-3: Hydrological Features Map. A detailed description of each wetland and water feature is provided in Table 4.4-3: Wetlands and Waters Resources.

United States Army Corps of Engineers

A total of approximately 0.629 acre of Waters of the U.S. is located in the Proposed Project area. Some of these drainages, which are depicted as water features 1, 12, 13, and 18 in Figure 4.4-3: Hydrological Features Map, display an OHWM and have connectivity with navigable waters; thus, these features are USACE-jurisdictional. In addition, a USACE-jurisdictional emergent wetland, which is located within water feature 1, is located within the drainage paralleling Bay Boulevard. This is the only USACE-jurisdictional wetland in the Proposed Project area.

Approximately 16 seasonal ponds are located in the Proposed Project area. Thirteen of these ponds meet the criteria for USACE-jurisdictional wetlands. However, these ponds appear to be disconnected hydrologically from adjacent waters, and are therefore, isolated. Four of these seasonal ponds occur within a man-made detention basin. These four features are anticipated to be exempt from USACE jurisdiction because the detention basin was constructed in an upland area, and was designed to serve as an industrial stormwater and spill impoundment facility to protect waters from potential discharge of contaminated runoff. The clay lining of the detention basin, which has been maintaining the wetlands in the basin, would be removed as a result of the Proposed Project activities. While the tanks within the former LNG facility have been decommissioned and partially removed, the foundation slabs remain to be removed and the berm and clay lining are still present. As a result, the facility is still carrying out its intended purpose and has not been abandoned. Thus, the USACE is not expected to have jurisdiction over the four seasonal ponds in the detention basin.

Regional Water Quality Control Board

The RWQCB has jurisdiction over all Waters of the U.S. and Waters of the State as defined by both the federal CWA and the California Porter-Cologne Water Quality Control Act.

Waters outside of the jurisdiction of the CWA, including isolated wetlands, are regulated as Waters of the State. In addition, wetlands that lack one or more of the three wetland parameters but which have the hydrology parameter (evidence of ponding water) are also considered Waters of the State. A total of 1.084 acres of RWQCB-jurisdictional features is located in the Proposed Project area. Fourteen of the seasonal ponds, all of the drainages, and the emergent wetland are RWQCB-jurisdictional features. However, the four seasonal ponds located within the man-made detention basin are not anticipated to be subject to RWQCB jurisdiction because they are located in an active industrial facility, as previously discussed under the USACE heading. Water features 1 through 4, 9 through 21, and 23 through 25, shown in Figure 4.4-3: Hydrological Features Map, are under the jurisdiction of the RWQCB.

Table 4.4-3: Wetlands and Waters Resources[7]

Map Identification Number	Approximate Total Acreage	Total Acreage by Jurisdiction					Explanation
		USACE	RWQCB	CDFG	CCC	City of Chula Vista	
1	0.366	0.099	0.099	0.366	0.345	0.338	Drainage feature containing an emergent wetland that includes a total of 0.099 acre under the OHWM, which is jurisdictional for all agencies along the majority of the drainage, and 0.267 acre from the OHWM to the top of the bank of the drainage feature, which is under the jurisdiction of the CDFG, CCC, and City of Chula Vista along the majority of the drainage; two small sections of the drainage are considered a non-wetland water rather than an emergent wetland, and these are under the jurisdictional of the USACE, RWQCB, and CDFG under the OHWM and to only the CDFG from the OHWM to the top of the bank
2	0.136	0	0.136	0	0.136	0.136	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity
3	0.027	0	0.027	0	0.027	0.027	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity

[7] The water features represented by 5, 6, 7, and 8 are expected to be exempt from all wetland regulations because the detention basin is currently serving its original function to protect adjacent waters from pollutants in an unremediated site.

Map Identification Number	Approximate Total Acreage	Total Acreage by Jurisdiction					Explanation
		USACE	RWQCB	CDFG	CCC	City of Chula Vista	
4	0.003	0	0.003	0	0.003	0.003	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity
5	2.141	Not Applicable (NA)	NA	NA	NA	NA	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity; expected to be exempt from all wetland regulations because the detention basin is currently serving its original function to protect adjacent waters from pollutants in an unremediated site
6	0.030	NA	NA	NA	NA	NA	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity; expected to be exempt from all wetland regulations because the detention basin is currently serving its original function to protect adjacent waters from pollutants in an unremediated site
7	0.007	NA	NA	NA	NA	NA	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity; expected to be exempt from all wetland regulations because the detention basin is currently serving its original function to protect adjacent waters from pollutants in an unremediated site

Map Identification Number	Approximate Total Acreage	Total Acreage by Jurisdiction					Explanation
		USACE	RWQCB	CDFG	CCC	City of Chula Vista	
8	0.062	NA	NA	NA	NA	NA	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity; expected to be exempt from all wetland regulations because the detention basin is currently serving its original function to protect adjacent waters from pollutants in an unremediated site
9	0.003	0	0.003	0	0.003	0.003	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity
10	0	0	0	0	0	0	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity; acreage is less than 0.001 acre
11	0	0	0	0	0	0	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity; acreage is less than 0.001 acre
12	0.027	0.015	0.015	0.027	0.015	0	Drainage feature that includes 0.015 acre under the OHWM, which is jurisdictional for all agencies, and 0.012 acre from the OHWM to the top of the bank of the drainage feature, which is under the jurisdiction of the CDFG

Map Identification Number	Approximate Total Acreage	Total Acreage by Jurisdiction					Explanation
		USACE	RWQCB	CDFG	CCC	City of Chula Vista	
13	0.406	0.082	0.082	0.406	0.082	0	Drainage feature that includes 0.082 acre under the OHWM, which is jurisdictional for all agencies, and 0.324 acre from the OHWM to the top of the bank of the drainage feature, which is under the jurisdiction of the CDFG
14	0.021	0	0.021	0.021	0.021	0	Drainage feature that includes 0.021 acre under the OHWM, which is under the jurisdiction of the RWQCB, CDFG, and CCC
15	0.011	0	0.011	0.011	0.011	0	Drainage feature that includes 0.011 acre under the OHWM, which is under the jurisdiction of the RWQCB, CDFG, and CCC
16	0.013	0	0.013	0.013	0.013	0	Drainage feature that includes 0.013 acre under the OHWM, which is under the jurisdiction of the RWQCB, CDFG, and CCC
17	0.005	0	0.005	0.005	0.005	0	Drainage feature that includes 0.005 acre under the OHWM, which is under the jurisdiction of the RWQCB, CDFG, and CCC
18	1.653	0.432	0.432	1.653	0.432	0.432	Drainage feature that includes 0.432 acre under the OHWM, which is jurisdictional for all agencies, and 1.221 acres from the OHWM to the top of the bank of the drainage feature, which is under the jurisdiction of the CDFG
19	0.050	0	0.050	0	0.050	0.050	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity

Map Identification Number	Approximate Total Acreage	Total Acreage by Jurisdiction					Explanation
		USACE	RWQCB	CDFG	CCC	City of Chula Vista	
20	0.036	0	0.036	0	0.036	0.036	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity
21	0.059	0	0.059	0	0.059	0.059	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity
22	0.005	0	0	0	0.005	0.005	Isolated wetland feature that meets only one of the three wetland parameters and is only under the jurisdiction of the CCC and City of Chula Vista
23	0.002	0	0.002	0.002	0.002	0	Drainage feature that includes 0.002 acre under the OHWM, which is under the jurisdiction of the RWQCB, CDFG, and CCC
24	0.072	0	0.072	0	0.072	0.072	Isolated wetland feature that is neither USACE-jurisdictional nor CDFG-jurisdictional due to a lack of surface and groundwater connectivity
25	0.015	0	0.015	0	0.015	0	Isolated wetland feature that meets only two of the three wetland parameters and is only under the jurisdiction of the RWQCB and CCC

Map Identification Number	Approximate Total Acreage	Total Acreage by Jurisdiction					Explanation
		USACE	RWQCB	CDFG	CCC	City of Chula Vista	
26	0.012	0	0	0	0.012	0.012	Isolated wetland feature that meets only one of the three wetland parameters and is only under the jurisdiction of the CCC and City of Chula Vista
TOTAL	**5.165**	**0.629**	**1.084**	**2.506**	**1.347**	**1.174**	**NA**

California Department of Fish and Game

A total of approximately 2.506 acres of waters that are subject to CDFG jurisdiction occur in the Proposed Project area. CDFG jurisdiction includes all non-tidal streambeds mapped at the width of the channel from bank to bank. All drainages within the Proposed Project area are under the jurisdiction of the CDFG. The CDFG does not typically take jurisdiction over isolated waters; therefore, the seasonal ponds are not under the jurisdiction of the CDFG. Water features 1, 12, 13 through 18, and 23 shown in Figure 4.4-3: Hydrological Features Map, are under the jurisdiction of the CDFG.

California Coastal Commission

The CCC generally regulates development within the coastal zone, including development within wetlands located within the coastal zone. The CCC's authority over the Proposed Project is delegated to the City of Chula Vista per the City of Chula Vista LCP. The City of Chula Vista LCP contains detailed mitigation and biological resources management requirements that apply within areas delineated within the Midbayfront Subarea, but these requirements do not apply within the Proposed Project site. The City of Chula Vista LCP notes, however, that sensitive habitats may exist in areas that have not been delineated and requires that environmental professionals analyze all environmental resources. The City of Chula Vista LCP further requires that an environmental management plan be adopted prior to development to protect any sensitive habitats that may exist.

The CCC typically applies a "one-parameter" test to identify wetlands. The three wetland parameters are hydrophytic vegetation, wetland hydrology, and hydric soils. The majority of the seasonal ponds, drainages, and the emergent wetland located in the Proposed Project area are potentially subject to CCC jurisdiction because each has at least one of these parameters. However, the four seasonal ponds located within the man-made detention basin are not anticipated to be CCC jurisdictional because they are located in an active industrial facility, as previously discussed. The seasonal ponds within the detention basin were created for a functional purpose, and the facility is not considered abandoned because remediation of the site has not yet been conducted. There is no specific provision within the California Coastal Act for exclusion of features that meet physical wetland criteria but which were created in uplands to serve a specific intended function that normally manifests wetland conditions; however, there is CCC precedent for excluding such features under the circumstances present at the Proposed Project site. For these reasons, the wetland resources identified within the detention basin do not appear to constitute "wetlands or other wet environmentally sensitive habitat areas" within the meaning of the City of Chula Vista LCP or California Coastal Act. SDG&E will work with the City of Chula Vista and CCC to verify this conclusion.

A total of 1.347 acres of likely CCC-jurisdictional features are located in the Proposed Project area. Water features 1 through 4 and 9 through 26, shown in Figure 4.4-3: Hydrological Features Map, are under the jurisdiction of the CCC.

City of Chula Vista Multiple Species Conservation Program Wetland Protection Program

Fifteen of the seasonal ponds as well as the emergent wetland in the Proposed Project area meet the wetland category definitions presented in Appendix B of the City of Chula Vista MSCP

Subarea Plan and are, therefore, subject to the Chula Vista WPP. Appendix B includes descriptions of wetland vegetation communities, including freshwater/alkali marsh, disturbed scrub, open water/freshwater, natural flood channel, and disturbed wetlands. The four seasonal ponds located within the man-made detention basin are not anticipated to be under the jurisdiction of the Chula Vista WPP because they are located in an active industrial facility, as previously discussed. A total of 1.174 acre of water features are under the jurisdiction of the Chula Vista WPP. Water features 1 through 4, 9 through 11, 18 through 22, 24, and 26, shown in Figure 4.4-3: Hydrological Features Map, are under the jurisdiction of the Chula Vista WPP.

4.4.3 Impacts

The following discussion describes the Proposed Project's potential to impact sensitive species and habitat that may occur as a result of construction and operation of the Proposed Project. SDG&E would be operating under its own NCCP which was established according to the FESA and CESA and the state's Natural Community Conservation Planning Act. SDG&E Operational Protocols are provided in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. In addition, SDG&E would implement the Project-specific APMs found in Section 4.4.4 Applicant-Proposed Measures to further minimize potential impacts to ensure the protection and conservation of listed and covered species and their habitats.

Significance Criteria

Standards of impact significance were derived from Appendix G of the CEQA Guidelines. Under these Guidelines, the Proposed Project may have a potentially significant impact if it would:

- 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 CDFG or USFWS

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, or other wetland areas) through direct removal, filling, hydrological interruption, or other means

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP

Direct take of a federally or state-listed species would be considered a significant impact. Temporary and/or permanent habitat loss is not considered a significant impact to sensitive species (other than for listed or candidate species under the FESA and CESA) unless a significant percentage of total suitable habitat throughout the species' range is degraded or somehow made unsuitable, or areas supporting a large proportion of the species' population are substantially and adversely impacted. Potential impacts to nesting bird species would be considered significant due to their protection under the MBTA. Such impacts would need to be avoided.

Question 4.4a – Sensitive Species

Construction – Less-than-Significant Impact

Sensitive Plant Species

Construction of the Bay Boulevard Substation, transmission lines, and associated access roads, and demolition of the existing South Bay Substation could result in temporary disturbance to and/or permanent loss of sensitive vegetation communities, rare plant communities, and sensitive plant species. Temporary disturbance includes short-term impacts during construction of new pole structures and removal of existing towers, construction of new access roads and improvement to existing access roads, and work at staging/laydown areas. Permanent loss involves long-term impacts associated with permanent Proposed Project features (e.g., new transmission towers and new substation). The Proposed Project would temporarily affect up to approximately 15.82 acres of developed land, 0.03 acre of emergent wetland, 4.57 acres of non-native grassland, 0.26 acre of eucalyptus woodland, 5.26 acres of ornamental vegetation, and 22.87 acres of disturbed habitat. These temporary impact acreages are based on a worst-case scenario in which the majority of the SDG&E easement would be temporarily impacted through vegetation removal, grading, excavation, or overland travel.

The Proposed Project would permanently impact approximately 0.20 acre of developed land, 2.41 acres of seasonal pond (that is exempt from all wetland regulation), 0.03 acre of emergent wetland, 8.74 acres of non-native grassland, 0.05 acre of ornamental vegetation, 0.18 acre of disturbed habitat, and 4.94 acres of disturbed coastal coyote bush scrub. There would be no permanent impacts to eucalyptus woodland. These temporary and permanent impacts are summarized in Table 4.4-4: Vegetation Community Impacts in Acres.

Several sensitive plant species, including, but not limited to, San Diego thorn-mint (*Acanthomintha ilicifolia*), San Diego ambrosia (*Ambrosia pumila*), Aphanisma (*Aphanisma blitoides*), and Nuttall's lotus (*Lotus nuttallianus*) have a low potential to occur within and in the vicinity of the Proposed Project area. The potential presence of these plant species is based on their known or recorded occurrences within the region and/or their association with the vegetation communities that occur in the vicinity of the Proposed Project area. No rare plants were observed during the March 2010 field survey of the entire 96.8-acre survey area. However, focused rare plant surveys were not conducted at the Proposed Project site given time constraints. Based on CNDDB records and existing habitat at the site, it is not likely that rare plants would occur within the Proposed Project area, so further surveys are not recommended.

Table 4.4-4: Vegetation Community Impacts in Acres

Impact Type	Developed	Seasonal Pond	Emergent Wetland	Non-native Grassland	Eucalyptus Woodland	Ornamental Vegetation	Disturbed Habitat	Disturbed Coastal Coyote Bush Scrub
Permanent Impacts	0.20	2.41	0.03	8.74	0.00	0.05	0.18	4.94
Temporary Impacts	15.82	0.00	0.03	4.57	0.26	5.26	22.87	1.30
Total	**16.02**	**2.41**	**0.06**	**13.31**	**0.26**	**5.31**	**23.05**	**6.24**

Because rare plant species are anticipated to have a low potential to occur in the Proposed Project area, no impacts to these species are expected. Furthermore, SDG&E would utilize protocols 7, 11, 13, 14, 15, 16, 17, 20, 24, 25, 28, 29, 30, 35, 36, 39, 41, 42, 43, 44, 48, and 57, as described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, restricting vehicles to existing roads when feasible, minimizing impacts by defining the disturbance areas, designing the Proposed Project to avoid or minimize new disturbance and erosion, and adjusting access roads to avoid sensitive habitats. Additionally, SDG&E would utilize project-specific APMs, as discussed in Section 4.4.4 Applicant-Proposed Measures. In particular, APM-BIO-02 includes keeping a biological monitor on-site during all vegetation removal activities and surveying the site prior to vegetation removal to ensure that no sensitive species would be impacted. Implementation of SDG&E's NCCP and APMs would reduce the impacts to sensitive plant species to a less-than-significant level.

Sensitive Invertebrate Species

The Quino checkerspot butterfly has a low potential to occur in the vicinity of the Proposed Project. The potential presence of this invertebrate species is based on its known or recorded occurrences within the region and/or its association with the vegetation communities that occur in the vicinity of the Proposed Project area. No host plants or Quino checkerspot butterflies were found during the March 2010 field survey. Additionally, no critical habitat for the Quino checkerspot butterfly occurs within one mile of the Proposed Project area. Therefore, impacts to sensitive invertebrate species due to construction of the Proposed Project are not anticipated.

Sensitive Reptile Species

Construction of the Proposed Project may impact the two-striped garter snake by temporarily affecting approximately 0.01 acre of suitable habitat and permanently affecting approximately 2.41 acres of suitable habitat. Suitable habitat within the Proposed Project area includes native and non-native brush located near seasonal and permanent water features. Disturbance may be caused by the increase in vehicles and equipment noise; direct mortality by vehicles; disruption of hibernating, feeding, and breeding from increased human activity; and removal of water features that these species often utilize. Sensitive reptile species have the potential to fall into and become trapped within the Proposed Project transmission pole excavation areas, as well as trenches and bore pits. However, SDG&E would utilize protocols 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 20, 24, 25, 27, 29, 34, 35, 37, 38, 41, 44, 48, 50, 54, 55, and 57, as described Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, training, pre-construction surveys, requiring all trenches and excavations to be inspected twice daily for wildlife entrapment and requiring excavations to be sloped on one end to provide an escape route. Additionally, SDG&E would utilize Project-specific APMs, as discussed in Section 4.4.4 Applicant-Proposed Measures. APM-BIO-01 includes conducting activities in accordance with SDG&E's NCCP, and APM-BIO-02 includes monitoring of all vegetation removal activities by a biological monitor. Implementation of SDG&E's NCCP and APMs would reduce the impacts to sensitive reptile species to the less-than-significant level.

Additionally, permanent impacts to two-striped garter snake habitat from construction of the Proposed Project would not be significant because the suitable habitat within the Proposed Project area has been previously disturbed and is in a degraded state. Furthermore, the amount

of previously disturbed habitat to be removed within the Proposed Project area is low—approximately 2.41 acres—and is of lower quality than the preserved areas to the west of the Proposed Project. The habitat within the preserve contains high-quality habitat features, such as waterways, nesting locations, cover, food sources, and escape cover. Therefore, permanent impacts to sensitive reptile species habitat would be less than significant.

Sensitive Avian and Other Nesting Avian Species

Construction activities could potentially impact nesting raptors, passerines, and other sensitive bird species. Impacts may include the removal of potential nesting habitat and the disruption of nesting behavior due to a temporary increase in noise from construction equipment and vehicles. A songbird nest was observed within the ornamental vegetation during the reconnaissance-level surveys conducted for the Proposed Project, indicating a potential for nesting avian species. SDG&E would utilize protocols 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 20, 24, 25, 27, 29, 34, 35, 41, 44, 48, 50, 54, 55, and 57, as described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, restricting vehicles to existing roads when feasible, avoiding wildlife to the extent practicable, conducting pre-construction surveys, and avoiding nesting season to the extent practicable. Additionally, SDG&E would utilize project specific APMs, as discussed in Section 4.4.4 Applicant-Proposed Measures. In particular, APM-BIO-03 includes avoiding raptor breeding season to the extent practicable, monitoring active raptor nests, and removing inactive raptor nests. Implementation of SDG&E's NCCP and APMs would reduce the impacts to nesting avian species to a less-than-significant level.

Construction activities could also potentially impact foraging raptors, passerines, and other sensitive bird species. Impacts may include the removal of degraded foraging habitat, removal of some food sources, and the disruption of foraging behavior due to a temporary increase in noise from construction equipment and vehicles. Several sensitive avian species were observed during the field survey or have a moderate potential to occur within the Proposed Project area, indicating a potential for foraging avian species. These species include, but are not limited to, the northern harrier, California horned lark, and western burrowing owl. Permanent impacts to foraging habitat would be limited because the suitable habitat within the Proposed Project area has been previously disturbed and is in a degraded state. In addition, the amount of previously disturbed habitat to be removed within the Proposed Project area is low, approximately 16.29 acres, and is of lower quality than the preserved areas to the west of the Proposed Project area. Therefore, permanent construction impacts to foraging sensitive avian species would be less than significant.

Transmission lines and other structures provide potential perching opportunities for raptor species, which can increase the potential for predation of wildlife by raptors. Because the Proposed Project involves the relocation of existing facilities, the extent of predation on sensitive and common wildlife species is not anticipated to change from existing conditions. Furthermore, because all of the new support structures being installed by SDG&E for the Proposed Project are wood or steel poles (which provide less suitable perching platforms than lattice structures), and a significant portion of the transmission lines would be routed underground, the Proposed Project would decrease raptor perching opportunities.

Concerns regarding potential electrocution impacts from transmission lines to wildlife species are primarily focused on avian species. Electrocution with avian species can occur from wing contact as avian species perch, land, or take off from a utility pole by contact with two conductors to complete the electrical circuit, simultaneous contact with energized phase conductors and other equipment, and simultaneous contact with energized wire and a grounded wire. Electrocution of avian species is more of a potential hazard to larger birds, such as raptors, because their body size and wing span are large enough to span the distance between the conductor wires and, thus, complete the electrical current. The transmission line structures would be constructed in compliance with the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection on Power Lines, as detailed in Section 4.4.4 Applicant-Proposed Measures, APM-BIO-04. In addition, as part of the Proposed Project, SDG&E would be utilizing underground transmission lines in place of existing overhead transmission lines, which would reduce the possibility of avian electrocution within the Proposed Project area. Therefore, the potential impacts of increased wildlife electrocution are anticipated to be less than significant.

Sensitive Mammal Species

Construction activities may potentially impact sensitive mammal species, including San Diego desert woodrat and San Diego black-tailed jackrabbit, if present. Potential impacts to mammal species include the temporary loss of approximately 34.29 acres of suitable foraging and cover habitat and the permanent loss of approximately 16.29 acres of suitable foraging and cover habitat. Additionally, potential impacts could result from temporary disturbance due to an increase in vehicle and equipment use and possible direct morality from construction vehicles and equipment. Furthermore, sensitive mammal species have the potential to fall into and become trapped within the Proposed Project transmission pole excavation areas as well as trenches and bore pits. However, SDG&E would utilize protocols 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 20, 24, 25, 27, 29, 34, 35, 37, 38, 41, 44, 48, 50, 54, 55, and 57, as described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, training, pre-construction surveys, monitoring during clearing and grading activities, requiring all trenches and excavations to be inspected twice daily for wildlife entrapment, and requiring excavations to be sloped on one end to provide an escape route. Additionally, SDG&E would utilize Project-specific APMs, as discussed in Section 4.4.4 Applicant-Proposed Measures. In particular, APM-BIO-01 includes conducting activities in accordance with SDG&E's NCCP, and APM-BIO-02 includes monitoring of all vegetation removal activities by a biological monitor. Implementation of SDG&E's NCCP and APMs would reduce the impacts to sensitive reptile species to a less-than-significant level.

Permanent impacts to sensitive mammal species habitat from the construction of the Proposed Project would not be significant because the suitable habitat within the Proposed Project area has been previously disturbed and is in a degraded state. In addition, the amount of previously disturbed habitat to be removed within the Proposed Project area is low, approximately 16.29 acres, and is of lower quality than the preserved areas to the west of the Proposed Project area. The habitat within the preserve contains high-quality habitat features, such as waterways, nesting locations, cover, food sources, and escape cover. Therefore, permanent impacts to sensitive mammal species habitat would be less than significant.

Critical Habitat

There is no USFWS-designated critical habitat located in or within one mile of the Proposed Project area. Consequently, all ground-disturbing activities associated with construction of the Proposed Project would occur outside of critical habitat for sensitive wildlife species, therefore, no impacts to critical habitat for sensitive wildlife species would occur.

Preserves

There are no preserves located in the Proposed Project area. A portion of an open space preserve that is a unit of the larger SDBNWR abuts the southern portion of the Proposed Project area. The Chula Vista Wildlife Reserve, San Diego Bay, and a portion of the SDBNWR lie to the west of the Proposed Project area. However, all ground-disturbing activities associated with construction of the Proposed Project would occur outside of the preserve. No impacts to preserves would occur.

Common Species

Common plant and wildlife species would be impacted by the permanent removal of approximately 2.41 acres of seasonal pond (that is exempt from all wetland regulation), 0.03 acre of emergent wetland, 8.74 acres of non-native grassland, 0.05 acre of ornamental vegetation, 0.18 acre of disturbed habitat, and 4.94 acres of disturbed coastal coyote bush scrub as a result of the construction of the Bay Boulevard Substation, 230 kV loop-in, 69 relocation, 138 kV extension, associated access roads, and demolition of the existing South Bay Substation. The Proposed Project activities would also temporarily affect up to approximately 15.82 acres of developed land, 0.03 acre of emergent wetland, 4.57 acres of non-native grassland, 0.26 acre of eucalyptus woodland, 5.26 acres of ornamental vegetation, 22.87 acres of disturbed habitat, and 1.30 acre of disturbed coastal coyote bush scrub. Several common native and non-native plant species would be removed from the Proposed Project site. Additionally, common plant and wildlife species would experience temporary impacts, such as the increase in dust and vehicle and foot traffic associated with construction and maintenance of the Proposed Project. Table 4.4-4: Vegetation Community Impacts in Acres provides a summary of impact acreages by vegetation community for the Proposed Project.

Common wildlife species, including white-crowned sparrow, northern mockingbird, mourning dove, and desert cottontail rabbit, would be impacted through the direct removal of approximately 16.29 acres of suitable habitat. Disturbance may be caused by an increase in vehicle and equipment noise; direct mortality by vehicles; disruption of hibernating, feeding, and breeding from increased human activity; and removal of shrubs that these species often utilize. Common wildlife species also have the potential to fall into and become trapped within the Proposed Project transmission pole excavation areas as well as trenches and bore pits. As previously discussed in the Sensitive Reptile Species and Sensitive Mammal Species sections, SDG&E would implement existing NCCP protocols 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 17, 20, 24, 25, 27, 29, 34, 35, 37, 38, 41, 44, 48, 50, 54, 55, and 57, as described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, training, pre-construction surveys, monitoring during clearing and grading activities, requiring all trenches and excavations to be inspected twice daily for wildlife entrapment, and requiring excavations to be sloped on one end to provide an escape route. Additionally, SDG&E would

utilize project-specific APMs, as discussed in Section 4.4.4 Applicant-Proposed Measures. In particular, APM-BIO-01 includes conducting activities in accordance with SDG&E's NCCP, and APM-BIO-02 includes monitoring of all vegetation removal activities by a biological monitor. In addition, the amount of previously disturbed habitat to be removed within the Proposed Project area is low, approximately 16.29 acres, and is of lower quality than the preserved areas to the west of the Proposed Project area. The habitats within the preserve contain higher quality habitat features, such as waterways, nesting locations, undisturbed plant communities, cover, food sources, and escape cover. The removal of the degraded habitats within the Proposed Project area would not significantly reduce the abundance of theses habitats in the area. Therefore, permanent impacts to common wildlife species would be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Standard operation and maintenance activities, such as road grading, tree trimming, structure installation, replacement, and repairs, may potentially impact sensitive, listed, and covered species if they are present in the Proposed Project area. Impacts may include disruption of nesting and foraging behavior and direct mortality from maintenance vehicles and equipment. Operation and maintenance work for the Proposed Project area would primarily occur within the Proposed Project area fence lines and existing ROW. Because SDG&E operates existing facilities in the area, there would be no increase in vehicle trips and activities and no increase in the potential to impact species and habitat.

SDG&E would utilize protocols 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, 15, 16, 17, 20, 24, 25, 27, 28, 29, 30, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 54, 55, and 57 from their existing NCCP, as described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols, which was established according to the FESA and CESA and the state's NCCP Act. These protocols include, but are not limited to, restricting vehicles to existing roads when feasible, minimizing impacts by defining the disturbance areas, monitoring during clearing and grading activities, designing the operation and maintenance of the Proposed Project to minimize disturbance, and minimizing erosion. Implementation of SDG&E's NCCP would reduce potential operation and maintenance impacts to a less-than-significant level.

Question 4.4b – Sensitive Natural Communities – *Less-than-Significant Impact*

Sensitive natural communities include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or designated by the CDFG and USFWS. Two sensitive natural communities, as defined by the USACE, RWQCB, CCC, and/or the City of Chula Vista, exist in the Proposed Project area—seasonal pond and emergent wetland—and are discussed in the Wetlands and Jurisdictional Waters section. One additional vegetation community, non-native grassland, is considered a Tier III Sensitive Habitat under the City of Chula Vista MSCP Subarea Plan. Plant communities that would be impacted by the Proposed Project include seasonal pond, emergent wetland, non-native grassland, disturbed coastal coyote bush scrub, ornamental vegetation, developed land, and disturbed habitat, as previously described under the response to Question 4.4a and detailed in Table 4.4-4: Vegetation Community Impacts in Acres.

The seasonal pond and emergent wetland would be impacted by the Proposed Project; however, SDG&E would mitigate for these impacts as described in the response to Question 4.4c.

Additionally, the non-native grassland that exists within the Proposed Project area is highly degraded by previous development and disturbance and is unlikely to support rare plant species. SDG&E would utilize protocols 7, 11, 13, 14, 15, 16, 17, 20, 24, 25, 28, 29, 30, 35, 36, 39, 41, 42, 43, 44, 48, and 57, as described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, restricting vehicles to existing roads when feasible, minimizing impacts by defining the disturbance areas, designing the Proposed Project to avoid or minimize new disturbance and erosion, and adjusting access roads to avoid sensitive habitats. Additionally, SDG&E would utilize Project-specific APMs, as discussed in Section 4.4.4 Applicant-Proposed Measures. In particular, APM-BIO-02 includes keeping a biological monitor on site during all vegetation removal activities and surveying the site prior to vegetation removal to ensure that no sensitive species would be impacted. Implementation of SDG&E's NCCP and APMs would reduce the impacts to sensitive natural communities to a less-than-significant level.

Question 4.4c – Effects on Jurisdictional Waters – *Less-than-Significant Impact*

The construction of the Proposed Project would result in permanent impacts to waters under the jurisdiction of the USACE, RWQCB, CDFG, CCC, and Chula Vista WPP. A total of approximately 0.008 acre of disturbed USACE-jurisdictional waters would be permanently impacted by the Proposed Project, and 0.008 acre would be temporarily impacted. One USACE-jurisdictional emergent wetland is located within the channel paralleling Bay Boulevard; this is the only USACE-jurisdictional wetland that would be permanently impacted. A road and culvert are planned to be constructed through this feature. The impacts to USACE-jurisdictional waters, as well as waters under the jurisdiction of the RWQCB, CDFG, CCC, and Chula Vista WPP, are detailed in Table 4.4-5: Permanent Impacts to Wetlands and Waters and Table 4.4-6: Temporary Impacts to Wetlands and Waters. The total permanent impact acreage to wetlands and waters would be approximately 0.192 acre, and the total temporary impact acreage to waters would be approximately 0.026 acre. Nevertheless, these wetland features are disturbed and have low biological value. SDG&E would avoid wetlands to the extent possible and mitigate for impacts, as described in the NCCP and APM-BIO-05 in Section 4.4.4 Applicant-Proposed Measures, which includes constructing an on-site (engineered) wetland to mitigate for permanent impacts at a two to one ratio. The location of this engineered wetland is depicted on Figure 3-3: Conceptual Site Plan and Attachment 3-A: Detailed Project Components Map in Chapter 3 – Project Description. Although SDG&E intends to create this wetland in a new location on site, the overall goal would be to enhance function. With the implementation of the NCCP and APM-BIO-05, impacts to wetlands are anticipated to be less than significant.

Question 4.4d – Interfere with Native Wildlife Movement – *Less-than-Significant Impact*

Construction of the Proposed Project would not interfere with the movement of any native wildlife species or interfere with known migration corridors. Avian migration routes are located just west of the Proposed Project area within the San Diego Bay. The presences of bodies of water and mudflats in the vicinity of the Proposed Project area attract species as part of the Pacific Flyway. The Proposed Project area has some habitat that may be used by birds during migration; however, most avian species would utilize the San Diego Bay migration corridor. Furthermore, there are no waterways that contain fish in the Proposed Project area; therefore, it is low-quality foraging habitat for migratory water birds. SDG&E would utilize protocols from

Table 4.4-5: Permanent Impacts to Wetlands and Waters

Map Identification Number	Approximate Permanent Impact Acreage[8]	Permanent Impacts by Jurisdiction					
		USACE	RWQCB	CDFG	CCC	City of Chula Vista	Exempt
1	0.026	0.008	0.008	0.026	0.026	0.026	NA
2	0.136	0	0.136	0	0.136	0.136	NA
3	0.027	0	0.027	0	0.027	0.027	NA
4	0.003	0	0.003	0	0.003	0.003	NA
5	NA	NA	NA	NA	NA	NA	2.141
6	NA	NA	NA	NA	NA	NA	0.03
7	NA	NA	NA	NA	NA	NA	0.007
8	NA	NA	NA	NA	NA	NA	0.62
TOTAL	**0.192**	**0.008**	**0.174**	**0.026**	**0.192**	**0.192**	**2.798**

[8] The Approximate Permanent Impact Acreage does not include impacted areas that are expected to be exempt from wetland regulation.

Table 4.4-6: Temporary Impacts to Wetlands and Waters

Map Identification Number	Approximate Temporary Impact Acreage	Temporary Impacts by Jurisdiction				
		USACE	RWQCB	CDFG	CCC	City of Chula Vista
1	0.013	0.004	0.004	0.013	0.013	0.013
13	0.011	0.004	0.004	0.011	0.004	0
14	0.002	0	0.002	0.002	0.002	0
15	0.001	0	0.001	0.001	0.001	0
TOTAL	**0.026**	**0.008**	**0.011**	**0.026**	**0.020**	**0.013**

their existing NCCP, as described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols, which was established according to the FESA and CESA and the state's NCCP Act. These protocols include, but are not limited to, training and pre-construction surveys. Implementation of SDG&E's NCCP would reduce the potential impacts to avian migration routes to a less-than-significant level.

While vehicle traffic associated with Proposed Project construction or operation may result in species injury or mortality, impacts would be less than significant due to the low likelihood of these collisions occurring and because the potential for this to occur already exists in the Proposed Project area due to the existing network of roads. In addition, overhead transmission lines have the potential to interfere with wildlife movement if they occur within migration corridors; however, as part of the Proposed Project, SDG&E would be utilizing underground transmission lines in place of existing overhead transmission lines, which would reduce the possibility for transmission lines to impede wildlife movement. In addition, SDG&E would implement the Project-specific APMs listed in Section 4.4.4 Applicant-Proposed Measures. Therefore, impacts to avian migration routes due to transmission lines would be less than significant.

Terrestrial wildlife species tend to travel along natural drainages that provide protective cover from predators and a foraging source. There are no natural drainage features within the Proposed Project area. Furthermore, development occurs throughout the area; as a result, the quality of the site as a wildlife movement corridor for terrestrial species is diminished. Therefore, potential impacts to terrestrial wildlife movement would be less than significant.

Question 4.4e – Conflict with Local Policies – *No Impact*

The Proposed Project area is currently owned and under the jurisdiction of the Port District. No environmental policies currently exist under the Port District's authority; therefore, the Proposed Project would not conflict with any environmental policies imposed by the Port District. However, a land exchange agreement between the Port District, SDG&E, and the California State Lands Commission has been requested. Once the land exchange takes place, the Proposed Project would be subject to policies regulated by the City of Chula Vista General Plan. Construction, operation, and maintenance of the Proposed Project would not conflict with any local environmental policies or ordinances promulgated to protect biological resources, as discussed next.

City of Chula Vista General Plan

- *Implement the City of Chula Vista Multiple Species Conservation Program Subarea Plan.*

  SDG&E would utilize its existing NCCP for the Proposed Project. The NCCP was developed in coordination with USFWS and CDFG and designed to be consistent with local HCPs and the overall preserve planning effort. Therefore, the Proposed Project is consistent with this policy.

City of Chula Vista Multiple Species Conservation Program Subarea Plan

- *Facilities will be located in the least environmentally sensitive location feasible, and use existing roads, trails and other disturbed areas, including use of the active recreation areas in the Otay River Valley, as much as possible (except where such areas are occupied by the Quino checkerspot butterfly). Facilities should be routed in developed or developing areas where possible. If no other routing is feasible, alignments should follow previously existing roads, easements, rights-of-way (ROWs), and disturbed areas, minimizing habitat fragmentation.*

  The Proposed Project is currently zoned as Industrial. The Bay Boulevard Substation would be constructed on the former LNG site and, thus, would be located in highly degraded habitat. Therefore, the Proposed Project is consistent with this policy.

- *Facilities shall avoid, to the maximum extent practicable, impact to covered species and wetlands, and will be subject to the provisions, limitations, and mitigation requirements for Narrow Endemic Species and wetlands pursuant to Sections 5.2.3 and 5.2.4 of the Subarea Plan.*

  SDG&E would utilize their existing NCCP operation protocols to avoid and mitigate for impacts to covered species and wetlands. The NCCP was developed in coordination with the USFWS and CDFG and designed to be consistent with local HCPs and the overall preserve planning effort. In addition, SDG&E's APMs address the potential to affect these resources and ensure impacts would be minimized to the extent possible. Therefore, the Proposed Project is consistent with this policy.

No other local ordinances protecting biological resources have been identified.

Question 4.4f – Conflict with Conservation Plan – *No Impact*

SDG&E's existing NCCP and the Chula Vista MSCP Subarea Plan are the only conservation plans that may apply to the Proposed Project area. SDG&E would be operating under its existing NCCP which was established according to the FESA and CESA and the state's Natural Community Conservation Planning Act. The NCCP was developed in coordination with the USFWS and CDFG, and designed to be consistent with local HCPs and the overall preserve planning effort, including the Chula Vista MSCP Subarea Plan. Therefore, the Proposed Project would not conflict with any applicable conservation plan.

4.4.4 Applicant-Proposed Measures

SDG&E has designed and incorporated the following APMs into the Proposed Project to avoid or minimize potential impacts to biological resources:

- APM-BIO-01: SDG&E would conduct activities in accordance with NCCP Operational Protocols to avoid, minimize, or mitigate impacts to biological resources.

- APM-BIO-02: A biological monitor would be present during all vegetation removal activities. Within 72 hours prior to vegetation removal, the biological monitor would survey the site to ensure that no sensitive species would be impacted.

- APM-BIO-03: If a raptor nest is observed during pre-construction surveys, a qualified biologist would determine if it is active. If the nest is deemed inactive, SDG&E, under the supervision of a biological monitor, would remove and dismantle the nest promptly from existing structures that would be affected by Project construction. Removal of nests would occur outside of the raptor breeding season (January to July). If the nest is determined to be active, it would not be removed and the biological monitor would monitor the nest to ensure nesting activities and/or breeding activities are not disrupted. If the biological monitor determines that Project activities are disturbing or disrupting nesting activities, the monitor would make recommendations to reduce the noise and/or disturbance in the vicinity of the nest.

- APM-BIO-04: Structures would be constructed to conform to the Avian Power Line Interaction Committee's Suggested Practices for Avian Protection on Power Lines to help minimize impacts to raptors.

- APM-BIO-05: Where impacts to wetlands and jurisdictional waters are unavoidable, SDG&E would obtain the authorizations from the appropriate jurisdictional agencies. Water features 1, 2, 3, and 4, as shown on Figure 4.4-3: Hydrological Features Map, are the only jurisdictional waters that would be permanently impacted. SDG&E would mitigate for the permanent impacts to these waters at a ratio of two to one, in consultation with the jurisdictional agencies.

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ATTACHMENT 4.4-A: USFWS SPECIES LISTS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

APR 21 2010

In Reply Refer To:
FWS-SDG-10B0281-10SL0652

Kristina Bischel
Insignia Environmental
540 Bryant Street, Suite 200
Palo Alto, California 94301

Subject: Request for Information on Endangered and Threatened Species in the Vicinity of the South Bay Substation Relocation Project, Chula Vista, California

Dear Ms. Bischel:

This letter is in response to your inquiry dated April 7, 2010, concerning federally endangered and threatened species that may occur in and around the proposed site for the South Bay Substation Relocation Project in the City of Chula Vista, San Diego County, California. To assist you in evaluating the potential occurrence of these species within the areas of interest, we are providing the enclosed list.

Section 7 of the Endangered Species Act of 1973 (Act), as amended, requires Federal agencies to consult with the U.S. Fish and Wildlife Service should it be determined that their actions may affect federally listed threatened or endangered species. Section 9 of the Act prohibits the "take" (e.g., harm, harassment, pursuit, injury, kill) of federally listed wildlife. "Harm" is further defined to include habitat modification or degradation where it kills or injures wildlife by impairing essential behavioral patterns including breeding, feeding, or sheltering. Take incidental to otherwise lawful activities can be authorized under sections 7 (Federal consultations) and 10 (habitat conservation plans) of the Act.

If a proposed project is authorized, funded, or carried out by a Federal agency and may affect a listed species, then the Federal agency must consult with us on behalf of the applicant, pursuant to section 7 of the Act. During the section 7 process, measures to avoid and minimize project effects to listed species and their habitat will be identified and incorporated into a biological opinion that includes an incidental take statement that authorizes incidental take by the Federal agency and applicant.

We do not have site-specific information for this area. Therefore, we recommend that you seek assistance from a biologist familiar with the habitat conditions and associated species in and around the project site to assess the actual potential for direct, indirect and cumulative impacts likely to result from the proposed activity. You should also contact the California Department of Fish and Game for State-listed and sensitive species that may occur in the area of the proposed

project. Please note that State-listed species are protected under the provisions of the California Endangered Species Act.

Should you have any questions regarding this letter or your responsibilities under the Act, please call Lauren White of my staff at (760) 431-9440.

Sincerely,

for

Karen A. Goebel
Assistant Field Supervisor

Enclosure

Federally Listed Species
Which Occur or May Occur near the South Bay Substation Relocation Project, Chula Vista, San Diego County, California

Common Name	Scientific Name	Status
Birds		
California least tern	*Sternula antillarum browni*	E
western snowy plover	*Charadrius alexandrinus nivosus*	T
light-footed clapper rail	*Rallus longirostris levipes*	E
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*	SC
Reptiles		
green turtle (NMFS jurisdiction)	*Chelonia mydas*	T

E: endangered T: threatened SC: species of concern

ATTACHMENT 4.4-B: PRELIMINARY WETLAND DELINEATION REPORT

SOUTH BAY SUBSTATION RELOCATION PROJECT
CITY OF CHULA VISTA, SAN DIEGO COUNTY
PRELIMARY JURISDICTIONAL WETLAND DELINEATION REPORT

June 11, 2010

Prepared for:

Insignia Environmental
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Kyle L. Ince, Senior Biologist/Project Manager

Keith W. Merkel, Principal Consultant

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SOUTH BAY SUBSTATION RELOCATION PROJECT
CITY OF CHULA VISTA
SAN DIEGO COUNTY, CALIFORNIA
DRAFT
PRELIMINARY JURISDICTIONAL WETLAND DELINEATION REPORT

Merkel and Associates, Inc.
May 28, 2010

SUMMARY

Merkel & Associates, Inc. (M&A) has prepared this preliminary jurisdictional wetland delineation report for the proposed South Bay Substation Relocation Project, at the request of Insignia Environmental. The purpose of this report is to update and document the existing wetlands and/or non-wetland waterways present on the Proposed Project site. San Diego Gas & Electric Company (SDG&E) proposes to replace the existing South Bay Substation with a new substation located within property to be acquired from the Unified Port District directly south of the South Bay Power Plant (SBPP).

A total of four wetland types were identified within the 72-acre study area: Disturbed Wetland Scrub, Mule Fat Scrub, Emergent Wetland, and Seasonal Ponds. Also mapped and discussed in this report were non-wetland waterways consisting of drainages and pooling features. A total of 5.16 acres of potentially jurisdictional wetlands and waterways were mapped for the site. Of this amount, 2.24 acres of wetlands occur within a diked industrial stormwater and spill containment basin facility that was built for purposes of secondary containment and water quality protection to prevent spill discharges and potentially contaminated stormwater runoff from containment areas around two liquefied natural gas (LNG) tanks. The tanks have since been removed from the site; however, their foundations remain along with an approximate 12-foot-tall surrounding berm that was built to contain storm water runoff within the basin. Required final remediation of this facility, including concrete pad removal/disposal, sediment clean-up removal/disposal, and final grading has not yet been completed. This site continues to function as a necessary containment basin, required as an element of the industrial facility until final cleanup is completed. These basin wetlands are not believed to be regulated by any jurisdiction; however, verification by each of the pertinent regulatory agencies is appropriate. The remaining 2.92 acres of wetlands and non-wetland waterways fall under the jurisdiction of one or more agencies with regulatory authority.

In this document, jurisdiction of the U.S. Army Corps of Engineers (USACE) has been identified based on joint Environmental Protection Agency (EPA) and USACE guidance to implement Supreme Court rulings regarding isolated waters and significant nexus requirements for Clean Water Act (CWA) Section 404 jurisdiction to exist. However, absent a permit applicant requesting that the USACE prepare an "approved" jurisdictional determination (AJD) in lieu of a "preliminary" jurisdictional determination (PJD), joint EPA/USACE guidance directs the USACE to treat all waterways that were previously regulated under the CWA 404 regulatory program as remaining regulated. The guidance does not address waters that are statutorily exempt from regulation, as these would be excluded under either a PJD or an AJD. Based on the broader inclusion of the PJD, USACE regulated waters would be expanded from 0.74 acre to 1.21 acres and would be synonymous with the regulatory boundaries of the Regional Water Quality Control Board (RWQCB).

INTRODUCTION

M&A has prepared this preliminary jurisdictional wetland delineation report for the proposed South Bay Substation Relocation Project, at the request of Insignia Environmental. The purpose of this report is to document the existing wetlands and/or other waters present on the Proposed Project site.

LOCATION

The 72-acre study area is located in the City of Chula Vista, San Diego County, within unsectioned lands of Township 18 South, Range 2 West, of the U.S. Geological Survey Imperial Beach, California Quadrangle (Figure 1). It is located west of Interstate 5 and south of the SBPP. The study area is defined by an irregular boundary encompassing portions of the SBPP site, including vacant pads, substation and transmission facilities, as well as a portion of a tank farm that is in a state of partial decommissioning.

METHODS

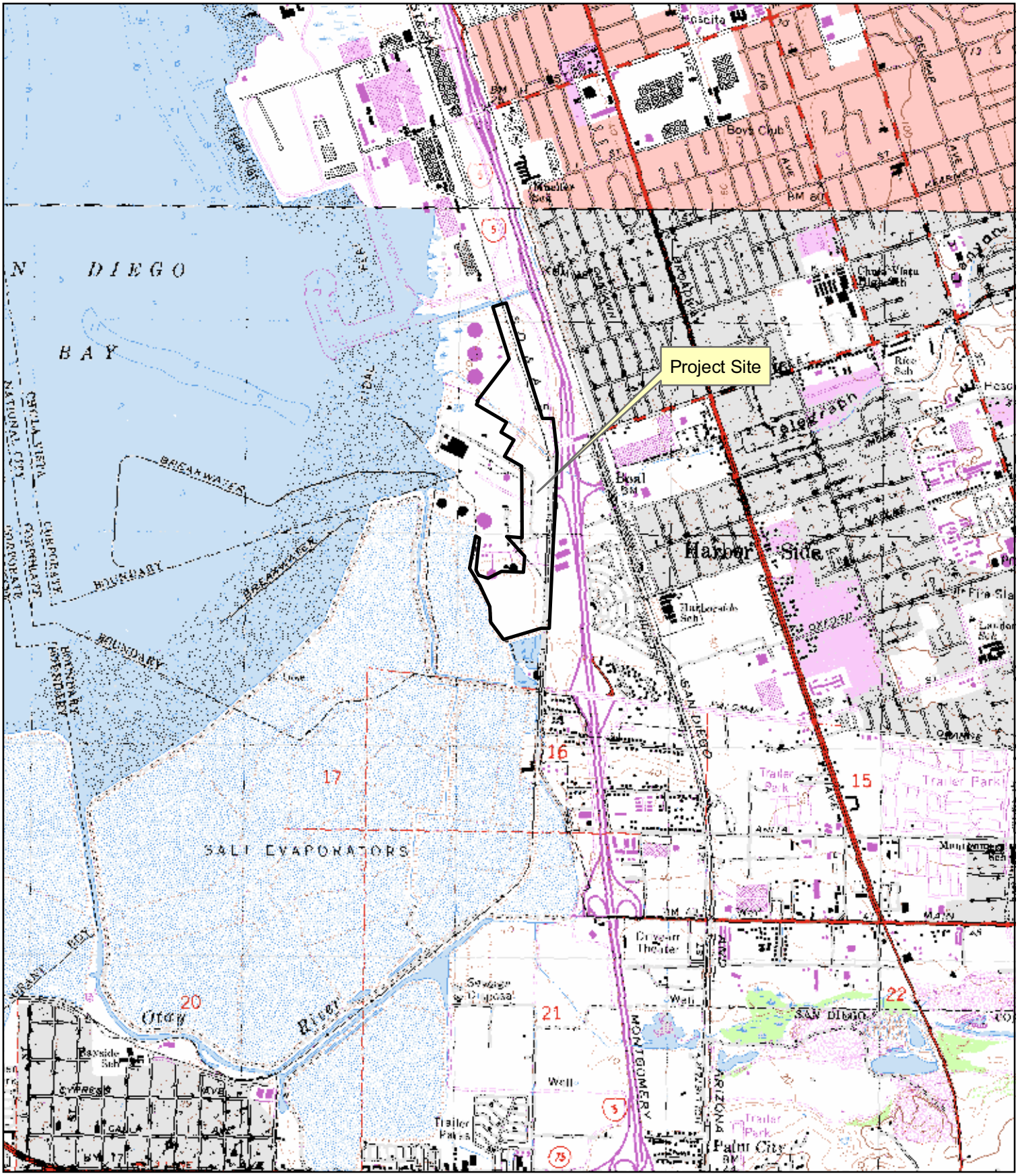
LITERATURE REVIEW

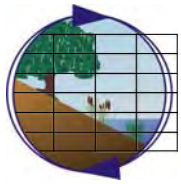
Existing literature pertaining to the study area was reviewed prior to the initiation of field investigations. This literature review included an analysis of a previous wetland delineation report prepared for the site that included the contiguous BSPP property north of the site (Recon 2009), investigations of historic site conditions using the Survey of the Coast of the United States, 1859 charts, USDA-SCS soils maps, and the underlying 1967-1968 aerial photograph soil survey base map (Bowman 1973).

JURISDICTIONAL WETLAND DELINEATION

M&A, with the assistance of Insignia Environmental, conducted a jurisdictional wetland delineation of the Proposed Project site during March and early May, 2010. March wetland delineation fieldwork was conducted from March 8 through March 11, 2010 following a rainstorm event that occurred during the evening of March 6 and throughout the day of March 7, 2010. A total of 0.65 inch of rain was recorded for this storm event. Subsequent wetland delineation fieldwork was performed from May 3 through May 5, 2010. The National Weather Service Forecast Office (National Weather Service 2010) recorded 0.4 inch of precipitation in San Diego for the two weeks preceding the May 3 fieldwork. All wetland delineation work was conducted using the routine onsite determination methods noted in the USACE *Wetland Delineation Manual* (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008). In addition, the delineation was expanded to identify non-wetland federally regulated waters as well as waters of the state, streambeds, and wetlands as defined by the RWQCB, California Coastal Commission (CCC), California Department of Fish and Game (CDFG), and the City of Chula Vista.

Evidence supporting jurisdictional determinations was recorded on field data forms (Appendix 1) and depicted in photographs of the data points (Appendix 2). Wetland habitats and jurisdictional waterways were recorded using a Trimble® geoexplorer Global Positioning System (GPS) unit with submeter accuracy and plotted onto a 1” = 120’ scale, color aerial map (Air Photo USA 2007) of the





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Project Vicinity Map

South Bay Substation Relocation Project

Source: USGS 7.5' Imperial Beach, CA Quadrangle

Figure 1

Proposed Project site. Data collected from the delineation were digitized into current Geographical Information System (GIS) Environmental Systems Research Institute (ESRI) software platforms. Information on the overall delineation process and regulatory jurisdictions may be found in the USACE *Wetland Delineation Manual* and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*, as well as federal, state, and local enacting legislation, or through guidance provided by judicial interpretation, solicitors opinions, and regulatory guidance issued to jurisdictional agencies.

During the delineation work, the study area was evaluated to identify potential jurisdictional wetlands and/or waterways and their connection to off-site hydrological resources. In addition, the overall landforms, slopes, soils, and climatic/hydrological conditions were assessed. Data points were then taken in areas that were visually determined to best represent the characteristics of each potential wetland community type and/or jurisdictional resource identified, as well as in areas where the presence of a wetland and/or jurisdictional resource was uncertain. The USACE routine on-site determination methods require the presence of three parameters, under normal circumstances, to define an area as a wetland (e.g., hydrophytic vegetation, hydric soils, and wetland hydrology). At each data point location, the area was first assessed to determine if normal environmental conditions were present. Some wetland indicators of one or more of the parameters can be periodically lacking due to normal seasonal or annual variations in environmental conditions (i.e., problem areas) or effects of recent human activities or natural events (i.e., atypical situations). Each data point was then evaluated for indicators of each of the wetland parameters.

Wetland Parameters

Hydrophytic Vegetation

Hydrophytic vegetation is defined as "the community of macrophytes that occurs in areas where inundation and soil saturation is either permanent, or of sufficient frequency and duration to exert a controlling influence on the plant species present" (USACE 2008, Section 2). For the purposes of this delineation, five levels of wetland indicator status were used to assess the presence of hydrophytic vegetation, based on the most current *National Lists of Plant Species that Occur in Wetlands* (USFWS 1988): species classified as 1) obligate wetland plants (OBL) [plants that occur almost always (estimated probability >99%) in wetlands under natural conditions, but which may also occur rarely (estimated probability <1%) in non-wetlands]; 2) facultative wetland plants (FACW) [plants that occur usually (estimated probability >67% to 99%) in wetlands, but also occur (estimated probability 1% to 33%) in non-wetlands]; 3) facultative plants (FAC) [plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non-wetlands]; 4) facultative upland plants (FACU) [plants that occur sometimes (estimated probability 1% to <33%) in wetlands, but occur more often (estimated probability >67% to 99%) in non-wetlands]; and 5) obligate upland plants (UPL) [plants that occur rarely (estimated probability <1%) in wetlands, but occur almost always (estimated probability >99%) in non-wetlands under natural conditions] (Environmental Laboratory 1987, Table 1). Hydrophytic vegetation was determined to be present if any one of the following three indicator tests were satisfied: 1) the Dominance Test (Indicator 1), where "more than 50% of the dominant plant species across all strata were rated OBL, FACW, or FAC"; 2) the Prevalence Test (Indicator 2), where there were indicators of hydric soils and wetland hydrology, and the prevalence index was 3.0 or less, which is a weighted-average wetland indicator status of all plant species by abundance (percent cover); and/or 3) the Plant Morphological Adaptations Test (Indicator 3), where there were indicators of hydric soils and wetland hydrology present, and either the Dominance Test (Indicator 1) or Prevalence Test (Indicator

2) were satisfied after reconsideration of the indicator status of certain plant species that exhibited morphological adaptations for life in wetlands.

Hydric Soils

Hydric soils are defined as "a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (USACE 2008, Section 3). For the purposes of this delineation, the hydric soil indicators described in the USACE *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008) and *National Technical Committee for Hydric Soils (NTCHS) Field Indicators of Hydric Soils in the United States* (USDA NRCS 2006) were used to assess the presence of hydric soils. Soil test pits were dug to the depth needed to document the soil chroma index using the Munsell® Soil Color Charts (Munsell® Color 2000), as well as additional hydric soil indicators. The soil was determined to be hydric if one or more hydric soil indicators were present.

Wetland Hydrology

Wetland hydrology is indicated by the presence of surficial or sub-surficial hydrologic characteristics long enough during the growing season to show that the presence of water has an overriding influence on the characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively; thus, for an area to be defined as a wetland, periodic inundation or saturation of soils during the growing season must be determined to be present (USACE 2008, Section 4). For the purposes of this delineation, the wetland hydrology indicators described in the USACE *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008) were used to assess the presence of wetland hydrology. Wetland hydrology was determined to be present if one or more primary indicators, or two or more secondary indicators were observed.

Jurisdiction of Wetlands and Waterways

The extent of jurisdictional boundaries was determined according to the USACE, CDFG, State Water Resource Control Board (SWRCB)/ RWQCB, CCC, and City of Chula Vista definitions of wetlands, navigable waters, and non-wetland waters of the U.S./streambed (NWW). The following text describes each agency's jurisdiction.

U.S. Army Corps of Engineers

The USACE has regulatory authority to issue permits for 1) the discharge of dredged or fill material in "waters of the U.S." under section 404 of the Clean Water Act (CWA) (33 U.S.C. § 1344), and 2) work and placement of structures in "navigable waters of the U.S." under sections 9 and 10 of the Rivers and Harbors Act (RHA) (33 U.S.C § 401).

The term "navigable waters of the U.S." is defined in Code of Federal Regulations (CFR), title 33, section 328.4 as "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce." The term "waters of the U.S." is defined in 33 CFR section 328.3(a) as: (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide; (2) All interstate waters and wetlands; (3) All other waters such as intrastate lakes, rivers, streams, (including intermittent streams), mudflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or

natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce; (4) All impoundments of waters otherwise defined as waters of the U.S. under the definition; (5) Tributaries of waters identified in (a) (1) through (4) of this section; (6) The territorial seas; (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section; and (8) Waters of the U.S. do not include prior converted cropland.

"Wetlands" are defined in 33 CFR section 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Thus, all three parameters (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology) must be present to classify an area as an USACE jurisdictional wetland under normal circumstances. The limits of jurisdiction in non-tidal waters of the U.S. [33 CFR 328.4(c)] extend to the limits of the wetlands or adjacent wetlands. Non-tidal waters of the U.S. that lack one or two of the wetland parameters may still be jurisdictional under USACE as non-wetland waters of the U.S. (NWW). In the absence of wetlands or adjacent wetlands, the limits of jurisdiction in non-tidal waters of the U.S. extend to the ordinary high water mark (OHWM), which is defined in 33 CFR 328.3(e) as, "that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." To further support the determination of the OHWM, this evaluation relied on guidance provided under Regulatory Guidance Letter (RGL 05-05) issued by USACE Headquarters on the subject of OHWM identification (USACE 2005).

The regulatory purview of the USACE under Section 404 of the CWA has been restricted in recent years by rulings of the U.S. Supreme Court. These have included principal rulings under *Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers et al.* (2001) and the 2006 ruling in *Rapanos v. U.S.* and *Carabell v. U.S.* (hereafter collectively referred to as *Rapanos*). Under the 2006 court ruling in *Rapanos* addressing the jurisdictional scope of "waters of the U.S.", no single opinion commanding a majority of the Court was issued. As a consequence, the EPA and the USACE subsequently issued a joint memorandum (December 2, 2008) addressing guidance on determining jurisdiction of "waters of the U.S." (EPA and USACE 2008). The memorandum, intended to address rulings in *SWANCC* and *Rapanos*, states that the agencies will assert jurisdiction over the following waters:

- Traditional navigable waters (TNW);
- Wetlands adjacent to TNWs;
- Non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months); and
- Wetlands that directly abut such tributaries.

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- Non-navigable tributaries that are not relatively permanent;
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and

- Wetlands adjacent to, but that do not directly abut, a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and
- Ditches (including roadside ditches) excavated wholly in, and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream TNWs; and
- Significant nexus includes consideration of hydrologic and ecologic factors.

Key to the application of this guidance is a formalized oversight process involving both the USACE and the EPA in the adoption of AJDs. The intent of this formal process is to ensure consistency in the manner in which the agencies interpret the rulings and guidance at all levels. To institute the program by which jurisdictional determinations are made, the USACE issued RGL 08-02 on the subject of Jurisdictional Determinations (USACE 2008). Of importance in this guidance is the distinction between an applicant's request for a PJD or an AJD. If a PJD is requested from the USACE, the determination will be inclusive of all features that have historically been regulated by the USACE under Section 404 of the CWA and Sections 9 and 10 of the Rivers and Harbors Act (i.e., pre-*SWANCC* and *Rapanos*). The PJD excludes exempted jurisdictional waters, but not those excluded by court ruling interpretations. The AJD provides a more thorough evaluation of issues of isolation, adjacency, and significant nexus as contemplated by the courts and excludes those areas from USACE regulation that fail to meet the necessary litmus tests of the court decision and the agencies' implementation guidance.

California Department of Fish and Game

Under Section 1602 of the California Fish and Game Code, the CDFG has regulatory authority over any proposed activity that may substantially modify a river, stream, or lake. The CDFG regulates alterations of lakes or streambeds through the development of a Streambed Alteration Agreement (Agreement) under the Lake and Streambed Alteration Program (LSA). Unlike the USACE process, the Agreement is not a permit, but rather an Agreement developed between an applicant and the CDFG. This Agreement may include conditions of mitigation, impact reduction, or avoidance measures. These measures are subject to acceptance by the applicant or may be countered with alternative measures. If an Agreement cannot be reached between the CDFG and applicant, an arbitration process exists.

The breadth of jurisdiction under the CDFG differs from the USACE in that a "streambed" is not limited to the OHWM, but rather encompasses the entire width of the streambed, from bank to bank, regardless of the water level. CDFG regulatory authority under Section 1602 of the Fish and Game Code extends not only to the bed and bank of streams or lakes, but also to adjacent riparian habitats that are supported by a river, stream, or lake, regardless of the riparian area's federal wetland status. These areas are considered "adjacent riparian habitat". For practical purposes of defining adjacent

riparian habitats, these habitats include the extent of the canopy for stream associated vegetation that is rooted within and dependent on the jurisdictional streambeds, as well as all adjacent hydrophytic vegetation. In some instances, small disjunctions between the stream course and adjacent riparian stands may occur where prior disturbance has occurred to fragment the riparian corridor. Adjacent riparian habitat does not include isolated trees or groves, or other wetland vegetation types in absence of proximate streambeds or lakes. Section 1602 does not extend to isolated wetlands and waters such as small ponds not located on a drainage, wet meadows, vernal pools, or tenajas. CDFG jurisdiction does not extend to tidal waters that lack the geometry and riparian characteristics of a stream.

State Water Resource Control Board/Regional Water Quality Control Board

For waters of the State that are federally regulated under the CWA, SWRCB (through its RWQCBs) must provide state water quality certification pursuant to Section 401 of the CWA for activities requiring a federal permit or license, which may result in discharge of pollutants into waters of the U.S. Where no federal jurisdiction exists over waters of the State, the SWRCB (through its RWQCBs) retains regulatory authority to protect water quality through provisions of the Porter-Cologne Act.

Waters of the State include both surface and groundwater, and are not restricted by geographic features. Like other state definitions, the SWRCB defines waters of the State as having any of the features of hydrophytic vegetation, hydric soils, or wetland hydrology. Impacts to waters of the State are regulated through either the CWA Section 401 water quality certification process or through the issuance of waste discharge requirements (WDRs) by either the SWRCB or the appropriate RWQCB.

California Coastal Commission

The CCC regulates activities that would affect wetlands occurring throughout the California coastal zone under the California Coastal Act (CCA) through the Coastal Development Permit (CDP) process.

Section 30121 of the CCA defines "wetland" as: "lands within the coastal zone that may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats and fens." The CCC Administrative Regulations [Section 13577(b)] further expand upon this definition as follows:

> *Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity, or high concentrations of salt or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within or adjacent to vegetated wetlands or deepwater habitats.*

The CCC uses the same three criteria for defining wetlands as the USACE (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology); however, like the CDFG, only one of the three

criteria need to be present for an area to be classified as a wetland. Unlike the CDFG, CCC jurisdiction extends beyond streambeds to include all tidal areas and isolated wetlands; however, jurisdiction is limited to areas within the coastal zone. The CCC wetland definition is generally more encompassing than either the USACE or CDFG definition in most respects; however, the language of the Section 13577(b) of the Administrative Regulations would suggest that, where conditions are not capable of supporting hydric soils or hydrophytic vegetation, hydrologic indicators of saturation or surface waters should be expressed on an annual basis (i.e., "at some time during each year"), not just under ordinary high water conditions as is the case under the federal regulatory standard. As a result, the CCA definition of wetlands would appear to be more limited than the federal act where no soil or vegetation indicators exist.

City of Chula Vista

The City of Chula Vista defines wetlands under the City of Chula Vista Multiple Species Conservation Plan (MSCP) as any of the following:

1. Areas that are inundated or saturated by surface or ground water at a frequency or duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions;
2. Lands which contain naturally occurring wetland communities listed on Table 5-6 of the Chula Vista MSCP Subarea Plan and further described in Appendix B (City of Chula Vista 2003); and
3. Areas lacking wetland communities due to non-permitted filling of previously existing wetlands.

Furthermore, Appendix B of the Chula Vista MSCP Subarea Plan lists and defines the following vegetation communities as being a wetland: saltpan, vernal pools, southern coastal salt marsh, freshwater/alkali marsh, riparian forest, oak riparian forest, riparian woodland, riparian scrub, open water/freshwater, natural flood channel, and disturbed wetlands.

Wetland Functions and Values

Based on the wetland delineation, wetland functions and values were assessed for any wetlands identified onsite. Wetland functions can be defined as the physical, chemical, and biological characteristics of a wetland. The physical and chemical functions and values of a wetland are determined based on the wetland width, slope, substrate, hydrology characteristics, and habitat constituents. These functions and values typically include groundwater recharge, floodflow alteration, streambed stabilization, sediment/toxicant retention, nutrient transformation, and production export. The biological functions of a wetland typically include wildlife habitat and cover.

SCIENTIFIC NOMENCLATURE

The scientific and common names utilized for the floral and faunal resources were noted according to the following scientific nomenclature: flora, Rebman and Simpson (2006); butterflies, Klein/San Diego Natural History Museum (2002); amphibians and reptiles, Crother et al. (2001 and 2003); birds, American Ornithologists' Union (1998 and 2008); and mammals, San Diego Natural History Museum (undated), which uses Wilson and Reeder (1993) for species names and Hall (1981) for subspecies.

RESULTS

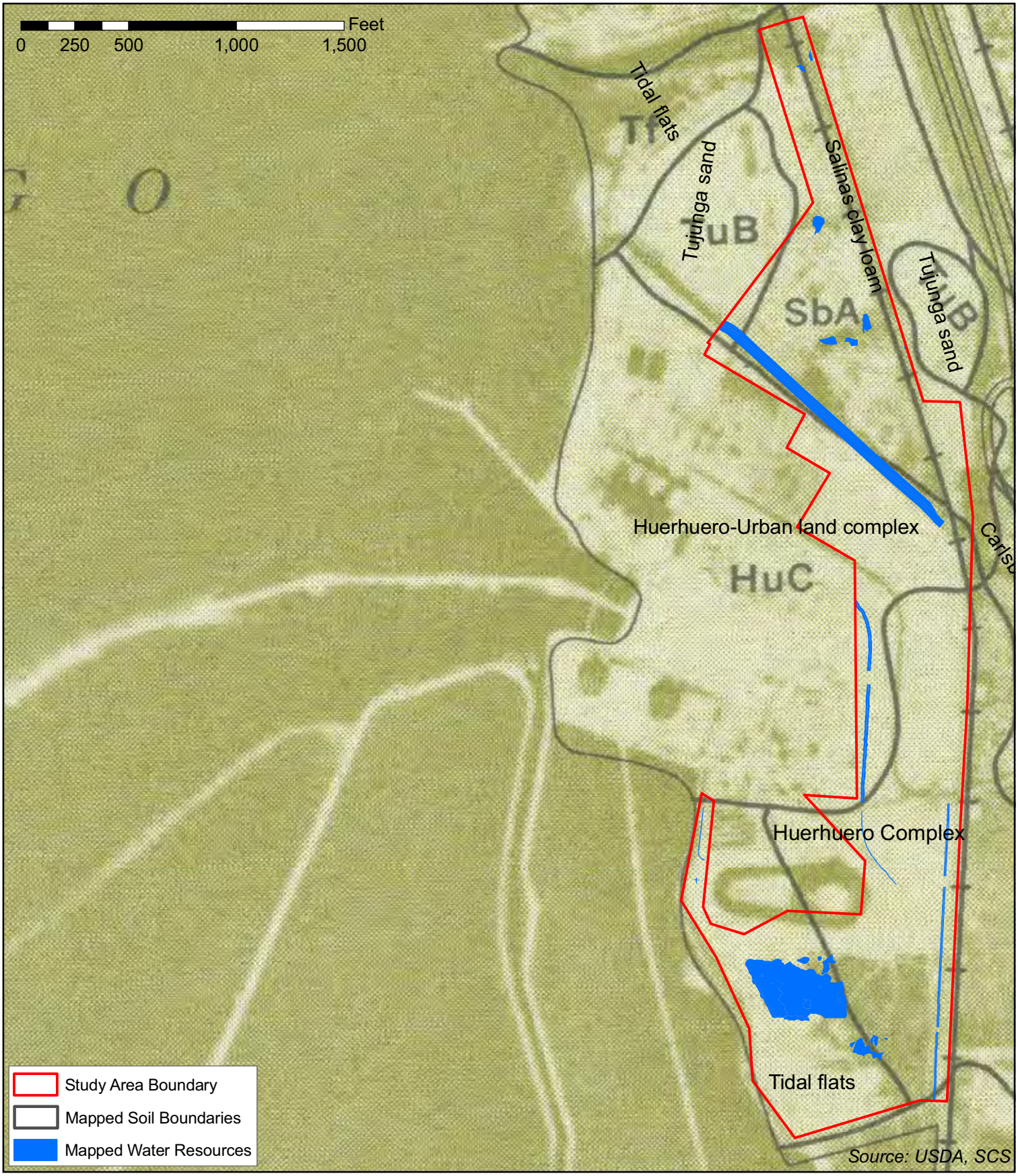
HISTORICAL AND PRESENT LAND USE

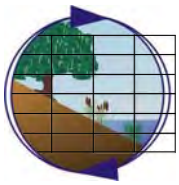
A majority of the study area site occurs on land that was at the historic upper margin of tidal influence, but which has been subsequently filled well above the highest high tides using bay derived fill material. This is evidenced both by the 1859 bay chart as well as county soil surveys conducted between 1960 and 1967 that included this area as tidal flats (USDA 2007, Bowman 1973). Figure 2 depicts the boundary of this soil type overlaid onto a 1967-1968 aerial photo of the site subsequent to the soil mapping that was performed (Bowman 1973). These mapped tidal flats are now comprised of filled lands. As shown in this photo, a majority of the site had been filled by 1967/1968; however, the stark white appearance of the site in the photograph suggests that fills were then recently placed or cleared, and/or retained the salt glaze typified in fast-land fills (shallow water areas around waterbodies that are filled to create dry land, typically through dredging of other waters for greater basin depth). Reportedly, the area was filled with bay mud dredged from the immediate area to construct various bayfront developments including the SBPP and the cooling water intake/discharge channel separation jetty. Figure 3 depicts the approximate boundary of the intertidal marsh [Estuarine Intertidal Emergent] as it existed before the turn of the century (1859 geodetic chart-source unknown). Although this mapping effort is relatively crude compared to today's standards, it should be noted that this 1859 chart shows tidal marsh lands extending onto the property in the general location of areas described as tidal flats in 1960s soil mapping. Tidal areas within this zone would have been located above the mean high tide line and were filled to elevations above the highest high tides prior to the October 1972 Federal CWA adoption (33 U.S.C.§ 1344). Historic fill activities within San Diego Bay are also discussed and graphically represented within Map 3-1 of the San Diego Bay Integrated Natural Resource Management Plan showing the historic habitat footprint (1859) with the current shoreline overlay (U.S. Navy and San Diego Unified Port District 2007).

With the development of the SBPP in 1960, LNG tanks were constructed on the property. A stormwater and spill containment basin facility including a relatively large (10.0-acre) basin with a surrounding 12-foot (approx.) tall berm was built to protect coastal waters from potential pollutant-laden runoff associated with any spills or leaks from these tanks. In the early 1980's, the tanks were removed, but both foundations and the berm were left in place. The final stages of remediation, including the removal and proper disposal of the tank foundations, removal of soils within the basin/containment facility and removal of the berm and filling the basin sump, have yet to be completed.

A transmission line easement traverses the eastern quarter of the property. The remainder of the site consists of open pads that have become vegetated with variable density vegetation that currently do not serve any land use purpose. Surrounding features include the SBPP to the north, salt mining ponds and San Diego Bay to the west, and industrial/business development to the south and east of the site.

Today, the entirety of the study area exists at elevations well outside of tidal influence at even the extreme high tides. Wetlands and waterways present on site are derived from surficial flow inputs and concentration of rainfall into pooling features with no surface or groundwater hydrologic connectivity to bay waters except through drainages at Telegraph Creek and a small channel that discharges local drainage to a ditch that runs along the northern boundary of the adjacent South Bay Salt Works salt crystallizer ponds.





N
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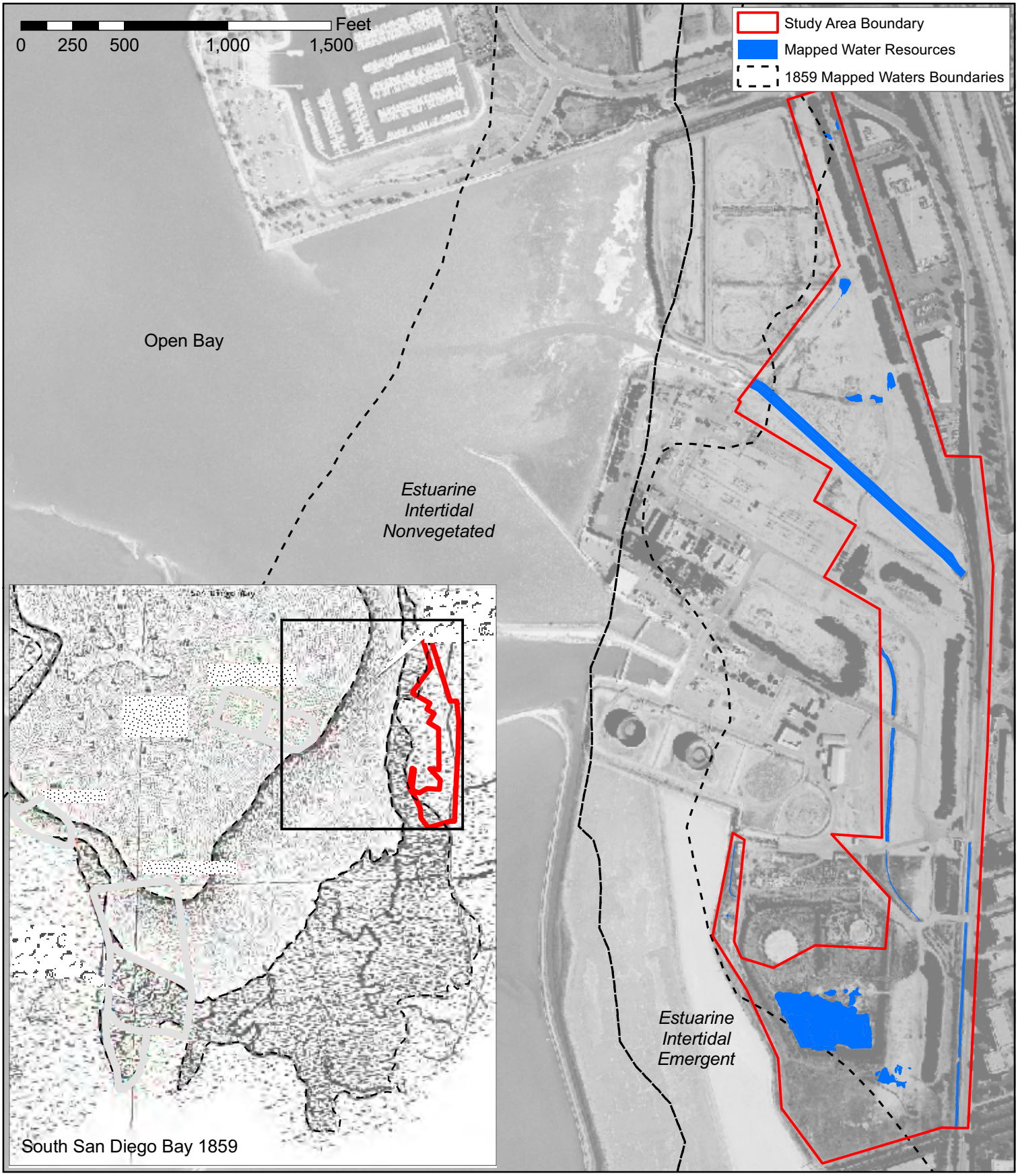
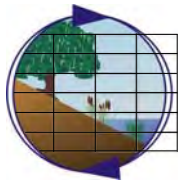
Distribution of Potential Waters Relative to Mapped Soils and 1967-1968 Aerial Photo
South Bay Substation Relocation Project

Figure 2





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Distribution of Potential Waters Relative to 1859 Bay Boundaries

South Bay Substation Relocation Project

Figure 3

PHYSICAL CHARACTERISTICS

Topographically, the study area is characterized as a broad previously graded pad that slopes gently to the west from an elevation of approximately 22 feet above mean sea level elevation (MSL) to a low elevation of approximately 10 feet MSL. Mean sea level (MSL) is 2.88 feet above mean lower low water (MLLW) in San Diego Bay (San Diego Regional Standard Drawing No. M-12, 2003) (Appendix 3). A diked and excavated containment basin surrounding two tank pads and a lowered basin to collect stormwater and pollutants that may be associated with spills or leaks from the storage tanks exists within the core of the study area. The bermed basin has internal ground elevations of as much as 16 feet MSL at the tanks with a graded slope to the lowered basin where elevations are 8 feet MSL (approximately 11 feet MLLW).

A majority of the site's soils are mapped as Tidal flats (USDA 2007), which represent historical conditions of the study area, as discussed above, rather than the present fill conditions, which are now approximately 3 to 18 feet above the highest high tide (HHT) line of 4.91 feet MSL and approximately 6 to 21 feet above the mean high tide (MHT) elevation of 2.01 feet MSL. As such, these areas are characterized as filled lands. Huerhuero loams and Salina clay loam are mapped for the eastern and northern 4/5ths (approx.) of the study area and along the very southern boundary of the property (USDA 2007). Notwithstanding the historic mapping, fill deposits of a bay origin now dominate the soil material present over the majority of the site. The underlying geology is mapped as Pliocene to Holocene alluvium terrace (USGS 2005).

JURISDICTIONAL HABITAT RESOURCES

A total of four vegetation types that meet jurisdictional wetland criteria have been mapped for the site (Figure 4) and are discussed below in respect to vegetation, soils, and hydrology. A discussion of non-wetland waters of the U.S./streambed is also provided as are relative details pertaining to the functions and values of each jurisdictional resource.

Disturbed Wetland Scrub

Description

Disturbed Scrub vegetation occurs within the southern half of the study area's industrial stormwater and spill containment basin. Seasonal storm events result in drainage within the stormwater and spill containment basin to a low point where ponding of water occurs on the clay-lined floor of the basin. By design, the basin has no outlet and water must be removed by pumping from this low point. Seasonal pooling promotes the growth of shallow rooted and adventitious water-rooted hydrophytic vegetation. Shrubs including tamarisk (*Tamarix parviflora*), mule fat (*Baccharis salicifolia*), and coyote brush (*Baccharis pilularis*) are scattered throughout the basin. Tamarisk is FAC species and mule fat is a FACW species. The herbaceous understory includes a variety of hydrophytic plants including FAC species such as sourclover (*Melilotus indicas*), and FACW species such as brass-buttons (*Cotula coronopifolia*), and pineapple weed (*Amblyopappus pusillus*). Mapping the extent of

Disturbed Wetland Scrub dominated by Tamarisk and other weedy wetland species.

dp32
dp46
dp45
dp33
dp34
dp43
dp42
dp35
dp36
dp40
dp41
dp38
dp44
dp37
dp39
dp31
dp30
Telegraph Creek
Matchline 4b

Potential Jurisdictional Resources

Non-wetland Waterways
- Concrete-lined Ditch
- Roadside Swale
- Ephemeral Swale
- Ephemeral Drainage
- Intermittent Drainage

Wetland Features
- Seasonal Pond
- Emergent Wetland
- Disturbed Wetland Scrub
- Mule Fat Scrub

Other
- Project Site Boundary
- Data Point/Photo Point
- hydrologic connectivity - no OHWM defined

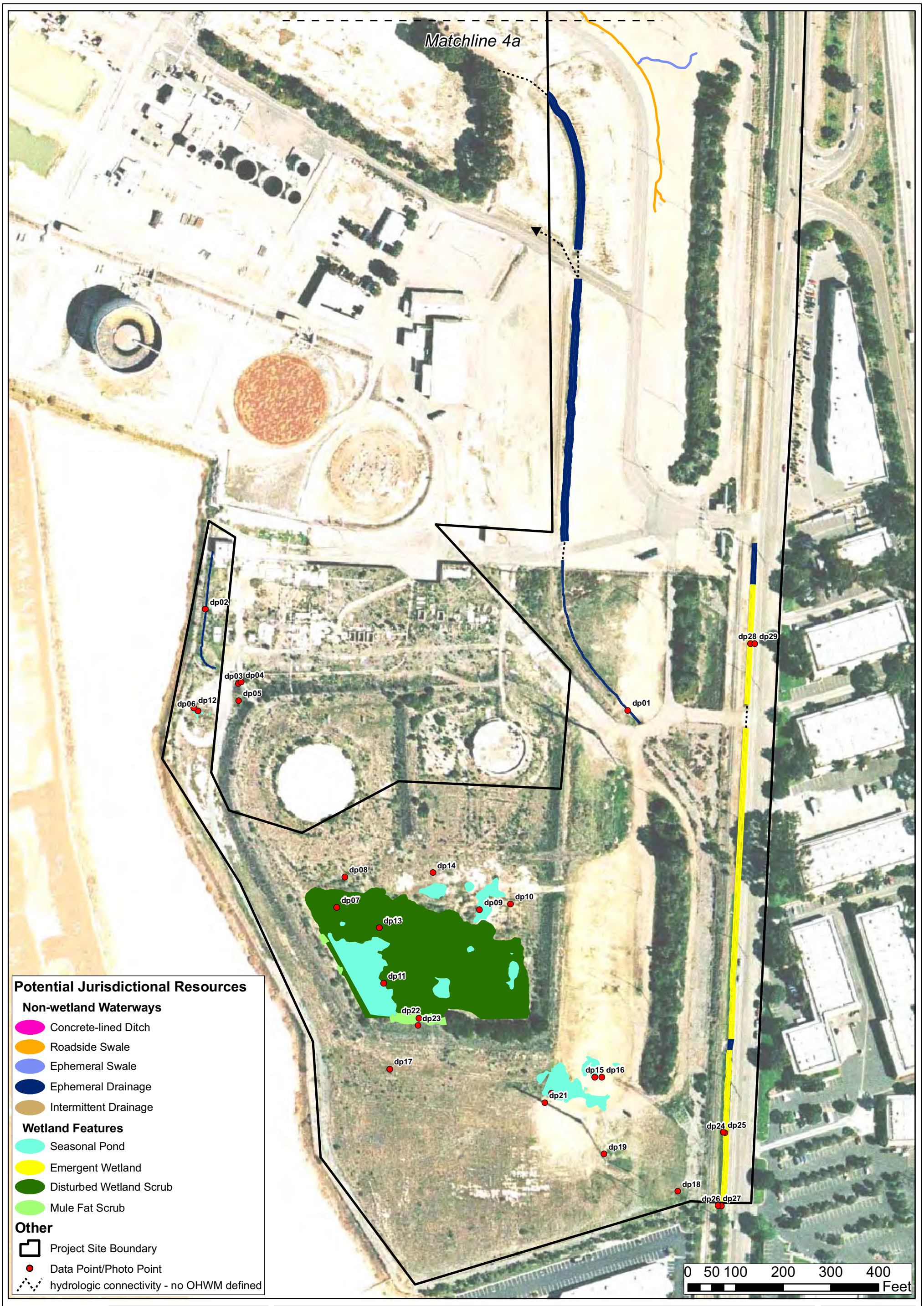
0 50 100 200 300 400 Feet

N W E S

Wetland and Waterway Features (North)

South Bay Substation Relocation Project

Figure 4a



Wetland and Waterway Features (South)

South Bay Substation Relocation Project

Figure 4b

hydrophytic vegetation was somewhat problematic given that several annual species such as pineapple weed were just beginning to emerge on the basin floor. The upper extent of this habitat was determined based on these species in some areas combined with the determination of hydric soil and hydrologic indicators.

Soils within this basin included a sandy clay loam that exhibited a relatively low chroma value. The soil profile exhibited a depleted matrix with approximately 10 percent redox concentrations that occurred below a depth of 5 inches. Oxidized rhizospheres along living plant roots and photos (Recon 2009) depicting previous inundation of the area signified the extent of wetland hydrology.

Wetlands Functions and Values

The industrial stormwater and spill containment basin was constructed to physically isolate and prevent pollutants from being discharged from the LNG storage tank farm into the adjacent bay as a result of tank rupture, spill, or leakage. It is a pollution containment Best Management Practice (BMP). The basin has been designed and configured to have a tight soil containment, large capacity in the event of tank failure, and a slope to drain any captured rainwater and potential spills to the southern edge of the basin where a storage basin exists away from the toe of the tanks. No outlet structures occur within the basin and the tight clay soils that line the basin floor as well as the elevation of the ground floor approximately 3 feet above the highest high tides prevent groundwater infiltration. Given the absence of outlet structures, production export is considered non-existent. Prolonged periods of seasonally flooded conditions within the basin and the presence of live woody and herbaceous vegetation provide seasonal nutrient transformation; however, this function is without linkage to the watershed. Wildlife use of the basin is expected to be low given the predominance of non-native plant species including tamarisk shrub growth within the basin and the lack of any natural habitats surrounding the basin. Bird use is expected to be limited to a few number of bird species that are typically associated with upland disturbed environments. The non-native shrubs (i.e., Acacia [*Acacia redolens*]) that have been planted along the basin slopes accommodate common urban associated bird species such as house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), and northern mockingbird (*Mimus polyglottos*). The basin is also expected to receive only occasional use by wide-ranging urban-adapted predatory mammals (i.e., raccoon, coyote, and feral/domestic dog or cat). These species likely use the seasonal occurrence of open water for drinking and foraging for food. The lack of perennial waters in this area precludes a developed aquatic ecosystem supporting fish or persistent invertebrate fauna.

Mule Fat Scrub

Description

Patches of mule fat (FACW) occur within the stormwater and spill containment basin along the toe of the southern and western berms. The understory includes FAC forbs such as sourclover and Douglas' nightshade (*Solanum douglasii*). The matrix of the sandy clay soils showed evidence of depletion and small, scattered redox concentrations. Soil was saturated within the upper 12 inches of the matrix, which indicated wetland hydrology.

Scattered mule fat define this sparse habitat that is likely kept in an immature state by intermittent flooding and poor soil development due to the clay liner of the basin floor.

Wetlands Functions and Values

Mule Fat Scrub provides similar wetland functions and values as the Disturbed Scrub vegetation discussed above. This habitat occurs at the base of the stormwater and spill containment basin berm and is fed by seasonal runoff that is trapped within the basin. This habitat, like much of the basin floor's scrub vegetation, provides sediment/toxicant retention and nutrient transformation, but lacks any linkage to the watershed and thus does not substantively contribute the chemical functions beyond the localized footprint of the basin. The site accumulates rainfall within the basin and thus reduces watershed discharge resulting from sheet flow; however, the floodflow alteration capabilities are minor due to being decoupled from the watershed. Production export is non-existent since the basin has no outlet. Wildlife use of this habitat is similar to that described above for Disturbed Scrub.

Seasonal Ponds

Description

Shallow depressions that appear to seasonally pond occur in the northern and southern portions of the study area as well as within the industrial stormwater and spill containment basin. The dominant species in these depressions is grass-poly (*Lythrum hysoppifolia*), a non-native FACW forb. Other hydrophytes include brass-buttons, salt marsh sand-spurry (*Spergularia salina*), and curly dock (*Rumex crispus*). The depressions south of the stormwater and spill containment basin also included OBL species such as hairy clover fern (*Marsilea vestita* ssp. *vestita)* and FACW species such as spike rush (*Eleocharis* sp.). The presence of brackish water species in the ponds is indicative of evaporative nature of the pond waters, while the lack of highly saline conditions is similarly indicative of the lack of a groundwater infiltration into these areas, as such environments would foster the presence of marsh halophytes over brackish and freshwater species.

Soils in these areas consist of sandy clay loam in the upper 6 inches and sandy clay from 6 to 12 inches. The matrix exhibited a low chroma with depletions and scattered small redox concentrations. Wetland hydrology is indicated by surface water ranging from 3 to 5 inches in depth and the presence of algal matting that extends outside the existing surface water.

Seasonal ponds fully charged during the early spring months when grass- poly dominates the flora (March 9, 2010).

Seasonal pond dried out during the late spring months (May 5, 2010).

Wetlands Functions and Values

Surface run-off and direct precipitation are trapped in these clay-lined shallow depressions. No groundwater recharge occurs as the clay soils are too tight to allow for either percolation or infiltration. Water evaporates slowly and provides a mostly brackish environment that

accommodates a dominant growth of the non-native forb, grass poly. Since these features are constricted, they trap and retain inorganic sediments and/or chemical substances transported by sheet flow over the site. However, the capacity of these areas for sediment/toxicant retention and nutrient transformation is limited given their relatively small size and shallow depth. Wildlife use is expected to be limited to those species that use disturbed grassland fields that surround these depressions.

Emergent Wetland

Description

A man-made drainage ditch that parallels Bay Boulevard along the eastern property boundary is dominated by non-native hydrophytic forbs. Included here are FAC species such as dallis grass (*Paspalum dilatatum*) and Bermuda grass (*Cynodon dactylon*), as well as FACW species such as curly dock (*Rumex crispus*). Some patches of the native Dombey's spike-rush (*Eleocharis montevidensis*), a FACW species are also found in this drainage. Near the southern end of the drainage ditch, a small stand of soft-flag cattail (*Typha latifolia*) occurs in a low point of the drainage. Totaling approximately 200 square feet, this stand of vegetation is too small to warrant treatment as a separate community features.

Emergent wetland in early spring (March 11, 2010)

Soils consisted of sandy loam in the upper 8 inches of the soil and clay from 8 to 12 inches. The depleted matrix exhibited a low chroma and scattered redox concentrations below a depth of 2 inches. The presence of surface water indicated wetland hydrology.

Wetlands Functions and Values

This narrow drainage ditch receives storm water runoff originating from the relatively extensive urban development surrounding the site. This linear feature traverses south for an approximate distance of 970 feet before it angles west and heads towards San Diego Bay. This drainage ditch was excavated in uplands to convey stormwater flows from the adjacent developed lands.

This drainage ditch is an ephemeral stormwater channel, and is a highly altered system that supports wetland and non-wetland resources with limited functions and values. Groundwater recharge onsite is of low to moderate value given that this stretch of the drainage is unlined and flows through a low gradient area, but subsurface soils are of a typically clayey nature and recharge within this lower portion of the watershed is of limited service value. Floodflow alteration is moderate. Most of the drainage ditch is channelized and flat, which functions to hold floodwaters on some level by reducing flood velocity and aiding in storage, but it is not of high value compared to a broad, undeveloped floodplain. Streambed stabilization is relatively high as the channel is flat and stabilized by vegetation, albeit mostly herbaceous vegetation. This vegetation also provides sediment/toxicant retention. Nutrient transformation is expected to be relatively moderate due to the lower water velocities, presence of herbaceous vegetation, high alkalinity, and prolonged periods of flooding. Production export may be moderate during high flows as this area does have a permanent outlet for materials. The physical and chemical functions provided by this drainage are mediated by the generally low volume and seasonal nature of drainage discharge. The majority of this resource offers very little in the way of wildlife value, and biological functions overall are low. The drainage ditch

is located in a highly developed area, with no native habitat on either side and a major roadway (Bay Boulevard) immediately adjacent to this drainage ditch.

Non-wetland Waters of the U.S./Streambed/Non-wetland Drainage Features

Description

Non-wetland waters of the U.S. and other non-wetland drainage features located within the study area include ephemeral drainages, an un-lined roadside ditch, concrete-lined drainages, and Telegraph Creek, an intermittent creek channel. These are discussed below in order of increasing scale, connectivity, and importance within the watershed.

Concrete-lined Ditches

In the northern portion of the study area, a small collector system of concrete-lined drainage ditches has been developed to convey water flows from the exiting substation yard. This system of ditches meets up with a similarly small ephemeral swale prior to draining through a grated culvert to the concrete channel of Telegraph Creek. This stormwater system has been constructed on the pads to collect and efficiently convey rainfall runoff off of the substation site. Approximately 2 to 3 inches of sediment occur in this ditch system, which allows for the growth of non-native upland species such as garland (*Chrysanthemum coronarium*), tocalote (*Centaurea melitensis*), and crystalline iceplant (*Mesembryanthemum crystallinum*). Shrubs that overhang this feature include upland species such as tree tobacco (*Nicotiana glauca*) and coyote brush. No wetlands occur in this area; however, wetland hydrology was indicated by surface water and sediment deposits.

Concrete-lined ditches draining stormwater from substation yard.

Ephemeral Swales

Ephemeral drainages and swales are located throughout the study area. These features occur in low-lying areas of previously graded pads and collect surface runoff water during periods of heavy precipitation. The swales drain only the local watershed of the upland pads surrounding the features. The swales typically lack vegetation and hydric soils; however, evidence of flow is present intermittently, within the unconsolidated sandy surface soils. These features vary in width from as little as 4 inches to approximately 2.5 feet and are very shallow. The OHWM and top of bank are of approximately equal in width as there is no defined bank to the features. All of these features eventually drain into Telegraph Creek via culverts, although evidence of flow along

Ephemeral swale approximately 9-18 inch in width of sorted sand where sheet flow is concentrated in storm runoff.

the drainage may be intermittent and broken. The features are best characterized as areas within which sheet flow from the pad concentrates enough energy to result in a minor, but detectible surface sediment mobility.

Roadside Drainage

A slightly larger drainage swale occurs near the central portion of the site (Figure 4a-b). This drainage is a collector for one of the small ephemeral swales, but is better characterized as a roadside drainage due to its receipt of water flows from impervious pavement and the generally higher frequency of flows. The drainage enters the stormwater system of the SBPP and ultimately discharges to the intake channel of the power plant cooling water system. As with the ephemeral swales discussed above, the drainage is not highly incised and generally lacks definition or any banks. The drainage is dominated by non-native upland species such as red brome (*Bromus madritensis* ssp. *rubens*) and garland. Shrub growth included mostly coyote brush (UPL) with occasional mule fat (FACW). Soils consisted of a loam with a relatively high chroma matrix color. No hydric soil characters were observed. Wetland hydrology was indicated by drift deposits, drainage patterns, and surface water in portions of the drainage.

Roadside drainage depicting higher flow evidence within a swale lacking defined channel banks.

Ephemeral Drainage

Three ephemeral drainages occur on the subject site. These are distinguished from the previously discussed features, principally by their scale, frequency of flows, and high degree of connectivity to San Diego Bay via either a storm drain pipe or a separate drain. On the westernmost portion of the site (Figure 4b), a small concrete-lined drainage discharges locally collected rainfall run-off and conveys water via a continuous drainage ditch around the north side of the offsite South Bay Saltworks crystallizer pond to tidal waters within the Palomar Drain within the cooling water discharge channel of the SBPP. While the watershed of this drainage feature is small, the high degree of past development around the feature enhances runoff and thus it is believed that this drainage flows more regularly during moderate to heavy storms than do most of the smaller features described above. A larger ephemeral drainage runs through the south-central portion of the site. This is a conduit for both stormwater collected within the study area and that entering the study area from developed portions of the SBPP outside of the study area. The swale drains to the underground stormwater system of the SBPP and ultimately discharges to San Diego Bay within the cooling water channel system. Finally, a long swale supporting principally emergent wetlands runs along the Bay

Ephemeral channel through central portion of study area.

Boulevard frontage of the study area. This drainage feature and associated wetlands are maintained by runoff from Bay Boulevard and adjacent development to the east. At the northern end of the swale, just south of the gated entrance to the SBPP, a small area of unvegetated drainage occurs from double storm drain pipes that discharge to the top end of the swale. None of the ephemeral drainages identified would support flows beyond initial run-out of stormwater during and within hours of a significant rainfall event. Further, none of the drainages are of substantial scale or support extensive or well-developed functions.

Telegraph Creek

Telegraph Creek traverses the northern portion of the study area from east to northwest within a trapezoidal concrete-lined channel. This alignment fixed the position of the creek mouth in the 1960's when the site was initially graded out for development. The channel supports a low discharge intermittent to perennial flow with high discharge storm flows originating from the urbanized older portion of Chula Vista. Within the study area, the ditch is approximately 1,382 feet in length, 10 feet wide at the bed and 50-feet in width from bank-to-bank. Wetland vegetation including Goodding's willow (*Salix gooddingii*), soft-flag cattail, and watercress (*Rorippa* spp.) has colonized a small amount of sediment accumulated on debris jams within a small portion of the channel. Elsewhere, recent sediment deposits are also present; however, developed soils are absent. The bed of the channel was inundated to a depth of approximately 6 inches during the May field surveys, with the principal depth being a result of pooling behind sediment blockages.

Telegraph Creek looking toward the west from near upstream edge of study area.

Telegraph Creek depicting vegetation blockage on accumulated.

Wetlands Functions and Values

Concrete-lined Ditch

The concrete collector channels are comprised of shallow lined channels that collect and convey water during major storm events from a localized portion of the upland pads to Telegraph Creek. The infrequent nature of flows, the upland characteristics of the vegetation surrounding and growing within deposited sediments in the channel, and lining of the channels precludes high functions of this drainage. The site does not support aquatic communities, does not contribute to groundwater recharge or floodflow alteration, nor does it support significant biological or chemical functions.

Ephemeral Swales

The ephemeral swales of the northern portion of the study area originate onsite, capture storm water runoff from the facility pads and transport it directly to Telegraph Creek via culverts. Toxicant

retention, nutrient transformation, and streambed stabilization values are expected to be low due to the ephemeral nature of the drainages, the lack of wetland vegetation development, and the limited flat pad areas that comprise the watershed. The shallow gradient of these drainages provides some value to storm flow retention; however, this function is of negligible importance given the low position of the site within the watershed and the small scale of the site relative to the overall scale of the Telegraph Creek watershed. The ephemeral drainages possess minimal value to wildlife due to the very short duration of flows, lack of cover, and context within the disturbed industrial pads.

Roadside Drainage

Within the study area, the roadside drainage is relatively narrow as defined by an OHWM. Vegetation primarily consists of upland forbs and grasses that benefit toxicant retention and nutrient transformation. To the north, the channel becomes slightly wider. Toxicant retention, nutrient transformation, and streambed stabilization values are all expected to be low due to the ephemeral nature of the drainage, the lack of wetland vegetation development, and the limited flat pad areas that comprise the watershed. The shallow gradient of this channel provides some value to water retention, which benefits floodflow alteration; however, this is of little value considering the direct piping of waters beneath the SBPP facility and into the bay. This direct drainage excludes contribution to broader flow attenuation within a broader watershed context. The roadside drainage ditch may provide foraging opportunities for occasional feral animals as well as habitat for urban tolerant mammals such as Botta's pocket gophers (*Thomomys bottae*) and ground squirrels (*Spermophilus beecheyi*). However, avian use is expected to be nominal due to the lack of vertical structure.

Ephemeral Drainage

The ephemeral drainages of the site all outfall via pipe or concrete channel to San Diego Bay. At the westerly most drainage, a 260-foot long concrete channel conveys runoff off site to a perimeter ephemeral ditch around the adjacent salt crystallizer pond. The channel's concrete bottom and sides limits the value of this channel for sediment/toxicant retention, nutrient transformation and flood flow alteration. Production export is low during high flows due to the small scale of the feature, lack of vegetation development and ephemeral nature of the flows through this channel. Wildlife values for the concrete-lined brow ditch are considered very low due to a lack of soils for burrowing animals and also due to a lack of hydrology outside of rain events.

The larger ephemeral drainages on site collect local drainage and flow for brief periods of time during and immediately following rainfall events. The lack of regular flows or a well-developed vegetation cover limits chemical treatment values and habitat functions. The drainages offer very little in the way of wildlife benefits. Overall biological functions are considered low. The drainages are isolated from larger drainage systems and have direct discharges to the bay via enclosed storm drain systems. As such, these features provide limited physical benefits of flood flow alteration or sediment trapping.

Telegraph Creek

The present function of the lined creek channel is primarily storm drainage for the Telegraph Creek watershed and it is also the main receptor for runoff within the northern portion of the study area. Telegraph Creek drains a much larger geographical area than the wetland delineation study area. Toxicant retention and nutrient transformation are considered to be low due to the concrete-lined and linear channel, although vegetation rooted in accreted sediments on the channel floor may aid somewhat in these functions between significant storm events. Very limited wildlife use in the channel is expected. Use is likely dominated by urban tolerant species such as raccoon and Virginia

opossum entering from the urban areas upstream or the Telegraph Creek marsh below. Occasional wildlife species associated with the downstream bay wetlands as well as migratory waterfowl and shorebirds would be expected to make transient use of the channel. Native fish are likely absent from this area both due to the lack of native fish in the region and the unsuitability of the habitat; however, non-native fish species such as mosquito fish (*Gambusia affinis*) are undoubtedly present as are bullfrogs (*Rana catesbeiana*) and crayfish (*Procambarus clarkii*).

REGULATORY JURISDICTIONAL ASSESSMENT

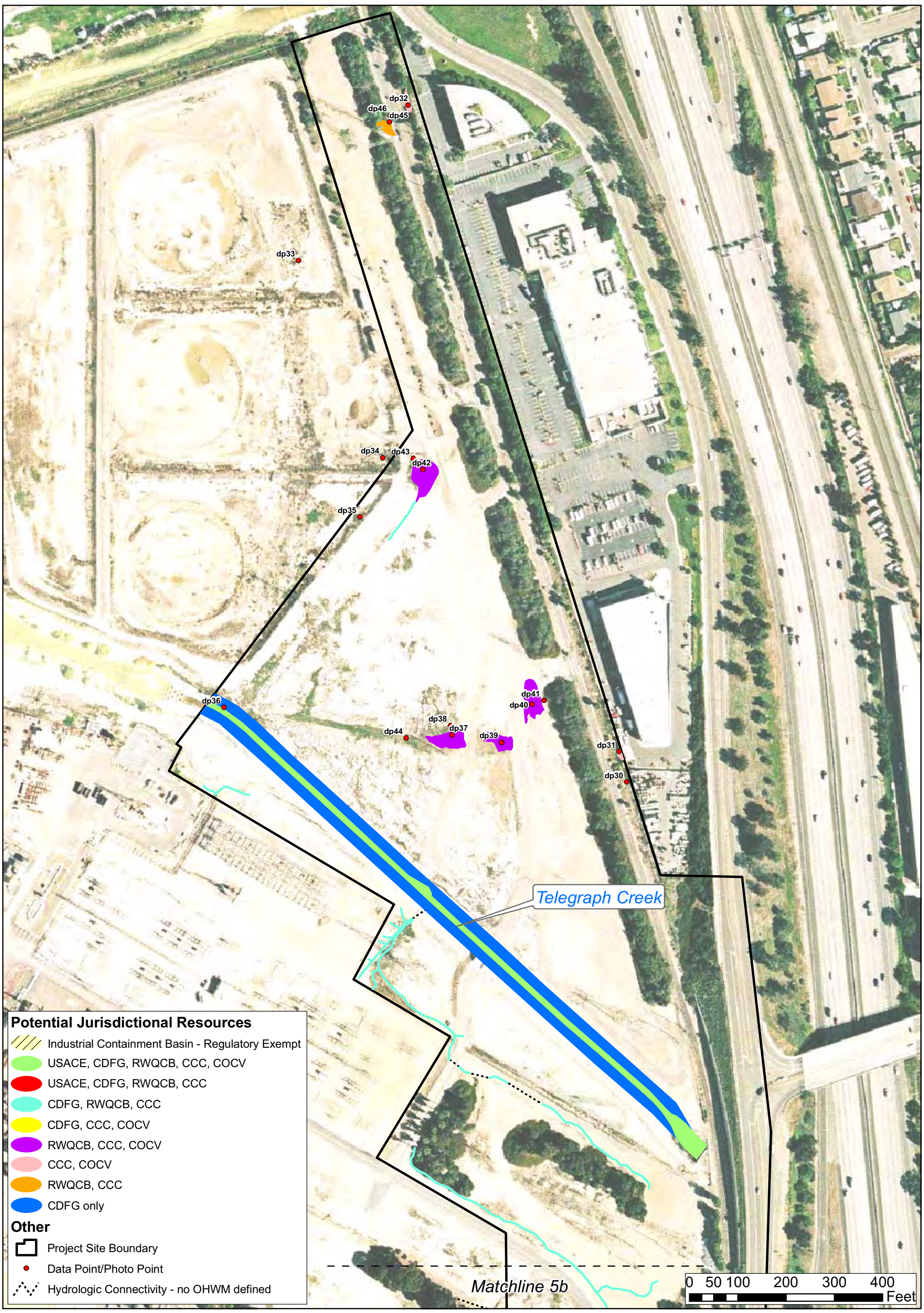
A total of 5.16 acres of non-wetland waterways and wetlands occur within the study area. Table 1 provides a summary of jurisdictional acreage for each habitat type and Figure 5a and b depicts the boundaries for each agency's regulatory jurisdiction over waterways and wetland features. A discussion regarding regulatory authority of the individual agencies is provided in this section.

The bulk of the waters and wetlands occurring on the site are comprised of Disturbed Wetland Scrub, Mule Fat Scrub and Seasonal Ponds that occur within the BMP/secondary containment/stormwater basin facility. Although these habitats meet the USACE's three-parameter definition of wetlands, they would be exempt from federal wetland regulation as they are part of an ongoing industrial site containment basin. The basin is not associated with any drainage feature and is not a lake or streambed and thus would not be regulated by the CDFG.

Under a situation of operational abandonment of the facility, the wetlands and non-wetland waterways within the containment area would be considered to fall under the regulatory jurisdiction of the CCC, SWRCB/RWQCB, and the City of Chula Vista. However, the facility was constructed in uplands and is designed to serve as an industrial stormwater and spill impoundment facility to protect waters of the State from potential discharge of contaminated run-off. The basin was intentionally designed and constructed with a tight, non-porous clay floor lining and no outlets structures. While the tanks within this facility have been decommissioned and partially removed, the foundation slabs and soils remain to be remediated. As a result, the intended purpose of the impoundment basin remains and the facility has not been abandoned.

It is important to note that the jurisdictional boundaries for federal wetland regulation under CWA section 404 would be defined differently depending upon the level of jurisdictional verification that is requested from the USACE by the permit applicant. An applicant may chose to request a PJD or an AJD be performed by the USACE. In the event that a PJD is requested, all waters and wetland features that were historically regulated by the USACE prior to the *SWANCC* and *Rapanos* decisions would be included within waters potentially regulated by the USACE. This would exclude exempt waters, but not isolated waters and waters with limited nexus to a TNW. If an AJD is requested, the USACE would reduce the mapped waters to only those that are presently regulated when considering both the Court's rulings as well as the joint agency guidance to implement those rulings. Federal wetland jurisdiction has been presented in Figures 5a and 5b, as well as in Table 1, on the basis of present regulatory guidance.

The regulatory interpretation provided by the SWRCB and its various RWQCBs has been that constructed treatment facilities or impoundment basins built in uplands that are constructed to protect waters of the State are not themselves waters of the State. If such facilities were treated as waters of the State, it would violate the tenant that waters of the State may not be used in treatment functions for dischargers. The containment facility existing on the study site remains functional in that it isolates potentially contaminated waters from potential receiving waters of San Diego Bay.



Regulatory Agency Jurisdictional Boundaries (North)

South Bay Substation Relocation Project

Figure 5a

Matchline 5a

dp01
dp02
dp03
dp04
dp05
dp06
dp12
dp07
dp08
dp09
dp10
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dp29

Potential Jurisdictional Resources

- Industrial Containment Basin - Regulatory Exempt
- USACE, CDFG, RWQCB, CCC, COCV
- USACE, CDFG, RWQCB, CCC
- CDFG, RWQCB, CCC
- CDFG, CCC, COCV
- RWQCB, CCC, COCV
- CCC, COCV
- RWQCB, CCC
- CDFG only

Other

- Project Site Boundary
- Data Point/Photo Point
- Hydrologic Connectivity - no OHWM defined

0 50 100 200 300 400 Feet

N W E S

Regulatory Agency Jurisdictional Boundaries (South)

South Bay Substation Relocation Project

Figure 5b

Table 1. Summary of Jurisdictional Resources

Jurisdictional wetlands and non-wetland resources	Total Area of Wetlands and Waterways in Study Area	Jurisdictional Acreage					
		USACE	RWQCB	CCC	CDFG	City of Chula Vista	Potentially Exempt (Industrial Containment Basin)
Disturbed Wetland Scrub	1.75	0.00	0.00	0.00	0.00	0.00	1.75
Mule Fat Scrub	0.06	0.00	0.00	0.00	0.00	0.00	0.06
Seasonal Pond	0.85	0.00	0.41	0.41	0.00	0.41	0.43
Emergent Wetland	0.34	0.09	0.09	0.34	0.34	0.34	0.00
Non-wetland Waters of the U.S./ Streambeds/Waters of the State	2.16	0.54	0.59	0.59	2.16	0.43	0.00
Total:	**5.16**	**0.63**	**1.09**	**1.34**	**2.50**	**1.18**	**2.24**

For the CCC, the reason no jurisdiction should be found with such BMP facilities applies with equal force. However, CCC's involvement with such facilities has a lesser history due to the narrower geographic region covered by the agency and thus fewer exemplars. In past actions involving decommissioning of sewage sludge drying facilities (sludge beds within Mission Bay Park's, Fiesta Island), the CCC did not treat basins as wetlands even though the facilities manifested all three defining parameters (hydric soils, wetland hydrology indicators, and hydrophytic vegetation) in some areas and sediments were hydric over most of the facility. Similarly, installation and maintenance of stormwater management BMP swales and basins on new development have not been treated as regulated wetlands. Specifically, these areas, when created in uplands, have often been approved with provisions for active maintenance, shared land uses that are incompatible with the allowable uses in wetlands under the Section 30233 of the CCA (e.g., playgrounds, recreational fields, landscaping, picnic areas), and without any buffer requirements. While the specific issue associated with the active containment basin has not arisen previously, John Dixon, PhD, the Commission's Senior Ecologist has noted that the Commission does not regulate water quality control basins that are maintained for such purposes where active function is clear. This means that maintenance of the

basins is accepted, they can have multiple uses that would otherwise not be an allowable use in a wetland under Section 30233 of the CCA. Dr. Dixon has also pointed to parallel treatment on an Environmentally Sensitive Habitat Area (ESHA) issue where slopes of the Interstate 5 freeway were created and seeded with coastal sage scrub vegetation, while maintaining the future intent of widening the freeway corridor. In this case, the conditions of the slope landscaping posed an obvious potential ESHA conflict. In making the determination that the slopes did not constitute ESHA under the CCA, the Commission weighed both the resource conditions as well as the initial intended premise that the slope position and seeding with sage scrub species was an interim landscape condition to meet an obligation for erosion control not habitat functions. It was also acknowledged that there was an expectation at the time of construction that the slopes would be altered or destroyed in future widening (Loma Santa Fe/Interstate 5 Interchange, Commission Staff Report, App. No. 6-03-54). Thus, based on prior CCC interpretations, the basins are likely excluded from wetland regulation under the CCA.

Within the City of Chula Vista, the adopted wetland definition for regulation under the City's MSCP subarea plan employs a broad technical definition of wetlands. Similar to the other agencies RWQCB and CCC, the City has not treated water detention or infiltration basins constructed in uplands of developments as wetlands. These have been constructed on development pads and maintained for volume and water quality purposes without being treated as wetlands by the City. The City has not treated basins on vacant industrial pads as regulated waters when they are relocated, reconfigured, or replaced by other facilities providing water quality management functions.

While the larger containment basin discussed here appears to fit well within the context of facilities constructed in uplands to protect waters of the State from pollutants and thus are not, themselves, regulated as waters of the State, there is not clear regulatory guidance on this issue. The determination here is made based on past regulatory action precedent and a logical interpretation of the approvals and conditions employed for comparable such facilities. As a result, the determination as to jurisdictional standing of the containment basin wetlands is "exempt" for the USACE, CCC, RWQCB, and City of Chula Vista. Individual agency verification is pending on this issue. It should be noted that barring a finding of exempt status by the USACE, the site would still be excluded from regulation under an AJD due to its isolated nature and lack of a significant nexus to TNWs. The site is both hydrologically isolated by the tight clay soils lining the basin as well as being geographically separated from the functions of San Diego Bay by over 1,000 feet of crystallizer ponds that lack wetland functions due to their toxic hypersaline environments. There is a sharp distinction to be made with regards to the study area adjacent end-point crystallizer ponds and lower concentration salt ponds and levees further removed from the site and which host an abundance of avian use.

The Seasonal Ponds throughout the study area were investigated for their jurisdictional status and their hydrological connectivity to TNWs. Three of the Seasonal Ponds were determined to exhibit surface drainage to swales leading to drain receptors or culverts that ultimately discharge into Telegraph Creek and then the San Diego Bay, a TNW. However, these Seasonal Ponds are so poorly linked to TNWs, requiring a high water spill through an ill-defined channel that lacks an OHWM, that they would not meet a significant nexus test under an AJD. Remaining Seasonal Ponds in the study area appear to be isolated and therefore would not be regulated by the USACE under the CWA following completion of an AJD. The Seasonal Ponds that were delineated near the southeast corner of the site (outside of the stormwater and spill containment basin) would also be considered isolated and therefore exempt from USACE regulation. Their tight clay lining and elevation above tidal waters precludes a groundwater connection with any nearby TNWs. Sheet flow across these depressions is prevented topographically from entering the Bay Boulevard drainage. Berms

constructed along the eastern edge of the property prohibit sheet flow from entering this drainage. In general, the Seasonal Ponds would be regulated as waters of the State by the RWQCB, the CCC, and the City of Chula Vista.

Based on the completed wetland delineation, the Emergent Wetland along Bay Boulevard would be regulated by the USACE, RWQCB, CDFG, CCC and the City of Chula Vista. CDFG jurisdiction extends from top of bank to top of bank within this ditch, while USACE and RWQCB jurisdiction is encompassed by the OHWM. The CCC and City of Chula Vista wetland boundaries follow the limit of hydrophytic vegetation, which occurs not quite to the defined limits of the top of bank, but to such close proximity as to make separate distinction of this narrower boundary from that of the CDFG boundary irrelevant. As a result, a single boundary has been used.

Under an AJD, it is believed that the USACE likely would not assert jurisdiction over this feature since it would be considered "a roadside ditch that was excavated wholly in and draining only uplands and does not carry a relatively permanent flow of water". Guidance provided by EPA and USACE (2008) has identified roadside ditches as features that the USACE would not generally exert jurisdiction over. However, in the present case, the distinction between roadside ditch and a non-permanent non-navigable tributary to navigable waters is slight and whether the USACE will exert jurisdiction is unclear. As a result, a conservative assumption has been made that the USACE does have regulatory authority in this area. It should be noted that this linear feature runs parallel to Bay Boulevard and does not stem from an existing wetland. It was constructed in an upland with the purpose of capturing storm water run-off from surrounding industrial/business development via storm drains and carrying these flows to San Diego Bay.

RWQCB, CDFG, and CCC would regulate all of the smaller non-wetland waterways on the site. CDFG jurisdiction extends from top of bank to top of bank within these features, while RWQCB and CCC jurisdiction is encompassed by the OHWM. The City of Chula Vista would not take jurisdiction over these drainages given that they lack hydrophytic vegetation and do not occur within a "natural flood channel". As with the Emergent Wetland discussed above, the USACE would likely not exert jurisdiction over these features under an AJD while a permit advanced under a PJD would need to consider all of these features as regulated waters of the U.S. These areas would each qualify as "a ditch that was excavated wholly in and draining only uplands and does not carry a relatively permanent flow of water." These drainages were constructed for the sole purpose of capturing surface flows from the industrial pads of the SBPP and diverting them off site to San Diego Bay. The watershed is limited to the facility and no wetlands exist upstream or on these features. For this reason, the USACE would be expected to reject jurisdiction under the significant nexus testing. This would almost certainly be the case for the concrete-lined ditches, roadside swales, and ephemeral swales found on site. Among the non-wetland waterways, there are three larger features identified as ephemeral drainages where the connection to the Bay is either via direct open channel, or direct storm drain rather than through a tributary (*i.e.* Telegraph Creek) to the bay. In these cases, the local watershed is small, the flows infrequent, and the waters are poorly developed. Nonetheless, a conservative assumption has been made that the USACE would exert regulatory authority.

For Telegraph Creek, all agencies—the USACE, RWQCB, CCC, CDFG, and the City of Chula Vista—would take jurisdiction over the creek as it both forms a direct and significant surface connection to TNWs of San Diego Bay and is a realigned channel of a natural drainage feature, rather than being an upland stormwater conveyance facility. The USACE, RWQCB, CCC, and City of Chula Vista would have jurisdiction to the OHWM within the drainage, while the CDFG jurisdiction would extend to the top of the trapezoidal concrete channel.

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APPENDICES

APPENDIX 1. WETLAND DELINEATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 08Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP01

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) drainage channel Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6100385478 Long: -117.093002760 Datum: NAD84

Soil Map Unit Name: Huerhuero loam, 2-9% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Non-wetland water/streambed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 6' x 100')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 6' x 100')			
1. *Baccharis pilularis*	35	Yes	UPL
2. *Baccharis salicifolia*	5	No	FACW
3.			
4.			
	40	= Total Cover	
Herb Stratum (Plot size: 6' x 100')			
1. *Bromus madritensis*	50	Yes	UPL
2. *Chrysanthemum coronarium*	30	Yes	UPL
3. *Melilotus indica*	5	No	FAC
4. *Centaurea melitensis*	2	No	UPL
5. *Heliotropium curassavicum*	2	No	OBL
6. *Erodium cicutarium*	2	No	UPL
7. *Rhynchelytrum roseum*	1.5	No	UPL
8. *Pennisetum setaceum*	1.5	No	UPL
9. *Polypogon monspeliensis*	1	No	UPL
	95	= Total Cover	
Woody Vine Stratum (Plot size: 6' x 100')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Disturbed field with mostly non-native vegetation.

SOIL

Sampling Point: DP01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Loam with high chroma matrix color; No hydric soil characters observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☒ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 3"

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** 0-18"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Drainage channel traversing through site. Connects offsite with S.D. Bay.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 08Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP02

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) drainage channel Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6106006558 Long: -117.095883733 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☒, Soil ☒, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐	No ☒	
Wetland Hydrology Present?	Yes ☒	No ☐	

Remarks:

Concrete-lined browditch with 2-3 inches of sediment and herbaceous cover/open water. Upland shrubs/trees overhang this feature. Non-wetland water/streambed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 75')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Nicotiana glauca*	35	Yes	FAC
2.			
3.			
4.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 75')			
1. *Baccharis pilularis*	15	Yes	UPL
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: 5' x 75')			
1. *Chrysanthemum coronarium*	52	Yes	UPL
2. *Centaurea melitensis*	2	No	UPL
3. *Mesembryanthemum crystallinum*	2	No	UPL
4. *Melilotus indica*	2	No	FAC
5. *Bromus diandrus*	2	No	UPL
6.			
7.			
8.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 75')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Mostly non-native vegetation growing within or overhanging channel.

SOIL

Sampling Point: DP02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Soils pit not escavated due to concrete lining of channel. Sediments within channel assumed to be transported from unknown upstream sources.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☒ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☒ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 2-6"

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☐ **Depth (inches):** _____

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Flowing/standing water within concrete-lined browditch following recent rain event.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 08Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP03

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6101751949 Long: -117.095654002 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☒, Soil ☒, or Hydrology ☒ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐	
Hydric Soil Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Wetland Hydrology Present? Yes ☒ No ☐	

Remarks:

Seasonal depression dominated by annual hydrophytic plant species.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 10')			
1. *Baccharis pilularis*	5	Yes	UPL
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5' x 10')			
1. *Melilotus indica*	25	Yes	FAC
2. *Lythrum hyssopifolia*	20	Yes	FACW
3. *Centaurea melitensis*	5	No	UPL
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 10')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Primarily non-native herbaceous vegetation.

SOIL

Sampling Point: DP03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 2/1						Sandy loam	Organic matter
2-12	10YR 4/2	98	2.5 4/8	2	C	M	Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Depleted matrix with scattered redox concentrations from 2 to 12 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 2"

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** 0-12"

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Ponded water. Soil saturated from 0-12 inches.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP04

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) slope on road berm Local relief (concave, convex, none): concave Slope (%): 20

Subregion (LRR): LRRC Lat: 32.6101825081 Long: -117.095636824 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Point located in upland area adjacent to Data Point 3.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 5' x 10')			
1. *Baccharis pilularis*	75	Yes	UPL
2. *Isocoma menziesii*	5	No	FACW
3.			
4.			
5.			
	80 = Total Cover		
Herb Stratum (Plot size: 5' x 10')			
1. *Centaurea melitensis*	70	Yes	UPL
2. *Melilotus indica*	15	No	FAC
3. *Senecio vulgaris*	5	No	NI
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 5' x 10')			
1. -			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Non-native herbaceous vegetation.

SOIL

Sampling Point: DP04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 2/1	100					Sandy loam	Has organic material
2-12	10YR 4/2	100					Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No hydric soil indicators were observed. Soil was moist but not saturated. Dark organic matter in surface layer.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No observed characters.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP05

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6100757245 Long: -117.095651902 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** **Yes ☐ No ☒**
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Area saturated from previous rains. Not expected to be saturated for a period long enough for development of hydric soils or vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 10')			
1. *Baccharis pilularis*	5	Yes	UPL
2. *Isocoma menziesii*	2	No	FACW
3.			
4.			
5.			
	7	= Total Cover	
Herb Stratum (Plot size: 5' x 10')			
1. *Erodium cicutarium*	45	Yes	UPL
2. *Centaurea melitensis*	15	No	UPL
3. *Melilotus indica*	13	No	FAC
4. *Chrysanthemum coronarium*	10	No	UPL
5. *Lythrum hyssopifolia*	7	No	FACW
6.			
7.			
8.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 10')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☐ No ☒**

Remarks:

Mostly upland non-native species.

SOIL

Sampling Point: DP05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/4	50	10YR 4/6	<1	C	M	Sandy clay loam	
0-4	10YR 3/2	50					Sandy clay loam	
4-12	10YR 3/2						Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Unkown black tar-like substance interspersed in soils, mostly top layer. Some redox concentrations in the top layer (less than 1%); may be relic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Marine invertebrate shells found in soil.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP06

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): concave Slope (%): 20

Subregion (LRR): LRRC Lat: 32.6100138751 Long: -117.095928145 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒

Are Vegetation ☒, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Area exhibits hydric soil and hydrology characters. Wetland plant species present but not dominant, likely due to vehicle use of area. Appears to be a turn-around area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1. *Baccharis pilularis*	8	Yes	UPL
2. *Isocoma menziesii*	2	No	FACW
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: 10' x 10')			
1. *Lythrum hyssopifolia*	30	Yes	FACW
2. *Centaurea melitensis*	25	Yes	UPL
3. *Erodium cicutarium*	10	No	UPL
4. *Melilotus indica*	5	No	FAC
5.			
6.			
7.			
8.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 10')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	32	x 2 =	64
FAC species	5	x 3 =	15
FACU species		x 4 =	
UPL species	43	x 5 =	215
Column Totals:	70	(A)	294 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☐ No ☒**

Remarks:

Does not meet hydric vegetation, but presumed hydric based on hydric soils and hydrology and disturbance of area from vehicle use.

SOIL

Sampling Point: DP06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/4	20	10YR 4/6	1	C	M	Sandy clay loam	
0-4	10YR 3/2	80					Sandy clay loam	
4-12	10YR 3/2	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Depletions in matrix and a small amount of redox concentrations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 1-2"

Water Table Present? **Yes** ☒ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Depressions with ponded water; not associated with a drainage. Probably tire rut related. Surface water present on first day; saturation only on second day. Presumed saturated within upper 12 for a duration sufficient to support hydrophytic vegetation. Seashells present in soil.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project | City/County: Chula Vista / San Diego Co. | Sampling Date: 09Mar10

Applicant/Owner: SDG&E | State: CA | Sampling Point: DP07

Investigator(s): Kyle Ince / Kristina Bischel | Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) pond | Local relief (concave, convex, none): concave | Slope (%): 20

Subregion (LRR): LRRC | Lat: 32.6088902965 | Long: -117.094972273 | Datum: NAD84

Soil Map Unit Name: Filled Land | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☒, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Hydric soils and wetland hydrology present. Vegetation problematic but presumed hydrophytic given recent emerging of *Amblyopappus pusillus* throughout area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 25' x 50')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 25' x 50')			
1. *Tamarix parviflora*	31	Yes	FAC
2. *Isocoma menziesii*	2	No	FACW
3. *Baccharis salicifolia*	2	No	FACW
4.			
	35	= Total Cover	
Herb Stratum (Plot size: 25' x 50')			
1. *Erodium cicutarium*	78	Yes	UPL
2. *Melilotus indica*	15	No	FAC
3. *Crassula aquatica*	2	No	OBL
4. *Cotula coronopifolia*	<1	No	FACW
5. *Centaurea melitensis*	<1	No	UPL
6. *Senecio vulgaris*	<1	No	FACW
7. *Lepidium sp.*	<1	No	UPL
8. *Chrysanthemum coronarium*	<1	No	UPL
9. *Mesembryanthemum nodiflorum*	<1	No	UPL
10. *Mesembryanthemum crystallinum*	<1	No	UPL
11. *Amblyopappus pusillus*	<1	No	FACW
	98	= Total Cover	
Woody Vine Stratum (Plot size: 25' x 50')			
1.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x 1 =	2
FACW species	5	x 2 =	10
FAC species	46	x 3 =	138
FACU species	0	x 4 =	0
UPL species	81	x 5 =	405
Column Totals:	134 (A)		555 (B)

Prevalence Index = B/A = 4.1

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☒ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☐ No ☒**

Remarks:

Area appears to be a problem area. *Amblyopappus pusillus* (FACW) emerging throughout basin.

SOIL

Sampling Point: DP07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-0.5	10YR 2/1	100					Sandy clay loam	
0.5-5	10YR 4/2	99	2.5YR 4/6	1	C	PL	Sandy clay loam	Concentrations along pore lining in first 2 inches
5-16	10YR 4/2	90	2.5YR 4/6	10	C	M	Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Matrix depleted. Redox concentrations found around pore linings.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Oxidized rhizospheres along roots of vegetation. Also, previous delineation includes photos showing area inundated.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP08

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6090657170 Long: -117.094918645 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

All dominant plant species are UPL. Some faint mottling noted in soil but not thought to be recent. No evidence of wetland hydrology observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 25' x 50')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 25' x 50')			
1. *Baccharis pilularis*	30	Yes	UPL
2. *Baccharis salicifolia*	5	No	FACW
3. *Artemisia californica*	1	No	UPL
4.			
5.			
	36	= Total Cover	
Herb Stratum (Plot size: 25' x 50')			
1. *Chrysanthemum coronarium*	40	Yes	UPL
2. *Erodium cicutarium*	35	Yes	UPL
3. *Melilotus indica*	15	No	FAC
4. *Centaurea melitensis*	5	No	UPL
5.			
6.			
7.			
8.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 25' x 50')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Patches of native shrubs with non-native herbaceous layer in understory and between shrubs.

SOIL

Sampling Point: DP08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5YR 4/2	99+	2.5YR 4/8	<1	C	M	Loamy sand	
6-12	2.5YR 4/2	99+	2.5YR 4/8	<1	C	M	Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Potential relic soil. No evidence of recent inundation. Slightly mottled throughout, less than 1%; don't believe it is hydric. Soil does not show depletion zones.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Oxidized rhizospheres observed in last data point not observed at this elevation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP09

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): convex Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6088833794 Long: -117.093999917 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☒, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Depression within detention basin. Hydrophytic vegetation present, mostly annual species. Soils with a depleted matrix and redox concentrations present. Depression is inundated to a depth of 3 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 20')			
1. *Baccharis pilularis*	4	Yes	UPL
2. *Tamarix parviflora*	1	Yes	FAC
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 10' x 20')			
1. *Lythrum hyssopifolia*	40	Yes	FACW
2. *Spergularia salina*	4	No	OBL
3. *Melilotus indica*	3	No	FAC
4. *Cotula coronopifolia*	2	No	FACW
5. *Senecio vulgaris*	1	No	UPL
6. *Mesembryanthemum nodiflorum*	1	No	UPL
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 20')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Hydrophytic vegetation associated with depression.

SOIL

Sampling Point: DP09

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	10YR 2/1						Sandy clay	
1-12	10YR 4/2	90	2.5YR 4/8	10	C	M	loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Mottles start at 2 inches and continue throughout profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 3"

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Standing water within depression.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP10

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): convex Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6089176005 Long: -117.093789729 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Area slightly elevated from previous data point. Dominant vegetation is UPL. No wetland soil or hydrology characters observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. *Baccharis pilularis*	40	Yes	UPL
2.			
3.			
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: 15' x 15')			
1. *Bromus madritensis*	30	Yes	UPL
2. *Centaurea melitensis*	25	Yes	UPL
3. *Melilotus indica*	10	No	FAC
4. *Mesembryanthemum nodiflorum*	10	No	UPL
5. *Heliotropium curassavicum*	1	No	FACW
6.			
7.			
8.			
	76	= Total Cover	
Woody Vine Stratum (Plot size: 15' x 15')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 24 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Coyote Bush shrub layer with non-native upland herbaceous layer between shrubs.

SOIL

Sampling Point: DP10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 4/3	100					Sandy clay loam	
5-12	5YR 3/3	100					Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No characters observed. Lighter matrix on top, darker on bottom.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP11

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6084553513 Long: -117.094650113 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Mostly non-native hydrophytic vegetation along inundated depression within larger detention basin. Soils with depleted matrix and redox concentrations.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20' x 100')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 20' x 100')			
1. *Tamarix parviflora*	10	Yes	FAC
2. *Baccharis salicifolia*	10	Yes	FACW
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 20' x 100')			
1. *Lythrum hyssopifolia*	38	Yes	FACW
2. *Spergularia salina*	34	Yes	OBL
3. *Melilotus indica*	8	No	FAC
4.			
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 20' x 100')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Hydrophytic shrub and herbaceous layer.

SOIL

Sampling Point: DP11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-0.5	10YR 4/2	100					Sandy clay loam	
0.5-20	10YR 4/2	99	10R 4/6	1			Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Depletion patches with redox concentrations throughout matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☒ **No** ☐ **Depth (inches):** 6" on 3/9; 2" on 3/10

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Data point along edge of ponded depression within detention basin.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP12

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6100332787 Long: -117.095957300 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Old access road adjacent to depression. Dominated by upland species. No hydric soils or hydrology characters observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 5')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 5')			
1. *Baccharis pilularis*	2.5	Yes	UPL
2. *Isocoma menziesii*	2.5	Yes	FACW
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5' x 5')			
1. *Mesembryanthemum crystallinum*	10	Yes	UPL
2. *Mesembryanthemum nodiflorum*	10	Yes	UPL
3. *Melilotus indica*	5	No	FAC
4. *Erodium cicutarium*	2	No	UPL
5. *Chrysanthemum coronarium*	1	No	UPL
6. *Senecio vulgaris*	1	No	UPL
7. *Centaurea melitensis*	1	No	UPL
8.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 5')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Upland forbs along disturbed access road.

SOIL

Sampling Point: DP12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Loamy sand	
4-12	10YR 3/2	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Compacted soil along access route. No hydric soil characters observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No characters observed; no soil saturation in the upper 12 inches. Area slightly elevated from adjacent depression.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP13

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6087744825 Long: -117.094682690 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Area dominated by hydrophytic vegetation. Soils exhibit depleted matrix with redox concentrations.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20' x 50')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 20' x 50')			
1. *Tamarix parviflora*	25	Yes	FAC
2. *Baccharis salicifolia*	3	No	FACW
3. *Isocoma menziesii*	2	No	FACW
4.			
5.			
	30	= Total Cover	
Herb Stratum (Plot size: 20' x 50')			
1. *Amblyopappus pusillus*	60	Yes	FACW
2. *Erodium cicutarium*	20	Yes	UPL
3. *Mesembryanthemum nodiflorum*	7	No	UPL
4. *Senecio vulgaris*	1	No	UPL
5. *Centaurea melitensis*	1	No	UPL
6. *Melilotus indica*	1	No	FAC
7.			
8.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 20' x 50')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Vegetation predominantly hydrophytic.

SOIL

Sampling Point: DP13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	10YR 4/2	100					Sandy loam	Organic matter
1-18	10YR 4/2	99	10R 4/6	1	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Mottles throughout profile. Some grey patches of depletion.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Algal matting. Previous report shows area inundated.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP14

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): slope Slope (%): 2%

Subregion (LRR): LRRC Lat: 32.6090947454 Long: -117.094319722 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Area above typical inundation elevation dominated by upland plant species. No hydric soil characters observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 50')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 50')			
1. *Baccharis pilularis*	5	Yes	UPL
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 10' x 50')			
1. *Erodium cicutarium*	85	Yes	UPL
2. *Melilotus indica*	5	No	FAC
3. *Centaurea melitensis*	3	No	UPL
4. *Mesembryanthemum nodiflorum*	1	No	UPL
5. *Senecio vulgaris*	1	No	UPL
6.			
7.			
8.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 50')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Disturbed upland vegetation dominated overall by *Baccharis pilularis* and non-native forbs.

SOIL

Sampling Point: DP14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2						Loam	
6-12	10YR 4/2						Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No hydric soil characters observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No hydrology characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP15

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6079253833 Long: -117.093207000 Datum: NAD84

Soil Map Unit Name: Huerhuero loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☒, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Seasonally ponded depression with mostly annual hydric plant species.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 10')			
1. *Baccharis pilularis*	4	Yes	UPL
2. *Baccharis salicifolia*	1	Yes	FACW
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5' x 10')			
1. *Lythrum hyssopifolia*	40	Yes	FACW
2. *Spergularia salina*	15	Yes	OBL
3. *Marsilea vestita*	2.5	No	OBL
4. *Rumex crispus*	2.5	No	FACW
5.			
6.			
7.			
8.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 10')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Mostly herbaceous vegetation within seasonally ponded depression.

SOIL

Sampling Point: DP15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 4/2	99	7.5YR 4/8	1			Sandy clay loam	
6-12	7.5YR 2.5/2	99	7.5YR 4/8	1			Sandy clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Patches of matrix depletion and scattered redox concentrations observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 3-5"

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Vegetation with aquatic adaptation (*Marsilea vestita*).

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP16

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6079258296 Long: -117.093159698 Datum: NAD84

Soil Map Unit Name: Huerhuero loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Adjacent to Data Point 15 in upland field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 10' x 10')			
1. *Chrysanthemum coronarium*	44	Yes	UPL
2. *Hirschfeldia incana*	10	No	UPL
3. *Erodium cicutarium*	10	No	UPL
4. *Atriplex semibaccata*	5	No	FAC
5. *Mesembryanthemum nodiflorum*	5	No	UPL
6. *Salsola australis*	5	No	UPL
7. *Amsinckia intermedia*	1	No	UPL
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 10')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Area dominated by non-native forbs.

SOIL

Sampling Point: DP16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 4/2		2.5YR 4/8			M	Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No depletions noted. Small flecks of redox concentrations throughout profile. May be a relic soil. Debris (silt fence) found buried in pit.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No wetland hydrology characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP17

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) broad swale Local relief (concave, convex, none): convex Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6079616448 Long: -117.094603051 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Area previously mapped as a wetland. No observed wetland characters identified during this assessment.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 40')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 40')			
1. *Baccharis pilularis*	15	Yes	UPL
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: 10' x 40')			
1. *Erodium cicutarium*	85	Yes	UPL
2. *Melilotus indica*	5	No	FAC
3. *Rumex crispus*	2	No	FACW
4. *Centaurea melitensis*	1	No	UPL
5. *Crassula connata*	1	No	FAC
6. *Heterotheca grandiflora*	1	No	UPL
7.			
8.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 40')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Field dominated by non-native forbs.

SOIL

Sampling Point: DP17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-0.5	7.5YR 3/1	100					Sandy clay loam	Organic matter
0.5-16	7.5YR 3/2	100					Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Asphalt chunks/fill material in soil pit. No depletion zones present. Very slight flecking of redox concentrations (i.e. one identifiable mottle), assumed relic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project | City/County: Chula Vista / San Diego Co. | Sampling Date: 10Mar10

Applicant/Owner: SDG&E | State: CA | Sampling Point: DP18

Investigator(s): Kyle Ince / Kristina Bischel | Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression | Local relief (concave, convex, none): concave | Slope (%): 0

Subregion (LRR): LRRC | Lat: 32.6072722156 | Long: -117.092635146 | Datum: NAD84

Soil Map Unit Name: Huerhuero loam | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** **Yes ☐ No ☒**
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Area previously mapped as wetland. Vegetation is 50% wetland. Does not meet prevalence index for hydric vegetation. No soil or hydrology wetland characters observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 15')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 10' x 15')			
1. *Rumex crispus*	30	Yes	FACW
2. *Erodium cicutarium*	30	Yes	UPL
3. *Hordeum murinum ssp. leporinum*	13	No	UPL
4. *Bromus diandrus*	5	No	UPL
5. *Amsinckia menziesii*	5	No	UPL
6. *Spergularia salina*	1	No	OBL
7. *Senecio vulgaris*	1	No	UPL
8.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 15')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 15 | % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	1	x 1 =	1
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	54	x 5 =	270
Column Totals:	85 (A)		331 (B)

Prevalence Index = B/A = 3.9

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☐ No ☒**

Remarks:

Vegetation dominated by non-native forbs and grasses.

SOIL

Sampling Point: DP18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-0.5	7.5YR 4/1	100					Sandy clay	
0.5-6	7.5YR 3/2	100					Sandy clay	
6-12	7.5YR 3/2	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No depletions or concentrations observed. Not a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Soil is moist but not saturated. No characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 09Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP19

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6074834774 Long: -117.093139313 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☒, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Documented as "potential CCC wetland" as per Recon in 2005. Nothing to indicate area could be a wetland. No evidence of wetland hydrology; all upland vegetation. Soils pit not excavated (unnecessary).

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 10' x 10')			
1. -			
2.			
3.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1.			
2.			
3.			
4.			
	0	= Total Cover	
Herb Stratum (Plot size: 10' x 10')			
1. *Chrysanthemum coronarium*	75	Yes	UPL
2. *Hordeum jubatum*	10	No	UPL
3. *Heterotheca grandiflora*	2	No	UPL
4. *Bromus diandrus*	2	No	UPL
5. *Erodium moschatum*	1	No	UPL
6. *Crassula connata*	1	No	FAC
7. *Hirschfeldia incana*	1	No	UPL
8. *Atriplex semibaccata*	1	No	FAC
9. *Amsinckia menziesii*	1	No	UPL
10. *Rumex crispus*	1	No	FACW
11. *Erodium cicutarium*	1	No	UPL
	96	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 4 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Mostly non-native forbs and grasses.

SOIL

Sampling Point: DP19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Soil pit not excavated due to predominance of upland plant species and lack of wetland hydrology indicators. Assumed non-hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No wetland indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP20

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): convex Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6078300325 Long: -117.093499577 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☒, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Seasonally ponded depression with hydric plant species and soil with a depleted matrix and redox concentrations.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 15' x 15')			
1. *Lythrum hyssopifolia*	40	Yes	FACW
2. *Rumex crispus*	5	No	FACW
3. *Eleocharis sp.*	2	No	FACW
4. *Bromus sp.*	2	No	UPL
5. *Marsilea vestita*	1	No	OBL
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 15' x 15')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Herbaceous hydrophytic vegetation within seasonally ponded depression.

SOIL

Sampling Point: DP20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 4/2	99	2.5YR 4/8	1		M	Sandy clay loam	
6-12	7.5YR 2.5/2	99	2.5YR 4/8	1		M	Sandy clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Depleted matrix with scattered redox concentrations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☒ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 3-5"

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Algal matting around edges of ponded water.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP21

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) gradual slope Local relief (concave, convex, none): convex Slope (%): 1%

Subregion (LRR): LRRC Lat: 32.6077753461 Long: -117.093546309 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Data point taken in upland area adjacent to Data Point 20.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 20' x 20')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 20' x 20')			
1. *Erodium cicutarium*	60	Yes	UPL
2. *Melilotus indica*	10	No	FAC
3. *Centaurea melitensis*	8	No	UPL
4. *Chrysanthemum coronarium*	1	No	UPL
5. *Atriplex semibaccata*	1	No	FAC
6. *Mesembryanthemum nodiflorum*	1	No	UPL
7.			
8.			
	81	= Total Cover	
Woody Vine Stratum (Plot size: 20' x 20')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 19 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Non-native herbaceous upland vegetation.

SOIL

Sampling Point: DP21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-0.5	7.5YR 3/1	100					Sandy clay loam	Organic matter
0.5-16	7.5YR 3/1	100					Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Asphalt chunks/fill. No depletion zones. Minor flecking of redox concentrations, likely relic. Assumed not a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No wetland hydrology characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP22

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) slope Local relief (concave, convex, none): convex Slope (%): 10%

Subregion (LRR): LRRC Lat: 32.6082568675 Long: -117.094407309 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

On toe of berm in Mule Fat Scrub vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1. *Baccharis salicifolia*	95	Yes	FACW
2.			
3.			
4.			
5.			
	95	= Total Cover	
Herb Stratum (Plot size: 10' x 10')			
1. *Centaurea melitensis*	29	Yes	UPL
2. *Melilotus indica*	20	Yes	FAC
3. *Solanum douglasii*	1	No	FAC
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 10')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Mule Fat Scrub vegetation with understory of hydrophytic forbs.

SOIL

Sampling Point: DP22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-0.5	10YR 4/2	100					Sandy clay loam	
0.5-20	7.5YR 4/2	99	10R 4/6	1	C	M	Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Depleted matrix with a very small amount of redox concentrations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** 12"

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Soil saturated in upper 12 inches of matrix.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 10Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP23

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) hillslope Local relief (concave, convex, none): slope Slope (%): 30%

Subregion (LRR): LRRC Lat: 32.6082137266 Long: -117.094412543 Datum: NAD84

Soil Map Unit Name: Filled Land NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

On slope of southern berm, adjacent to Data Point 22. Dominated by upland forb species. No wetland soil or hydrology characters observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 15' x 15')			
1. *Centaurea melitensis*	67	Yes	UPL
2. *Bromus diandrus*	20	Yes	UPL
3. *Melilotus indica*	10	No	FAC
4. *Salsola australis*	2	No	UPL
5. *Senecio vulgaris*	1	No	UPL
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 15' x 15')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Non-native herbaceous vegetation on slope.

SOIL

Sampling Point: DP23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	5YR 2.5/1	100					Sandy loam	Organic matter
1-12	10YR 3/2	100					Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Asphalt chunks found in soil. No depletions or redox concentrations observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

On slope of detention basin berm. No wetland hydrology characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 11Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP24

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) drainage channel Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6076100004 Long: -117.092316467 Datum: NAD84

Soil Map Unit Name: Huerhuero loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Drainage that runs along eastern boundary of study area, north to south. Hydrophytic non-native forbs and grasses.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 30')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5' x 30')			
1. *Paspalum dilatatum*	75	Yes	FAC
2. *Cynodon dactylon*	15	No	FAC
3. *Eleocharis montevidensis*	7	No	FACW
4. *Rumex crispus*	1	No	FACW
5.			
6.			
7.			
8.			
	98	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 30')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Mostly non-native wetland vegetation growing in roadside drainage ditch.

SOIL

Sampling Point: DP24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 3/1	100					Sandy loam	Organic matter
2-8	10YR 3/2	99	10R	1	C	PL	Sandy loam	
8-12	7.5YR 4/6	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Small redox concentrations within a depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 0-1/4"

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** 5" from top

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Roadside drainage channel with water.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 11Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP25

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) hillslope Local relief (concave, convex, none): none Slope (%): 50%

Subregion (LRR): LRRC Lat: 32.6076137085 Long: -117.092329755 Datum: NAD84

Soil Map Unit Name: Huerhuero loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Data point at top of slope above Data Point 24. No hydric vegetation, soils, or hydrology observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 30')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5' x 30')			
1. *Cynodon dactylon*	10	Yes	FAC
2. *Bromus diandrus*	10	Yes	UPL
3. *Salsola australis*	2	No	UPL
4. *Heterotheca grandiflora*	2	No	UPL
5.			
6.			
7.			
8.			
	24	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 30')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 76 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Non-native herbaceous upland species.

SOIL

Sampling Point: DP25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	7.5YR 3/2	100					Clay	
8-12	7.5YR 4/3						Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No hydric characters observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No hydric characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 11Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP26

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) drainage Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6071902201 Long: -117.092339804 Datum: NAD84

Soil Map Unit Name: Huerhuero loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Freshwater marsh vegetation located just offsite of study area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Washingtonia robusta*	5	Yes	FACW
2.			
3.			
4.			
	5	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 20')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5' x 20')			
1. *Scirpus californicus*	25	Yes	OBL
2. *Cynodon dactylon*	10	Yes	FAC
3. *Leptochloa uninervia*	10	No	FACW
4. *Cyperus eragrostis*	5	No	FACW
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 20')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Freshwater marsh vegetation.

SOIL

Sampling Point: DP26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 3/1	100					Sandy loam	
2-8	10YR 3/2	99	10R	1	C	PL	Sandy loam	
8-12	7.5YR 4/6	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Small redox concentrations within a depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** 0-1/4"

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☒ **No** ☐ **Depth (inches):** 5" from top

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

Roadside drainage channel with water.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 11Mar10

Applicant/Owner: SDG&E State: CA Sampling Point: DP27

Investigator(s): Kyle Ince / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) hillslope Local relief (concave, convex, none): slope Slope (%): 5%

Subregion (LRR): LRRC Lat: 32.6071914142 Long: -117.092360065 Datum: NAD84

Soil Map Unit Name: Huerhuero loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Upland area adjacent to Data Point 26.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5' x 20')			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5' x 20')			
1. *Cynodon dactylon*	2	Yes	FAC
2. *Bromus diandrus*	2	Yes	UPL
3. *Pennisetum setaceum*	1	No	UPL
4.			
5.			
6.			
7.			
8.			
	5	= Total Cover	
Woody Vine Stratum (Plot size: 5' x 20')			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Non-native grasses near top of bank.

SOIL

Sampling Point: DP27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	7.5YR 3/2	100					Clay	
8-12	7.5YR 4/3	100					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No hydric characters observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial photos, previous inspections

Remarks:

No hydric characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 03May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP28

Investigator(s): Joe Thompson / Kristina Bischel / Kyle Ince Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) ditch Local relief (concave, convex, none): none Slope (%): 30%

Subregion (LRR): LRRC Lat: 32.6104277862 Long: -117.092172473 Datum: NAD84

Soil Map Unit Name: Huerhuero complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Roadside drainage ditch.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. -			
2.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. -			
	= Total Cover		
Herb Stratum (Plot size: _____)			
1. *Lolium multiflorum*	35	Yes	FAC
2. *Lythrum hyssopifolia*	25	Yes	FACW
3. *Cyperus eragrostis*	10	No	FACW
4. *Paspalum dilatatum*	5	No	FAC
5. *Cynodon dactylon*	5	No	FAC
6. *Rumex crispus*	2	No	FACW
7. *Lactuca serriola*	1	No	FAC
8. *Sonchus oleraceus*	1	No	NI
9. *Medicago polymorpha*	1	No	FAC
10. *Conyza bonariensis*	1	No	UPL
11. *Raphanus sativus*	1	No	UPL
12. *Setaria viridis*	1	No	UPL
13. *Melilotus indica*	1	No	FAC
14. *Chrysanthemum coronarium*	T	No	UPL
	89	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

Hydrophytic vegetation reaches up to the top of the bank.

SOIL

Sampling Point: DP28

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	95	2.5YR 4/8	5	C	PL	Silty clay loam	
3-11	10YR 3/2	99	2.5 YR 4/8	1	C	PL	Clay	
11-18	10YR 4/3	99	2.5 YR 4/8	1	C	PL	Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☒ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 03May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP29

Investigator(s): Kyle Ince / Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) slope of ditch Local relief (concave, convex, none): none Slope (%): 30%

Subregion (LRR): LRRC Lat: 32.6104286236 Long: -117.092142697 Datum: NAD84

Soil Map Unit Name: Huerhuero complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

On top of bank of roadside drainage ditch.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1. -			
2.			
3.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Herb Stratum (Plot size: ____)			
1. *Hordeum murinum ssp. glaucum*	20	Yes	UPL
2. *Erodium cicutarium*	20	Yes	UPL
3. *Lolium multiflorum*	5	No	FAC
4. *Lactuca serriola*	2	No	FAC
5. *Raphanus sativus*	1	No	UPL
6. *Sonchus oleraceus*	1	No	NI
7. *Malva parviflora*	1	No	UPL
8. *Medicago polymorpha*	1	No	UPL
9. *Polygonum arenastrum*	1	No	NI
10. *Chenopodium murale*	1	No	UPL
11. *Hedypnois cretica*	1	No	UPL
	55	= Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 45 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species	7	x 3 =	21
FACU species		x 4 =	
UPL species	42	x 5 =	210
Column Totals:	49 (A)		231 (B)

Prevalence Index = B/A = 4.7

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Polygonum arenastrum not on list. However, it is unlikely to be an upland plant. Therefore, it was not included in prevalence test.

SOIL

Sampling Point: DP29

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	7.5YR 3/2						Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Dry.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 03May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP30

Investigator(s): Kyle Ince / Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) depression Local relief (concave, convex, none): slight concave Slope (%):

Subregion (LRR): LRRC Lat: 32.6166653252 Long: -117.092802331 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Slight depression next to railroad tracks.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Washingtonia robusta*	5	N/A	NL
2.			
3.			
4.			
	5	= Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. *Cynodon dactylon*	55	Yes	FAC
2. *Cortaderia selloana*	40	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 55	x 3 =	165
FACU species	x 4 =	
UPL species 40	x 5 =	200
Column Totals: 95 (A)		365 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Washingtonia robusta not included because it is not on wetland plant list and probably should not be counted as UPL.

SOIL

Sampling Point: DP30

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1						Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No characters observed. Soil was somewhat moist due to a nearby sprinkler.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 03May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP31

Investigator(s): Kyle Ince / Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) slope Local relief (concave, convex, none): none Slope (%): 20%

Subregion (LRR): LRRC Lat: 32.6168376200 Long: -117.092857136 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

On disturbed slope next to paved parking lot.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix lucida* ssp. *lasiandra*	50	N/A	NI
2.			
3.			
4.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' Radius)			
1. *Baccharis salicofolia*	75	Yes	FACW
2.			
3.			
4.			
5.			
	75	= Total Cover	
Herb Stratum (Plot size: 5' Radius)			
1. *Cynodon dactylon*	30	Yes	FAC
2. *Piptatherum miliaceum*	30	Yes	UPL
3. *Calystegia macrostegia*	20	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. *Hedera helix*	10	Yes	UPL
2.			
	10	= Total Cover	

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	75	x 2 =	150
FAC species	30	x 3 =	90
FACU species		x 4 =	
UPL species	60	x 5 =	300
Column Totals:	165 (A)		540 (B)

Prevalence Index = B/A = 3.3

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** ☐ **No** ☒

Remarks:

Salix lucida listed as NI. Therefore, not included in dominance test and prevalence index worksheets. Hydrology provided by ornamental irrigation sprinklers.

SOIL

Sampling Point: DP31

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	7.5YR 3/2	80	5YR 4/6	20	C	PL	Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Irrigation-fed from sprinklers.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 03May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP32

Investigator(s): Kyle Ince / Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6205057594 Long: -117.094309955 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Next to train tracks.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. -			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. *Cressa truxllensis*	62	Yes	FACW
2. *Cynodon dactylon*	8	No	FAC
3. *Cortaderia selloana*	5	No	NL
4.			
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species _____	x 3 =	_____
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: _____	(A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: DP32

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	10YR 4/3						Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No characters observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 03May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP33

Investigator(s): Kyle Ince / Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6196165583 Long: -117.095038169 Datum: NAD84

Soil Map Unit Name: Tujunga sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☒ No ☐	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Dittrichia graveolens*	25	Yes	UPL
2. *Conyza coulteri*	10	Yes	FAC
3. *Salsola australis*	5	No	UPL
4. *Polypogon monspeliensis*	3	No	FACW
5. *Bassia hyssopifolia*	2	No	FAC
6. *Gnaphalium canescens*	2	No	FACW
7. *Aster subulatus*	2	No	FACW
8.			
	49	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 51 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	7	x 2 =	14
FAC species	12	x 3 =	36
FACU species		x 4 =	
UPL species	30	x 5 =	150
Column Totals:	49	(A)	200 (B)

Prevalence Index = B/A = 4.1

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** ☐ **No** ☒

Remarks:

SOIL

Sampling Point: DP33

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	2.5Y 4/3						Sandy loam	Refusal at 10"

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 03May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP34

Investigator(s): Kyle Ince / Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6184987600 Long: -117.094460362 Datum: NAD84

Soil Map Unit Name: Tujunga sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☒ No ☐	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Baccharis pilularis*	10	Yes	UPL
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Polypogon monspeliensis*	35	Yes	FACW
2. *Melilotus indica*	30	Yes	FAC
3. *Mesembryanthemum nodiflorum*	4	No	UPL
4. *Conyza coulteri*	2	No	UPL
5. *Dittrichia graveolens*	1	No	UPL
6. *Sonchus asper*	1	No	FAC
7. *Bassia hyssopifolia*	1	No	FAC
8.			
	74	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: DP34

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	80	10YR 5/8	<1			Sandy clay loam	
0-16	10YR 3/1	20					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Polychromatic soil. Only found one mottle. Not a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Slightly moist soil.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP35

Investigator(s): Joe Thompson / Kristina Bischel Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6181610886 Long: -117.094611079 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Baccharis pilularis*	15	Yes	UPL
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Melilotus indica*	70	Yes	FAC
2. *Mesembryanthemum nodiflorum*	20	Yes	UPL
3. *Polypogon monspeliensis*	5	No	FACW
4. *Hordeum murinum*	4	No	NI
5. *Sonchus asper*	1	No	FAC
6. *Lolium multiflorum*	<1	No	FAC
7. *Pseudognaphalium canescens*	<1	No	UPL
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	35	x 5 =	175
Column Totals:	110 (A)		395 (B)

Prevalence Index = B/A = 3.59

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** ☐ **No** ☒

Remarks:

SOIL

Sampling Point: DP35

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	10YR 4/3	80					Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No characters observed. On slope of constructed berm. Likely old fill.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No characters observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP36

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) canal Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR): LRRC Lat: 32.6170711947 Long: -117.095514048 Datum: NAD84

Soil Map Unit Name: Tujunga sand NWI classification: R4SBCx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐	No ☒	
Wetland Hydrology Present?	Yes ☒	No ☐	

Remarks:

Patches of wetland vegetation in concrete-lined canal (Telegraph Creek). No soils present. Therefore, not a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Salix gooddingii*	40	Yes	OBL
2.			
3.			
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: ____)			
1. *Typha latifolia*	90	Yes	OBL
2. *Carex* sp.	3	No	FACW
3. *Rumex crispus*	2	No	FACW
4. *Raphanus sativus*	1	No	NI
5. *Polygonum* sp.	1	No	U/K
6. *Lamium* sp.	1	No	U/K
7. *Rorippa* sp.	1	No	U/K
8. *Foeniculum vulgare*	1	No	FACU
	100	= Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

Carex sp. assumed FACW.

SOIL

Sampling Point: DP36

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No soil present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☒ **No** ☐ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** N/A

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☐ **Depth (inches):** N/A

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Flowing water present in the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP37

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6169251050 Long: -117.093980147 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Baccharis pilularis*	3	Yes	UPL
2.			
3.			
4.			
5.			
	3	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Lythrum hyssopifolia*	70	Yes	FACW
2. *Spergularia marina*	20	Yes	OBL
3. *Polypogon monspeliensis*	5	No	FACW
4. *Melilotus indica*	2	No	FAC
5. *Sonchus asper*	1	No	FAC
6. *Heliotropium curassavicum*	1	No	OBL
7. Unk #3 (mint, purple flower)	1	No	U/K
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: DP37

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					Sandy clay loam	
3-12	10YR 4/2	90	7.5YR 5/8	10	C	PL	Sandy loam	
12-16	10YR 4/2	100					Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Moisture in soil, but not saturated.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP38

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6169774116 Long: -117.093991647 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Upland habitat next to wetland (DP37). Area was graded long ago and soil is formed from layers about 3 feet below original surface.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Mesembryanthemum nodiflorum*	75	Yes	UPL
2. *Bassia hyssopifolia*	10	No	FAC
3. *Atriplex semibaccata*	5	No	FAC
4. *Sonchus asper*	3	No	FAC
5. *Lactuca serriola*	3	No	FAC
6. *Melilotus indica*	1	No	FAC
7.			
8.			
	97	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species	22	x 3 =	66
FACU species		x 4 =	
UPL species	75	x 5 =	375
Column Totals:	97 (A)		441 (B)

Prevalence Index = B/A = 4.55

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: DP38

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	2.5Y 4/2	100					Clay loam	Platey, hard

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Alkaline soil, salt crystals observed. Hard, dry soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No characters observed. Very dry.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP39

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6168853006 Long: -117.093647382 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐	No ☒	
Wetland Hydrology Present?	Yes ☒	No ☐	

Remarks:

Non-wetland water/streambed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Herb Stratum (Plot size: ____)			
1. *Spergularia marina*	30	Yes	OBL
2. *Lythrum hyssopifolia*	20	Yes	FACW
3. *Bassia hyssopifolia*	15	No	FAC
4. *Polypogon monspeliensis*	15	No	FACW
5. *Melilotus indica*	5	No	FAC
6. *Sonchus asper*	2	No	FAC
7. *Heliotropium curassavicum*	1	No	OBL
8. *Anagallis arvensis*	1	No	FAC
9. *Amaranthus albus*	1	No	FACU
	90	= Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: DP39

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	2.5Y 3/2	100					Silty clay loam	
2-4	2.5Y 4/2	100					Clayey sand	Bits of clay mixed into sand
4-11	2.5Y 3/2	>99	7.5YR 5/8	<1			Sandy clay loam	Platey

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Very few small mottles. Does not appear to have a hydric soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soil was slightly moist, but not saturated.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP40

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): slight concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6171018255 Long: -117.093445360 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	

Remarks:

Slight depression.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Bassia hyssopifolia*	30	Yes	FAC
2. *Anagallis arvensis*	25	Yes	FAC
3. *Spergularia marina*	20	Yes	OBL
4. *Polypogon monspeliensis*	10	No	FACW
5. *Heliotropium curassavicum*	3	No	OBL
6. *Melilotus indica*	3	No	FAC
7. *Sonchus asper*	2	No	FAC
8. *Thlaspi arvense*	1	No	NI
9. *Lactuca serriola*	1	No	FAC
10. *Erodium cicutarium*	1	No	UPL
11.			
	96	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 4 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: DP40

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5Y 4/2	80	5YR 4/6	20	C	M	Sandy loam	
6-10	2.5Y 3/2	60					Sandy loam	Platey
6-10	2.5Y 5/4						Silty sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

In the 5-10” layer, the sand color appears to be a redox feature. Disturbed soil; probably includes imported bay mud used for fill.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP41

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6171250281 Long: -117.093366141 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Upland area next to wetland (DP40).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size:)			
1. *Erodium cicutarium*	15	Yes	UPL
2. *Spergularia marina*	15	Yes	OBL
3. *Mesembryanthemum nodiflorum*	7	No	UPL
4. *Polypogon monspeliensis*	7	No	FACW
5. *Sisymbrium irio*	4	No	NL/UPL
6. *Thlaspi arvense*	2	No	NI
7. *Bassia hyssopifolia*	1	No	FAC
8.			
	51	= Total Cover	
Woody Vine Stratum (Plot size:)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 49 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	7	x 2 =	14
FAC species	1	x 3 =	3
FACU species		x 4 =	
UPL species	26	x 5 =	130
Column Totals:	49 (A)		162 (B)

Prevalence Index = B/A = 3.3

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: DP41

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-1	2.5Y 4/2						Clay loam	
2-6	2.5Y 4/3	20	7.5YR 5/8	5	C	M	Loamy sand	
2-6	2.5Y 4/2	70					Clay	
2-6	White	5					Chalk	White concentration
6-12	2.5Y 4/2	95	2.5Y 5/6	5			Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP42

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6184221879 Long: -117.094189051 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** **Yes ☒ No ☐**
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

Soil includes imported bay mud used for fill.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. -			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Heliotropium curassavicum*	3	Yes	OBL
2. *Polypogon monspeliensis*	3	Yes	FACW
3. *Bassia hyssopifolia*	3	Yes	FAC
4. *Amaranthus albus*	1	No	FACU
5. *Melilotus indica*	<1	No	FAC
6. *Medicago polymorpha*	<1	No	NL/UPL
7.			
8.			
	11	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 89 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: DP42

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-18	2.5Y 3/1	89	Black	<1	D	M	Clay	
0-18	7.5YR 4/6	10					Sand	Highly oxidized

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

Depletions in clay layer. Oxidized red sand intermixed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP43

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): LRRC Lat: 32.6184967327 Long: -117.094255703 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Upland area next to wetland (DP42).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Baccharis pilularis*	T	No	UPL
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Hordeum murinum*	50	Yes	NL/UPL
2. *Centaurea melitensis*	15	No	UPL
3. *Bromus mollis*	10	No	FACU
4. *Polypogon monspeliensis*	10	No	FACW
5. *Atriplex semibaccata*	10	No	FAC
6. *Sonchus asper*	5	No	FAC
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	10	x 2 =	20
FAC species	15	x 3 =	45
FACU species	10	x 4 =	40
UPL species	65	x 5 =	325
Column Totals:	100 (A)		430 (B)

Prevalence Index = B/A = 4.3

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** ☐ **No** ☒

Remarks:

SOIL

Sampling Point: DP43

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	2.5Y 4/2						Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

No hydric soil characters observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 04May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP44

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) _____ Local relief (concave, convex, none): _____ Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6169051955 Long: -117.094287504 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☐	
Wetland Hydrology Present?	Yes ☐ No ☐	

Remarks:

No soils or hydrology data taken.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Baccharis pilularis*	25	Yes	UPL
2.			
3.			
4.			
	25	= Total Cover	
Herb Stratum (Plot size: _____)			
1. *Melilotus indica*	48	Yes	FAC
2. *Sonchus asper*	20	Yes	FAC
3. *Erodium cicutarium*	20	Yes	UPL
4. *Polypogon monspeliensis*	5	No	FACW
5. *Mesembryanthemum nodiflorum*	2	No	UPL
6. *Lactuca serriola*	2	No	FAC
7. *Centaurea melitensis*	1	No	UPL
8. *Thlaspi arvense*	1	No	NI
9. *Bromus mollis*	1	No	FACU
10. *Conyza coulteri*	<1	No	FAC
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	5	x 2 =	10
FAC species	70	x 3 =	210
FACU species	1	x 4 =	4
UPL species	48	x 5 =	240
Column Totals:	124 (A)		464 (B)

Prevalence Index = B/A = 3.74

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: DP44

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☐ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☐ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 05May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP45

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) terrace Local relief (concave, convex, none): slightly concave Slope (%): 0

Subregion (LRR): LRRC Lat: 32.6204082954 Long: -117.094435348 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☒, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒	
Hydric Soil Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Wetland Hydrology Present? Yes ☒ No ☐	

Remarks:

Slight depression with biotic crust and tire ruts.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1. -			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' Radius)			
1. *Myoporum laetum*	5	Yes	NL/UPL
2. *Washingtonia robusta*	1		
3.			
4.			
5.			
	6	= Total Cover	
Herb Stratum (Plot size: 30' Radius)			
1. *Amaranthus albus*	10	Yes	FACU
2. *Melilotus indica*	8	Yes	FAC
3. *Bassia hyssopifolia*	4	No	FAC
4. *Heliotropium curassavicum*	2	No	OBL
5. *Mesembryanthemum* sp.	1	No	NL/UPL
6.			
7.			
8.			
	25	= Total Cover	
Woody Vine Stratum (Plot size:)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 75 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals:	(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

Sapling/shrub and herb stratum = boundary of depression.

SOIL

Sampling Point: DP45

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	90	10YR 5/8	10	C	M	Silty clay loam	
4-18	10YR 3/1	95	Black	5	D	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☒ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: South Bay Substation Relocation Project City/County: Chula Vista / San Diego Co. Sampling Date: 05May10

Applicant/Owner: SDG&E State: CA Sampling Point: DP46

Investigator(s): Kristina Bischel / Joe Thompson Section, Township, Range: Unsectioned, T18S, R2W

Landform (hillslope, terrace, etc.) hillslope Local relief (concave, convex, none): convex Slope (%): 10%

Subregion (LRR): LRRC Lat: 32.6204469800 Long: -117.094428863 Datum: NAD84

Soil Map Unit Name: Salinas clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks:

Data point is on a mound created for ornamental landscaping and is not a wetland. See comments on vegetation. Also, hydrology provided by sp.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Myoporum laetum*	50	Yes	NL/UPL
2.			
3.			
4.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' Radius)			
1. *Washingtonia robusta*	5	N/A	NL(NI)
2. *Baccharis pilularis*	2	Yes	UPL
3.			
4.			
5.			
	7	= Total Cover	
Herb Stratum (Plot size: 30' Radius)			
1. *Heliotropium curassavicum*	10	Yes	OBL
2. *Melilotus indica*	7	Yes	FAC
3. *Solanum americanum*	5	Yes	FAC
4. *Bromus* sp.	<1	No	UPL
5.			
6.			
7.			
8.			
	22	= Total Cover	
Woody Vine Stratum (Plot size: N/A)			
1. -			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 78 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Test is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

Vegetation is located on a man-made berm. Ornamental vegetation, and hydrology is likely from sprinklers. Not a wetland vegetation community. *Washingtonia robusta* not on list. Not factored into dominance or prevalence index worksheets.

SOIL

Sampling Point: DP46

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/4	70	10YR 3/4	30	C	M	Sandy loam	
2-18	7.5YR 3/3						Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☐ **No** ☒

Remarks:

Soil pit located on a berm and is old fill – is a relic feature.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Water Table Present? **Yes** ☐ **No** ☒ **Depth (inches):** _____

Saturation Present? (includes capillary fringe) **Yes** ☐ **No** ☒ **Depth (inches):** _____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No characters observed.

APPENDIX 2 WETLAND DELINEATION PHOTO POINTS

Photo Point 1. Data Point 1.

Photo Point 2. Data Point 2.

Photo Point 3. Data Point 3. Located just offsite.

Photo Point 4. Data Point 4. Located just offsite.

Photo Point 5. Data Point 5. Located just offsite.

Photo Point 6. Data Point 6.

Photo Point 7. Data Point 7.

Photo Point 8. Data Point 8.

Photo Point 9. Data Point 9.

Photo Point 10. Data Point 10.

Photo Point 11. Data Point 11.

Photo Point 12. Data Point 12.

Photo Point 13. Data Point 13.

Photo Point 14. Data Point 14.

Photo Point 15. Data Point 15.

Photo Point 16. Data Point 16.

Photo Point 17. Data Point 17.

Photo Point 18. Data Point 18.

Photo Point 19. Data Point 19.

Photo Point 20. Data Point 20.

Photo Point 21. Data Point 21.

Photo Point 22. Data Point 22.

Photo Point 23. Data Point 23.

Photo Point 24. Data Point 24.

Photo Point 25. Data Point 25.

Photo Point 26. Data Point 26.

Photo Point 27. Data Point 27.

Photo Point 28. Data Point 28.

Photo Point 29. Data Point 29.

Photo Point 30. Data Point 30.

Photo Point 31. Data Point 31.

Photo Point 32. Data Point 32.

Photo Point 33. Data Point 33.

Photo Point 34. Data Point 34.

Photo Point 35. Data Point 35.

Photo Point 36. Data Point 36.

Photo Point 37. Data Point 37.

Photo Point 38. Data Point 38.

Photo Point 39. Data Point 39.

Photo Point 40. Data Point 40.

Photo Point 41. Data Point 41.

Photo Point 42. Data Point 42.

Photo Point 43. Data Point 43.

Photo Point 44. Data Point 44.

Photo Point 45. Data Point 45.

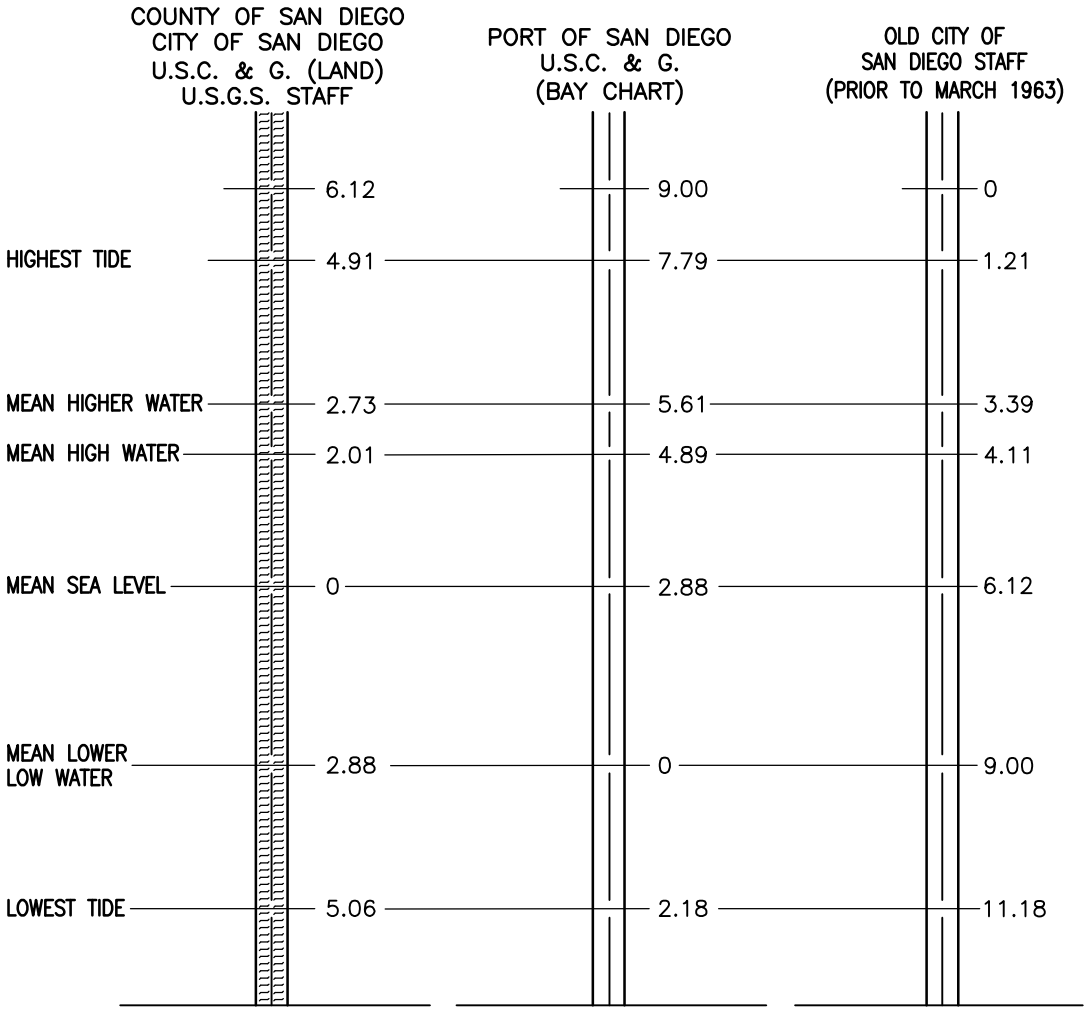
Photo Point 46. Data Point 46.

Photo Point 47. Telegraph Creek facing east.

Photo Point 48. Upland swale.

Photo Point 49. Upland habitat, southeast portion of project site, facing north.

APPENDIX 3. SAN DIEGO BAY TIDAL DATUM ELEVATIONS



LEGEND

U.S.C. & G. = United States Coast and Geodetic Survey.
U.S.G.S. = United States Geological Survey.
MEAN HIGH WATER = Mean of all high water in San Diego Bay.
MEAN HIGHER WATER = Mean of all higher water in San Diego Bay.
Bay charts and topography up to the mean high tide based on zero at the mean lower low water.

SOURCE

Data based on U.S.C. & G. "Sea level Datum of 1923".

Revision	By	Approved	Date
ORIGINAL		Kercheval	12/75
Add Metric		T. Stanton	03/03
Reviewed		T. Stanton	04/06

SAN DIEGO REGIONAL STANDARD DRAWING

DATUMS

RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE

Chairperson R.C.E. 19246 Date 3/01/2003

DRAWING NUMBER **M-12**

ATTACHMENT 4.4-C: SDG&E NCCP AND OPERATIONAL PROTOCOLS

7.1 Operational Protocols

Operational protocols represent an environmentally sensitive approach to traditional utility construction, maintenance and repair Activities recognizing that slight adjustments in construction techniques can yield major benefits for the environment. The appropriate Operational Protocols for each individual project will be determined and documented by the Environmental Surveyor. The information regarding the qualifications and responsibilities of the environmental surveyor is contained in Appendix B. The following mitigation measures shall be adhered to by SDG&E.

7.1.1 General Behavior for All Field Personnel

1. Vehicles must be kept on access roads. A 15 mile-per-hour speed limit shall be observed on dirt access roads to allow reptile species to disperse. Vehicles must be turned around in established or designated areas only.

2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb.

3. Firearms shall be prohibited on the rights-of-way except for those used by security personnel.

4. Feeding of wildlife is not allowed.

5. SDG&E personnel are not allowed to bring pets on the rights-of-way in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations.

6. Parking or driving underneath oak trees is not allowed in order to protect root structures except in established traffic areas.

7. Plant or wildlife species may not be collected for pets or any other reason.

8. Littering is not allowed. SDG&E shall not deposit or leave any food or waste on the rights-of-way or adjacent property.

9. Wild Fires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, it may be necessary for trucks to carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care should be exhibited when smoking in natural habitats.

10. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may need to be brought in by Environmental Surveyor for assistance with wildlife relocations.

7.1.2 Training

11. All SDG&E personnel working within the project area shall participate in an employee training program conducted by SDG&E, with annual updates. The program will consist of a brief discussion of endangered species biology and the legal protections afforded to Covered Species; a discussion of the biology of the Covered Species protected under this Subregional Plan; the habitat requirements of these Covered Species; their status under the Endangered Species Acts; measures being taken for the protection of Covered Species and their habitats under this Subregional Plan; and a review of the Operational Protocols. A fact sheet conveying this information will also be distributed to all employees working in the project area.

12. Designated SDG&E staff will conduct selected reviews of SDG&E operations. Any proposed modifications to Operational Protocols, procedures or conditions will be promptly provided to CDFG and USFWS for their review and input for required permit or Subregional Plan amendments.

7.1.3 Preactivity Studies

13. The Environmental Surveyor shall conduct preactivity studies for all activities occurring off of access roads in natural areas. The scope of these studies is included in Appendix A. The Environmental Surveyor will complete a preactivity study form contained in Appendix A, including recommendations for review by a biologist and construction monitoring as appropriate. Biologists should be called in when there is the potential for unavoidable impacts to Covered Species. The forms are for information only, and will not require CDFG or USFWS approval. These forms shall be faxed to CDFG and USFWS, along with phone notification, who will reply within 5 working days, indicating if they would like to review the project and/or suggest recommendations for post project monitoring. If a biologist is required, he/she will be contacted concurrent to notification to CDFG and USFWS. SDG&E's project may proceed during this time if necessary, in compliance with the recommendations of the biologist (For narrow endemic species see mitigation IV following Table 3.1). USFWS survey protocols performed by qualified biologists will be required for new projects which are defined as projects requiring CEQA review.

In those situations where the Environmental Surveyor cannot make a definitive species

identification, an on-call biologist will be brought in. When the biologist is called, he or she will be contacted concurrently with CDFG and USFWS. The biologist will make the determination of the species in question and recommend avoidance or mitigation approaches to the Environmental Surveyor and a decision will be made. In those situations where more than one visit may be necessary to identify a given species, such as certain birds, no more than three site visits shall be required. It is expected that the typical USFWS search protocols will not be utilized in most situations due to the Plan's avoidance priority. Background information necessary to complete the annual report shall be collected on the preactivity study form and used by SDG&E to prepare the annual report.

14. In order to ensure that habitats are not inadvertently impacted, the Environmental Surveyor shall determine the extent of habitat and flag boundaries of habitats which must be avoided. When necessary, the Environmental Surveyor should also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment such as cranes, bucket trucks, augers, etc. When appropriate, the Environmental Surveyor shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project specific basis.

15. SDG&E will maintain a library of rare plant locations known to SDG&E occurring within easements and fee owned properties. "Known" means a verified population, either extant or documented using record data. Information on known sites may come from a variety of record data sources including local agency Habitat Conservation Plans, pre-activity surveys, or biological surveys conducted for environmental compliance on a project site (e.g. initial study), but there is no requirement for development of original biological data. Plant inventories shall be consulted as part of pre-activity survey procedures.

7.1.4 Maintenance, Repair and Construction of Facilities

16. Maintenance, repair and construction Activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs.

17. Routine maintenance of all Facilities includes visual inspections on a regular basis, conducted from vehicles driven on the access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot, or from the air.

18. When the view of a gas transmission line marker becomes obscured by vegetation on a regular basis requiring repeated habitat removal, consideration shall be given to the replacement of markers with taller versions.

19. Erosion will be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion.

20. Hydrologic impacts will be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices.

21. When siting new facilities, every effort will be made to cross the wetland habitat perpendicular to the watercourse, spanning the watercourse to minimize the amount of disturbance to riparian areas (See Figure 4).

22. Gas and other facilities cross streambeds and require maintenance and repair. During such times water may be temporarily diverted as long as after disturbance natural drainage patterns are restored to minimize the impact of the disturbance and help to reestablish or enhance the native habitat. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.

23. Impacts to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines.

24. During work on facilities, all trucks, tools, and equipment should be kept on existing access roads or cleared areas, to the extent possible.

25. Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable.

26. Insulator washing is allowed from access roads if other applicable protocols are followed.

27. Brush clearing around facilities for fire protection shall not be conducted from March through August without prior approval by the Environmental Surveyor. The Environmental Surveyor will make sure that the habitat contains no active nests, burrows, or dens prior to clearing.

28. In the event SDG&E identifies a covered species of plant within a 10' radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify USFWS (for ESA listed plants), and CDFG (for CESA listed plants), in writing, of the plant's identity and location and of the proposed Activity, which will result in a Take of such plant. Notification will occur ten (10) working days prior to such Activity, during which time USFWS or CDFG may remove such plant(s). If neither USFWS or CDFG have removed such plant(s) within the ten (10) working days following the notice, SDG&E may proceed to complete its fire clearing and cause a Take of such plant(s).

    When fire clearing is necessary in instances other than around power poles, and the potential for impacts to Covered Species exists, SDG&E will follow the preactivity study and notification procedures in Operational Protocol number 13.

29. Wire stringing is allowed year round in sensitive habitats if conductor is not allowed to drag on ground or in brush and vehicles remain on access roads.

30. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.

31. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the Environmental Surveyor or used immediately to fill eroded areas. Cleared vegetation shall be hauled off the rights-of-way to a permitted disposal location.

32. Within 6 months of Plan approval, environmentally sensitive tree trimming locations will be identified in the tree trim computer data base system utilized by tree trim contractors. (This data base also tracks the date of each tree trim, type of tree, where threatening dogs reside, etc.). The Environmental Surveyor should be contacted to perform a preactivity survey when trimming is planned in environmentally sensitive areas. Whenever possible, trees in environmentally sensitive areas (determined by CDFG and SDG&E) will be scheduled for trimming in the non-sensitive times.

33. No new Facilities and Activities shall be planned which disturb vernal pools, their watersheds, or impact their natural regeneration. Continued historic maintenance of existing infrastructure utilizing existing access roads is allowed to continue in areas containing vernal pool habitat. New construction of overhead infrastructure which spans vernal pool habitats is allowed as long as the placement of facilities or the associated construction activities in no way impact the vernal pools.

34. If any previously unidentified dens, burrows, or plants are located on any project site after the preactivity survey, the Environmental Surveyor shall be contacted. Environmental Surveyor will determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc...

35. The Environmental Surveyor shall conduct monitoring as recommended in the preactivity survey report. At completion of work, the Environmental Surveyor shall check to verify compliance, including observing that flagged areas have been avoided and that reclamation has been properly implemented. Also at completion of work, the Environmental Surveyor is responsible for removing all habitat flagging from the construction site.

36. The Environmental Surveyor shall conduct checks on mowing procedures, to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than 4 inches.

37. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which animals could not be removed shall be capped or otherwise covered at the end of each work day. Old piping or other supplies that have been left open, shall not be capped until inspected and any species found in it allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by CDFG.

38. All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife are located in the trench or excavation, the Environmental Surveyor shall be called immediately to remove them if they cannot escape unimpeded.

39. Large amounts of fugitive dust could interfere with photosynthesis. Fugitive dust created during clearing, grading, earth-moving, excavation or other construction activities will be controlled by regular watering. At all times, fugitive dust emissions will be controlled by limiting on-site vehicle speed to 15 miles per hour.

40. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey will be conducted.

7.1.5 Maintenance of access roads shall consist of:

41. Repair of erosion by grading, addition of fill, and compacting. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after preactivity surveys conducted by the Environmental Surveyor and in accordance with the recommendations regarding construction monitoring and relevant protocols. Consideration should be given to source of erosion problem, when source is within control of SDG&E.

42. Vegetation control through grading should be used only where the vegetation obscures the inspection of facilities, access may be entirely lost, or the threat of Facility failure or fire hazard exists. The graded access road area should not exceed 12'-wide on straight portions (radius turns may be slightly wider) (See Figure 23).

43. Mowing habitat can be an effective method for protecting the vegetative understory while at the same time creating access to a work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing will be necessary to maintain permanent access.

44. Maintenance work on access roads should not expand the existing road bed (See Figure 23).

45. Material for filling in road ruts should never be obtained from the sides of the road which contain habitat without approval from Environmental Surveyor..

7.1.6 Construction of new access roads shall comply with the following:

46. SDG&E access roads will be designed and constructed according to the SDG&E *Guide for Encroachment on Transmission Rights-of-Way (4/91).*

47. Access roads will be made available to managers of the regional preserve system subject to coordination with SDG&E.

48. New access roads shall be designed to be placed in previously disturbed areas and areas which require the least amount of grading in sensitive areas during construction whenever possible (See Figure 5). Preference shall be given to the use of stub roads rather than linking facilities tangentially.

49. SDG&E will consider providing access control on access roads leading into the regional preserve system where such control provides benefit to sensitive resources.

50. New access road construction is allowed year round. Every effort shall be made to avoid constructing roads during the nesting season. During the nesting season, the presence or absence of nesting species shall be determined by a biologist and appropriate avoidance and minimization recommendations followed.

7.1.7 Construction and Maintenance of Access Roads Through Streambeds

51. Construction of new access roads through streambeds requires a Streambed Alteration Agreement from CDFG and/or consultation with the Army Corps of Engineers.

52. Maintenance or construction vehicle access through shallow creeks or streams is allowed. However, no filling for access purposes in waterways is allowed without the installation of appropriately sized culverts. The use of geotextile matting should be considered when it would protect wetland species.

53. Staging/storage areas for equipment and materials shall be located outside of riparian areas. (See Figure 23).

7.1.8 Survey Work

54. Brush clearing for foot paths or line-of-sight cutting is not allowed from March through August in sensitive habitats without prior approval from the Environmental Surveyor, who will ensure that activity does not adversely affect a sensitive species.

55. SDG&E survey personnel must keep vehicles on existing access roads. No clearing of brush for panel point placement is allowed from March through August without prior approval from the Environmental Surveyor.

56. Hiking off roads or paths for survey data collection is allowed year round so long as other protocols are met.

7.1.9 Emergency Repairs

57. During a system emergency, unnecessary carelessness which results in environmental damage is prohibited.

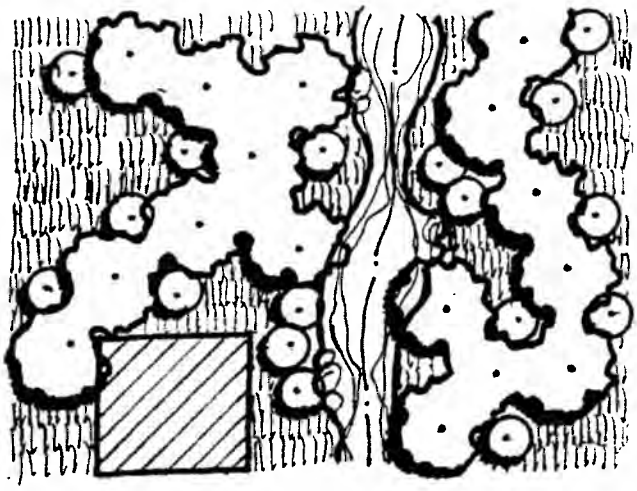
58. Emergency repair of facilities is required in situations which potentially or immediately threaten the integrity of the SDG&E system, such as pipe leaks, or downed lines, slumps, slides, major subsidence, etc. During emergency repairs the Operational Protocols contained in this Subregional Plan shall continued to be followed to fullest extent possible.

59. Once the emergency has stabilized, any unavoidable environmental damage will be reported to the Environmental Surveyor by the foreman. The Environmental Surveyor will develop a mitigation plan and ensure its implementation is consistent with this Subregional Plan.

7.1.10 Activities of Underlying Fee Owners

60. Most SDG&E rights-of-way are held in easement only. The activities of underlying fee owners cannot be controlled by SDG&E and are not covered by this Subregional Plan.

61. When sensitive habitat exists on either side of a utility right-of-way, SDG&E will not oppose underlying fee owners dedicating said property to conservation purposes. Underlying fee owners are expected to comply with applicable federal, state, and local regulations.



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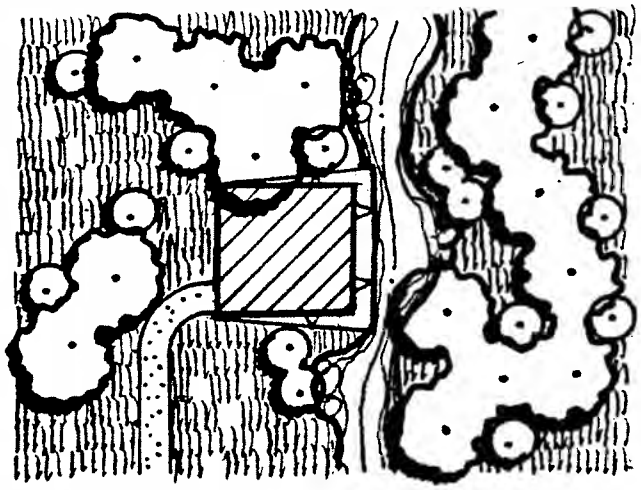

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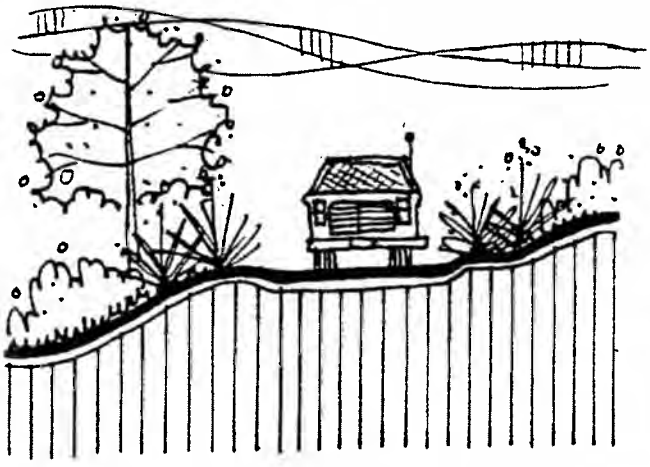
CONSTRUCTION STAGING/STORAGE AREAS SHOULD BE LOCATED OUTSIDE OF STREAMS



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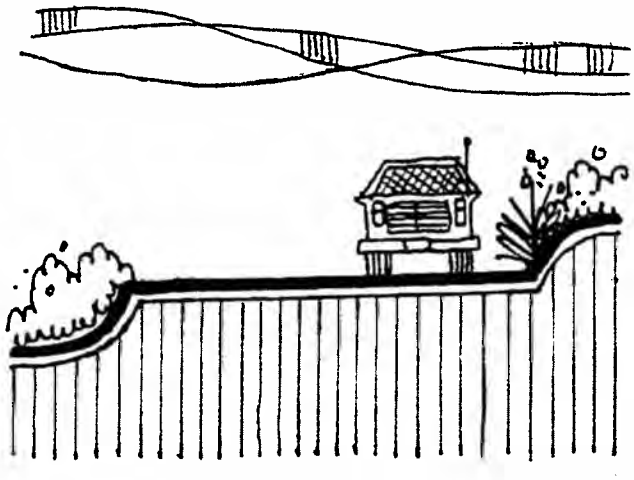

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ACCESS ROAD MAINTENANCE SHOULD NOT EXPAND THE EXISTING ROAD BED

FIGURE

Operational Protocol Diagrams

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ATTACHMENT 4.4-D: PLANT SPECIES OBSERVED

ATTACHMENT 4.4-D: PLANT SPECIES OBSERVED

Scientific Name	Common Name	Habitat in Survey Area[1]	Origin[2]
GYNOSPERM			
Pinaceae	**Pine Family**		
Pinus ponderosa Laws.	Pacific ponderosa pine	ORN	N
ANGIOSPERMS: DICOTS			
Aizoaceae	**Fig/Marigold Family**		
Mesembryanthemum crystallinum L.	Crystalline ice plant	ORN, DIST, NNG	E
Mesembryanthemum nodiflorum L.	Slender-leaved ice plant	ORN, DIST, NNG	E
Amaranthaceae	**Amaranth Family**		
Salsola tragus Nelson	Russian thistle, tumbleweed	ORN, NNG	E
Anacardiaceae	**Sumac or Cashew Family**		
Schinus molle L.	Peruvian pepper tree	ORN, NNG	E
Schinus terebinthifolius Raddi	Brazilian pepper tree	ORN	E
Apocynaceae	**Oleander Family**		
Nerium oleander L.	Oleander	ORN	E
Asteraceae	**Sunflower Family**		
Baccharis salicifolia (Ruiz Lopez & Pavon) Pers.	Mule fat, seep-willow	DIST, NNG, SP	N
Baccharis pilularis	Coyote Bush	DIST, NNG, SP	N
Chrysanthemum coronarium L.	Garland, crown daisy	DIST, NNG	E
Heterotheca grandiflora Nutt.	Telegraph weed	NNG	N
Sonchus asper L. Hill ssp. *asper*	Prickly sow thistle	DIST	E

[1] Explanation of Habitat codes:
DIST: Disturbed habitat
EUC: Eucalyptus woodland
NNG: Non-native grassland
ORN: Ornamental vegetation
SP: Disturbed seasonal pond
DEV: Developed habitat
EMW: Emergent wetland

[2] Explanation of Origin codes:
N: Native to locality
E: Exotic species

Scientific Name	Common Name	Habitat in Survey Area[1]	Origin[2]
Brassicaceae/Cruciferae	**Mustard Family**		
Brassica nigra (L.) Koch.	Black mustard	DIST, NNG	E
Lepidium spp.	Peppergrass	DIST, NNG	N or E
Caryophyllales	**Pink Family**		
Spergularia salina	Saltmarsh Sandspurry	SP	N
Euphorbiaceae	**Spurge Family**		
Chamaesyce masculata (L.) Small	Spotted spurge	DIST, SP	E
Ricinus communis L.	Castor bean	ORN, NNG	E
Fabaceae/Leguminosae	**Legume Family**		
Acacia redolens Maslin	Bank catclaw	ORN	E
Acacia cyclops G. Don	Acacia Cyclops	ORN, NNG	E
Melilotus indicus (L.) All	Sourclover	DIST, NNG	E
Geraniaceae	**Geranium Family**		
Erodium brachycarpum (Godron) Thell.	White-stemmed filaree	DIST, NNG	E
Lythraceae	**Loosestrife Family**		
Lythrum hyssopifolia L.	Grass poly	NNG, SP	E
Malvaceae	**Mallow Family**		
Malva parviflora L.	Cheeseweed, little mallow	DIST, NNG	E
Myoporaceae	**Myoporum Family**		
Myoporum laetum Forst.	Myoporum, ngaio	ORN	E
Myrtaceae	**Mytrle Family**		
Eucalyptus sp.	Eucalyptus	ORN, EUC	E
Eucalyptus globules Labill.	Blue gum	ORN	E
Myrsinaceae	**Myrsine Family**		
Anagallis arvensis L.	Scarlet pimpernel	DIST	E
Oleaceae	**Olive Family**		
Olea europaea L.	Common olive	ORN	E
Polygonaceae	**Buckwheat**		
Rumux crispus L.	Curly dock	SP	E
Solanaceae	**Nightshade Family**		
Nicotiana glauca Graham	Tree tobacco	DIST	E

Scientific Name	Common Name	Habitat in Survey Area[1]	Origin[2]
Tamaricaceae	**Tamarisk Family**		
Tamarix parviflora DC.	Small-flower Tamarisk	DIST, SP	E
ANGIOSPERMS: MONOCOTS			
Arecaceae	**Palm Family**		
Pheonix canariensis Chabaud.	Canary Island date palm	ORN	E
Washingtonia filifera (L. Linden) H.A. Wendl.	California fan palm	ORN	N
Cyperaceae	**Sedge**		
Eleocharis sp.	Spike rush	SP	N
Eleocharis montevidensis Kunth	Dombey's Spike rush	EMW	N
Poaceae/Gramineae	**Grass Family**		
Cortaderia selloana (Schultes) Asch. & Graebner	Pampas grass	NNG	E
Paspalum dilatum Poiret	Dallis grass	EMW	E
Cynodon dactylon (L.) Pers.	Bermuda grass	NNG, EMW	E
Distichlis spicata (L.) E. Greene	Saltgrass	NNG	N
Hordeum spp.	Barley	DIST, NNG	E
Lolium spp.	Ryegrass	NNG	E
Schismus barbatus (L.) Thell.	Mediterranean grass	DIST	E
Typhaceae	**Cattail Family**		
Typha sp.	Cattail	NNG	N
ANGIOSPERMS: PTERIDOPHYTES			
Marsileaceae	**Marsilea Family**		
Marsilea vestita Hook & Grev. ssp. *vestita*	Hairy clover fern	SP	N

ATTACHMENT 4.4-E: WILDLIFE SPECIES OBSERVED

ATTACHMENT 4.4-E: WILDLIFE SPECIES OBSERVED

Scientific Name	Common Name	Status[1]	Location to Survey Area (SA)
BIRDS			
Emberizidae			
Melospiza melodia	Song sparrow	--	Within SA
Zonotrichia atricapilla	Golden-crowned sparrow	--	Within SA
Zonotrichia leucophrys	White-crowned sparrow	--	Within SA
Pipilo crissalis	California towhee	--	Within SA
Sturnidae			
Sturnus vulgaris	European starling	--	Within SA
Laridae			
Larus spp.	Gulls	--	Within SA and Outside, West of SA
Mimidae			
Mimus polyglottos	Northern mockingbird	--	Within SA
Trochilidae			
Calypte anna	Anna's hummingbird	--	Within SA
Archilochus colubris	Ruby-throated hummingbird	--	Within SA
Aegithalidae			
Psaltriparus minimus	Bush tit	--	Within SA
Turdidae			
Turdus migratorius	American robin	--	Within SA
Fringillidae			
Carpodacua mexicanus frontalis	House finch	--	Within SA
Spinus tristis	American goldfinch	--	Within SA
Columbidae			
Spinus tristis	Mourning dove	--	Within SA
Tyrannidae			
Sayornis nigricans semiatra	Black phoebe	--	Within SA

[1] Explanation of state listing codes:
CSC: California State Species of Concern
CFP: Fully Protected by the State of California

Scientific Name	Common Name	Status[1]	Location to Survey Area (SA)
Accipitridae			
Buteo jamicensis calurus	Red-tailed hawk	--	Within SA
Parulidae			
Dendroica coronata	Yellow-rumped warbler	--	Within SA
Falconidae			
Falco sparverius sparverius	American kestrel	--	Within SA
Corvidae			
Corvus brachyrhynchos	American crow	--	Within SA
Scolopacidae			
Actitis macularia	Spotted sandpiper	--	Within SA
Alaudidae			
Eremophila alpestris	Horned lark	CSC	Within SA
Anatidae			
Anas platyrhynchos	Mallard	--	Outside, West of SA
Anas crecca	Green-winged teal	--	Outside, West of SA
Anas clypeata	Northern shoveler	--	Outside, West of SA
Anas strepera	Gadwall	--	Outside, West of SA
Pelecanidae			
Pelecanus occidentalis	American brown pelican	CFP	Outside, West of SA
MAMMALS			
Leporidae			
Sylvilagus audubonii	Desert Cottontail rabbit	--	Within SA
Sciuridae			
Spermophilus beecheyi	California ground squirrel	--	Within SA
Canidae			
Canis latrans	Coyote	--	Within SA
Procyonidae			
Procyon lotor	Raccoon	--	Within SA
Felidae			
Felis silvestris catus	Domestic cat	--	Within SA