



AECOM
1420 Kettner Boulevard
Suite 500
San Diego, CA 92101
www.aecom.com

619.233.1454 tel
619.233.0952 fax

February 3, 2011

Mr. Patrick Brown
Project Manager
San Diego County Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123

Subject: Energia Sierra Juarez (ESJ) Well Access Road - Project Number 09-0107420

Dear Mr. Brown:

AECOM has prepared this biological letter report in accordance with County of San Diego Guidelines (2010) for the analysis of a proposed access road for San Diego Gas and Electric (SDG&E) to access an existing water well owned and operated by the Jacumba Community Services District.

SUMMARY

The proposed project is the construction of an access road to an existing water well on property owned by the Jacumba Community Services District (APN 660-040-32-00) through a privately owned parcel (APN 660-040-33-00) that is also owned by the Jacumba Community Services District. The potential access road and a 100-foot buffer was surveyed by AECOM on January 26, 2011. Habitats within the survey area consisted of desert saltbush scrub and southern cottonwood-willow riparian forest. Several dirt roads are located within the survey area and would be classified as a disturbed cover type. The eastern portion of the survey area has been mapped as a lake/wetland on the Jacumba U.S. Geological Survey (USGS) map and as a freshwater emergent wetland on the U.S. Fish and Wildlife Service (FWS) National Wetland Inventory. An investigation of the site found that area to the east of the access road site would be regulated by the U.S. Army Corps of Engineers (USACE). The access road would not require a streambed Alteration Agreement from California Department of Fish and Game (CDFG) or authorization under the USACE as the proposed project is not located within the wetland.

No sensitive plant or wildlife species were detected on-site.

Per County guidelines, impacts to desert saltbush scrub require mitigation at a 2:1 ratio and impacts to southern cottonwood willow riparian forest habitat require mitigation at a ratio of 3:1. The southern cottonwood willow riparian forest would be protected by the County of San Diego as a wetland habitat as defined by the Resource Protection Ordinance (RPO).

The proposed access road is allowed under the RPO as the parcel is surrounded by privately owned parcels and the only access to the site is from Old Highway 80 on the southern boundary.

Mr. Patrick Brown, Project Manager
San Diego County Department of Planning and Land Use
February 3, 2011
Page 2

INTRODUCTION, PROJECT DESCRIPTION, LOCATION, AND SETTING

The project proposes to construct a 150-foot by 20-foot access road from Old Highway 80 north to an existing well owned and operated by the Jacumba Community Services District (APN 660-040-32-00), located on a privately owned parcel (APN 660-040-33-00). The site is bounded by other privately owned parcels and the access road is required to legally access the well from the public road. The access road would be constructed of fill material and would incorporate a culvert to allow drainage beneath the access road.

The project is located to the east of the town of Jacumba in eastern San Diego County, north of Old Highway 80 (Figures 1 and 2). The project is bordered to the north by undeveloped land and rural residential to the east, west, and south. The project is located on the Jacumba USGS 7.5' quadrangle map, Range 8 East and Township 18 South. The project is approximately 2,840 feet above mean sea level and relatively flat. Soils on-site consist of Rositas loamy coarse sand 2–9 percent slopes (RSC).

The proposed access road and a 100-foot buffer was surveyed on foot on January 25, 2011, by AECOM biologist Victor Novik. Plant species were identified on-site or were collected for later identification. Wildlife were identified directly by sight and indirectly by scat, tracks, or burrows. A wetland assessment and delineation was conducted using the guidelines provided by the Army Corps of Engineers Arid West supplement.

REGIONAL CONTEXT

This project is located within the County of San Diego's Mountain Empire Subregional Planning Area and is covered by the Multiple Habitat Conservation and Open Space Plan. The project would be regulated by the County of San Diego Guidelines for Determining Significance for Biological Resources, as updated in September 2010.

HABITATS/VEGETATION COMMUNITIES

Two habitats were observed within the survey area: desert saltbush scrub and southern cottonwood willow riparian forest. Also present were dirt roads and an existing pump house; these are mapped as disturbed (Figure 3). Table 1 shows the vegetation communities and cover types. A complete list of all plant species observed is located in Appendix A.

Mr. Patrick Brown, Project Manager
San Diego County Department of Planning and Land Use
February 3, 2011
Page 3

Table 1
Vegetation Communities and Cover Types

Vegetation Community	Acreage within Survey Area	Acreage within Proposed Access Road
Desert Saltbush Scrub (Holland Code 36110)	0.58	0.019
Southern Cottonwood Willow Riparian Forest (Holland Code 61330)	0.37	0.014
Disturbed (Holland Code 11300)	0.42	0.03
Total	1.37	0.063

Desert Saltbush Scrub (Holland Code 36110)

Desert saltbush scrub is composed usually of low, grayish, microphyllous shrubs, 0.3–1 meter tall, with some succulent species. Total cover is often low, with much bare ground between the widely spaced shrubs. Stands typically are strongly dominated by a single *Atriplex* species and found on fine-textured, poorly drained soils with high alkalinity and/or salinity, usually surrounding playas on slightly higher ground (Holland 1986). On-site, the desert saltbush scrub is found on the higher ground surrounding the southern cottonwood willow riparian forest habitat. The dominant species within the desert saltbush scrub is fourwing saltbush (*Atriplex canescens*). Other species within this habitat include London rocket (*Sisymbrium irio*) and grasses as such wild oats (*Avena* sp.) and red brome (*Bromus madritensis*).

Southern Cottonwood Willow Riparian Forest (Holland Code 61330)

Southern cottonwood willow riparian forest is composed of tall, open, broadleafed winter-deciduous riparian forests dominated by cottonwoods, and several tree willows. Understories usually are shrubby willows. This habitat is usually found in sub-irrigated and frequently overflowed lands along rivers and streams. The dominant species require moist, bare mineral soil for germination and establishment. This soil is provided after floodwaters recede, leading to uniformly aged stands in this seral type (Holland 1986). The dominant species within habitat on-site are cottonwood (*Populus fremontii*), willows (*Salix* sp.) and mule fat (*Baccharis salicifolia*).

Disturbed (Holland Code 11300)

The disturbed areas of the survey area include the dirt roads that access the site from the east and west and the well head and pump house. The dirt roads are compacted and do not support vegetation.

Mr. Patrick Brown, Project Manager
San Diego County Department of Planning and Land Use
February 3, 2011
Page 4

WILDLIFE

The following wildlife species were observed during the site visit. Bird species detected near the surveys area were common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), and common yellowthroat (*Geothlypis trichas*). Mammal tracks within the survey area were identified as rabbit, most likely desert cottontail (*Sylvilagus audubonii*).

SPECIAL-STATUS SPECIES

No special-status plant or animal species were observed within the survey area during the site visit. Large trees were scanned to determine if any raptor nests were present; however, none were seen. No sign of large mammals were observed within the survey area. Various wide-ranging wildlife species could utilize the site; potential sensitive species that could occur on-site are listed in Appendix B. The survey area was visited in the winter, which could have inhibited the surveyor's ability to detect spring or summer blooming sensitive plants though the area is small in nature and no species are listed as having a moderate or high potential for occurrence. For a full list of sensitive plant species with potential to occur on-site see Appendix C.

JURISDICTIONAL WETLANDS AND WATERS

The area to the east of the proposed access road is mapped as a fresh water emergent wetland by the FWS National Wetlands Inventory and as a lake/wetland on the Jacumba USGS map. This wetland is directly adjacent Boundary Creek to the north, which connects to Carrizo Creek. Carrizo Creek becomes San Felipe Creek, which flows into the Salton Sea. The proposed access road is located at the western extent of the wetland with the eastern and northern portions of the wetland being deeper. Several soil pits were dug throughout the survey area to determine the extent of wetland. Based on the soils, hydric conditions begin just east of the pump house and the proposed access road (Figure 4, Appendix D). The access road is located within an area that would not qualify as a wetland based on the lack of hydric soils, lack of hydric vegetation, and lack of hydrology. The cottonwood willow riparian forest surrounding the proposed access road does not exhibit an ordinary high water mark and therefore would not be considered a wetland nor a non-wetland waters.

OTHER UNIQUE FEATURES/RESOURCES

Wildlife corridors and linkages between significant wildlife areas are important because of their role in preserving species diversity and viability. Without some connection or corridor to other areas, wildlife areas become virtual islands surrounded by development. The construction of the access road would not fragment undeveloped lands as the areas to the north east and west will remain undeveloped. The surrounding undeveloped lands will continue to allow wildlife to move freely throughout the area.

Mr. Patrick Brown, Project Manager
San Diego County Department of Planning and Land Use
February 3, 2011
Page 5

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

Impacts to biological resources can be categorized as direct, indirect, or cumulative. Direct impacts are a result of project implementation and generally include the loss of vegetation, sensitive habitats, and plant and animal populations. Indirect impacts occur as a result of human activities and may include increases in light, noise, dust, human incursion, and introduction of nonnative plants and wildlife. Cumulative impacts occur as a result of ongoing direct and indirect impacts for unrelated projects within a geographic area. Cumulative impacts are assessed on a regional basis and determine the overall effect of numerous activities on a sensitive resource over a larger area.

Direct Impacts

The proposed project will directly impact the desert saltbush scrub and southern cottonwood willow riparian forest that coincide with the access road. Per County guidelines, impacts to these habitats require mitigation (Figure 3).

The project will impact 0.019 acre of desert saltbush scrub. This will require mitigation at a ratio of 2:1 or 0.038 acre.

The project will impact 0.014 acre of southern cottonwood willow riparian forest. This will require mitigation at a ratio of 3:1 or 0.042 acre.

The loss of 0.03 acre of disturbed habitat would not require mitigation.

The RPO would allow the access road as it is the only feasible legal access to the well.

Indirect Impacts

Indirect impacts result from changes in land use adjacent to natural habitats and primarily result from adverse “edge effects”—either short-term indirect impact related to construction, or long-term indirect impacts associated with urban development. During construction, short-term indirect impacts include dust and noise, which could temporarily disrupt habitat and species vitality. Long-term indirect impacts may include intrusions by humans, soil erosion, litter, fire, and hydrological changes. The survey area contains sensitive habitats that could support sensitive species. The implementation of the project could result in indirect impacts to these resources. Implementation of the avoidance, minimization, and mitigation measures would reduce these to below a level of significance.

Avoidance, Minimization, and Mitigation Measures

The following avoidance, minimization, and mitigation measures should be implemented during construction to minimize or eliminate potential direct and indirect impacts on biological resources within the survey area.

Mr. Patrick Brown, Project Manager
San Diego County Department of Planning and Land Use
February 3, 2011
Page 6

- The limits of work should be demarcated with construction fencing or flagging to ensure that no impacts to native habitats occur outside of the work areas.
- No raptor nests were observed during the survey of the project site. However, to avoid direct and indirect impacts to raptors and migratory birds, removal of habitat that may support active nests and construction should occur outside of the avian breeding season (February 15–August 15). If habitat removal and construction activities cannot be avoided during the avian breeding season, a qualified biologist should conduct a preconstruction survey to determine the presence/absence of nesting birds on the site and within 300 feet. The preconstruction survey should be conducted within 10 days prior to the start of construction. If nests are detected, work should be delayed until it is determined that the birds have fledged or the nest is abandoned.
- If active nest are found within 300 feet of the proposed project sound attenuation devices should be installed to ensure that the noise level does not exceed 60 dB. Noise monitoring should occur near the nest to confirm noise levels do not exceed 60 dB.
- Proposed mitigation for impacts to 0.019 acre of desert saltbush scrub and 0.014 acre of southern cottonwood willow riparian forest will be mitigated through the purchase of mitigation credits from a County-approved mitigation bank in the amount of 0.038 acre of desert saltbush scrub and 0.042 acre of southern cottonwood willow riparian forest.

CUMULATIVE IMPACTS

When considered together, the impacts of past and present projects, along with foreseeable future projects, may significantly impact the region's resources. To further understand the cumulative impacts of this project all discretionary projects within the area were considered.

Based on discussions with the County, the following list of projects has been identified for consideration as part of the cumulative impact analysis.

- Ketchum Ranch: a proposed development of a master planned community on a 1,250-acre site adjacent to the town of Jacumba. Approximately 294 acres of the property support significant biological or cultural resources and are proposed as permanent open space.
- Elder TPM 4+: a proposed minor residential subdivision within the Boulevard Community Planning Area.
- Iberdrola – Tule Wind Project: a proposed renewable energy development approximately 10 miles northwest of the ESJ Gen-Tie project.

Mr. Patrick Brown, Project Manager
San Diego County Department of Planning and Land Use
February 3, 2011
Page 7

- San Diego Gas & Electric East County Substation: a proposed substation, located immediately north of the ESJ Gen-Tie project.
- U.S.-Mexico International Border Fence: ongoing federal project to construct a single and double-layer hardened fence along the International Border.

The proposed project will result in minimal impacts (0.033 acre) to desert saltbush scrub and southern cottonwood willow riparian forest. The impacts will be mitigated as listed in the mitigation section above. With this mitigation the project would not contribute to the cumulative loss of habitats within the region.

Please contact me if you have any questions.

Sincerely,



Paula Jacks
Senior Biologist



Victor Novik
Biologist

Attachments:

Figures:

- 1 Regional Location Map
- 2 Vicinity Map
- 3 Existing Vegetation and Project Overlay
- 4 Potential Jurisdictional Areas

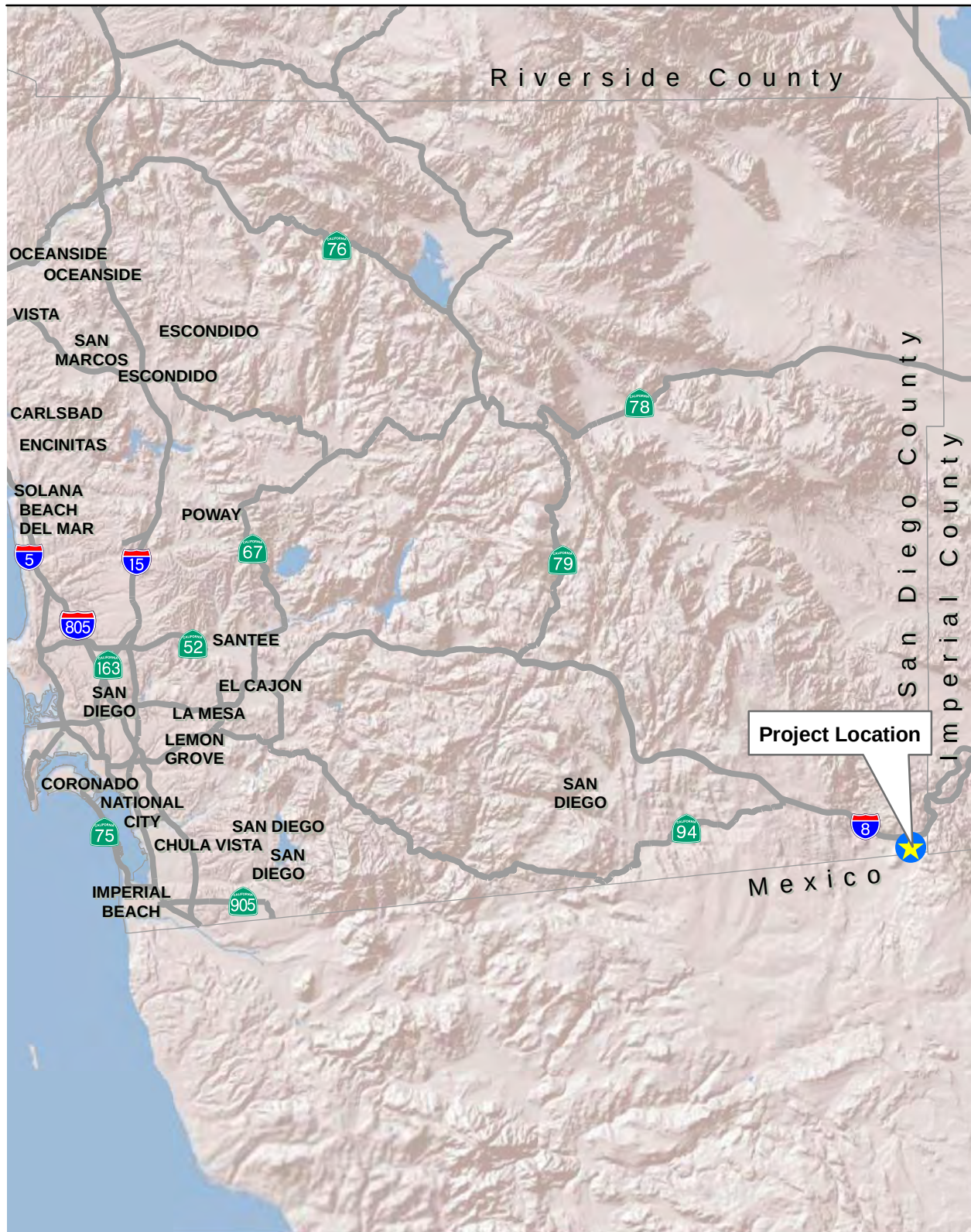
Appendices:

- A Floral Species Documented on and adjacent to the Project Site
- B Sensitive Wildlife Species Observed or Potentially Occurring within the Project Site
- C Sensitive Plant Species Potentially Occurring within the Proposed Project Site
- D Preliminary Jurisdictional Determination/Data Forms and Photos

REFERENCES

- Holland, R.
1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame Heritage Program, State of California Department of Fish and Game.

FIGURES



Source: SANGIS 2008; ESRI 2011

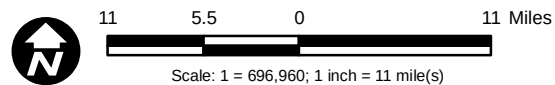
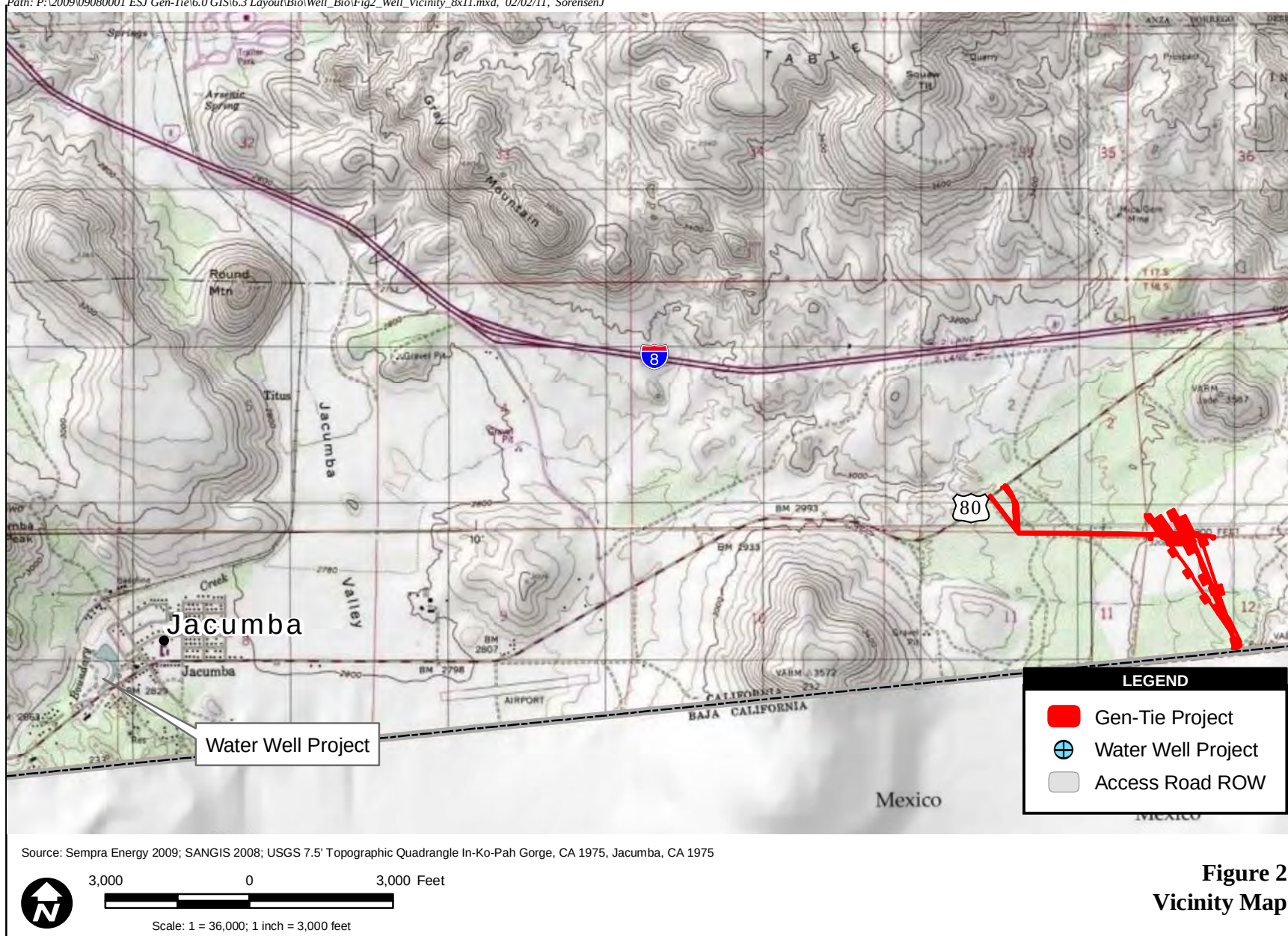
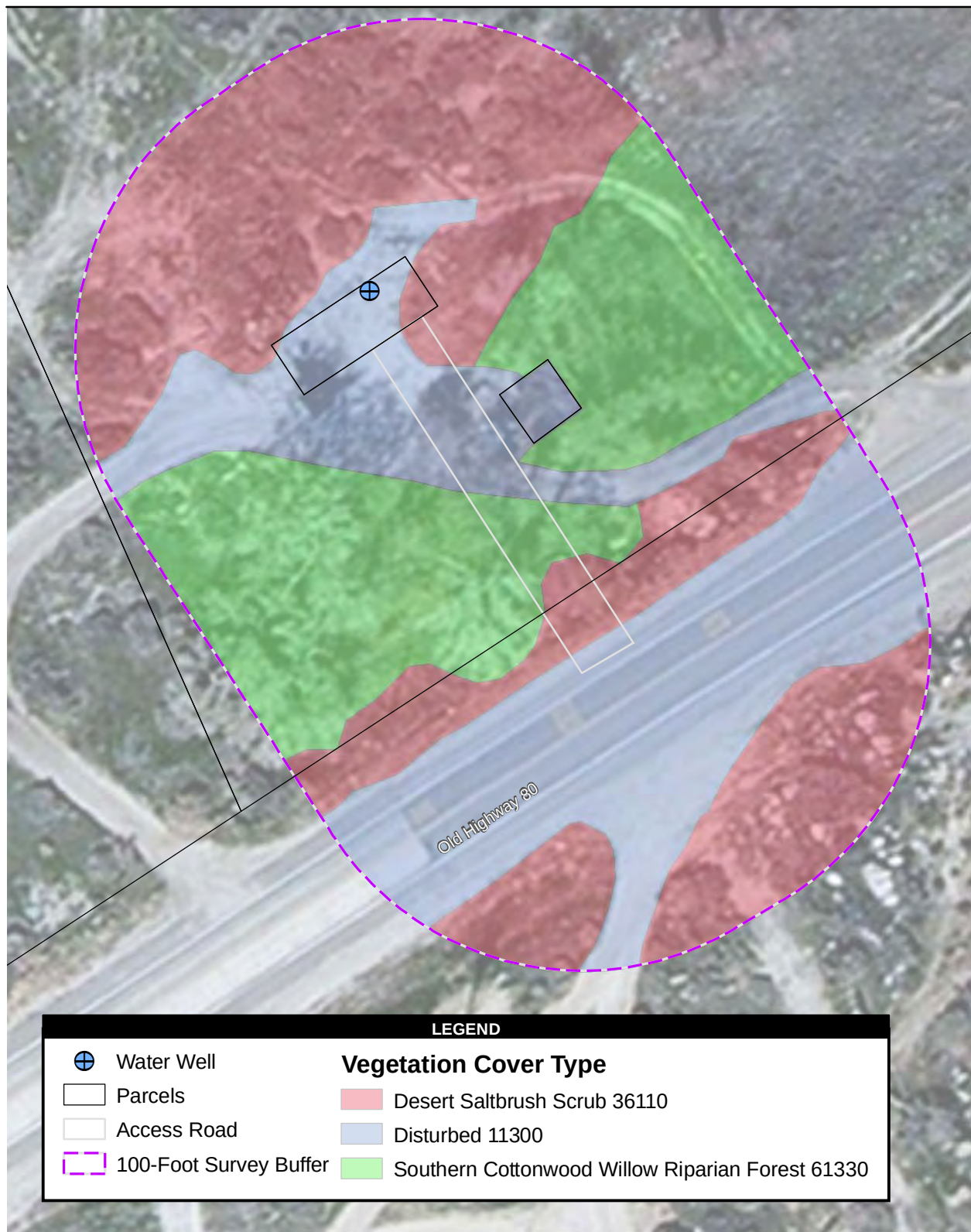


Figure 1
Regional Location Map

ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\Well_Bio\Figure1_Regional_Location.mxd, 02/02/11, SorensenJ





Source: Sempra 2010; SANGIS 2010; DigitalGlobe 2008

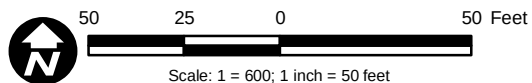
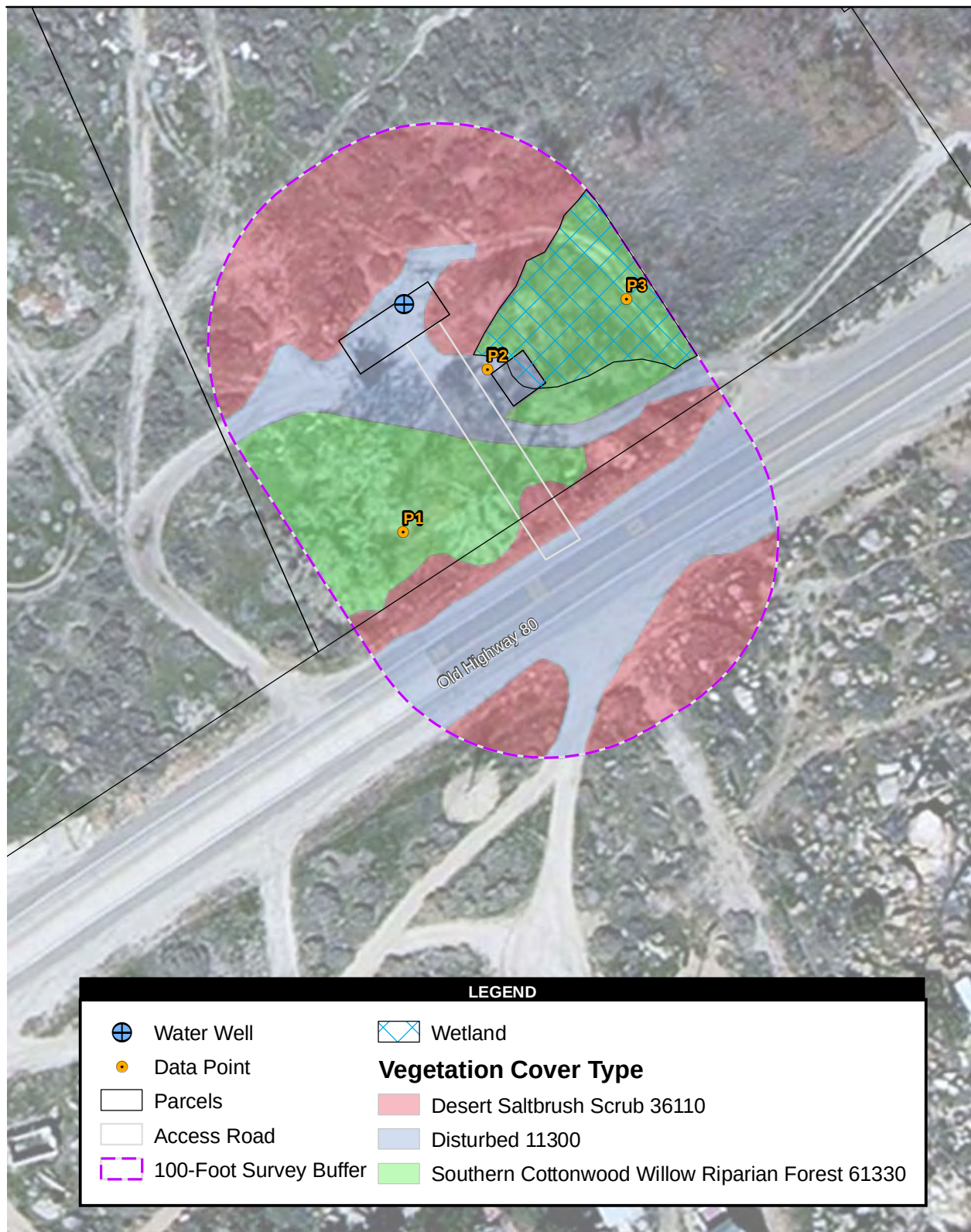


Figure 3
Existing Vegetation and Project Overlay

ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\Well_Bio\Fig3_Existing_Veg.mxd, 02/02/11, Sorensen.J



Source: Sempra 2010; SANGIS 2010; DigitalGlobe 2008

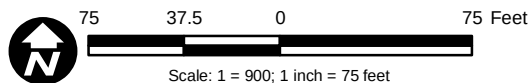


Figure 4
Potential Jurisdictional Areas

ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\Well_Bio\Fig4_Potential_Jurisdiction.mxd, 02/03/11, Sorensen.J

APPENDIX A

FLORAL SPECIES DOCUMENTED ON AND ADJACENT TO THE PROJECT SITE

APPENDIX A

FLORAL SPECIES DOCUMENTED ON AND ADJACENT TO THE PROJECT SITE

Scientific Name	Common Name
<i>Amsinckia menziesii</i> var. <i>intermedia</i>	Rancher's fiddleneck
<i>Artemisia dracunculus</i>	Mugwort
<i>Atriplex canescens</i>	Four-wing saltbush
<i>Avena</i> sp. (non-native)	Wild oats
<i>Baccharis salicifolia</i>	Mule fat
<i>Brassica</i> sp.	Mustard
<i>Bromus madritensis</i>	Brome
<i>Bromus rubens</i> (nonnative invasive)	Red brome
<i>Cirsium vulgare</i>	Thistle
<i>Conyza canadensis</i>	Horsetail
<i>Corethrogyne filaginifolia</i>	Sand aster
<i>Eriastrum densiflorum</i>	Woollystar
<i>Erodium cicutarium</i> (nonnative)	Filaree
<i>Isocoma menziesii</i>	Goldenbush
<i>Oxalis latifolia</i>	Wood sorrel
<i>Phoradendron californicum</i>	Desert mistletoe
<i>Populus fremonti</i>	Cottonwood
<i>Salix</i> sp.	Willow
<i>Sisymbrium irio</i> (nonnative)	London rocket
<i>Solidago confinis</i>	Goldenrod
<i>Tamarix</i> sp.	Tamarisk

APPENDIX B

SENSITIVE WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

APPENDIX B

SENSITIVE WILDLIFE SPECIES OBSERVED OR POTENTIALLY OCCURRING WITHIN THE PROJECT SITE

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
Birds							
<i>Accipiter cooperii</i>	Cooper's hawk	--	SSC		Group 1	Forests and open woodland habitats	Low (foraging); no nests detected.
<i>Aquila chrysaetos canadensis</i>	Golden eagle	BEGEPA	CFP		Group 1	Requires vast foraging areas in grasslands, broken chaparral or sage scrub. Secluded cliffs with overhanging ledges and large trees for nesting and cover.	Low (foraging); not expected to nest, due to lack of habitat.
<i>Agelaius tricolor</i>	Tricolored blackbird	--	SSC	BLM Sensitive	Group 1	Dairies and ripening grain heads, rice districts, cattail marshes	Moderate.
<i>Athene cunicularia</i>	Western burrowing owl	--	SSC	BLM Sensitive	Group 1	Deserts with burrowing animals	Low, habitat not appropriate.
<i>Cathartes aura meridionalis</i>	Turkey vulture	--			Group 1	Open stages of habitats that provide cliffs and large trees.	Not expected due to lack of habitat.
<i>Circus cyaneus</i>	Northern harrier (nesting)	--	SSC		Group 1	Coastal lowland, marshes grassland, agricultural fields	Low (foraging); not expected to nest, due to lack of habitat.
<i>Eremophila alpestris actia</i>	California horned lark	--	SSC		Group 2	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub	Low, habitat is of marginal quality.
<i>Falco mexicanus</i>	Prairie falcon	--	SSC		Group 1	Open country	Low (foraging); not expected to nest, due to lack of habitat.
<i>Falco peregrinus anatum</i>	American peregrine falcon	D	E		Group 1	Open country, especially along rivers; also near lakes, along coasts, and in cities	Low (foraging); not expected to nest, due to lack of habitat.
<i>Lanius ludovicianus</i>	Loggerhead shrike	--	SSC		Group 1	Open foraging areas near scattered bushes and low trees	Moderate, not observed during surveys.

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<i>Parabuteo unicinctus</i>	Harris' hawk	--	SSC			River woods, mesquite, brush, cactus deserts	Low (foraging); not expected to nest, due to lack of habitat.
<i>Piranga rubra</i>	Summer tanager		SSC		Group 2	Desert riparian habitat dominated by cottonwood and willow.	Moderate, not observed.
<i>Toxostoma crissale</i>	Crissal thrasher	--	SSC		Group 1	Dense thickets of shrubs or low trees in desert riparian and desert wash habitats	Moderate, not observed.
<i>Toxostoma lecontei lecontei</i>	Leconte's thrasher	--		BLM Sensitive	Group 2	Desert scrub habitats; prefers breeding in saltbush/shadscale vegetation or cholla cacti in sandy substrate.	Moderate
<i>Vireo bellii pusillus</i>	Least Bell's vireo	E	E		Group 1	Riparian	Low, habitat is marginal.
<i>Vireo vicinior</i>	Gray vireo	--	SSC	BLM Sensitive	Group 1	Hot, semi-arid, shrubby habitats, especially mesquite and brushy pinyon-juniper woodlands; also chaparral, desert scrub. Thorn scrub, oak-juniper woodland, pinyon-juniper, juniper-cholla, mesquite, dry chaparral. Nests in mature, closed vegetation. Dependent upon elephant tree in the winter.	Low
Reptiles							
<i>Coleonyx switaki</i>	Barefoot banded gecko	--	T		Group 2	Arroyos and rocky hillsides, especially near large boulders or rocky outcrops	Not expected due to lack of habitat.
<i>Phrynosoma mcalli</i>	Flat-tailed horned lizard	--	SSC	BLM Sensitive	Group 1	Dunes and sandy flats of low desert	Not expected due to lack of habitat.
<i>Salvadora hexalepis virgultea</i>	Coast patch-nosed snake	--	SSC		Group 2	Grasslands, chaparral, sagebrush, desert scrub in sandy and rocky areas	Low

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<i>Crotalus ruber ruber</i>	Red diamond rattlesnake	--	SSC		Group 2	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields	High
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard	---	SSC		Group 2	Coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest; loose, fine soils with a high sand fraction, an abundance of native ants or other insects, and open areas with limited overstory for basking and low but relatively dense shrubs for refuge	Moderate
<i>Uma notata notata</i>	Colorado Desert fringe-toed lizard	--	SSC	BLM Sensitive	Group 1	Desert dunes, flats, riverbanks, and washes with loose sand and scant vegetation	Not expected due to lack of habitat.
Mammals							
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse	--	SSC		Group 2	Chaparral, desert grassland.	Low
<i>Corynorhinus townsendii pallescens</i>	Townsend's big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings. Variety of habitats, arid to mesic. Individual or colonial. Sensitive to disturbance.	Not expected due to lack of habitat.
<i>Eumops perotis californicus</i>	Great western mastiff bat	--	SSC	BLM Sensitive	Group 2	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows.	Low
<i>Felis concolor</i>	Mountain lion	--	CFP		Group 2	Many habitats, wherever deer are found.	Low
<i>Lasiurus blossevillii</i>	Western red bat	--	SSC		Group 2	Forests and woodlands from sea level up through mixed conifer woodlands. Not found in desert areas.	Not expected due to lack of habitat.
<i>Myotis ciliolabrum</i>	Small-footed myotis	--		BLM Sensitive	Group 2	Arid wooded and brushy uplands near water.	Low
<i>Nyctinomops macrotis</i>	Big free-tailed bat	--	SSC		Group 2	Prefers rugged rocky canyons. Buildings, caves, holes in trees.	Not expected due to lack of habitat.

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
<i>Ovis canadensis cremnobates</i>	peninsular bighorn sheep	E	T		Group 1	Dry, rocky, low-elevation desert slopes	Low, per discussions with USFWS.
<i>Onychomys torridus ramona</i>	southern grasshopper mouse	--	SSC		Group 2	Alkali desert scrub and desert scrub preferred; also succulent scrub, wash, and riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush; low to moderate shrub cover preferred	Moderate
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	--	SSC		Group 2	Coastal sage scrub, chaparral, most desert habitats	Moderate; no woodrat middens documented on-site
<i>Perognathus longimembris internationalis</i>	Jacumba little pocket mouse	--	SSC		Group 2	Desert scrub and grasslands on loosely packed or sandy soils with sparse to moderately dense vegetation.	Low
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	--	SSC		Group 2	Semi-open scrub habitats throughout southern California	High
<i>Taxidea taxus</i>	American badger	--	SSC		Group 2	Grasslands, Sonoran Desert scrub	Moderate
<i>Macrotus californicus</i>	California leaf-nosed bat	--	SSC	BLM Sensitive	Group 2	Low deserts, caves, mines, buildings.	Moderate foraging, no roosting
<i>Antrozous pallidus</i>	Pallid bat	--	SSC	BLM Sensitive	Group 2	Arid deserts and grasslands; shallow caves, crevices, rock outcrops, buildings, tree cavities, esp. near water	Moderate foraging, no roosting
<i>Euderma maculatum</i>	Spotted bat	--	SSC	BLM Sensitive	Group 2	Wide variety of habitats: caves crevices, trees; prefers sites with adequate roosting sites	Low
<i>Corynorhinus townsendii pallascens</i>	Pale big-eared bat	--	SSC	BLM Sensitive	Group 2	Caves, mines, buildings; variety of habitats, arid and mesic	Low
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	--	SSC		Group 2	Crevices in rocks, slopes, cliffs; lower elevations	Moderate foraging, no roosting
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	--	SSC		Group 2	Chaparral, open, sandy areas	Low

Scientific Name	Common Name	Federal Status	State Status	BLM	County of San Diego	Habitat	Potential to Occur On-site
Invertebrates							
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	E	--		Group 1	Coastal sage scrub	Low

Status Codes:

State/Federal Status

BEGEPA = protected under the federal Bald Eagle and Golden Eagle Protection Act.

BLM Sensitive = species that may require federal T/E listing, or with small and widely dispersed populations, or inhabiting ecological refugia or unique habitats.

CFP = California Fully Protected species.

D = Delisted.

E = Endangered.

SSC = California Species of Special Concern.

T = Threatened.

County of San Diego Status

Group I = animal species that are listed as threatened or endangered or have very specific natural history requirements that must be met.

Group II = animal species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.

APPENDIX C

SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED PROJECT SITE

APPENDIX C

SENSITIVE PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED PROJECT SITE

<i>Scientific Name</i> Common Name	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Astragalus douglasii</i> var. <i>perstrictus</i> Jacumba milk-vetch	—/—	1B	Group A	Chaparral, cismontane woodland, valley and foothill grassland/rocky; blooms Apr-May.	Not expected to occur, as there is a lack of suitable habitat on-site.
<i>Astragalus magdalenae</i> var. <i>peirsonii</i> Peirson's milk-vetch	SE/FT	1B	Group A	Perennial herb; desert dunes; blooms Dec-Apr; elevation 180-820 ft.	Not expected to occur as project site is well out of species known elevation range.
<i>Ayenia compacta</i> Ayenia	—/—	4	Group B	Mojave desert scrub, Sonoran desert scrub/rocky.	Not observed. Not expected to occur, as habitat is not appropriate.
<i>Berberis fremontii</i> Fremont barberry	--/--	3	Group C	Chaparral, Joshua tree woodland, piñon and juniper woodland/rocky; blooms Apr-June.	Not observed. Not expected to occur, as this species would have been detected during survey. Furthermore, there is a lack of suitable habitat on-site.
<i>Bursera microphylla</i> Elephant tree	--/--	2	Group B	Deciduous tree; Sonoran Desert scrub (rocky); blooms June-July, elevation 656-2,296 feet.	Not observed. Not expected to occur, as this species would have been detected during the survey.
<i>Calliandra eriophylla</i> Fairyduster	--/--	2	Group B	Sonoran Desert scrub (sandy or rocky); blooms Mar-Apr.	Not observed. Not expected to occur, habitat is inappropriate.
<i>Caulanthus simulans</i> Payson's jewelflower	--/--	4.2	Group D	Annual herb; chaparral, coastal scrub on sandy, granitic substrate; blooms (Feb) Mar-May (June); elevation 295-7,282 ft.	Low to moderate potential to occur based on habitat preference; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Chamaesyce platysperma</i> Flat-seeded spurge	--/--	1B	Group A	Sonoran Desert (Coachella Valley) on sandy soils; blooms in May.	Low potential to occur. There is a known occurrence in Coachella valley, approximately 23 miles away from the project site directly. Widespread in southwest Arizona.
<i>Croton wigginsii</i> Wiggin's croton	--/--	2	n.a.	Sand dunes; blooms Mar-May.	Not observed. Not expected to occur, as habitat is not present on-site.

Scientific Name Common Name	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Cynanchum utahense</i> Utah vine milkweed	--/--	4.2	Group D	Perennial herb; Mojavean desert scrub, Sonoran desert scrub on sandy or gravelly substrate; blooms Apr-June, elevation 492-4,707 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Deinandra floribunda</i> Tecate tarplant	--/--	1B	Group A	Chaparral, coastal scrub; blooms Aug-Oct.	Not expected to occur on-site due to lack of suitable habitat.
<i>Delphinium parishii</i> ssp. <i>subglobosum</i> Colorado Desert larkspur	--/--	4.3	Group D	Perennial herb; Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms Mar-June; elevation 1,968-5,904 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Dieteria asteroides</i> var. <i>lagunensis</i> Mount Laguna aster	--/--	2	n.a.	Cismontane woodland, lower montane coniferous forest; blooms Aug-Oct.	Not expected to occur on-site due to lack of suitable habitat.
<i>Eryngium aristulatum</i> ssp. <i>parishii</i> San Diego button-celery	SE/FE	1B	Group A	Annual/perennial herb; coastal scrub, valley and foothill grassland, vernal pools/mesic; blooms Apr-June; elevation 66-2,034 ft.	Low potential. Not observed on-site.
<i>Eucnide rupestris</i> (= <i>Hemizonia conjugens</i>) Rock nettle	--/--	2	Group B	Sonoran Desert scrub; blooms Dec-Apr.	Not observed. Not expected to occur, as this habitat is marginal and would have been detected.
<i>Geraea viscida</i> Sticky geraea	--/--	2	Group B	Chaparral (often in disturbed areas); blooms May-June.	Not observed. Not expected to occur due to lack of suitable habitat
<i>Harpagonella palmeri</i> Palmer's grappling hook	--/--	4.2	Group D	Annual herb; Chaparral, coastal scrub, valley and foothill grassland on clay substrates; blooms Mar-May; elevation 65-3,132 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Helianthus niveus</i> Variegated dudleya	--/E	1B	n.a.	Open sandy places; blooms Sept-May.	Not observed. Not expected to occur, as this species would have been detected during survey.
<i>Herissantia crispa</i> Curly herissantia	--/--	2	Group B	Annual/perennial herb; Sonoran Desert scrub; blooms Apr (uncommon)/Aug-Sept; elevation 2,296-2,378 ft.	Low potential to occur. Suitable habitat does not occur on-site. The project site is out of the species' known elevation range.
<i>Heuchera brevistaminea</i> Laguna Mountains alumroot	--/--	1B	Group A	Riparian, chaparral, foothill woodland, mixed evergreen forest; blooms Apr-Jul/Sept. (uncommon).	Low potential. Not observed.

Scientific Name Common Name	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Hulsea californica</i> San Diego sunflower	--/—	1B	Group A	Openings in yellow pine forest; blooms Apr-Jun.	Not observed. Not expected to occur due to lack of suitable habitat
<i>Hulsea mexicana</i> Mexican hulsea	--/--	2.3	Group B	Annual/perennial herb; chaparral (volcanic, often on burns or disturbed areas); blooms Apr-June; elevation 3,936 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Ipomopsis tenuifolia</i> Slender-leaved ipomopsis	--/--	2	Group B	Chaparral, piñon and juniper woodland, Sonoran Desert scrub/gravelly or rocky soils; blooms Mar-May.	Low potential. Habitat is marginal.
<i>Linanthus bellus</i> Desert beauty	--/--	2	Group B	Chaparral (sandy); blooms Apr-May.	Not observed. Not expected to occur, as habitat is not present.
<i>Lotus haydonii</i> Pygmy lotus	--/--	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub (rocky); blooms Mar- Jun.	Not observed. Not expected to occur, as this species would have been detected during surveys.
<i>Lupinus excubitus</i> var. <i>medius</i> Mountain Springs bush lupine	--/—	1B	Group A	Piñon and juniper woodland, Sonoran Desert scrub; blooms Mar-Apr.	Not observed. Habitat is not present for this species.
<i>Mentzelia hirsutissima</i> Hairy stickleaf	--/--	2	Group B	Annual herb; Sonoran Desert scrub (rocky); blooms Apr-May; elevation 0-2,296 ft.	Not observed. Habitat is not present for this species.
<i>Mentzelia tridentata</i> Creamy blazing star	--/—	1B	n.a.	Mojave Desert scrub/rocky, gravelly, sandy; blooms Apr-May.	Low potential to occur. Marginally suitable habitat does occur on-site.
<i>Mimulus aridus</i> low bush monkeyflower	--/--	4.3	Group D	Evergreen shrub; chaparral; blooms Apr-July; elevation 2,460-3,608 ft.	Not expected. Habitat is not present for this species. ; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Nemacaulis denudata</i> var. <i>gracilis</i> Slender woolly-heads	--/--	2	Group B	Dunes; coastal strand, creosote bush scrub; blooms Mar-May.	Not expected. Habitat is not present for this species.
<i>Opuntia munzii</i> Munz's cholla	--/--	1B	Group A	Stem succulent; Sonoran Desert, flats, hills, sandy to rocky soils; blooms in May; elevation 492-1,968 ft.	Not observed. Habitat is not present for this species. Would have been observed on-site.
<i>Penstemon thurberi</i> Thurber's beardtongue	--/--	4.2	Group D	Perennial herb; chaparral, Joshua tree woodland, pinyon and juniper woodland, Sonoran desert scrub; blooms May-July; elevation 3,936- 4,002 ft.	Low potential to occur based on habitat preferences; CNDDDB search did not show known occurrences within the vicinity of the project.

Scientific Name Common Name	State/ Federal Status	CNPS List	County of San Diego	Habitat/Blooming Period	Comments
<i>Rhus trilobata</i> var. <i>simplicifolia</i> Single-leaved skunk bush	--/--	2.3	Group B	Deciduous shrub; pinyon and juniper woodland; blooms Mar-Apr; elevation 4,002-4,494 ft.	Not expected to occur. Would have been detected on-site if present. Also out of elevation range.
<i>Selaginella eremophila</i> Desert spikemoss	--/--	1B	Group B	Rhizomatous herb; Sonoran Desert scrub (gravelly or rocky); blooms June/May and July (uncommon); elevation 656-2,952 ft.	Low potential to occur. However, the project site is out of the species' known elevation range.
<i>Senecio aphanactis</i> Chaparral ragwort	--/--	2.2	Group B	Annual herb; chaparral, cismontane woodland; coastal scrub/sometimes alkaline; blooms Jan-Apr; elevation 49-2,624 ft.	Not expected to occur. Marginal habitat on-site, project is slightly out of the species' known elevation range.
<i>Senna covesii</i> Cove's cassia	--/--	2.2	Group B	Perennial herb; Sonoran desert scrub; blooms Mar-June; elevation 1,000-3,510 ft.	Low potential to occur based on habitat preference; CNDDDB search did not show known occurrences within the vicinity of the project.
<i>Tetrococcus dioicus</i> Parry's tetracoccus	--/--	1B	Group A	Chaparral, coastal scrub; blooms Apr-May.	Not observed. Not expected to occur due to lack of suitable habitat
<i>Texosporium sancti-jacobi</i> woven-spored lichen	ST/--	n.a.	n.a.	Lichen; organic matter and organic soil in sagebrush, old fenceposts, or other wood	Low to moderate potential.

STATUS CODES

State/Federal Status

FE = federally listed endangered
 FT = Federally listed threatened
 SE = State listed endangered
 ST = State listed threatened
 SR = State listed rare

County of San Diego Status

Group A = Plants rare, threatened, or endangered in California and elsewhere.
 Group B = Plants rare, threatened, or endangered in California but more common elsewhere.
 Group C = Plants which may be quite rare, but need more information to determine true rarity status.
 Group D = Plants limited in distribution and uncommon but not presently rare or endangered.

California Native Plant Society Status

1A = Species presumed extinct.
 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
 2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
 3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
 4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

APPENDIX D

PRELIMINARY JURISDICTIONAL DETERMINATION/DATA FORMS AND PHOTOS

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: ESJ Well Site City/County: Jacumba/San Diego Sampling Date: 1/26/11
 Applicant/Owner: Sempra Energy State: CA Sampling Point: 1
 Investigator(s): VCN Section, Township, Range: T18S, R8E
 Landform (hillslope, terrace, etc.): Bowl Local relief (concave, convex, none): bowl Slope (%): 2
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

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 pit is located within the alignment for the access road					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. <i>Salix sp.</i>	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)			
2. <i>Populus fremontii</i>	60	Yes	FAC*	Total Number of Dominant Species Across All Strata: <u>4</u> (B)			
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0 %</u> (A/B)			
4. _____							
Total Cover: <u>100%</u>							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1. _____				Total % Cover of: _____ Multiply by: _____			
2. _____				OBL species _____ x 1 = <u>0</u>			
3. _____				FACW species <u>40</u> x 2 = <u>80</u>			
4. _____				FAC species <u>60</u> x 3 = <u>180</u>			
5. _____				FACU species _____ x 4 = <u>0</u>			
Total Cover: _____ %				UPL species <u>100</u> x 5 = <u>500</u>			
				Column Totals: <u>200</u> (A) <u>760</u> (B)			
				Prevalence Index = B/A = <u>3.80</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Avena sp.</i>	80	Yes	Not Listed	☒ Dominance Test is >50%			
2. <i>Bromus rubens</i>	20	Yes	UPL	☒ Prevalence Index is ≤3.0 ¹			
3. _____				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. _____				☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
5. _____							
6. _____							
7. _____							
8. _____							
Total Cover: <u>100%</u>							
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.			
1. _____							
2. _____				Hydrophytic Vegetation Present? Yes ☐ No ☒			
Total Cover: _____ %							
% Bare Ground in Herb Stratum _____ %		% Cover of Biotic Crust _____ %					

Remarks: The habitat onsite is southern cotton wood willow riparian forest.

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-18	10YR 2/2						Coarse	Sandy mixture

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

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

Indicators for Problematic Hydric Soils:⁴

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

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: The soil is coarse and has a sandy like feel to it.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

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)
- ☐ Thin Muck Surface (C7)
- ☐ 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? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: This sampling point is beneath the cottonwoods, this area appears to be the beginning of the flow area. Water would runoff from the surrounding uplands into this area and flow to the east.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: ESJ Well Site City/County: Jacumba/San Diego Sampling Date: 1/26/11
 Applicant/Owner: Sempra Energy State: CA Sampling Point: 2
 Investigator(s): VCN Section, Township, Range: T18S, R8E
 Landform (hillslope, terrace, etc.): sloped Local relief (concave, convex, none): sloped Slope (%): 2
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

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: Sampling point is located just north east of the existing pump house.				

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. <i>Salix sp.</i>	10	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)			
2. <i>Populus fremontii</i>	1	No	FAC*	Total Number of Dominant Species Across All Strata: <u>3</u> (B)			
3. <i>Baccharis salicifolia</i>	15	Yes	FACW	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7 %</u> (A/B)			
4. _____				Prevalence Index worksheet:			
Total Cover: <u>26 %</u>				Total % Cover of: _____ Multiply by: _____			
Sapling/Shrub Stratum				OBL species _____ x 1 = <u>0</u>			
1. _____				FACW species <u>25</u> x 2 = <u>50</u>			
2. _____				FAC species <u>1</u> x 3 = <u>3</u>			
3. _____				FACU species _____ x 4 = <u>0</u>			
4. _____				UPL species <u>40</u> x 5 = <u>200</u>			
5. _____				Column Totals: <u>66</u> (A) <u>253</u> (B)			
Total Cover: _____ %				Prevalence Index = B/A = <u>3.83</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <i>Sisymbrium irio</i>	25	Yes	Not Listed	☒ Dominance Test is >50%			
2. <i>Oxalis latifolia</i>	15	No	Not Listed	☒ Prevalence Index is ≤3.0 ¹			
3. _____				☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. _____				☐ Problematic Hydrophytic Vegetation ¹ (Explain)			
5. _____				¹ Indicators of hydric soil and wetland hydrology must be present.			
6. _____				Hydrophytic Vegetation Present? Yes ☒ No ☐			
7. _____							
8. _____							
Total Cover: <u>40 %</u>							
Woody Vine Stratum							
1. _____							
2. _____							
Total Cover: _____ %							
% Bare Ground in Herb Stratum _____ % % Cover of Biotic Crust _____ %							

Remarks: The habitat onsite is southern cotton wood willow riparian forest. Though this sampling point is located just outside the tree line.

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-8	10YR 2/2						Coarse	Large pieces
8-10	7.5 4/6						Coarse	DG like feel
10-20	10YR 2/2						Coarse	Sand like feel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

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

Indicators for Problematic Hydric Soils:⁴

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

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks: The soil here appears to be layered. Coarse sand like soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

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)
☐ Thin Muck Surface (C7)
☐ 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? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks: This sampling point is adjacent to the existing pump house adjacent to the willow riparian habitat. Appears that water would flow to the east.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: ESJ Well Site City/County: Jacumba/San Diego Sampling Date: 1/26/11
 Applicant/Owner: Sempra Energy State: CA Sampling Point: 3
 Investigator(s): VCN Section, Township, Range: T18S, R8E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Flat Slope (%): 1
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

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: Sampling point is located just to the east of the site within the channel. Appears to be a wetland.			

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)																								
1. _____																												
2. _____																												
3. _____																												
4. _____																												
Total Cover: <u> </u> %				Prevalence Index worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> <th></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> <td><u>0</u></td> </tr> <tr> <td>FAC species</td> <td>x 3 =</td> <td><u>0</u></td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> <td><u>800</u></td> </tr> <tr> <td>Column Totals:</td> <td></td> <td><u>160</u> (A) <u>800</u> (B)</td> </tr> <tr> <td colspan="3">Prevalence Index = B/A = <u>5.00</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:		OBL species	x 1 =	<u>0</u>	FACW species	x 2 =	<u>0</u>	FAC species	x 3 =	<u>0</u>	FACU species	x 4 =	<u>0</u>	UPL species	x 5 =	<u>800</u>	Column Totals:		<u>160</u> (A) <u>800</u> (B)	Prevalence Index = B/A = <u>5.00</u>		
Total % Cover of:	Multiply by:																											
OBL species	x 1 =	<u>0</u>																										
FACW species	x 2 =	<u>0</u>																										
FAC species	x 3 =	<u>0</u>																										
FACU species	x 4 =	<u>0</u>																										
UPL species	x 5 =	<u>800</u>																										
Column Totals:		<u>160</u> (A) <u>800</u> (B)																										
Prevalence Index = B/A = <u>5.00</u>																												
Sapling/Shrub Stratum																												
1. <i>Artemisia dracunculus</i>	80	Yes	Not Listed																									
2. _____																												
3. _____																												
4. _____																												
5. _____																												
Total Cover: <u>80</u> %																												
Herb Stratum																												
1. <i>Sisymbrium irio</i>	20	No	Not Listed	Hydrophytic Vegetation Indicators: ☐ Dominance Test is >50% ☐ Prevalence Index 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.																								
2. <i>Avena sp.</i>	60	Yes	Not Listed																									
3. _____																												
4. _____																												
5. _____																												
6. _____																												
7. _____																												
8. _____																												
Total Cover: <u>80</u> %																												
Woody Vine Stratum																												
1. _____																												
2. _____																												
Total Cover: <u> </u> %																												
% Bare Ground in Herb Stratum <u> </u> % % Cover of Biotic Crust <u> </u> %																												
Hydrophytic Vegetation Present? Yes ☒ No ☐																												
Remarks: The habitat onsite is southern cotton wood willow riparian forest. Though this sampling point is located just outside the tree line. The dominant species appears to be tarragon though it likely that other wetland species exist onsite.																												

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-20	10YR 2/1						Coarse	Sandy feel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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

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

Indicators for Problematic Hydric Soils:⁴

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

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks: The soil here appears to be low chroma.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

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

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)
- ☐ Thin Muck Surface (C7)
- ☐ 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

Water Table Present? Yes ☒ No ☐ Depth (inches): 18

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

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks: This sampling point is adjacent to the east of the site. This point is located within the flat area that seems to flow to the east from the well pump house area. This area was saturated at the surface, and the pit filled with water.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers
Sempra Energy Well Access
Jacumba, California

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): January 31, 2011

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Sempra Energy
101 Ash Street
San Diego, California 92101
Phone: (619)
Point of Contact: Alberto Abreu

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District Regulatory Division, Los Angeles Section, South Coast Branch, San Diego Section

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

Sempra energy would like to construct an approximately 150 foot by 20 foot wide access driveway to access an existing well north of Old Highway 80 just west of the town of Jacumba. A portion of the survey area has been mapped as a fresh water emergent wetland by the USFWS National Wetlands Inventory.

(Use the attached table to document multiple waterbodies at different sites)

State: CA County/parish/borough: San Diego City: N/A (Jacumba)

Center coordinates of site (lat/long in degree decimal format): Lat: 32.616015 Long: -116.192995

UTM: 11S 575735.97 m E 3609017.27 m N

Name of nearest waterbody: Boundary Creek

Identify (estimate) amount of waters in the review area:

Non-wetland waters:

Cowardin Class:

Stream Flow:

Wetlands: 0.13 acre

Cowardin Class: Palustrine

Name of any waterbodies on the site that have been identified as Section 10 waters: None

Tidal:

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): January 26, 2011

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide

an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there “may be” waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked

and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: See Biological Letter Report
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant. (2008 Supplement Wetland Determination Data Forms — Arid West Region [Version 2.0]).
 - ☐ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters’ study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
 - ☐ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
 - ☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5' U.S. Geologic Service (USGS) Jacumba
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey.
- ☒ National wetlands inventory map(s). Cite name: NWI Website.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☐ Photographs: ☒ Aerial (Name & Date): 2010 Aerial Maps of the survey area (Digital Globe 2010)
- ☐ Other (Name & Date):.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory Project Manager
(REQUIRED)

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there "*may be*" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A – Sites

District Office: **Los Angeles District**
State: **CA**

File/ORM #
City/County: **San Diego County**

PJD Date: January 31, 2000

Person Requesting PJD: Alberto Abreu

Holland Code	Cowardin Class	Class	Area (acres)	Latitude	Longitude
Southern cottonwood riparian forest 61330	Palustrine	Fresh water emergent Wetland	0.13	32.616015	-116.192995

Note: All acreages are rounded to the nearest hundredth (which may account for minor rounding error).



Sample pit one.



Sample pit two.



Sample pit two and surrounding habitat.



Sample pit three.



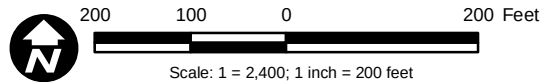
Habitat around pit one.



Adjacent Habitats.



Source: Sempra 2010; SANGIS 2010; AerialsExpress 2009; ESRI 2011; NWI 2010



National Wetlands Inventory Map

ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\Well_Bio\Aerial_attachment.mxd, 02/02/11, Sorensen.J



Source: Sempra 2010; SANGIS 2010; ESRI 2011; USGS 7.5' Topo Quad Jacumba, CA 1975



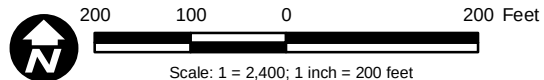
U.S. Geological Survey Map
USGS 7.5' Jacumba, CA 1975

ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\Bio\Well_Bio\Aerial_attachment.mxd, 02/02/11, Sorensen.J



Source: Sempra 2010; SANGIS 2010; AerialsExpress 2009; ESRI 2011



2009 Aerial Map of the Survey Area (Aerials Express 2009)

ESJ Well Driveway Project Number 09-0107420

Path: P:\2009\09080001 ESJ Gen-Tie\6.0 GIS\6.3 Layout\BioWell_Bio\Aerial_attachment.mxd, 02/02/11, SorensenJ