ATTACHMENT C: PRELIMINARY WETLANDS AND WATERS ASSESSMENT

SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA GAS COMPANY'S

PIPELINE SAFETY & RELIABILITY PROJECT
PRELIMINARY WETLANDS AND WATERS ASSESSMENT

Prepared for:

SDGE
A Sempra Energy utility®

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A Sempra Energy utility

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INSIGNIA ENVIRONMENTAL

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1 – INTRODUCTION

San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company—herein referred to as "the Applicants"—are proposing the Pipeline Safety & Reliability Project (Proposed Project), which involves construction, operation, and maintenance of an approximately 47-mile-long, 36-inch-diameter natural gas transmission pipeline that will carry natural gas from SDG&E's existing Rainbow Metering Station to the pipeline's terminus on Marine Corps Air Station (MCAS) Miramar.

Insignia Environmental (Insignia) conducted a preliminary assessment of wetlands and waters for the Proposed Project within the Survey Area, which included all Proposed Project components and an approximately 150-foot buffer on each side of these components. In total, the Survey Area covered approximately 2,264 acres. Insignia assessed areas that may fall within the following jurisdictions:

- the United States (U.S.) Army Corps of Engineers (USACE), pursuant to Section 404 of the Clean Water Act (CWA);

- the Regional Water Quality Control Board (RWQCB), pursuant to the Porter-Cologne Water Quality Control Act (California Water Code, Chapter 2, § 13050) or Section 401 of the CWA; and

- the California Department of Fish and Wildlife (CDFW), pursuant to Section 1600 of the California Fish and Game Code.

This Preliminary Wetlands and Waters Assessment summarizes the field methods and results of Insignia's survey of jurisdictional waters.

2 – PROJECT DESCRIPTION

2.0 PROJECT OVERVIEW

The Proposed Project involves construction, operation, and maintenance of an approximately 47-mile-long, 36-inch-diameter natural gas transmission pipeline and the following permanent aboveground equipment that will be appurtenant to the pipeline:

- approximately 10 new aboveground mainline valves (MLVs) spaced a maximum of five miles apart,
- one pressure-limiting station (i.e., the Rainbow Pressure-Limiting Station),
- three cross-tie facilities (i.e., Line 1600, Line 1601, and Line 2010),
- internal inspection launching and receiving equipment,
- cathodic protection system units with an estimated three rectifiers and three deep-well anode beds at three of the proposed MLVs, and
- an intrusion detection and leak monitoring system.

Construction is scheduled to begin in the first quarter of 2018 and is expected to take 12 to 18 months to complete.[1] The Applicants are required to comply with General Order 112-E in constructing a natural gas transmission pipeline and is choosing to seek a CPCN from the CPUC for the Proposed Project. Because the Proposed Project route includes land under the jurisdiction of the Department of the Navy/U.S. Marine Corps, federal authorization will also be required. It is anticipated that the Department of the Navy will serve as the federal lead agency pursuant to the National Environmental Policy Act. In addition to the CPCN and the authorization for rights-of-way (ROWs) on MCAS Miramar, the Applicants will obtain all required permits for the Proposed Project from federal, state, and local agencies prior to construction.

2.1 PROJECT LOCATION AND SETTING

The Proposed Project is located in San Diego County, California, and crosses the cities of San Diego, Escondido, and Poway. As depicted in Figure 1: Project Overview Map, the route begins at SDG&E's existing Rainbow Metering Station in the unincorporated community of Rainbow and terminates just north of State Route (SR-) 52 within MCAS Miramar. Within MCAS Miramar, the route parallels an unpaved aqueduct road for approximately 2.6 miles. The Proposed Project will tie into the existing Line 2010 at its southern terminus.

The Proposed Project will be installed primarily within existing roadways and road shoulders. Approximately 41 miles (87 percent) of the Proposed Project will be installed in urban areas within existing roadways and road shoulders, and the remaining approximately six miles (approximately 13 percent) of the Proposed Project will be installed cross-country. The pipeline will be installed approximately 42 inches below the ground surface using conventional trenching methods. The pipeline alignment will cross several major roads, including Interstate (I-) 15, as well as a number of water features, including Rainbow Creek, the San Luis Rey River, Moosa Creek, Lake Hodges, Escondido Creek, Poway Creek, and Beeler Creek. At the crossings of the San Luis Rey River and Lake Hodges, horizontal directional drilling (HDD) and horizontal boring methods will be implemented to minimize impacts to riparian habitat and water quality. Horizontal boring may be used to install the pipeline beneath other waterbodies, which will allow the pipeline to be installed without disturbing the surface of the area being crossed.

3 – REGULATORY FRAMEWORK

3.0 UNITED STATES ARMY CORPS OF ENGINEERS

3.0.0 Section 404 of the Clean Water Act

Under Section 404 of the CWA, the USACE has jurisdiction over waters of the U.S. The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." The USACE has regulatory authority to issue permits for the discharge of dredged or fill material in waters of the U.S., according to Title 33, Section 1344 of the U.S.

[1] The construction start date is based on receiving a Certificate of Public Convenience and Necessity (CPCN) from the California Public Utilities Commission (CPUC) by 2017 and the issuance of other required permits by late 2017 or early 2018.

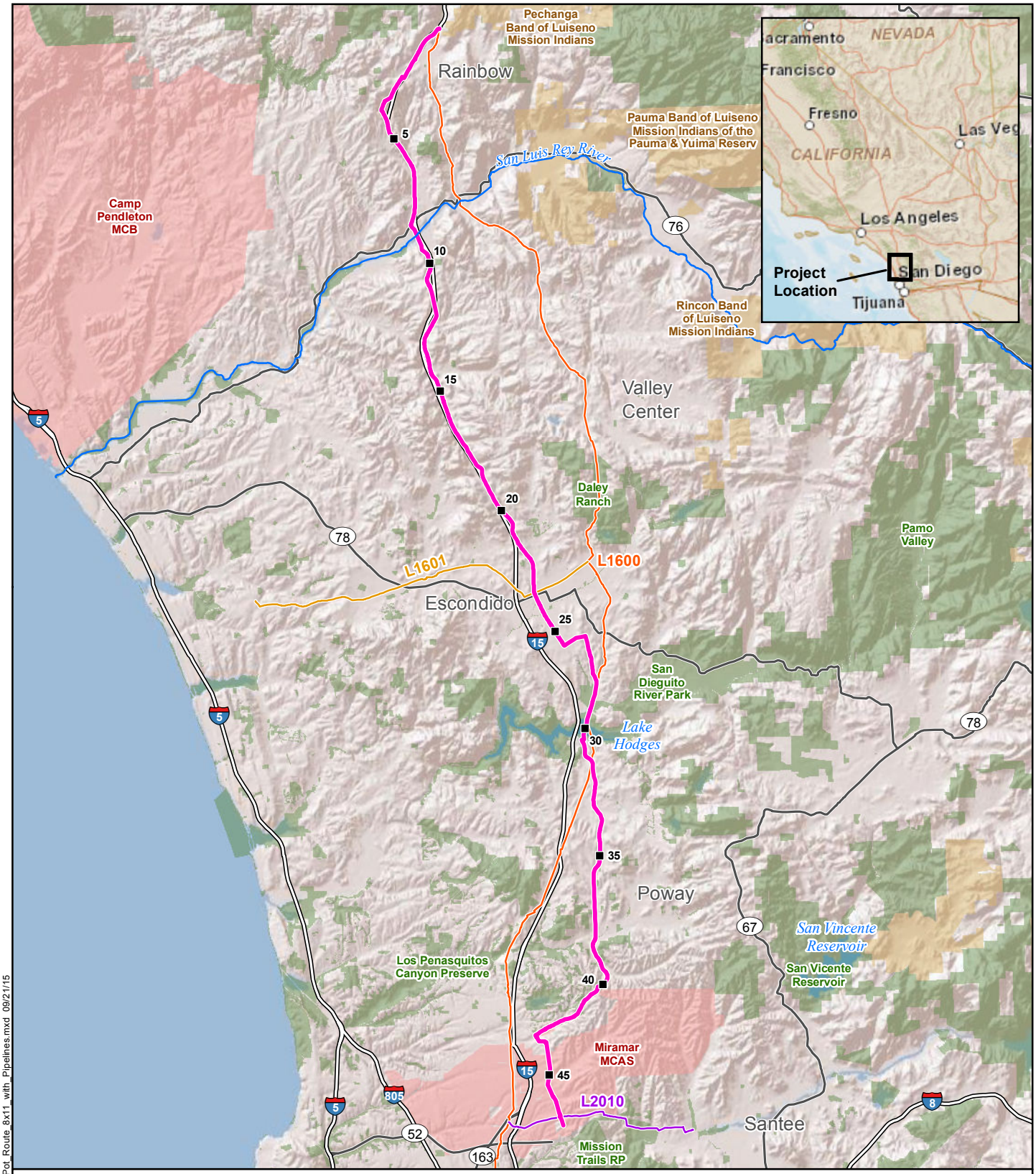

Figure 1: Project Overview Map **Pipeline Safety & Reliability Project**

- Milepost
- Proposed Project Route
- Line 1601
- Line 1600
- Line 2010
- Interstate
- Major Road/State Highway
- Parks
- Military
- Bureau of Indian Affairs

1:320,000
0 2 4 Miles

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Code. The USACE issues site-specific individual or general permits (i.e., Nationwide Permits) for such discharges. It is anticipated that a Nationwide Permit 12 for Utility Line Activities will be issued for unavoidable impacts to waters of the U.S. as construction of the Proposed Project will not result in a loss of more than 0.5 acre of waters of the U.S. The Proposed Project is under the jurisdiction of the USACE's Los Angeles District.

Two U.S. Supreme Court cases—*Solid Waste Agency of Northern Cook County (SWANCC) v. USACE*, and *Rapanos v. U.S.*—redefined the USACE jurisdiction within the parameters of the CWA. As a result of these court cases, the U.S. Environmental Protection Agency (EPA) and the USACE issued a joint memorandum addressing guidance on determining jurisdiction of waters of the U.S. (EPA and USACE 2008). On June 29, 2015, the USACE and EPA issued *The Clean Water Rule: Definition of Waters of the United States* (CWR), further refining the definition of waters of the U.S. (USACE and EPA 2015). The CWR will be effective August 28, 2015.

The definition of waters of the U.S., as recently defined in the CWR, includes the following:

1. Traditional navigable waters (TNWs).
2. Interstate waters.
3. Territorial seas.
4. Impoundments of waters otherwise identified as waters of the U.S.
5. Tributaries of waterbodies in categories 1 through 3, displaying an ordinary high water mark (OHWM), a bed, and banks.
6. Waters adjacent[2] to a water identified in categories 1 through 5, including wetlands, ponds, vernal pools, lakes, oxbows, impoundments, and similar waters.
7. Waters that are determined, on a case-specific basis, to have a significant nexus[3] to a waterbody in categories 1 through 3.
8. Waters located within the 100-year floodplain of a water identified in categories 1 through 3 and waters within 4,000 feet of the high tide line or OHWM of a waterbody in categories 1 through 5, where they are determined on a case-specific basis to have a significant nexus to a water identified in categories 1 through 3.

[2] Adjacent waters are all waters within 100 feet of the OHWM of a water in categories 1 through 5; all waters within 1,500 feet of the OHWM of a water in categories 1 through 5 AND within the 100-year floodplain; and all waters within 1,500 feet of the high tide line of a water in categories 1 through 3.

[3] Waters determined to have a significant nexus have a significant effect on the chemical, physical, or biological integrity of a water identified in categories 1 through 3, either alone or in combination with other similarly situated waters in the region.

The following features are not waters of the U.S.:

1. Waste treatment systems, including treatment ponds or lagoons that meet CWA requirements.
2. Prior converted cropland.
3. Ditches:

    - with ephemeral or intermittent flow that are not relocated tributaries or excavated in a tributary;
    - with intermittent flow that do not drain wetlands; or
    - that do not flow (directly or indirectly) into a TNW, interstate water, or territorial sea.

4. Artificially irrigated areas that will revert to dry land.
5. Artificial constructed lakes and ponds created in dry land.
6. Reflecting pools or swimming pools; small ornamental waters; and water-filled depressions that are incidental to mining or construction activity created in dry land.
7. Erosional features: gullies, rills, and other ephemeral drainages that are not tributaries, non-wetland swales, and lawfully constructed grassed waterways.
8. Puddles.
9. Groundwater.
10. Storm water control features constructed to convey, treat, or store storm water that are created in dry land.
11. Wastewater recycling:

    - structures constructed in dry land,
    - detention and retention basins,
    - percolation ponds,
    - groundwater recharge basins, or
    - waste distributary structures.

Title 33, Section 328.3(b) of the Code of Federal Regulations (CFR) defines wetlands 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.” Three parameters—hydrophytic vegetation, hydric soils, and wetland hydrology—must be present to classify an area as a USACE-jurisdictional wetland under normal circumstances.

The limits of USACE jurisdiction are as follows:

1. Territorial Seas: The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles (33 CFR § 329.12).

2. Tidal Waters of the U.S.: The landward limits of jurisdiction in tidal waters:

    - extend to the high tide line, or

- extend to the limits as identified in non-tidal waters of the U.S. when adjacent to non-tidal waters of the U.S.

3. Non-Tidal Waters of the U.S.: The limits of jurisdiction in non-tidal waters:

- extend to the OHWM in the absence of adjacent wetlands,
- extend beyond the OHWM to the limit of adjacent wetlands when such wetlands are present, and
- extend to the limit of the wetland when the waters of the U.S. consist only of wetlands.

The application of EPA and USACE guidance results in a formalized oversight process involving both agencies in the adoption of approved jurisdictional determinations. The intent of this formal process is to ensure consistency in how the agencies interpret the rulings and guidance at all levels. The USACE issued Regulatory Guidance Letter No. 08-02 on the subject of Jurisdictional Determinations (USACE 2008c) in order to institute the program by which jurisdictional determinations are made. This guidance creates a distinction between an applicant's request for a preliminary jurisdictional determination (PJD) and an "approved jurisdictional determination" (AJD). If an applicant pursues a PJD, 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 Appropriation Act of 1899 (i.e., prior to the SWANCC and Rapanos cases). A PJD excludes exempted jurisdictional waters, but not those excluded by court ruling interpretations. An AJD provides a more thorough evaluation of issues of isolation, adjacency, and significant nexus as contemplated by the courts, and excludes from USACE regulation any areas that fail to meet the necessary litmus tests of the court decision and the agencies' implementation guidance. The Applicants are expected to pursue a PJD for the Proposed Project.

3.0.1 Rivers and Harbors Appropriation Act of 1899

Under Section 10 of the Rivers and Harbors Appropriation Act of 1899, the USACE has jurisdiction over navigable waters of the U.S. to the historic limit of mean high water. Section 10 requires that a permit be obtained from the USACE for all activities in navigable waters that involve excavating, filling, dredging, or construction or placement of an obstruction in or to a navigable waterbody. Section 10 jurisdiction extends to the entire surface and bed of all waterbodies subject to tidal action (33 CFR § 329.12[b]).

3.1 REGIONAL WATER QUALITY CONTROL BOARD

3.1.0 Section 401 of the Clean Water Act

The RWQCB regulates activities in waters of the State—including wetlands—through Section 401 of the CWA (RWQCB 2014). While the USACE administers permitting programs that authorize impacts to waters of the U.S., any USACE permit authorized for a proposed project will be invalid unless the RWQCB has issued a project-specific water quality certification or waiver of water quality. A water quality certification requires a finding by the RWQCB that the activities permitted by the USACE will not violate water quality standards individually or cumulatively over

the term of the issued USACE permit. The Proposed Project is under the jurisdiction of the San Diego RWQCB.

3.1.1 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code § 13260) requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the RWQCB through an application for waste discharge (California Water Code Section 13260[a][1]) (RWQCB 2014). The term "waters of the State" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code § 13050[e]). Pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB also regulates "isolated wetlands," or those wetlands considered to be outside of USACE jurisdiction, pursuant to the SWANCC decision.

The RWQCB generally considers filling in waters of the State to be pollution. Pollution is defined as an alteration of the quality of the waters of the State by waste that unreasonably affects its beneficial uses (California Water Code § 13050[1]). To determine whether a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB's litmus test is if the action could result in any threat to water quality.

3.2 CALIFORNIA DEPARTMENT OF FISH AND WILDIFE

3.2.0 California Fish and Game Code Section 1600

Sections 1601 through 1606 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration Agreement application must be submitted to the CDFW 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 CDFW 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 CDFW and the applicant is the Lake or Streambed Alteration Agreement.

Generally, the CDFW-jurisdictional boundaries are broader than USACE-jurisdictional boundaries and include the following:

- rivers/streams;
- lakes;
- entire floodplains;
- wetlands associated with rivers, streams, lakes, or wildlife resources; and
- artificial drainage ditches under some circumstances.

The CDFW's jurisdiction includes the following:

- The definable bed, bank, or channel.

- Areas that support periodic or intermittent flows, perennial flows, or subsurface flows; support fish or other aquatic life; or support riparian or hydrophytic vegetation in association with a streambed.

- Areas that simply have a hydrologic source and/or terminus.

4 – METHODS

4.0 LITERATURE REVIEW

Before conducting the wetlands and waters assessment, Insignia biologists reviewed U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory maps (USFWS 2014) and color aerial photographs (both recent and past) of the Survey Area and surrounding area. In addition, the biologists reviewed and referenced the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey (Soil Survey Staff 2015) for the Survey Area, which lists hydric soils found in San Diego County.

4.1 WETLANDS AND WATERS ASSESSMENT

The wetlands and water assessment within the Survey Area was conducted between February 23 and May 20, 2015. Insignia biologists conducted the wetlands and waters assessment per the timetable outlined in Table 1: Preliminary Wetlands and Waters Assessment Timetable.

4.1.0 Drainage Mapping

Insignia biologists used guidance from A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States (USACE 2008a) to determine the location and size of drainages potentially under the jurisdiction of the USACE and RWQCB. Culverts were also mapped to assist with determining downstream connectivity for potential jurisdictional features within the Survey Area. The overall landforms, slopes, and climatic and hydrologic conditions were also assessed. Photographs were taken for each drainage feature to record downstream and upstream conditions, as well as OHWM indicators. Evidence supporting the delineation of each potentially jurisdictional drainage feature was recorded on field data forms.

Top-of-bank (TOB) measurements were noted for each drainage to assess the areas that may be CDFW-jurisdictional under Section 1600 of the California Fish and Game Code. In addition, Insignia biologists also mapped the edge of potentially CDFW-jurisdictional riparian canopy using full-color, ortho-corrected aerial photographs. These field maps were printed at a scale of one inch equals 200 feet. Riparian vegetation included in the CDFW riparian vegetation estimates exhibited a continuous canopy associated with the drainages observed within the Survey Area. In instances where riparian canopy was not readily discernible from the aerial photographs, submeter-accurate Global Positioning System (GPS) data were taken to demarcate the boundary between upland and riparian vegetation.

All potential drainages were evaluated to identify their connection to on-site and off-site hydrologic resources. Potential jurisdictional drainages were mapped as such if they did not demonstrate downstream connectivity to a TNW or tributary at the surface, but were identified as either adjacent waters or determined to potentially have a significant nexus to a TNW, as defined by the CWR.

Table 1: Preliminary Wetlands and Waters Assessment Timetable

Insignia Biologist(s)	Dates	Approximate Mileposts (MPs) Surveyed
Makela Mangrich and Jesse Byrd	February 23 and 24, 2015	MP 43.8 to MP 46.9
Makela Mangrich and Kevin Kilpatrick	March 3 to 6 and March 9, 2015	MP 0.0 to MP 1.9, MP 21.4 to MP 24.2, MP 30.4 to MP 33.3, and MP 39.0 to MP 46.9
Makela Mangrich and Adam Lievers	April 2, 2015	MP 3.0 to MP 6.8
Makela Mangrich and Sheryl Creer	April 8, 9, 10, 13, 17, and 21, 2015	MP 8.4 to MP 39.0
Sheryl Creer, Nick Fisher, Adam Lievers, and Kevin Kilpatrick	April 22, 2015	MP 6.9 to MP 9.5, and MP 18.3 to MP 21.4
Sheryl Creer, Nick Fisher, Jesse Byrd, and Adam Lievers	April 23, 2015	MP 9.5 to MP 18.3
Sheryl Creer, Nick Fisher, Adam Lievers, and Kevin Kilpatrick	April 24, 2015	MP 26.5 to MP 29.3, and MP 40.0 to 41.5
Nick Fisher and Adam Lievers	April 27, 2015	MP 41.5 to MP 43.2
Makela Mangrich and Jesse Byrd	April 30, 2015	MP 41.5 to MP 43.2
Makela Mangrich	May 13, 2015	MP 5.9 to MP 14.1
Makela Mangrich and Jesse Byrd	May 20, 2015	MP 14.1 to MP 46.9

4.1.1 Wetlands Mapping

Insignia biologists also mapped potential wetlands under the jurisdiction of the USACE and RWQCB in conjunction with vegetation mapping conducted for the Proposed Project. A full wetland delineation was not completed for this assessment. Wetlands were assessed in the field during the habitat assessment conducted in the fall and winter of 2014, and during special-status plant surveys conducted in the spring of 2015. Wetland boundaries were determined primarily by aerial interpretation of vegetation boundaries in conjunction with field calibration and verification. The wetland mapping was conducted according to the USACE's *Wetlands Delineation Manual* (Environmental Laboratory 1987) in conjunction with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008b), with modifications. For an area to be defined as a wetland under normal circumstances, the USACE's routine, on-site determination methods call for determining the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. No soil pits were dug within potential wetland areas, because not all of the land within the Study Area is within SDG&E's easement (i.e., much of the land is privately owned). In addition, soil pits were not dug due to concerns about digging on MCAS Miramar, where the potential for unexploded ordnances buried beneath the soil surface had not been verified at the time of the surveys.

Because soil pits were not dug within potential wetland areas, hydric soils and wetland hydrology were not assessed. The wetland assessment relied exclusively on the presence of hydrophytic vegetation. As such, the mapped wetland totals likely overestimate the USACE-jurisdictional wetland areas present within the Survey Area. 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 2010). Hydrophytic vegetation is determined to be present when the plant community is dominated by species that can tolerate prolonged inundations or soil saturation during the growing season. The National Wetland Plant List (Lichvar et al. 2014) provides a wetland indicator status for all hydrophytic plant species in the U.S. The wetland indicator status predicts a plant's likelihood to occur in wetlands, and is defined as follows:

- Obligate Plant (OBL): A plant that almost always occurs in wetlands.
- Facultative Wetland Plant (FACW): A plant that usually occurs in wetlands, but may occur in non-wetlands.
- Facultative Plant (FAC): A plant that occurs in wetlands and non-wetlands.
- Facultative Upland Plant (FACU): A plant that usually occurs in non-wetlands, but may occur in wetlands.
- Upland Plant (UPL): A plant that almost never occurs in wetlands.

Biologists visually estimated absolute percent cover of plant species with stands that could potentially be dominated by hydrophytic vegetation. Wetland determination data forms were filled out for areas where the presence of hydrophytic vegetation could not be determined through a routine vegetation assessment. The wetland indicator status (i.e., OBL, FACW, FAC, FACU, and UPL) of the species was recorded. For species not on the 2014 National Wetland Plant List for the Arid West region, the indicator status was assumed to be UPL. Hydrophytic vegetation was determined to be present if either of the following indicator tests were satisfied:

- Dominance Test (Indicator 1): More than 50 percent of the dominant plant species across all strata are rated OBL, FACW, or FAC.
- Prevalence Test (Indicator 2): The prevalence index, which is a weighted-average wetland indicator status of all plant species in the sampling plot, is 3.0 or less.

No minimum mapping unit for potential wetland areas was established; all potential wetlands that Insignia biologists encountered were mapped. In instances where wetland boundaries were not readily discernible from the aerial photographs, submeter-accurate GPS data were taken to demarcate the boundary between upland and potential wetland areas.

All potential wetland areas (i.e., areas dominated by hydrophytic vegetation) were evaluated to identify their connection to on-site and off-site hydrologic resources. Potentially jurisdictional wetland areas were mapped as such if they were identified as either adjacent waters or determined to potentially have a significant nexus to a TNW, as defined by the CWR, even if they did not demonstrate downstream connectivity to a TNW or tributary at the surface.

4.1.2 Global Positioning System Data Collection

Culvert and drainages were mapped using a Trimble GPS unit with submeter accuracy in locations where biologists could access these features; in some instances, culverts or drainages were obscured under thick brush, or were located within slopes that were either too steep to walk safely or were covered with poison oak (*Toxicodendron diversilobum*). Full-color, ortho-corrected aerial imagery was analyzed to assist with mapping the spatial extents of jurisdictional features that were not accessible during GPS data collection. A data dictionary within the GPS software ensured consistent data collection in the field. All spatial data was collected in the North American Datum 1983 State Plane California Zone 6 (feet) coordinate system. Potential wetlands that Insignia biologists encountered (based on the presence of hydrophytic vegetation) were also mapped.

5 – SURVEY RESULTS

5.0 ENVIRONMENTAL SETTING

The Survey Area is located within the southwestern portion of the Peninsular Ranges' geomorphic province in the South Coast Floristic Province (Jepson eFlora 2015) and ranges in elevation from 230 to 1,200 feet above mean sea level. From 1981 to 2010, the Survey Area received an average annual precipitation of approximately 10.4 inches with average temperatures ranging from 58 to 72 degrees Fahrenheit (National Oceanic and Atmospheric Administration [NOAA] 2015). The Survey Area includes a large number of diverse upland and wetland/riparian vegetation communities, along with large, developed areas comprising the cities of San Diego, Escondido, and Poway. Topography, hydrology, vegetation, and soil units located in the Survey Area are summarized in the subsections that follow.

5.0.0 Topography and Hydrology

The Survey Area is located in the San Diego River Hydrologic Basin Region (San Diego Region), which covers approximately 3,900 square miles in the southwestern portion of California and includes the majority of San Diego County and portions of Riverside and Orange counties. The San Diego Region is divided into 11 hydrologic units (HUs), 54 hydrologic areas (HAs), and 147 hydrologic subareas (HSAs). As defined in the San Diego RWQCB's Water Quality Control Plan for the San Diego Basin, HUs encompass the entire watershed of one or more streams, HAs encompass major tributaries and/or major groundwater basins within an HU, and HSAs encompass major subdivisions of HAs, including both water-bearing and non-water-bearing formations. Each HU is identified by a unique code. The Survey Area is situated within the following six HUs, which are listed from north to south as follows with their HU codes:

- Santa Margarita (902.00),
- San Luis Rey (903.00),
- Carlsbad (904.00),
- San Dieguito (905.00),
- Peñasquitos (906.00), and
- San Diego (907.00).

Attachment B: Wetland and Waters Assessment Map depicts the HUs, HAs, and HSAs that fall within the Survey Area for the Proposed Project. Table 2: Hydrologic Units, Areas, and Subareas within the Survey Area lists the HUs, HAs, and HSAs that occur within the Proposed Project area. Each of the HUs within the Survey Area ultimately flow west to the Pacific Ocean, which ranges from 10 to 25 miles from the Proposed Project, depending on the location.

Table 2: Hydrologic Units, Areas, and Subareas within the Survey Area

HU	HA(s)	HSA(s)
Santa Margarita (902.00)	DeLuz (902.2)	Vallecitos
San Luis Rey (903.00)	Lower San Luis (903.1)	Bonsall
		Moosa
Carlsbad (904.00)	San Marcos (904.5)	Twin Oaks
		Richland
	Escondido Creek (904.6)	Escondido
San Dieguito (905.00)	Hodges (905.2)	Del Dios
		Green
Peñasquitos (906.00)	Miramar Reservoir (906.1)	Undefined
	Poway (906.2)	Undefined
	Miramar (906.4)	Undefined
San Diego (907.00)	Lower San Diego (907.1)	Mission San Diego

Source: San Diego RWQCB 1994

The Survey Area crosses several named rivers, creeks, and other ephemeral waterbodies, including Rainbow Creek, the San Luis Rey River, Moosa Creek, Reidy Canyon Creek, Escondido Creek, the San Dieguito River/Lake Hodges, Poway Creek, Carroll Canyon Creek, Beeler Creek, San Clemente Canyon Creek, the upper reaches of Rose Creek, and Elanus Canyon Creek. In addition, the Survey Area crosses numerous unnamed creeks, drainages, and wetlands, as described in Section 5.1 Wetland and Water Features. Erosional features and man-made conveyance channels (e.g., roadside ditches) also convey water through the Survey Area. Natural hydrologic sources within the Survey Area include groundwater, snowmelt, precipitation, and surface runoff from adjacent uplands.

5.0.1 Vegetation Communities

The Survey Area includes a diversity of upland and wetland/riparian vegetation communities. Diegan coastal sage scrub, coast live oak woodlands, and chaparral communities comprise the vast majority of the Survey Area, and large, developed areas comprise the cities of San Diego, Escondido, and Poway. Approximately 1,031 acres (46 percent) of the Survey Area are within urban/developed areas. A total of 35 vegetation communities were identified within the Survey Area, as depicted in Figure A-4: Vegetation Communities within the Biological Resources Technical Report, to which this Preliminary Wetlands and Waters Assessment is attached. Twenty upland vegetation communities and 15 wetland/riparian communities occur within the

Survey Area. Descriptions of each vegetation community are provided in Section 5.1 General Vegetation Communities in the Biological Resources Technical Report.

The vegetation classification system that was used conforms to Oberbauer et al. (2008). Vegetation community descriptions are also derived from Oberbauer et al. (2008), with additional information on wildlife habitat preferences from the CDFW's Wildlife Habitats – California Wildlife Habitat Relationship System (2015). A complete list of plant species observed within the Survey Area is provided in Attachment H: Plant Species Observed during Surveys in the Biological Resources Technical Report. Nomenclature used for plant names follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). Nomenclatural changes made after the publication date of *The Jepson Manual* follow the Jepson eFlora (2015) website.

5.1 WETLAND AND WATER FEATURES

As summarized in Table 3: Potential Jurisdictional Hydrological Features within the Survey Area and as described further in the following subsections, a total of approximately 149.8 acres of potential USACE- and RWQCB-jurisdictional areas and approximately 157.8 acres of potential CDFW-jurisdictional areas were mapped within the Survey Area.

Table 3: Potential Jurisdictional Hydrological Features within the Survey Area

Feature Type	Approximate Potential USACE- and RWQCB-Jurisdictional Area[4]		Approximate Potential CDFW-Jurisdictional Area[5] (acres)
	Acres	Linear Feet	
Wetlands	139.3	(Not Applicable [N/A])	N/A
Ephemeral Drainages	3.4	52,125	10.9
Intermittent Drainages	6.7	43,811	20.0
Perennial Drainages	0.4	363	4.0
Riparian Vegetation	N/A	N/A	122.9
Total Jurisdictional Area[6]	**149.8**	**(96,300)**	**157.8**

Potentially jurisdictional hydrologic features with the Survey Area are depicted in Attachment A: Hydrologic Region Map. Attachment C: Wetland and Water Survey Results lists the unique feature identification number, feature type, stream class, OHWM width and depth, TOB width and depth, and the length and acreage for each feature observed within the Survey Area. Attachment D: Drainage Photo Log presents photographs of drainage features observed within the Survey Area.

[4] These numbers include the area within the OHWM for drainages potentially under the jurisdiction of the USACE and RWQCB.
[5] The distance between TOBs was used to measure the area of streams under the jurisdiction of the CDFW.
[6] Figures do not sum due to rounding.

As summarized in Table 4: Impacts to Potentially Jurisdictional Hydrological Features and as described further in the following subsections, a total of approximately 3.51 acres of temporary impacts to USACE- and RWQCB-jurisdictional areas and approximately 3.56 acres of temporary impacts to CDFW-jurisdictional areas will occur during construction of the Proposed Project. Attachment E: Wetland and Waters Impact Summary lists the hydrologic features crossed by the Proposed Project, as well as the MP number, quantity of impacts, and a description of each feature that will be temporarily impacted. No permanent impacts to hydrological features are anticipated as a result of the Proposed Project.

Table 4: Impacts to Potentially Jurisdictional Hydrological Features

Feature Type	Approximate Temporary Impacts to USACE- and RWQCB-Jurisdictional Area (acres)	Approximate Temporary Impacts to CDFW-Jurisdictional Area (acres)[7]
Wetlands	2.70	N/A
Ephemeral Drainages	0.34	0.93
Intermittent Drainages	0.47	1.56
Perennial Drainages	--	--
Riparian Areas	N/A	1.07
Total Jurisdictional Area	**3.51**	**3.56**

5.1.0 USACE- and RWQCB-Jurisdictional Features

Drainages

Insignia's biologists identified a total of 145 drainages in the Survey Area that are potentially under the jurisdiction of the USACE and RWQCB and that comprise approximately 10.5 acres (96,299.8 linear feet) within the limits of the OHWM. Table 3: Potential Jurisdictional Hydrological Features within the Survey Area summarizes the acreages and linear feet of drainages mapped within the Survey Area by hydrological regime.

The upstream portions of two USACE-defined TNWs are located within the Survey Area—the San Luis Rey River, and the dammed portion of the San Dieguito River (referred to as Lake Hodges). However, the USACE considers the San Dieguito River a TNW only from the coast to near I-5, which is located more than 10 miles downstream of the Survey Area. The San Luis Rey River is considered a TNW from the coast to SR-76, which is located approximately six miles downstream of the Survey Area. The San Luis Rey River reach within the Survey Area was dry during biological surveys in 2014 (Insignia 2015) and during the wetland and waters assessment in 2015, but upstream and downstream portions of this river do exhibit flow during most of the year. Historic drought conditions may also be causing drier-than-normal hydrological flow. As a result, it is likely that this reach of the San Luis Rey River exhibits perennial flow during

[7] The distance between TOBs was used to measure the area of streams under the jurisdiction of the CDFW.

normal rain years. The portion of the San Dieguito River/Lake Hodges that is within the Survey Area was also dry during surveys in 2014 and 2015. This stretch is presumed to exhibit an intermittent hydrological regime.

In total, 25 intermittent drainages were observed within the Survey Area. These include many of the named drainage features (i.e., Rainbow Creek, Moosa Creek, Reidy Canyon Creek, Escondido Creek, Poway Creek, Beeler Creek, San Clemente Canyon Creek, and Elanus Canyon Creek). Insignia biologists also mapped 119 ephemeral drainages, which are generally considered to be tributaries due their direct or indirect flow into a TNW.

Construction of the Proposed Project will result in temporary impacts to approximately 0.82 acre of potential USACE- and RWQCB-jurisdictional drainages[8]. The Proposed Project activities that will temporarily impact jurisdictional drainages include earth-moving/grading, tree trimming, and vegetation removal associated with the temporary construction ROW, and within the temporary HDD workspace areas. No permanent impacts are anticipated within potential USACE- and RWQCB-jurisdictional drainages.

Wetlands

Potential USACE- and RWQCB-jurisdictional wetlands comprise a total of approximately 139.3 acres within the Survey Area based on the presence of dominant hydrophytic vegetation communities. As previously discussed in Section 4 – Methods, no soil pits were dug within these potential wetland areas; as a result, it was not possible to determine if these areas also met the hydric soil and hydrology parameters of the wetland delineation test, as outlined in the *Wetlands Delineation Manual* (Environmental Laboratory 1987). As such, the mapped wetland totals included in Table 3: Potential Jurisdictional Hydrological Features within the Survey Area likely overestimate the USACE-jurisdictional wetland areas present within the Survey Area.

Construction of the Proposed Project will result in temporary impacts to approximately 2.70 acres of potential USACE- and RWQCB-jurisdictional wetlands. The Proposed Project activities that could temporarily impact these potential jurisdictional wetlands include earth-moving/grading, tree trimming, and vegetation removal associated with the temporary construction ROW, and within the temporary HDD workspace areas. No permanent impacts are anticipated within potential USACE- and RWQCB-jurisdictional wetlands.

5.1.1 CDFW-Jurisdictional Features

A total of approximately 157.8 acres of potential CDFW-jurisdictional features, including 35.0[9] acres of drainages and 122.9 acres of riparian vegetation, were identified within the Survey Area, as summarized in Table 3: Potential Jurisdictional Hydrological Features within the Survey Area and pursuant to Section 1600 of the California Fish and Game Code.

[8] Within the City of Poway, an approximately one-mile pre-lay segment of existing pipe may be used as part of the Proposed Project and therefore, no temporary or permanent impacts will be needed to construct a new gas pipeline in this location. As a result, no impacts to drainages or wetlands will occur in this pre-lay area. The impact calculations presented in Table 4: Impacts to Potentially Jurisdictional Hydrological Features do not account for the pre-lay area, and as a result, impacts to drainage features and wetlands presented in this report are likely overestimated.

[9] Figures do not sum due to rounding to the nearest tenth.

Construction of the Proposed Project will result in temporary impacts to approximately 3.56 acres of potential CDFW-jurisdictional areas, which includes approximately 2.49 acres of drainages and approximately 1.07 acres of CDFW-jurisdictional riparian areas. The Proposed Project activities that could temporarily impact CDFW-jurisdictional areas include earth-moving/grading, tree trimming, and vegetation removal associated with the temporary construction ROW, and within the temporary HDD workspace areas. No permanent impacts are anticipated within potential CDFW-jurisdictional features.

5.1.2 Non-Jurisdictional Features

While mapping drainages, Insignia biologists also noted non-jurisdictional linear features, such as swales, erosional features, and other ephemeral features. These features do not fall under the jurisdiction of the USACE, RWQCB, or CDFW. These non-jurisdictional features are also included in Attachment A: Hydrologic Region Map. Concrete-lined ditches with ephemeral flow that were neither relocated tributaries nor excavated in a tributary were determined to be non-jurisdictional according to the CWR, and were not further documented. These non-jurisdictional ditches appeared to carry water only from anthropogenic sources (e.g., landscape run-off, etc.).

6 – DISCUSSION

Based on the data and analysis provided in this report, approximately 349 potentially jurisdictional hydrologic features are located within the Survey Area for the Proposed Project. Of the hydrologic features within the Survey Area, approximately 139.3 acres are wetlands and approximately 10.5 acres are drainages that are potentially under the jurisdiction of the USACE and the RWQCB, pursuant to Sections 404 and 401 of the CWA, respectively. Approximately 157.8 acres of potential CDFW-jurisdictional areas occur within the Survey Area for the Proposed Project.

Approximately 104 hydrologic features (87 drainages and 17 wetlands) potentially under the jurisdiction of the USACE or the RWQCB will be temporarily impacted during construction of the Proposed Project. Of the hydrologic features crossed by the Proposed Project, impacts to approximately 2.70 acres of wetlands and 0.82 acre of drainages that are potentially under the jurisdiction of the USACE and the RWQCB—pursuant to Sections 404 and 401 of the CWA, respectively—will be required to construct the Proposed Project[10]. Approximately 3.56 acres of temporary impacts to CDFW-jurisdictional areas will be required to construct the Proposed Project. No permanent impacts to any potentially jurisdictional water or wetland features are anticipated.

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[10] Impacts to wetlands and drainages reported in this section do not account for the pre-lay segment of existing pipe where new pipe in not required and new construction impacts are not anticipated, as described previously. As a result, impacts to wetlands and drainage features are likely overestimated in this report.

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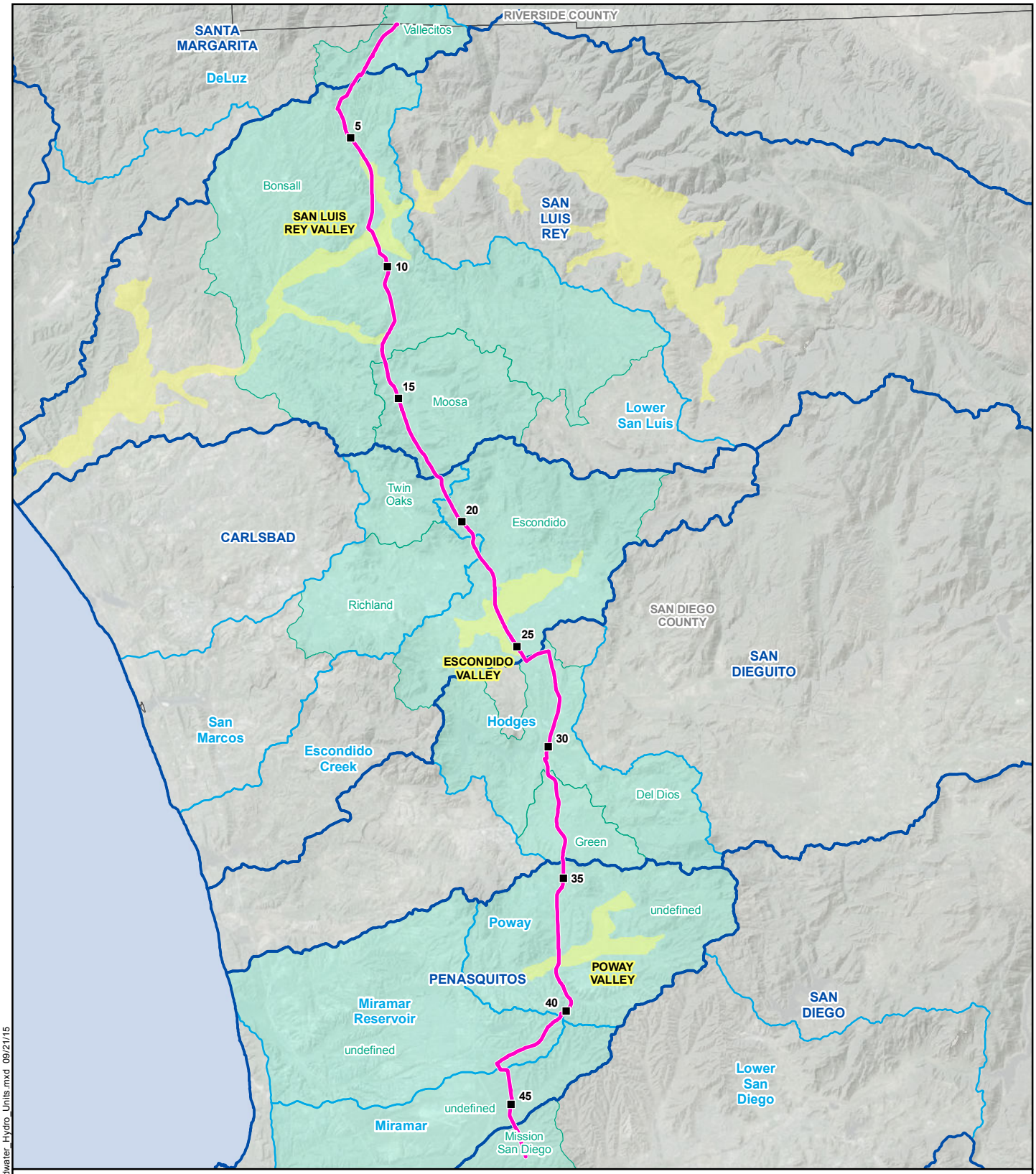
ATTACHMENT A: HYDROLOGIC REGION MAP



Attachment A: Hydrologic Region Map **Pipeline Safety & Reliability Project**

- Milepost
- Proposed Project Route
- Groundwater Basin
- Hydrologic Unit
- Hydrologic Area
- Hydrologic Subarea

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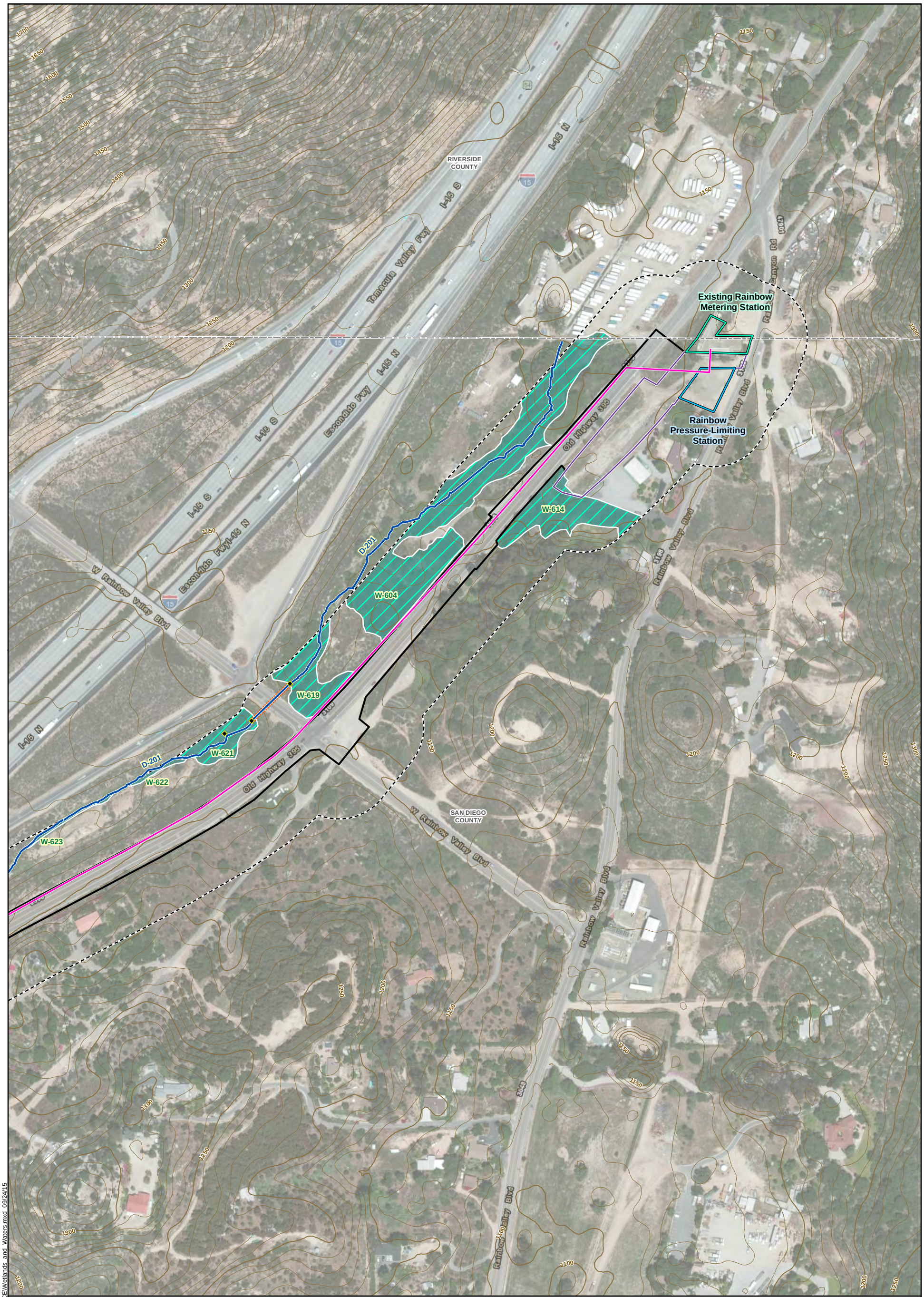
ATTACHMENT B: WETLAND AND WATERS ASSESSMENT MAP



Attachment B: Wetland and Waters Assessment Map 1 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 2 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
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- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 3 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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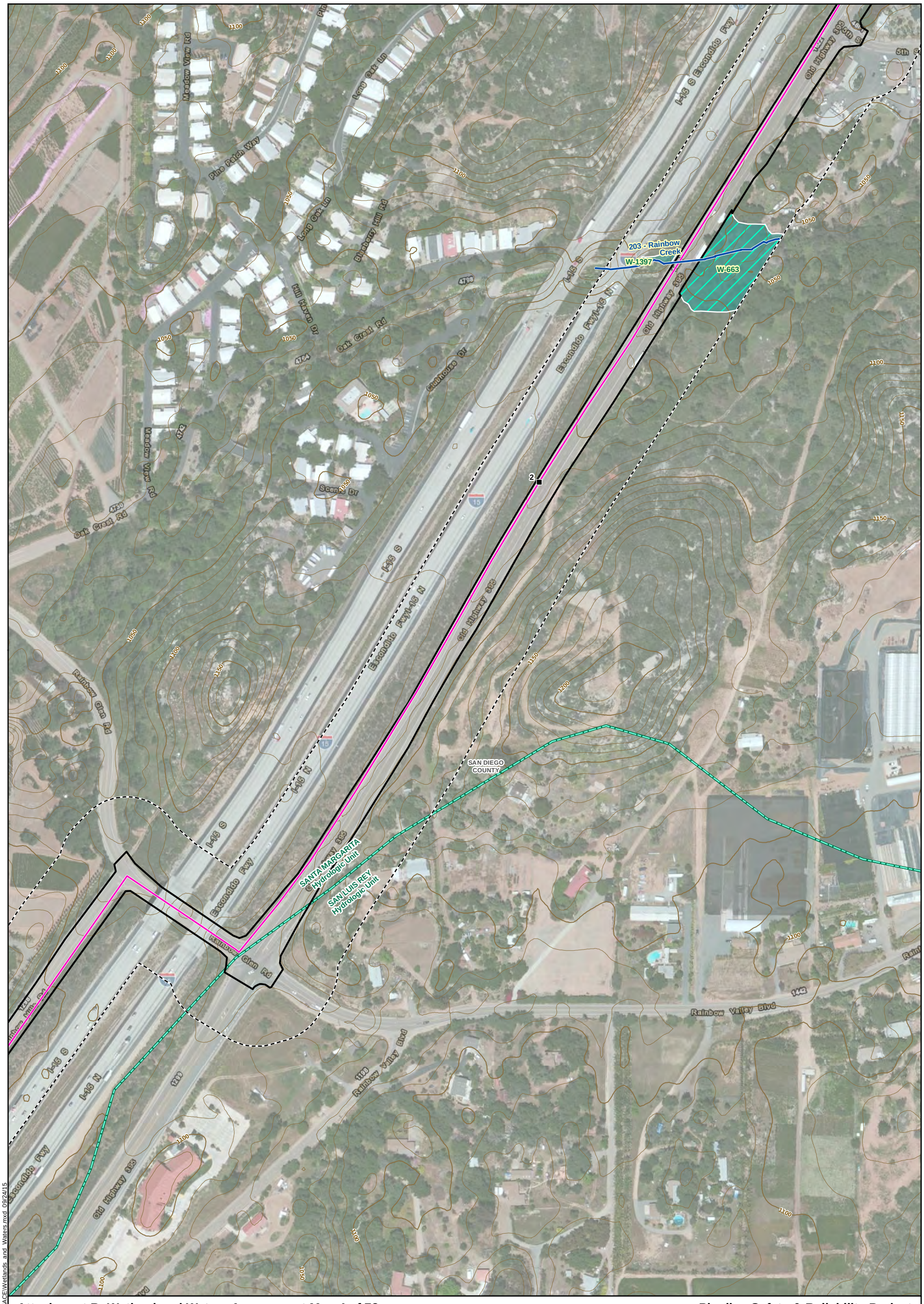

Attachment B: Wetland and Waters Assessment Map 4 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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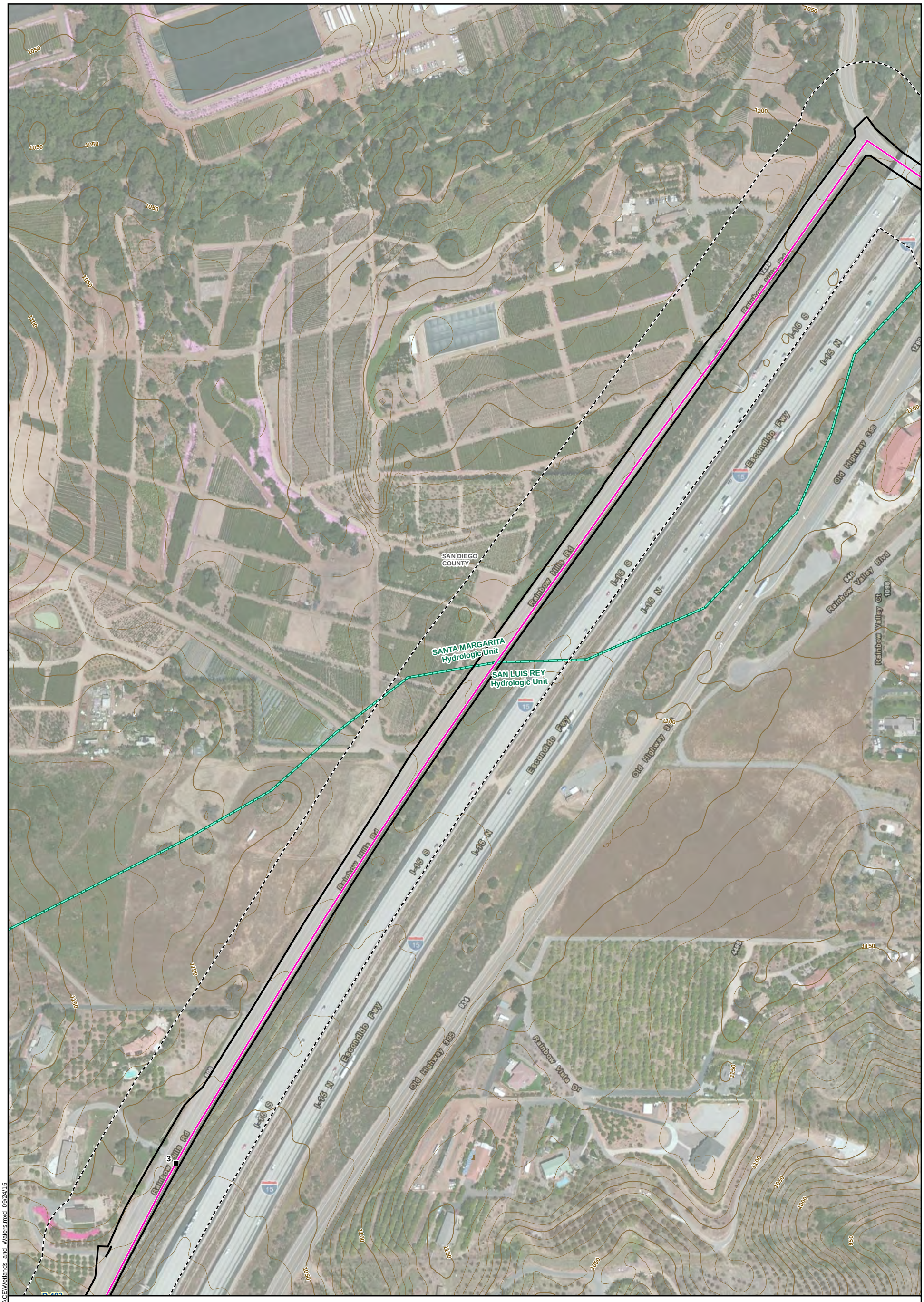

Attachment B: Wetland and Waters Assessment Map 5 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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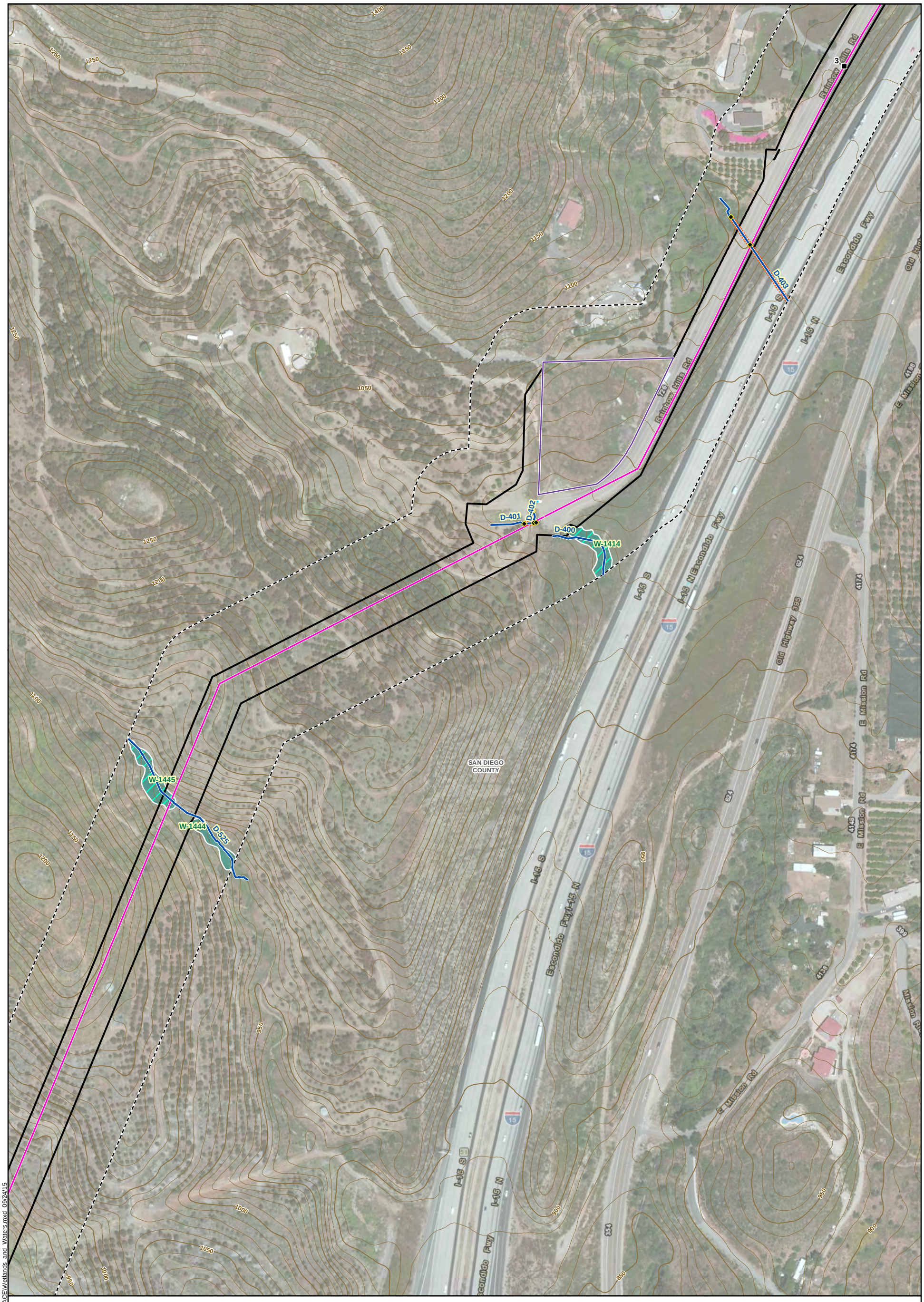

Attachment B: Wetland and Waters Assessment Map 6 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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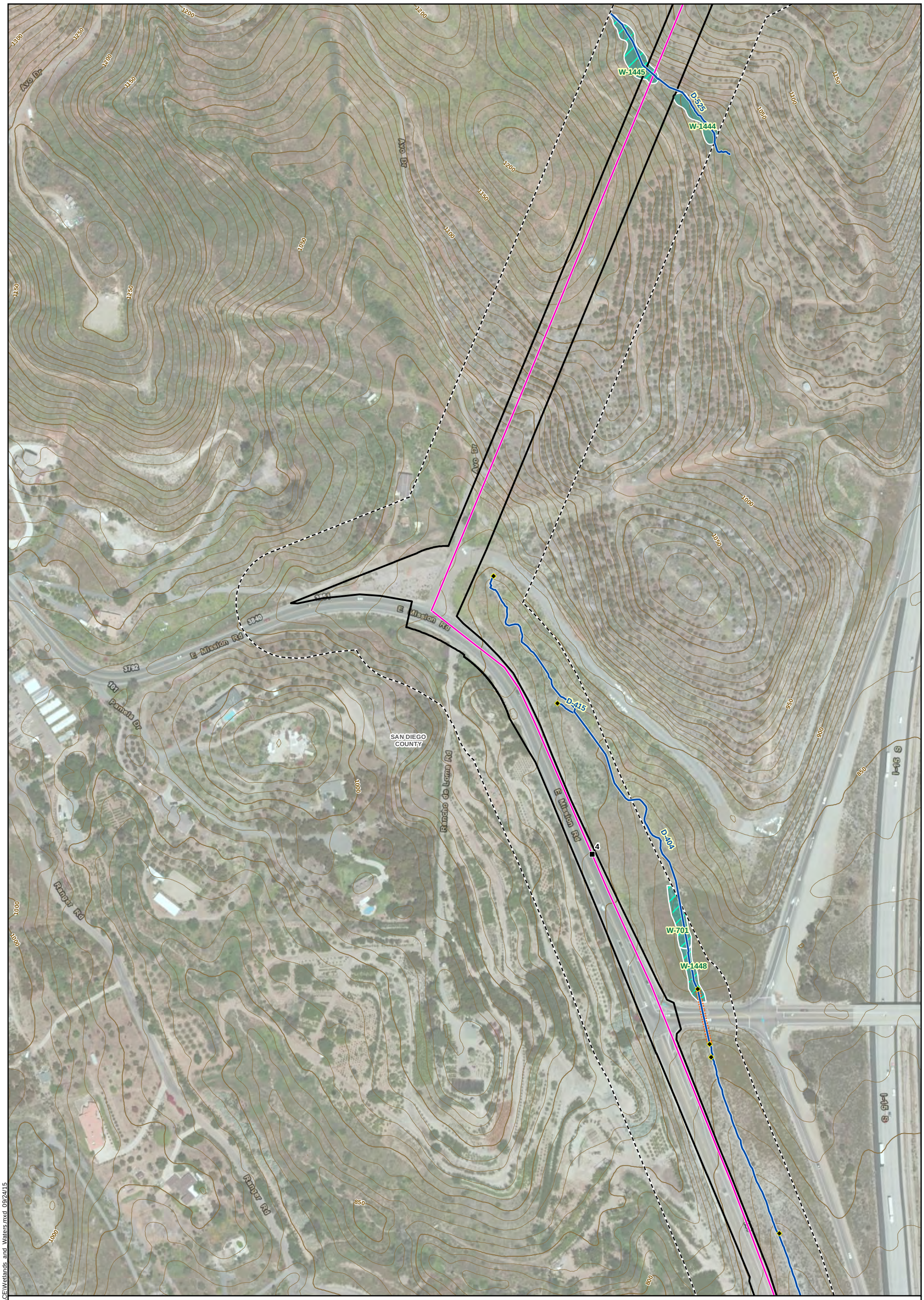

Attachment B: Wetland and Waters Assessment Map 7 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 8 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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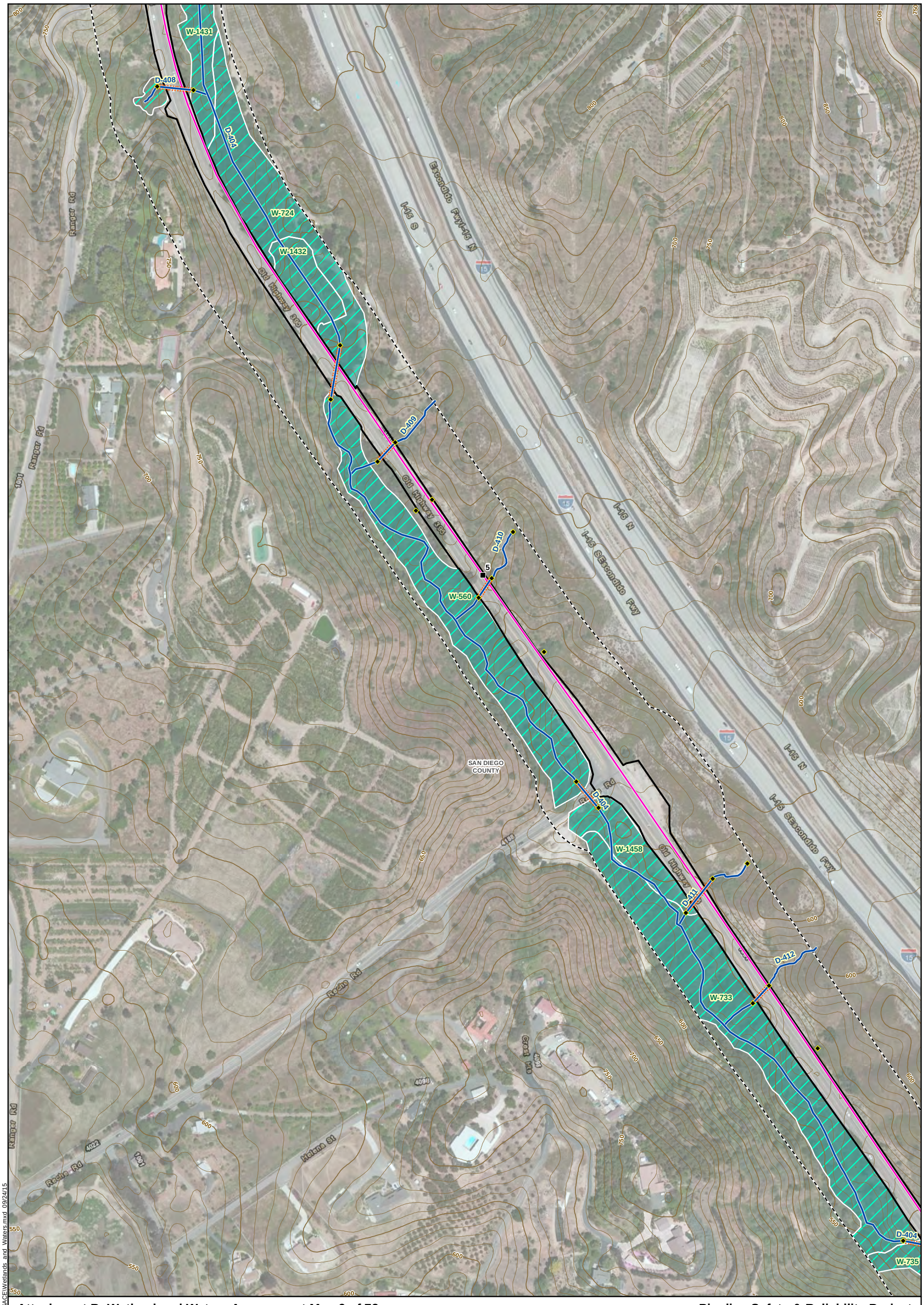

Attachment B: Wetland and Waters Assessment Map 9 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 10 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 11 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
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- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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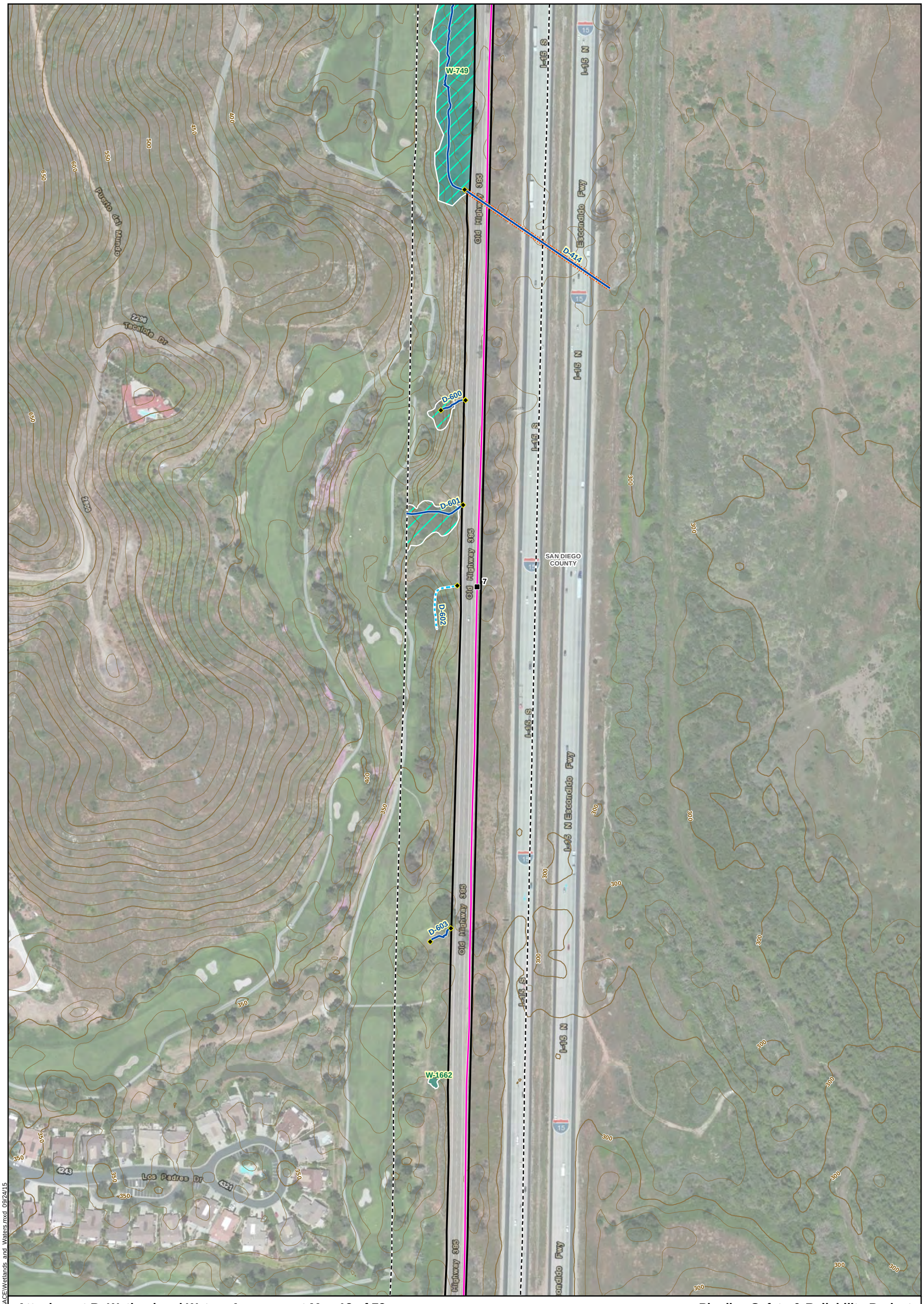

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Attachment B: Wetland and Waters Assessment Map 12 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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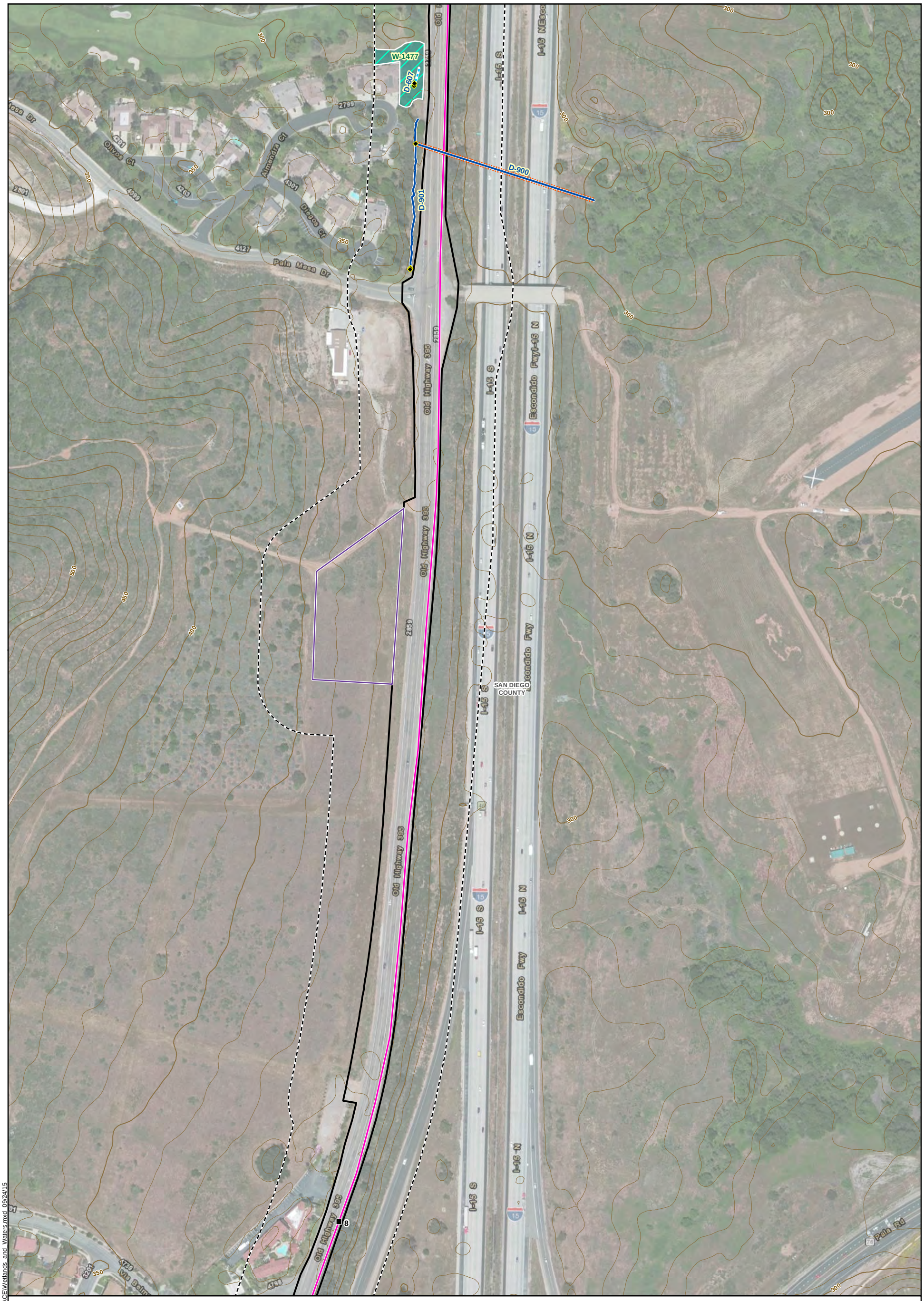

Attachment B: Wetland and Waters Assessment Map 13 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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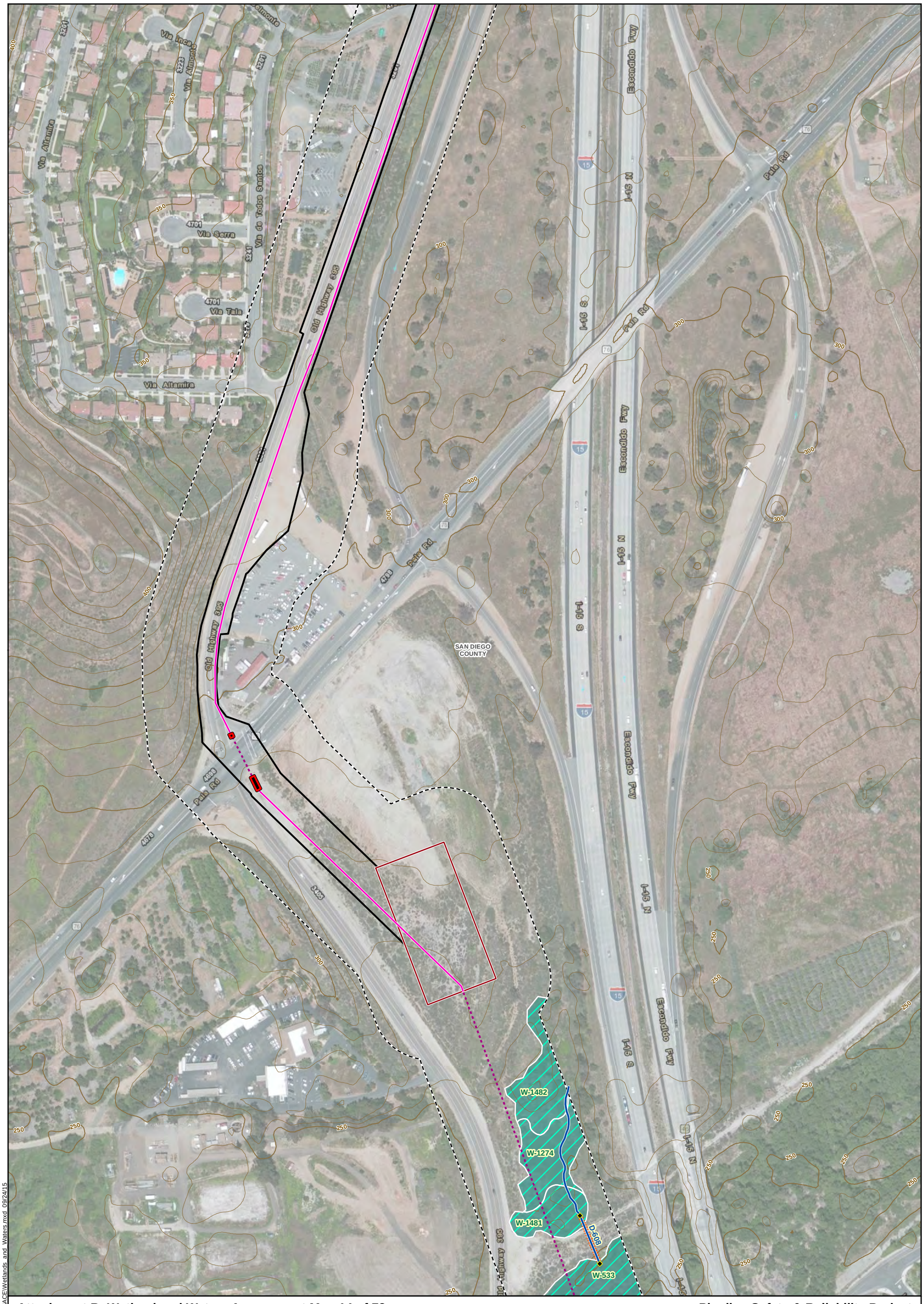

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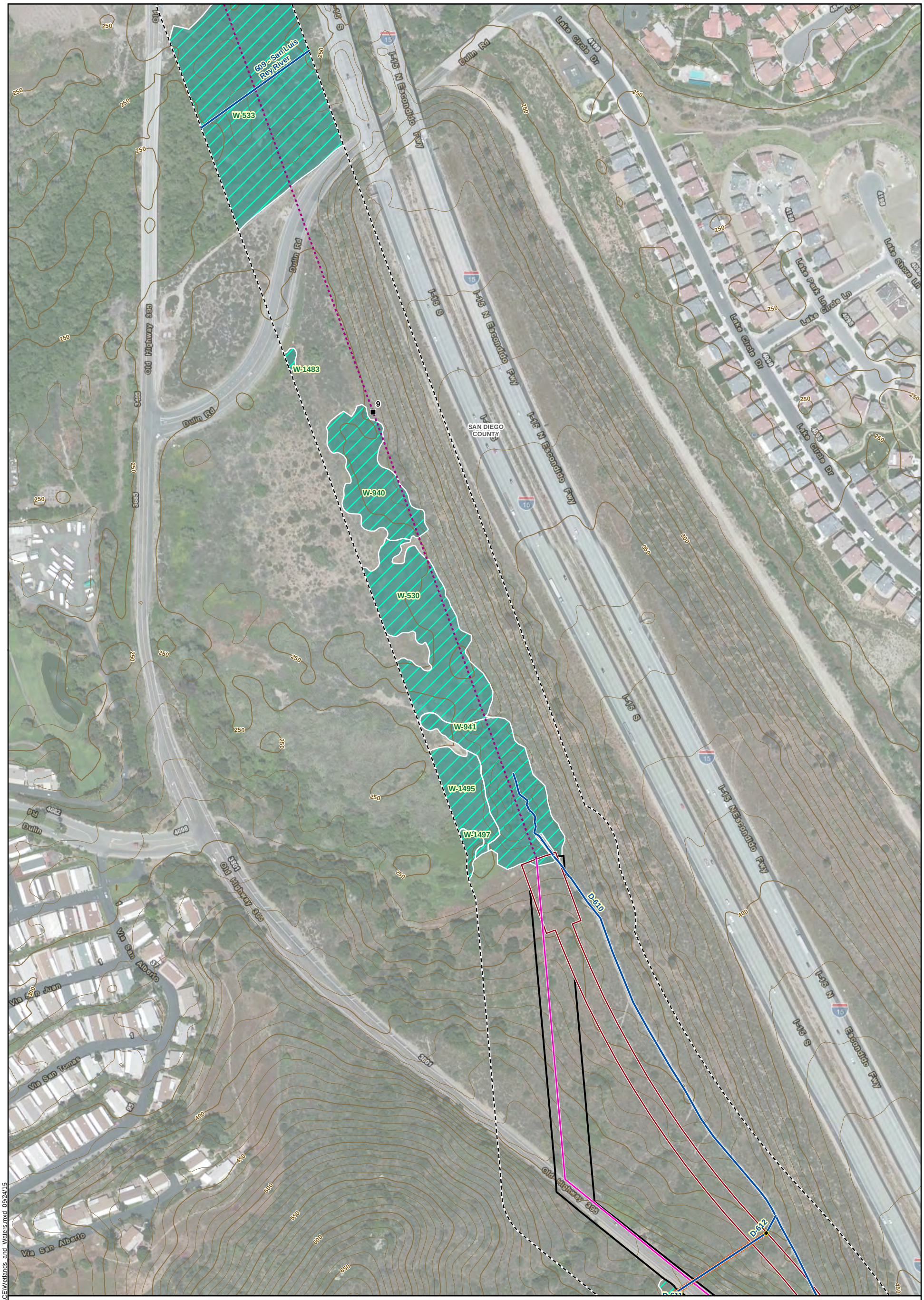
Attachment B: Wetland and Waters Assessment Map 14 of 72

Pipeline Safety & Reliability Project



Attachment B: Wetland and Waters Assessment Map 15 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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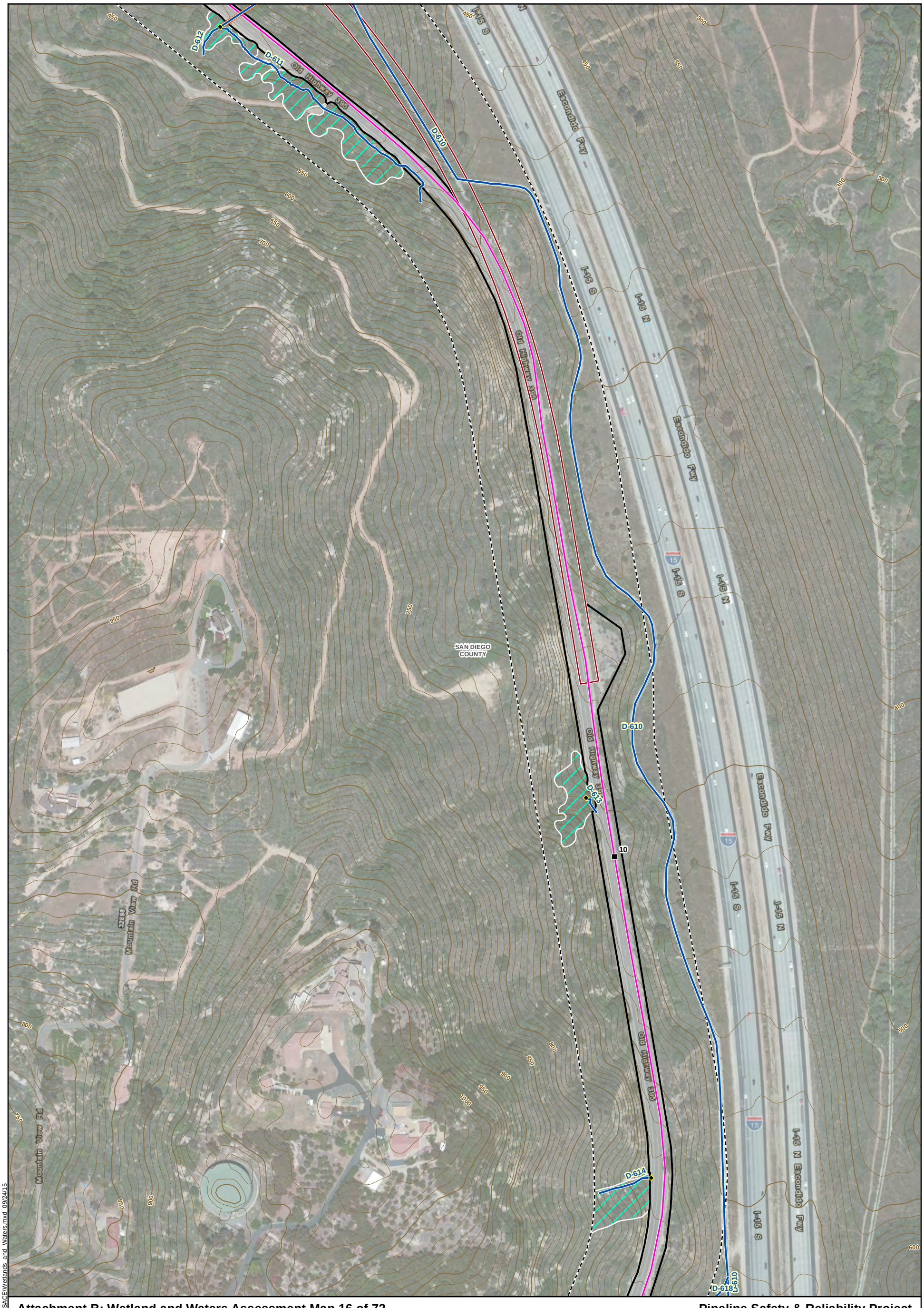

Attachment B: Wetland and Waters Assessment Map 16 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 17 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 18 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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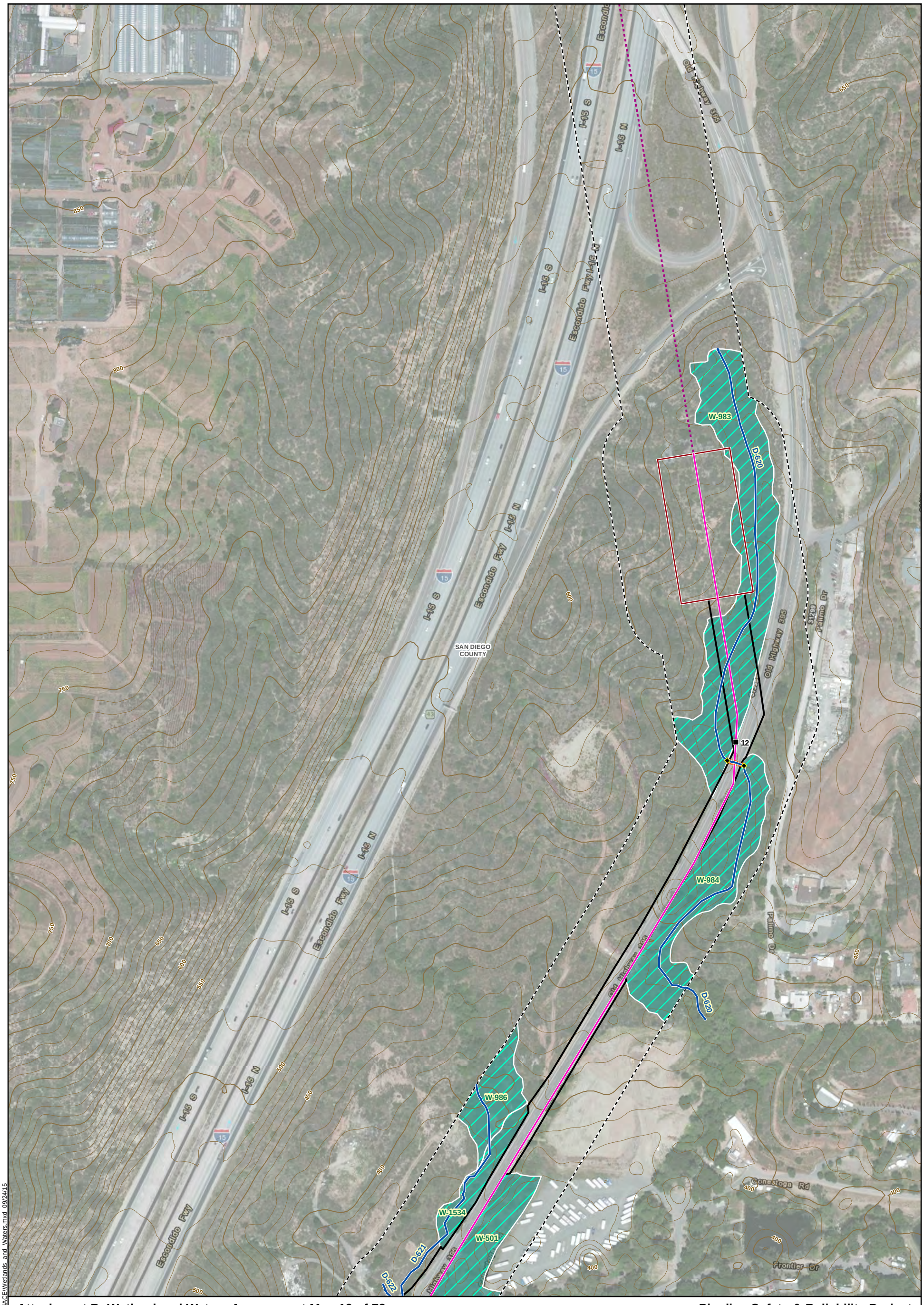

Attachment B: Wetland and Waters Assessment Map 19 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 20 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 21 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 22 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 23 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 24 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 25 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment
- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 26 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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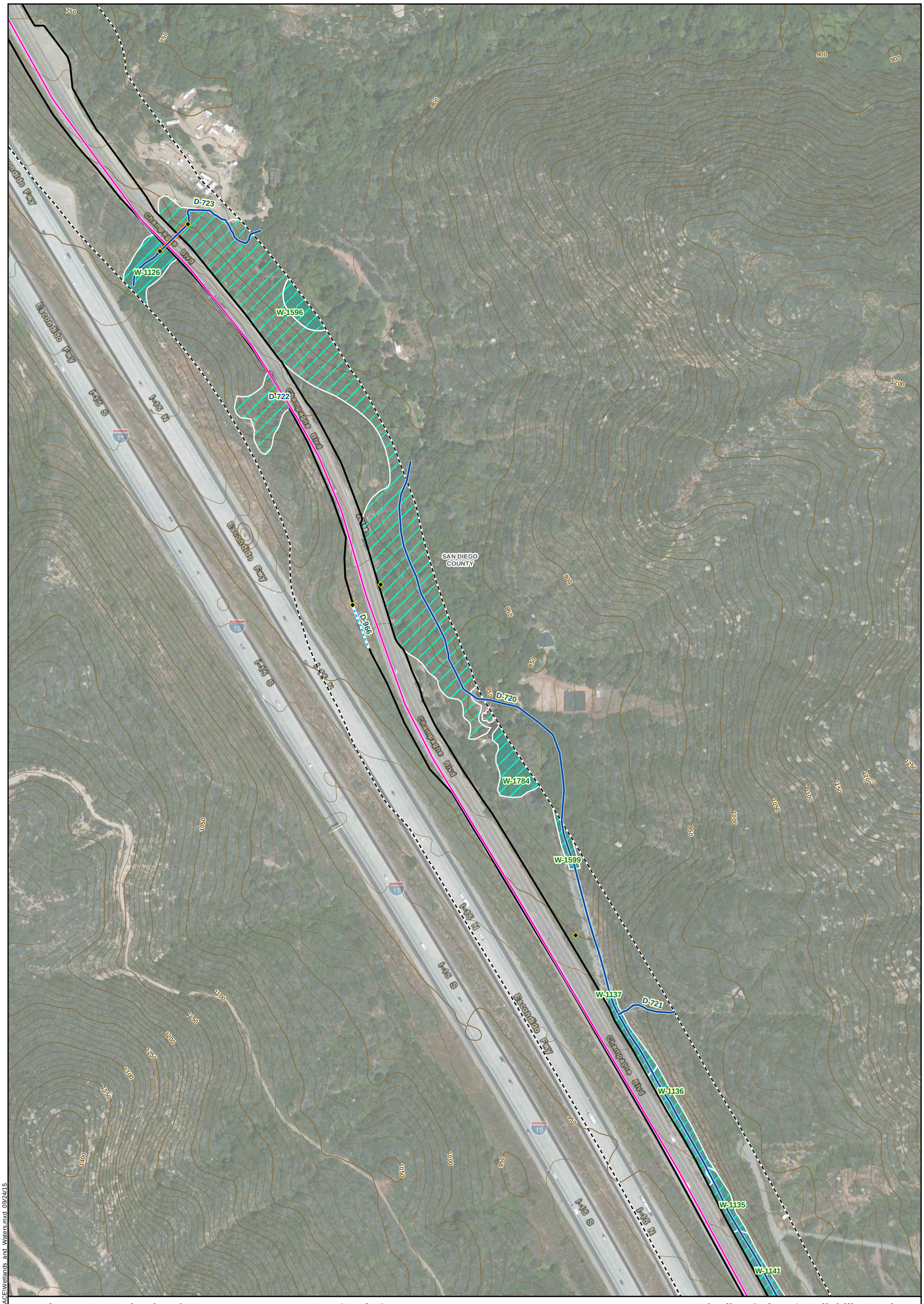

Attachment B: Wetland and Waters Assessment Map 27 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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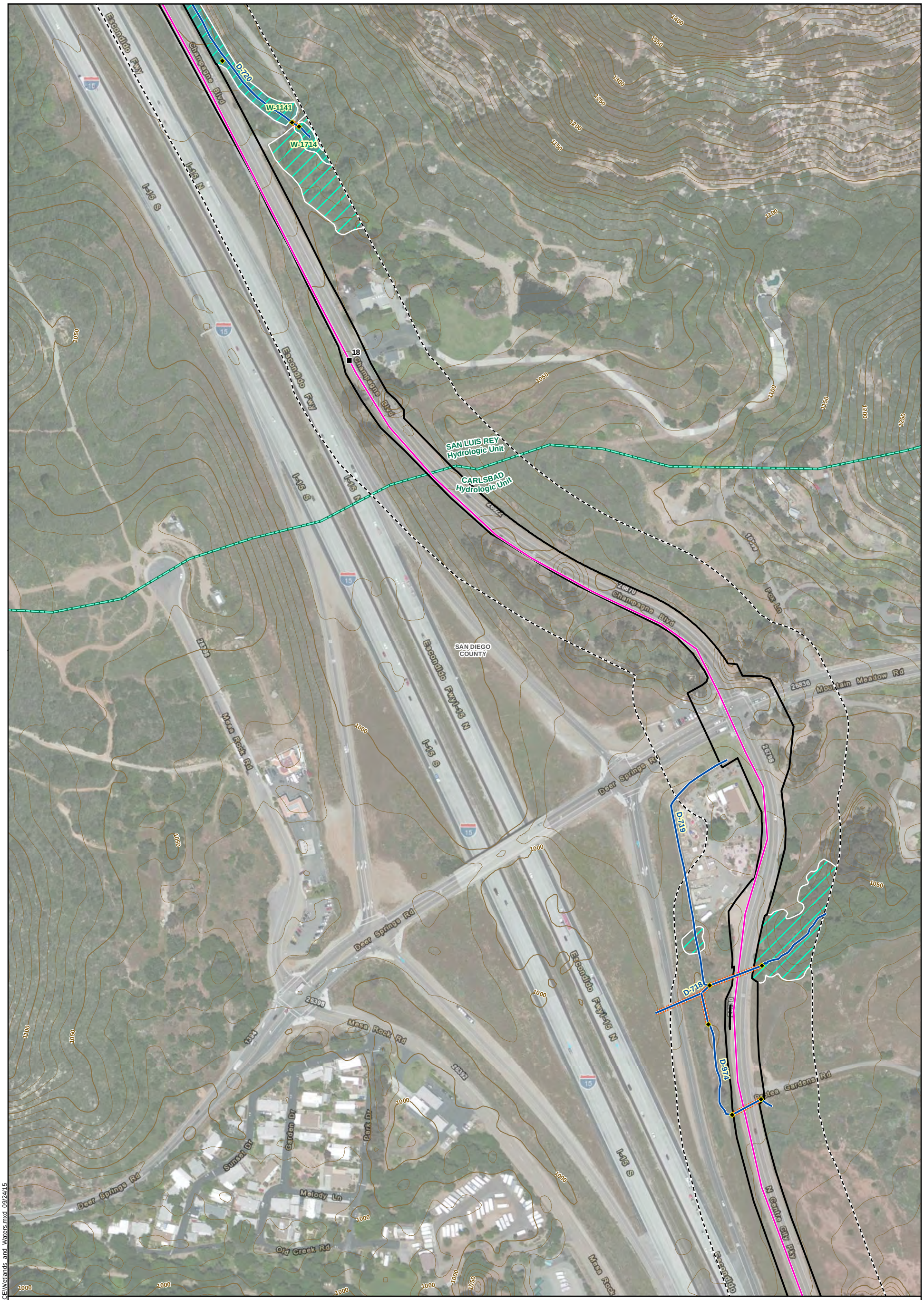

Attachment B: Wetland and Waters Assessment Map 28 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 29 of 72

Pipeline Safety & Reliability Project

Milepost
Proposed Project Route
Proposed Trenchless
Cross-Tie Connector Line
Existing Facility

Permanent
Aboveground Facility

Temporary
Bore Pit
Horizontal Directional Drill Workspace
Laydown Area
Right-of-Way Limits

Contour (10-foot Interval)
Biological Resource Survey
City/County Boundary
Hydrologic Unit Watershed Boundary

Culvert
Non-Jurisdictional Feature
USACE/RWQCB Drainage
Culverted segment

CDFW Riparian Vegetation
USACE/RWQCB Wetland
USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 30 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 31 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 32 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 33 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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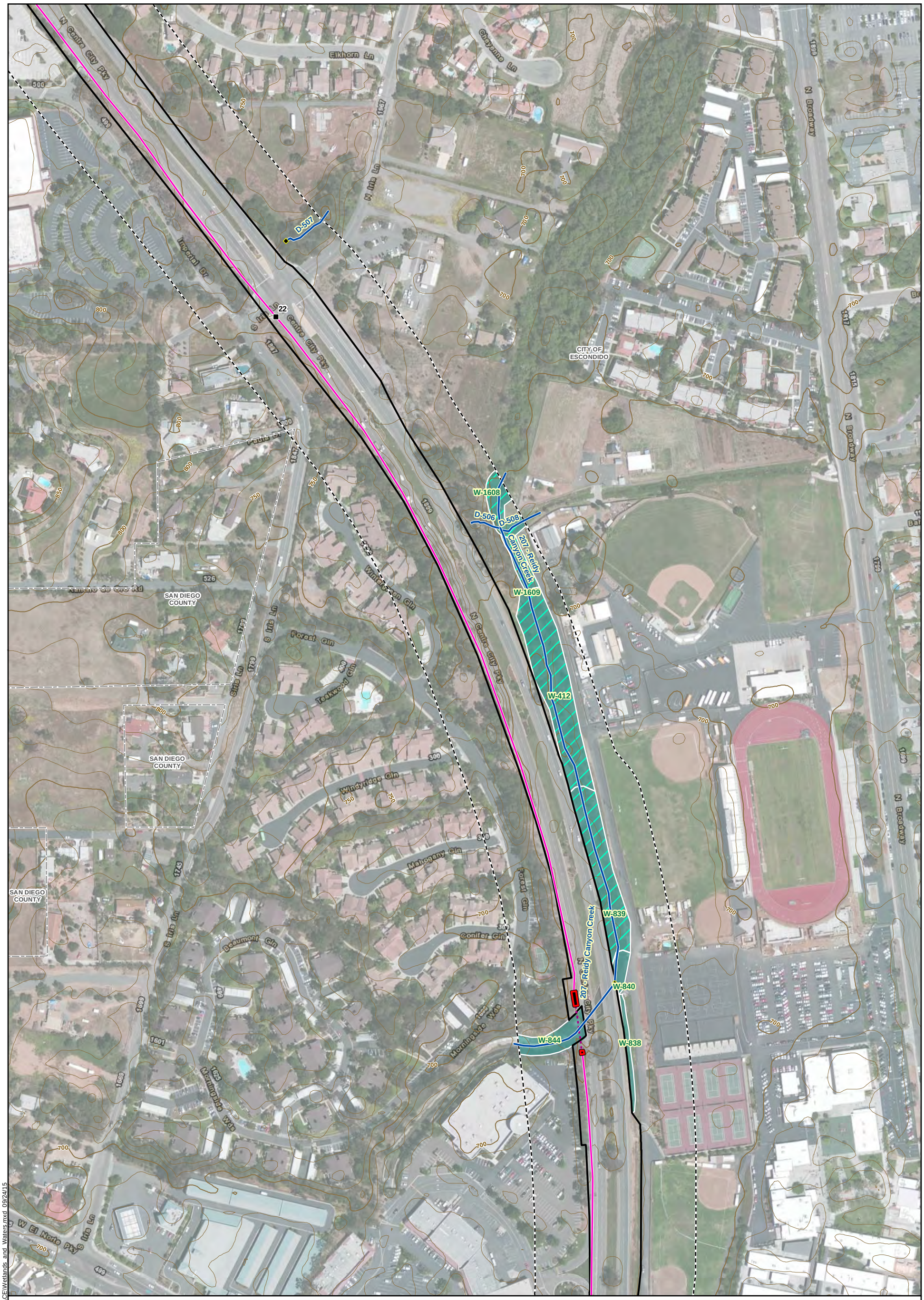

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Attachment B: Wetland and Waters Assessment Map 34 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 35 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
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- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
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- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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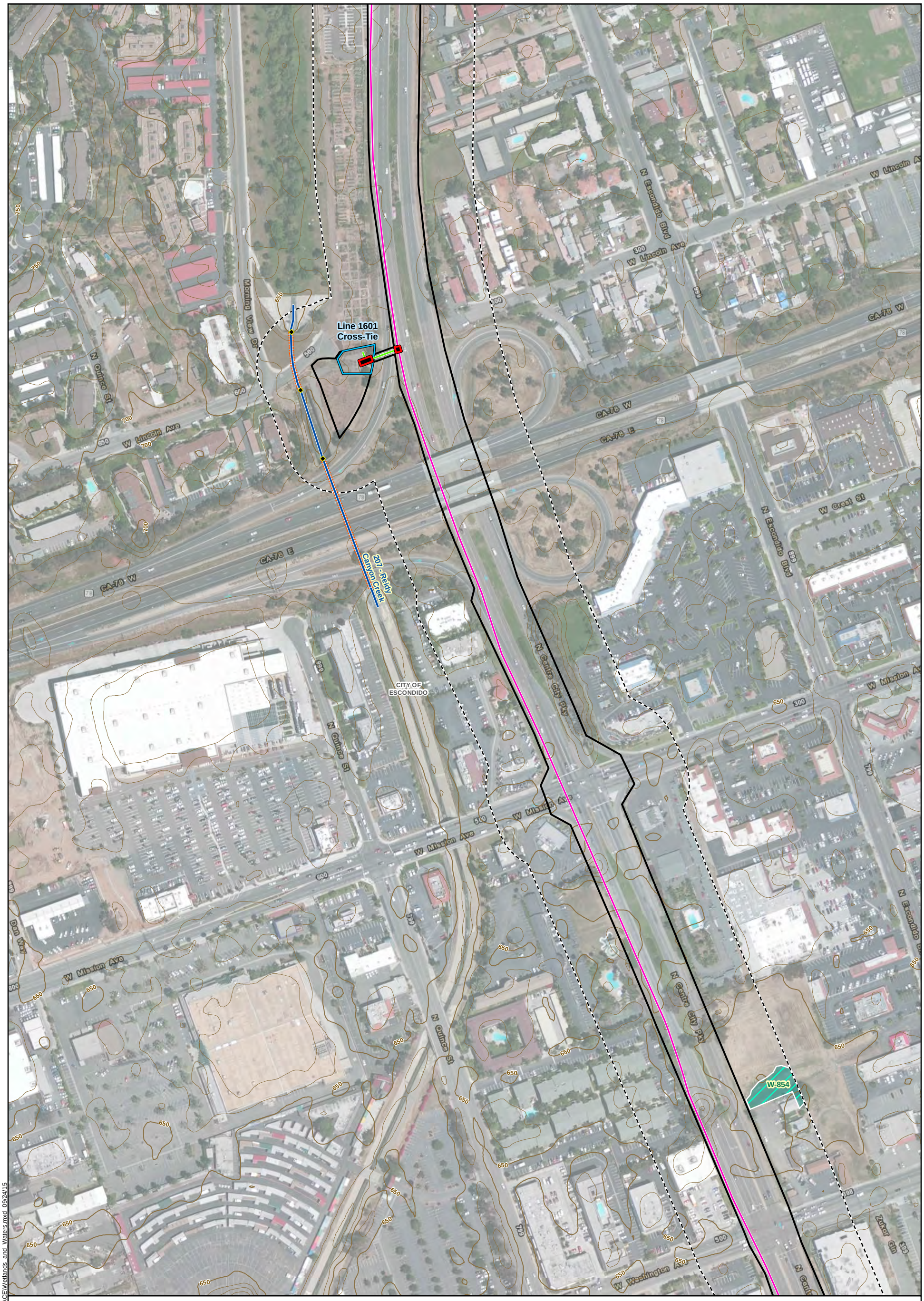

Attachment B: Wetland and Waters Assessment Map 36 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 37 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 38 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 39 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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Attachment B: Wetland and Waters Assessment Map 40 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

SoCalGas A Sempra Energy utility

SDGE A Sempra Energy utility

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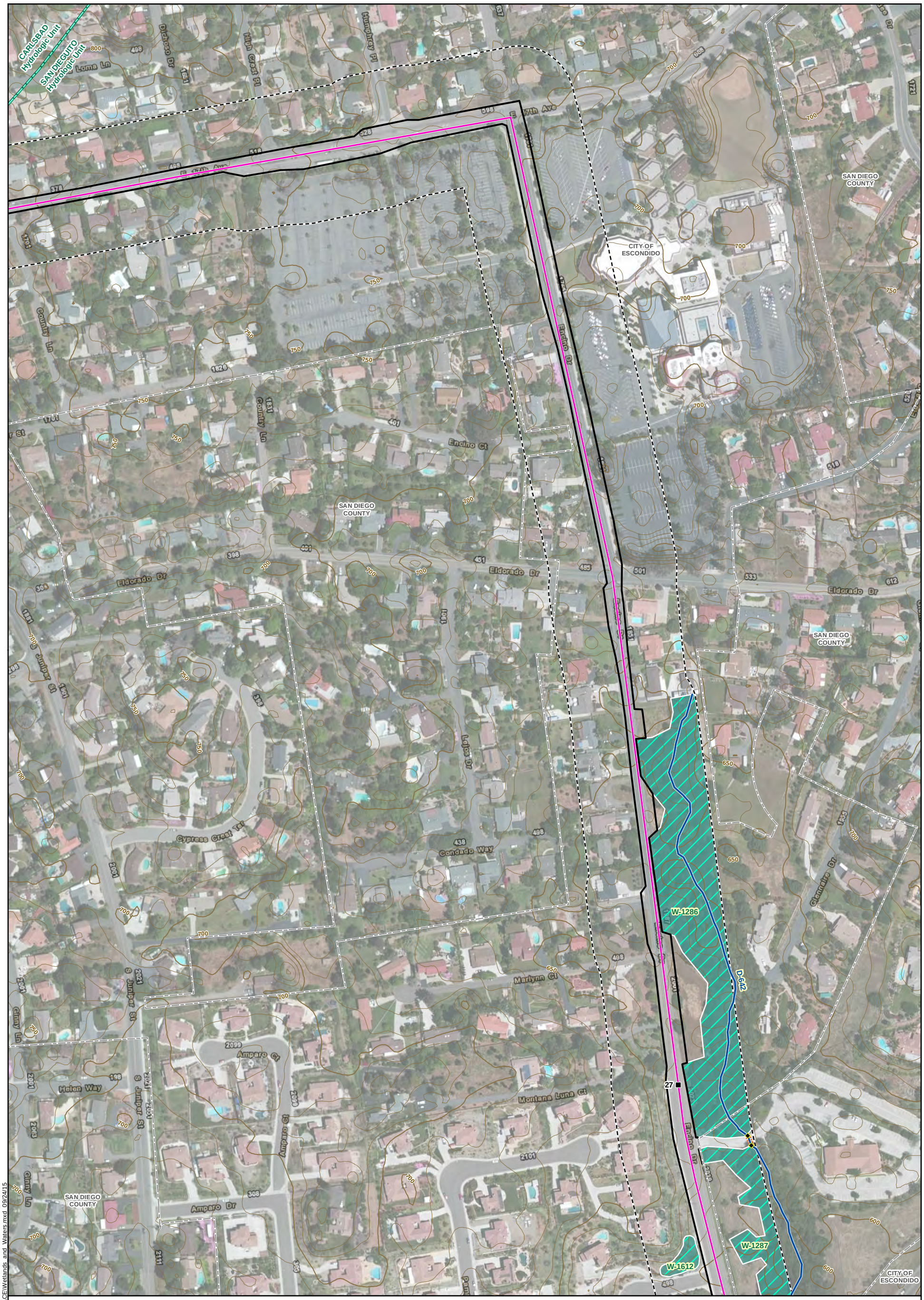

Attachment B: Wetland and Waters Assessment Map 41 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | ENSIGNIA ENVIRONMENTAL

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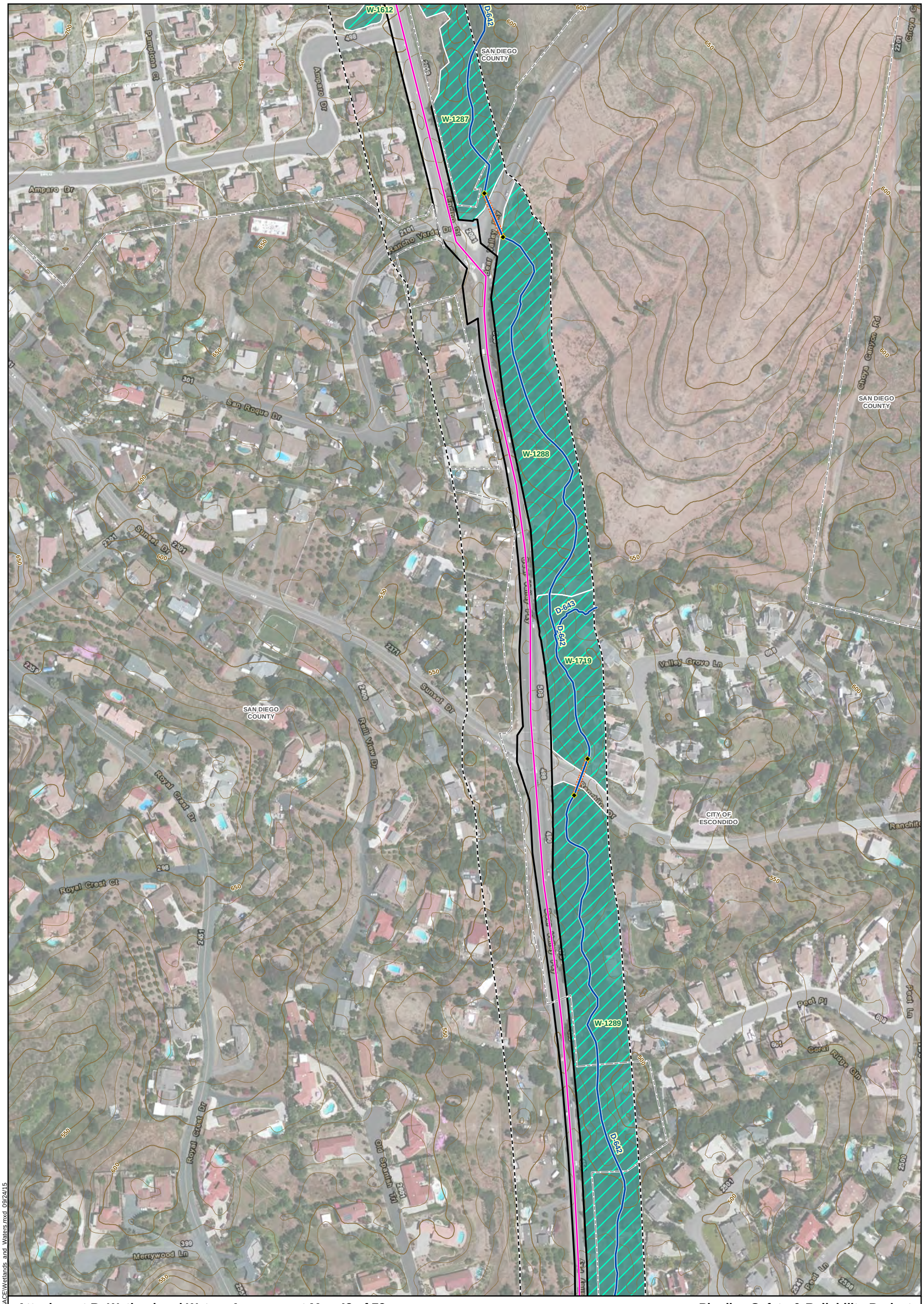

Attachment B: Wetland and Waters Assessment Map 42 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 43 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 44 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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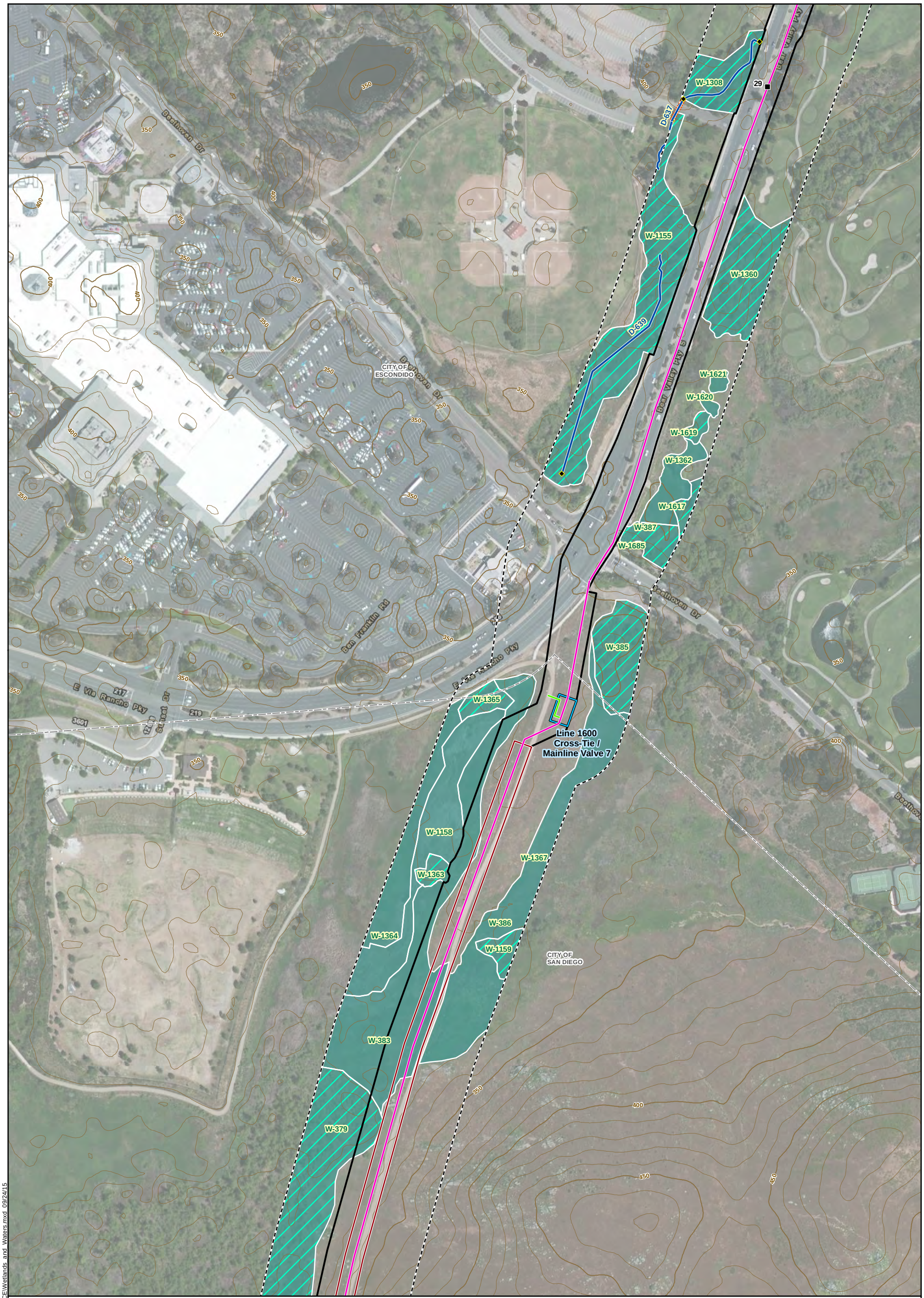

Attachment B: Wetland and Waters Assessment Map 45 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

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Attachment B: Wetland and Waters Assessment Map 46 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

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Attachment B: Wetland and Waters Assessment Map 47 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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Attachment B: Wetland and Waters Assessment Map 48 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

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Attachment B: Wetland and Waters Assessment Map 49 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 50 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 51 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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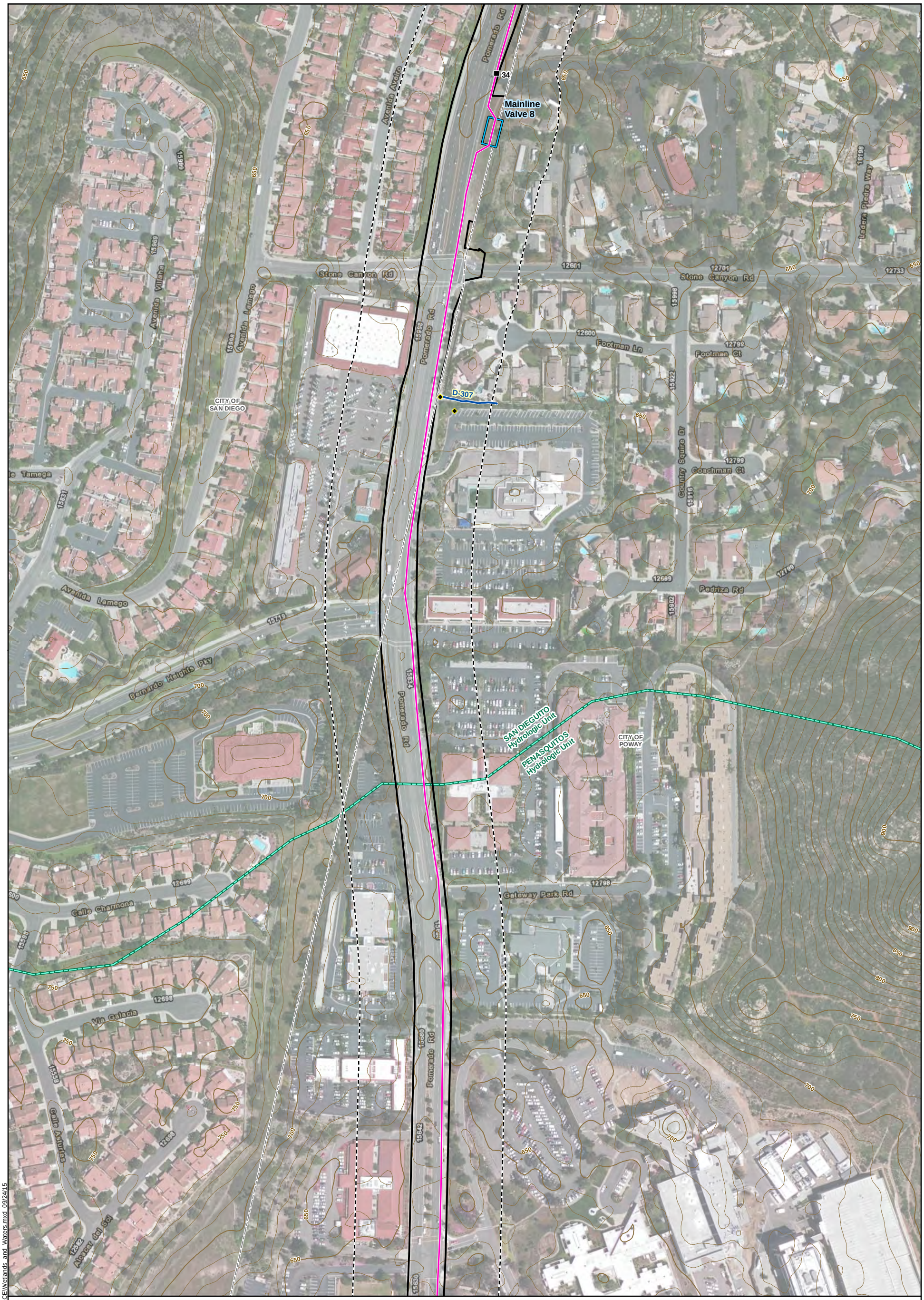

Attachment B: Wetland and Waters Assessment Map 52 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

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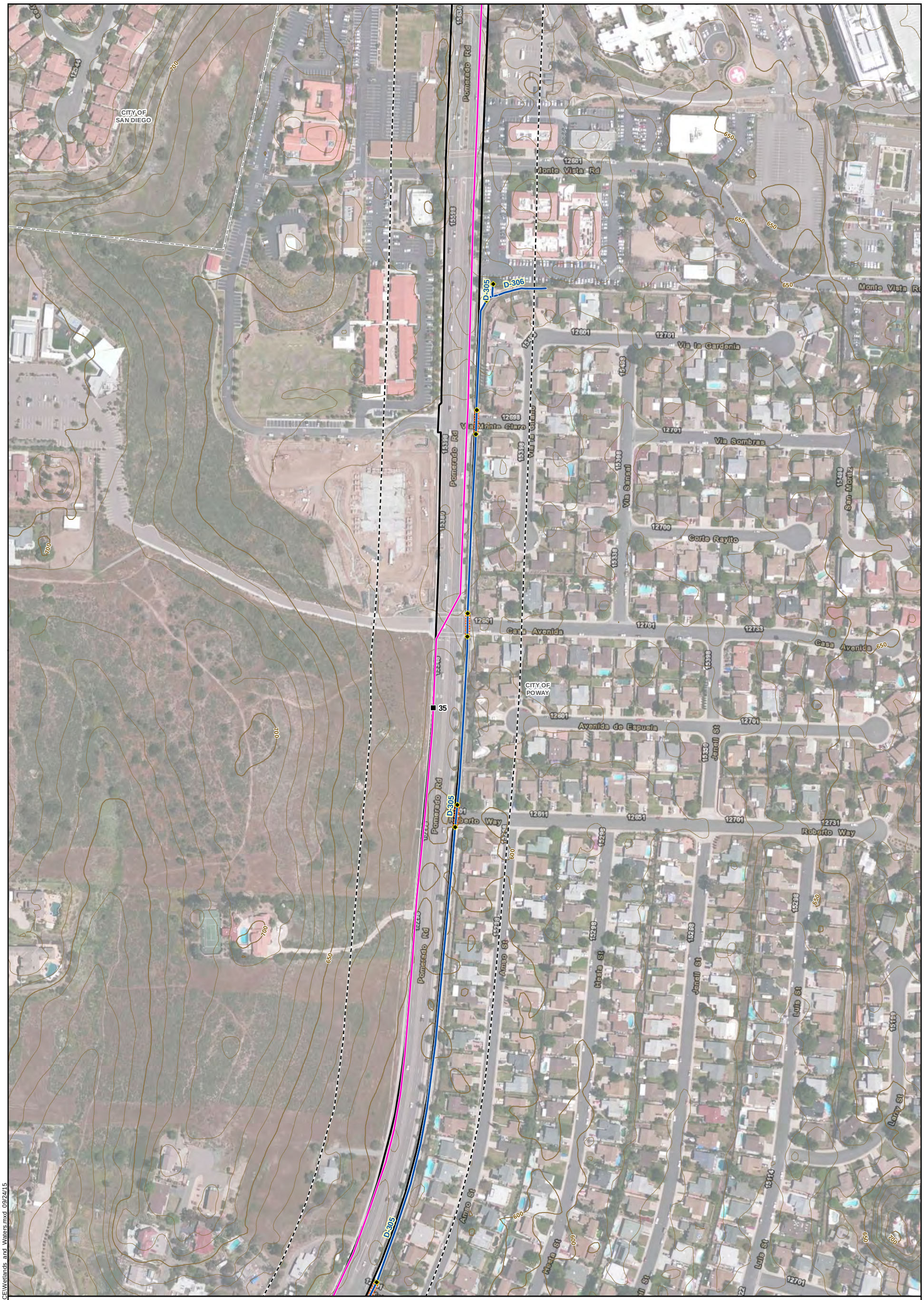

Attachment B: Wetland and Waters Assessment Map 53 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 54 of 72

Pipeline Safety & Reliability Project

D-304
W-1194
D-305
W-1627
W-1628
36
CITY OF POWAY
Pomerado Rd
Ted Williams Pky
Twin Peaks Rd
Camino del Norte
Adobe Ridge Rd
Kaitz St
Laja Dr
Deerwood St
Peachwood Ct
Crestwood Ave
Cherrywood St
Jacala Dr
Concho Dr
Morningside Dr
Heritage Way
Ironrus Ln
Spyglass Trl
Kitty Crest Ln
La Moda Dr
Meath Dr
Brookstone

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

SoCalGas A Sempra Energy utility
SDGE A Sempra Energy utility
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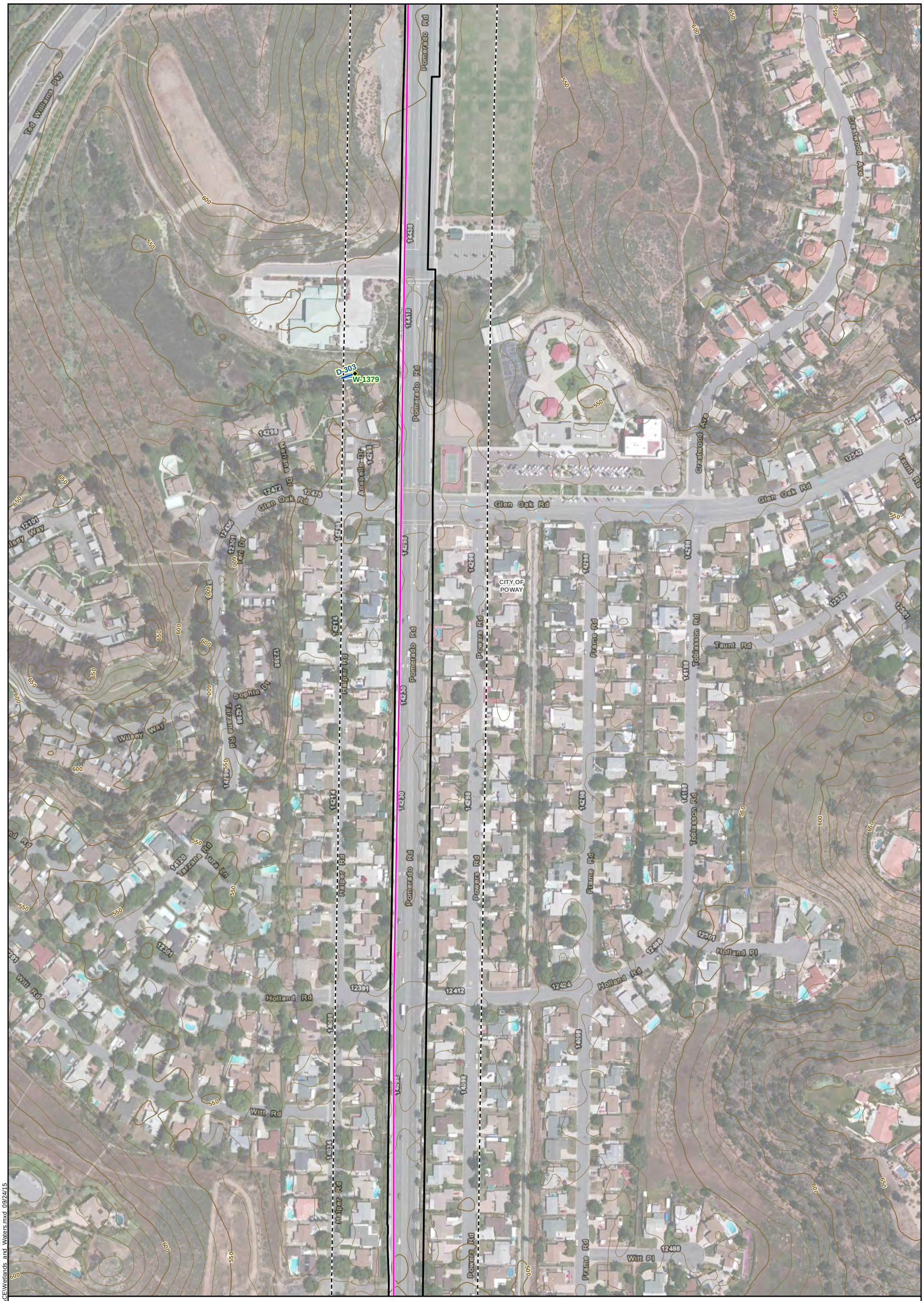

Attachment B: Wetland and Waters Assessment Map 55 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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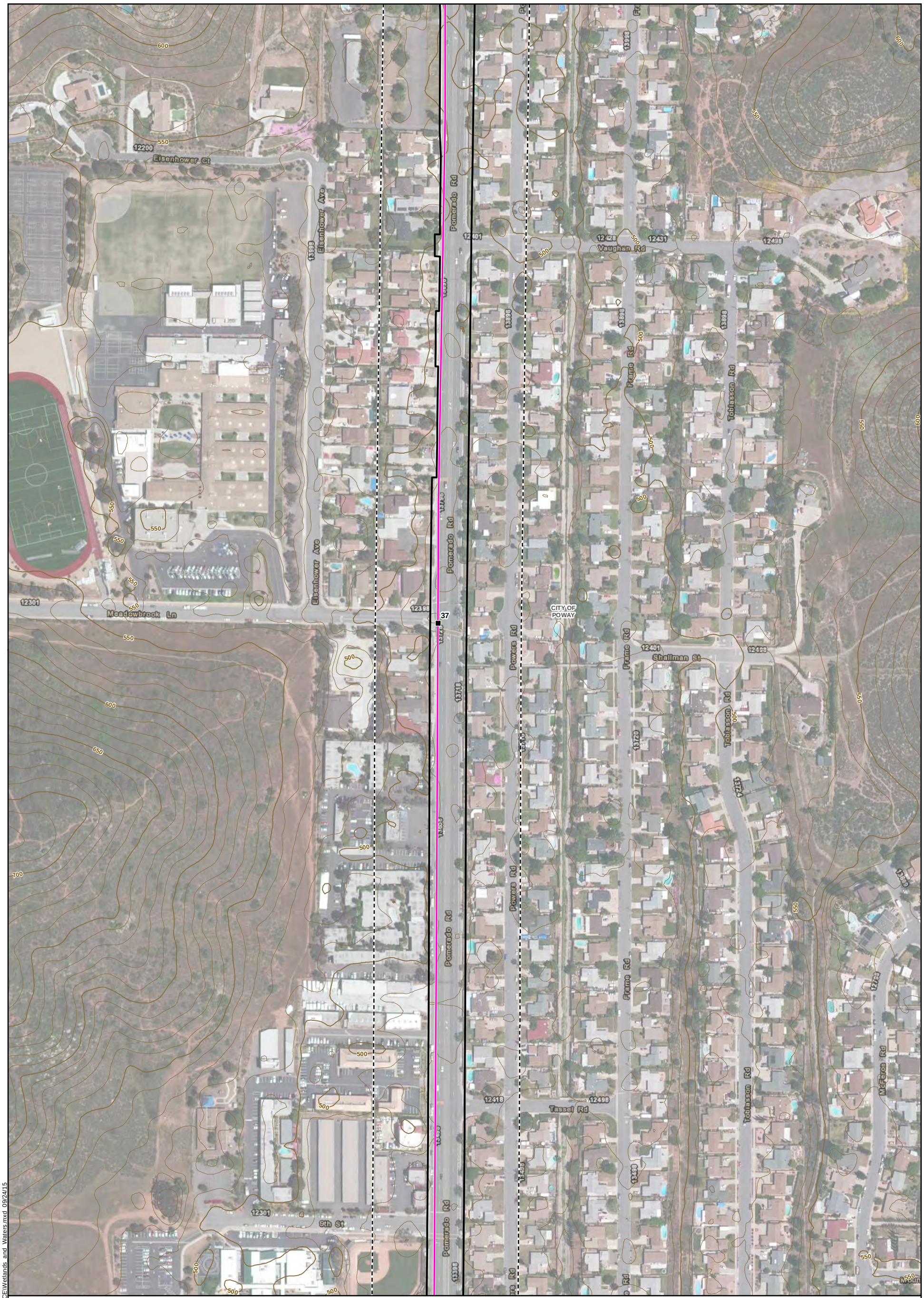

Attachment B: Wetland and Waters Assessment Map 56 of 72

Pipeline Safety & Reliability Project

Milepost
Proposed Project Route
Proposed Trenchless
Cross-Tie Connector Line
Existing Facility

Permanent
Aboveground Facility

Temporary
Bore Pit
Horizontal Directional Drill Workspace
Laydown Area
Right-of-Way Limits

Contour (10-foot Interval)
Biological Resource Survey
City/County Boundary
Hydrologic Unit Watershed Boundary

Culvert
Non-Jurisdictional Feature
USACE/RWQCB Drainage
Culverted segment

CDFW Riparian Vegetation
USACE/RWQCB Wetland
USACE/RWQCB Drainage

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0 200 400 Feet

SoCalGas A Sempra Energy utility
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Attachment B: Wetland and Waters Assessment Map 57 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

1:3,000

0 200 400 Feet

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Attachment B: Wetland and Waters Assessment Map 58 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary
- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment
- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

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Attachment B: Wetland and Waters Assessment Map 59 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | ENSIGNIA ENVIRONMENTAL

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Attachment B: Wetland and Waters Assessment Map 60 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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Attachment B: Wetland and Waters Assessment Map 61 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

1:3,000

0 200 400 Feet

SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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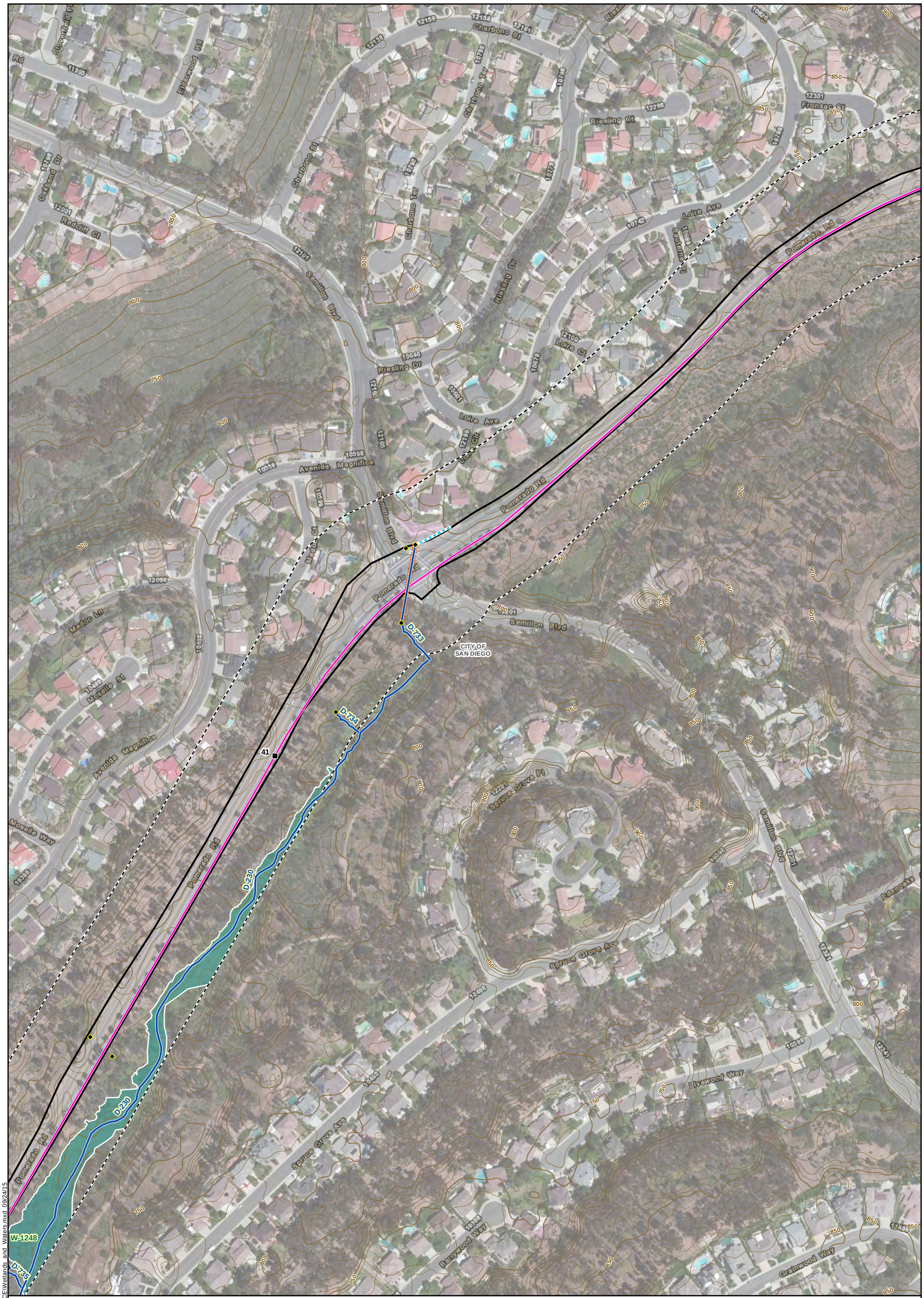

Attachment B: Wetland and Waters Assessment Map 62 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | ENSIGNIA ENVIRONMENTAL

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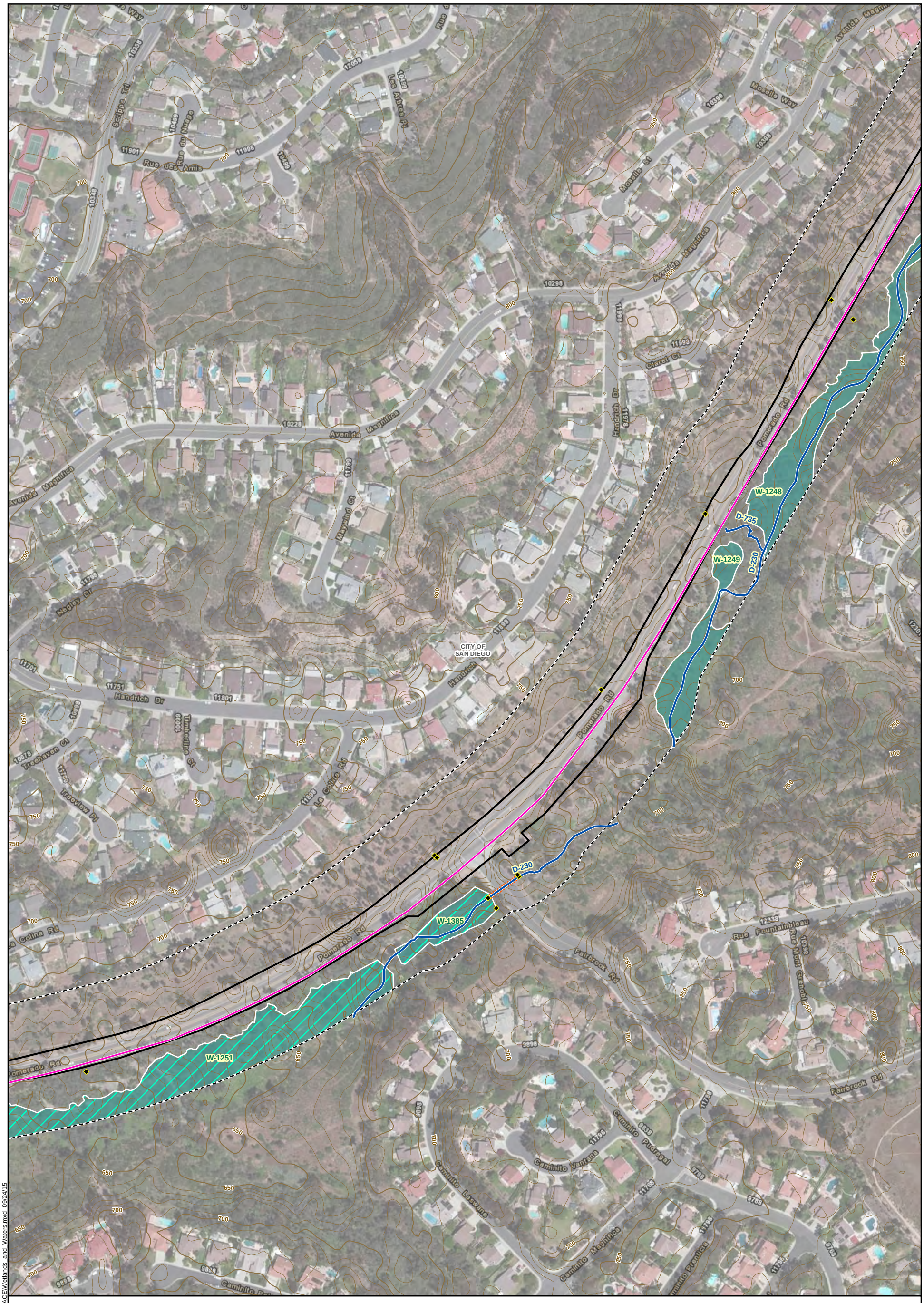

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Attachment B: Wetland and Waters Assessment Map 63 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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0 200 400 Feet

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Attachment B: Wetland and Waters Assessment Map 64 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

Permanent
- Aboveground Facility

Temporary
- Bore Pit
- Horizontal Directional Drill Workspace
- Laydown Area
- Right-of-Way Limits

- Contour (10-foot Interval)
- Biological Resource Survey
- City/County Boundary
- Hydrologic Unit Watershed Boundary

- Culvert
- Non-Jurisdictional Feature
- USACE/RWQCB Drainage
- Culverted segment

- CDFW Riparian Vegetation
- USACE/RWQCB Wetland
- USACE/RWQCB Drainage

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SoCalGas A Sempra Energy utility | SDGE A Sempra Energy utility | INSIGNIA ENVIRONMENTAL

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Attachment B: Wetland and Waters Assessment Map 65 of 72

Pipeline Safety & Reliability Project

- Milepost
- Proposed Project Route
- Proposed Trenchless
- Cross-Tie Connector Line
- Existing Facility

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- Aboveground Facility

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- USACE/RWQCB Drainage

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Attachment B: Wetland and Waters Assessment Map 66 of 72

Pipeline Safety & Reliability Project

- Milepost
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Attachment B: Wetland and Waters Assessment Map 67 of 72

Pipeline Safety & Reliability Project

- Milepost
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Elliot Field Station
(University of California
San Diego Natural Reserve System)

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Attachment B: Wetland and Waters Assessment Map 68 of 72

Pipeline Safety & Reliability Project

- Milepost
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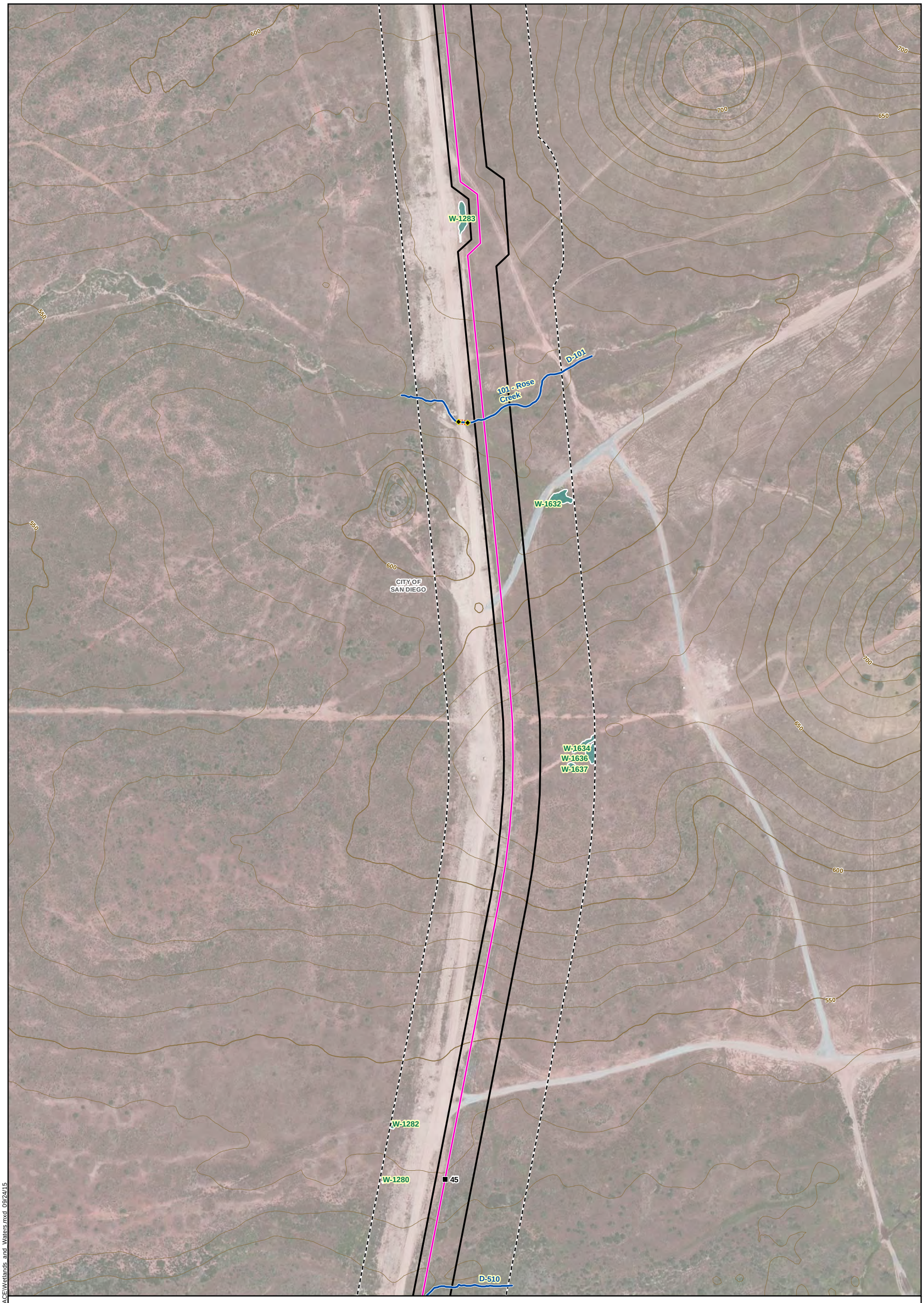

Attachment B: Wetland and Waters Assessment Map 69 of 72

Pipeline Safety & Reliability Project

- Milepost
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Attachment B: Wetland and Waters Assessment Map 70 of 72

Pipeline Safety & Reliability Project

- Milepost
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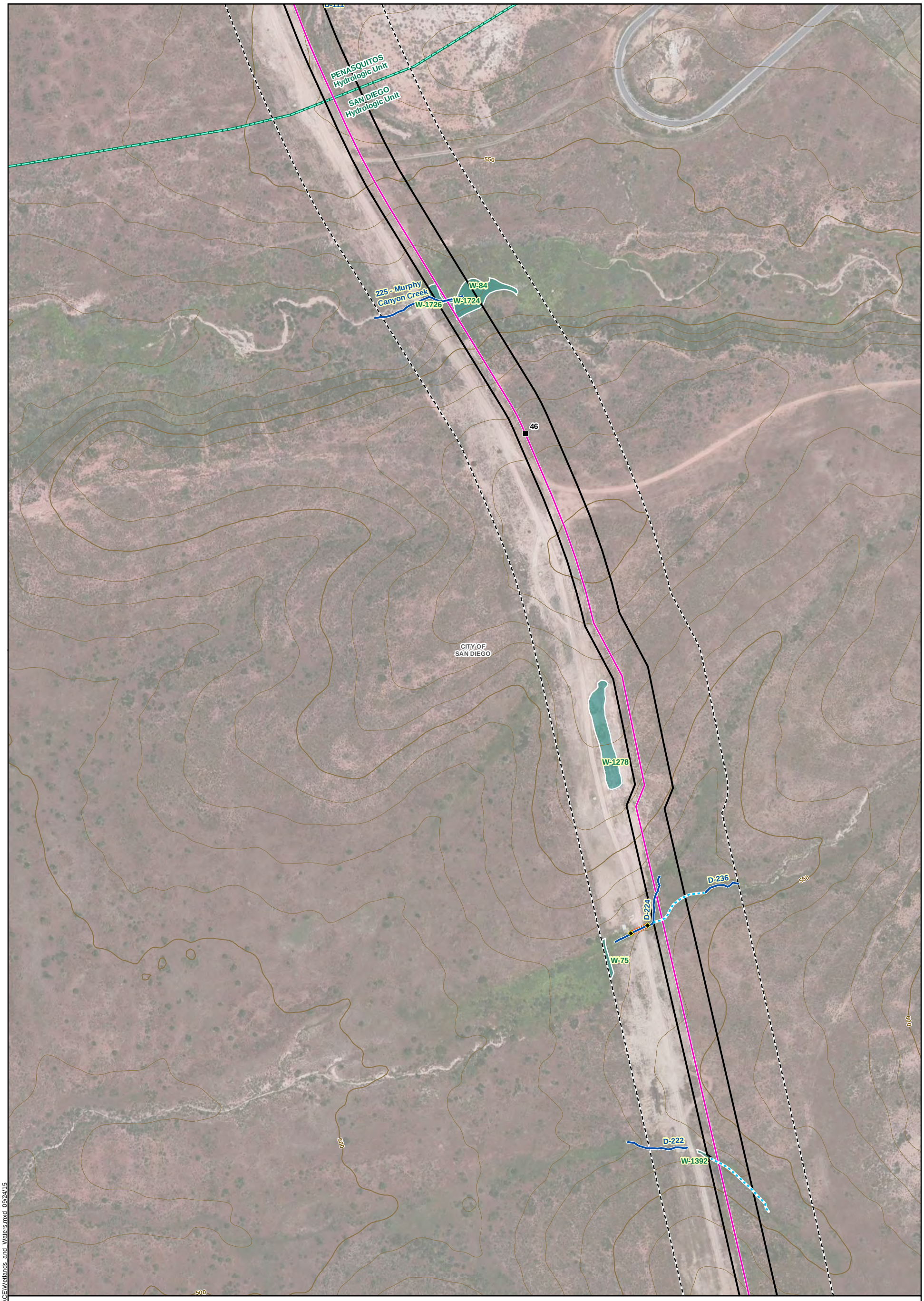

Attachment B: Wetland and Waters Assessment Map 71 of 72

Pipeline Safety & Reliability Project

Milepost
Proposed Project Route
Proposed Trenchless
Cross-Tie Connector Line
Existing Facility

Permanent
Aboveground Facility

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Bore Pit
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USACE/RWQCB Drainage

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SDGE
A Sempra Energy utility
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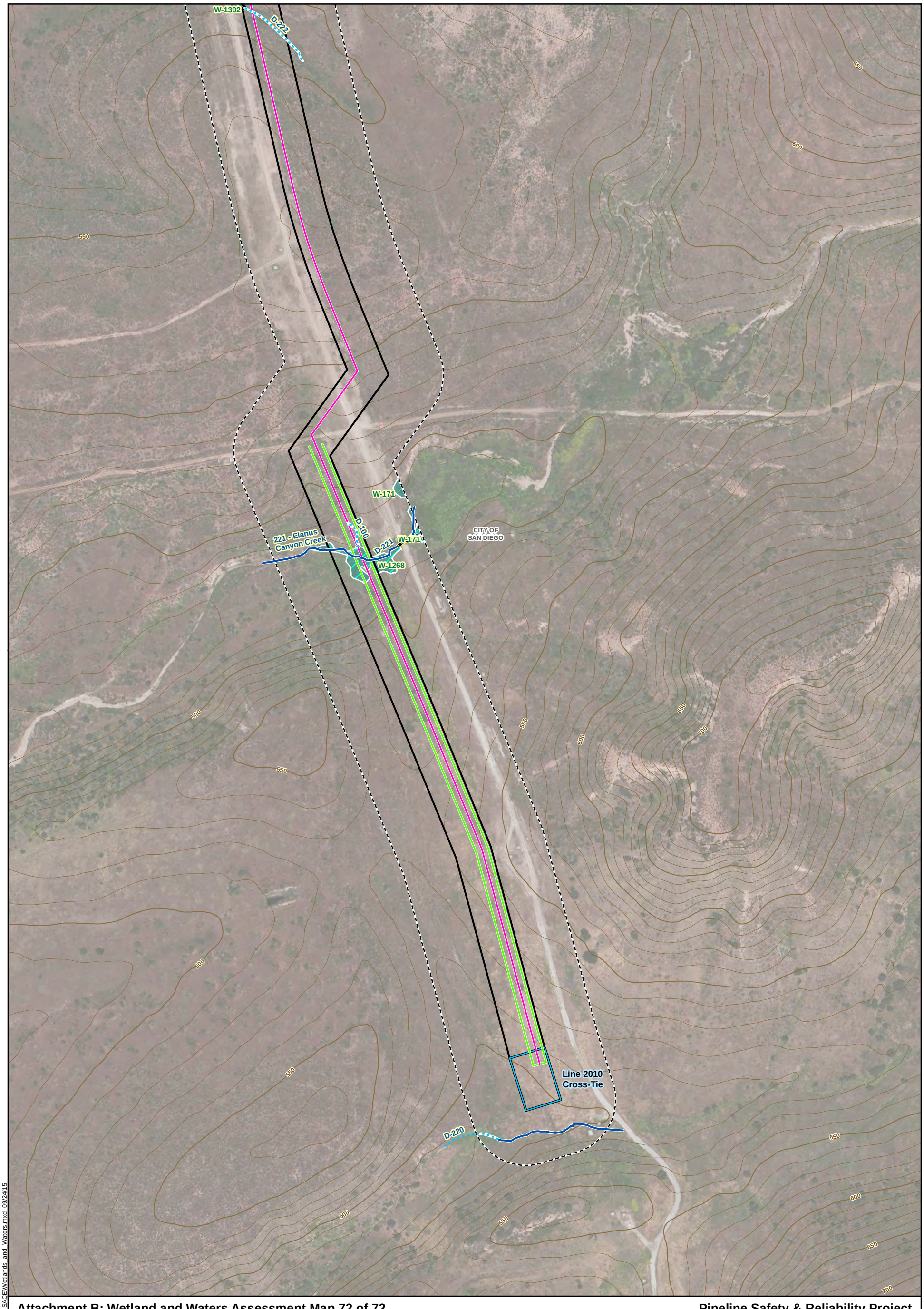

Attachment B: Wetland and Waters Assessment Map 72 of 72

Pipeline Safety & Reliability Project

- Milepost
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- USACE/RWQCB Drainage

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ATTACHMENT C: WETLAND AND WATER SURVEY RESULTS

ATTACHMENT C: WETLAND AND WATER SURVEY RESULTS

Table C-1: Drainage Features

Feature ID	Hydrological Regime	Milepost Number	Page Number in Attachment A	Approximate Length of Drainage in Survey Area (feet)	Average Ordinary High Water Mark (OHWM) Width (feet)	Average OHWM Depth (feet)	Approximate USACE- and RWQCB-Jurisdictional Area (acres)	Average Top of Bank (TOB) Width (feet)	Average TOB Depth (feet)	Approximate CDFW-Jurisdictional Area (acres)	Feature Description
D-201	Intermittent	1	1-2	2991.3	4.6	0.5	0.3	40.0	11	2.8	Unnamed tributary to Rainbow Creek
D-202	Ephemeral	1	2	148.6	2.0	0.3	0.0	4.0	3	0.0	Unnamed tributary to Rainbow Creek
D-203	Intermittent	2	4	502.7	7.9	1.0	0.1	48.5	8	0.6	Rainbow Creek
D-400	Ephemeral	3	6	222.6	2.0	0.0	0.0	5.0	2	0.0	Unnamed tributary to the San Luis Rey River
D-401	Ephemeral	3	6	124.8	1.5	0.0	0.0	5.0	2	0.0	Unnamed tributary to the San Luis Rey River
D-402	Ephemeral	3	6	57.8	1.5	0.0	0.0	7.8	6	0.0	Unnamed tributary to the San Luis Rey River
D-403	Ephemeral	3	6	341.0	2.0	0.2	0.0	49.4	15	0.4	Unnamed tributary to the San Luis Rey River
D-405	Ephemeral	4	8	373.9	3.0	0.5	0.0	14.8	15	0.1	Unnamed tributary to the San Luis Rey River
D-406	Ephemeral	4	8	268.1	2.0	0.0	0.0	8.0	5	0.1	Unnamed tributary to the San Luis Rey River
D-415	Ephemeral	4	7	55.9	1.0	0.0	0.0	4.9	2	0.0	Unnamed tributary to the San Luis Rey River
D-525	Ephemeral	4	6	475.2	5.0	1.0	0.1	7.9	3	0.1	Unnamed tributary to the San Luis Rey River
D-407	Ephemeral	4-5	8	207.5	1.0	0.0	0.0	3.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-404	Ephemeral	4-6	7-10	9297.4	2.9	0.6	0.6	16.7	7	3.6	Unnamed tributary to the San Luis Rey River
D-408	Ephemeral	5	9	195.2	1.0	0.0	0.0	3.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-409	Ephemeral	5	9	335.8	2.4	0.5	0.0	13.9	6	0.1	Unnamed tributary to the San Luis Rey River
D-410	Ephemeral	5	9	308.4	2.0	0.0	0.0	10.0	4	0.1	Unnamed tributary to the San Luis Rey River
D-411	Ephemeral	5	9	276.9	1.5	0.0	0.0	3.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-412	Ephemeral	5	9	331.9	1.5	0.0	0.0	5.0	3	0.0	Unnamed tributary to the San Luis Rey River
D-413	Ephemeral	6	10	153.1	2.0	0.2	0.0	19.9	10	0.1	Unnamed tributary to the San Luis Rey River
D-414	Ephemeral	7	11-12	909.7	4.0	0.5	0.1	7.0	2	0.2	Unnamed tributary to the San Luis Rey River
D-600	Ephemeral	7	12	75.1	2.0	0.1	0.0	3.0	2	0.0	Unnamed tributary to the San Luis Rey River
D-601	Ephemeral	7	12	164.0	1.5	0.1	0.0	3.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-603	Ephemeral	7	12	77.0	1.0	0.1	0.0	2.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-900	Ephemeral	7	13	315.7	1.5	0.2	0.0	3.5	1	0.0	Unnamed tributary to the San Luis Rey River
D-901	Ephemeral	7	13	350.4	1.0	0.1	0.0	2.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-608	Intermittent	9	14	503.6	1.0	0.3	0.0	10.0	1	0.1	Unnamed tributary to the San Luis Rey River
D-609	Perennial	9	15	363.1	49.5	0.0	0.4	482.1	0.0	4.0	San Luis Rey River

Feature ID	Hydrological Regime	Milepost Number	Page Number in Attachment A	Approximate Length of Drainage in Survey Area (feet)	Average Ordinary High Water Mark (OHWM) Width (feet)	Average OHWM Depth (feet)	Approximate USACE- and RWQCB-Jurisdictional Area (acres)	Average Top of Bank (TOB) Width (feet)	Average TOB Depth (feet)	Approximate CDFW-Jurisdictional Area (acres)	Feature Description
D-610	Intermittent	9-10	15	4837.6	9.4	0.1	0.6	18.4	2.8	2.0	Unnamed tributary to the San Luis Rey River
D-612	Ephemeral	9-10	15-16	458.9	1.0	0.5	0.0	3.0	2	0.0	Unnamed tributary to the San Luis Rey River
D-611	Ephemeral	10	16	794.5	7.0	0.5	0.1	10.0	3	0.2	Unnamed tributary to the San Luis Rey River
D-613	Ephemeral	10	16	55.6	1.0	0.3	0.0	2.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-614	Ephemeral	10	16	149.9	2.0	0.2	0.0	3.0	3	0.0	Unnamed tributary to the San Luis Rey River
D-615	Ephemeral	10	17	611.0	4.7	1.2	0.1	8.2	4	0.1	Unnamed tributary to the San Luis Rey River
D-618	Ephemeral	10	16	748.7	6.0	0.5	0.1	25.0	8	0.4	Unnamed tributary to the San Luis Rey River
D-616	Ephemeral	11	17	72.2	3.0	0.1	0.0	5.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-619	Ephemeral	11	18	234.9	2.5	0.2	0.0	9.0	6	0.1	Unnamed tributary to the San Luis Rey River
D-650	Ephemeral	11	17	112.8	2.5	0.1	0.0	4.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-651	Ephemeral	11	17	217.3	3.0	0.5	0.0	8.0	4	0.0	Unnamed tributary to the San Luis Rey River
D-653	Ephemeral	11	17	517.1	4.0	0.2	0.1	8.0	2	0.1	Unnamed tributary to the San Luis Rey River
D-903	Ephemeral	11	17	255.9	3.0	0.1	0.0	5.0	1	0.0	Unnamed tributary to the San Luis Rey River
D-620	Intermittent	12	19	1987.9	11.2	3.3	0.5	30.3	10	1.4	Unnamed tributary to Bonsall Creek, which is a tributary to the San Luis Rey River
D-621	Intermittent	12	19	721.8	6.0	1.0	0.1	24.8	10	0.4	Unnamed tributary to Bonsall Creek, which is a tributary to the San Luis Rey River
D-622	Ephemeral	12	19-20	234.2	1.0	0.1	0.0	2.9	1	0.0	Unnamed tributary to Bonsall Creek, which is a tributary to the San Luis Rey River
D-623	Intermittent	12-13	20-21	4475.5	2.5	0.1	0.3	9.0	2.00	0.7	Unnamed tributary to Bonsall Creek, which is a tributary to the San Luis Rey River
D-624	Ephemeral	13	21	162.2	2.0	0.1	0.0	2.9	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-625	Ephemeral	13	21	1024.3	1.0	0.1	0.0	3.0	1	0.1	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-626	Ephemeral	13	21	374.7	1.0	0.1	0.0	4.0	3	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-627	Ephemeral	13	21	373.8	1.0	0.1	0.0	8.0	4	0.1	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-628	Ephemeral	13	21	383.8	1.0	0.1	0.0	2.0	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-930	Ephemeral	13	20	164.8	3.0	0.5	0.0	7.9	2	0.0	Unnamed tributary to Bonsall Creek, which is a tributary to the San Luis Rey River
D-652	Intermittent	13-14	21-22	2374.4	7.9	0.4	0.4	18.7	7	1.0	Moosa Creek

Feature ID	Hydrological Regime	Milepost Number	Page Number in Attachment A	Approximate Length of Drainage in Survey Area (feet)	Average Ordinary High Water Mark (OHWM) Width (feet)	Average OHWM Depth (feet)	Approximate USACE- and RWQCB-Jurisdictional Area (acres)	Average Top of Bank (TOB) Width (feet)	Average TOB Depth (feet)	Approximate CDFW-Jurisdictional Area (acres)	Feature Description
D-629	Ephemeral	14	22	358.2	0.5	0.1	0.0	1.5	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-630	Ephemeral	14	22	596.0	3.6	0.2	0.1	9.3	4	0.1	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-631	Ephemeral	14	22	310.3	3.8	0.4	0.0	13.8	6	0.1	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-632	Ephemeral	14	22	268.4	2.0	0.5	0.0	6.0	3	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-633	Ephemeral	15	23	510.8	1.0	0.5	0.0	2.0	2	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-634	Ephemeral	15	23	511.8	3.8	0.6	0.0	10.0	4	0.1	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-728	Ephemeral	15	24	362.2	3.0	2.0	0.0	5.0	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-729	Ephemeral	15	24	152.9	3.0	0.2	0.0	9.9	5	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-730	Ephemeral	15	23-24	376.0	2.5	1.0	0.0	3.0	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-731	Ephemeral	15	23	436.1	1.0	0.1	0.0	8.0	5	0.1	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-732	Ephemeral	15	23	266.9	2.0	0.2	0.0	5.0	4	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-921	Ephemeral	15	24	94.4	2.0	0.2	0.0	4.0	3	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-724	Ephemeral	16	25	272.7	2.0	1.0	0.0	4.0	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-725	Ephemeral	16	25	1466.5	4.0	2.0	0.1	5.0	2	0.2	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-726	Ephemeral	16	25	300.9	3.0	0.1	0.0	3.5	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-727	Ephemeral	16	24	515.1	3.0	2.0	0.0	6.0	3	0.1	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-902	Ephemeral	16	24	252.0	1.5	0.1	0.0	3.0	1	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-722	Ephemeral	17	27	23.4	1.0	1.0	0.0	2.0	5	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River

Feature ID	Hydrological Regime	Milepost Number	Page Number in Attachment A	Approximate Length of Drainage in Survey Area (feet)	Average Ordinary High Water Mark (OHWM) Width (feet)	Average OHWM Depth (feet)	Approximate USACE- and RWQCB-Jurisdictional Area (acres)	Average Top of Bank (TOB) Width (feet)	Average TOB Depth (feet)	Approximate CDFW-Jurisdictional Area (acres)	Feature Description
D-723	Ephemeral	17	27	508.4	2.5	0.8	0.0	3.5	2	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-718	Ephemeral	18	28	508.0	4.0	0.2	0.1	5.0	2	0.1	Unnamed tributary to San Marcos Creek
D-719	Ephemeral	18	28	485.9	1.0	0.1	0.0	4.0	2	0.0	Unnamed tributary to San Marcos Creek
D-721	Intermittent	18	27	165.6	0.5	1.0	0.0	0.8	2	0.0	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
D-974	Ephemeral	18	28	484.1	2.0	0.1	0.0	3.0	5	0.0	Unnamed tributary to San Marcos Creek
D-715	Ephemeral	19	29-30	404.7	5.0	0.3	0.1	9.9	3	0.1	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-716	Intermittent	19	29	94.0	4.0	0.3	0.0	9.7	2	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-717	Ephemeral	19	29	444.9	1.0	0.1	0.0	3.0	1	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-708	Ephemeral	20	31	438.4	3.0	0.5	0.0	4.5	2	0.1	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-709	Ephemeral	20	31	86.9	1.5	0.1	0.0	1.5	2	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-710	Ephemeral	20	31	169.5	3.0	0.2	0.0	5.0	2	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-711	Ephemeral	20	31	473.4	1.5	0.2	0.0	3.0	1	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-712	Ephemeral	20	31	327.9	2.5	0.3	0.0	3.6	2	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-713	Ephemeral	20	31	490.8	4.9	0.4	0.1	5.9	3	0.1	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-714	Ephemeral	20	30	229.7	7.0	0.3	0.0	8.0	2	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-973	Ephemeral	20	30	401.7	2.0	0.2	0.0	6.0	4	0.1	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-700	Ephemeral	21	32	2132.3	1.0	0.5	0.1	4.0	2	0.2	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-707	Ephemeral	21	32	235.3	1.5	0.1	0.0	3.0	0.0	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-206	Ephemeral	22	33	581.2	5.0	0.5	0.1	14.0	6	0.2	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek

Feature ID	Hydrological Regime	Milepost Number	Page Number in Attachment A	Approximate Length of Drainage in Survey Area (feet)	Average Ordinary High Water Mark (OHWM) Width (feet)	Average OHWM Depth (feet)	Approximate USACE- and RWQCB-Jurisdictional Area (acres)	Average Top of Bank (TOB) Width (feet)	Average TOB Depth (feet)	Approximate CDFW-Jurisdictional Area (acres)	Feature Description
D-506	Ephemeral	22	34	85.5	1.0	0.0	0.0	2.9	1	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-507	Ephemeral	22	34	120.3	3.0	0.2	0.0	6.0	2	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-508	Intermittent	22	34	74.7	12.0	1.0	0.0	37.0	5	0.1	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-965	Ephemeral	22	33	60.6	5.0	0.5	0.0	14.0	6	0.0	Unnamed tributary to Reidy Canyon Creek, which flows into Escondido Creek
D-207	Intermittent	22-24	34, 36	2286.6	15.9	0.4	0.8	23.6	20	1.2	Reidy Canyon Creek
D-208	Intermittent	24	37	560.3	18.0	0.3	0.2	39.8	25	0.5	Escondido Creek
D-643	Ephemeral	27	42	154.8	1.0	0.1	0.0	29.0	10	0.1	Unnamed tributary to the San Dieguito River
D-642	Intermittent	27-28	41-43	7051.3	3.3	0.7	0.5	16.5	4	2.7	Unnamed tributary to the San Dieguito River
D-637	Ephemeral	29	44	354.7	2.1	0.5	0.0	4.2	2	0.0	Unnamed tributary to the San Dieguito River
D-639	Ephemeral	29	45	699.1	4.0	0.3	0.1	5.0	1	0.1	Unnamed tributary to the San Dieguito River
D-211	Ephemeral	30	47	260.0	3.4	0.6	0.0	14.1	3	0.1	Unnamed tributary to the San Dieguito River
D-212	Ephemeral	30	47	456.5	2.8	0.6	0.0	8.3	3	0.1	Unnamed tributary to the San Dieguito River
D-505	Ephemeral	30	47	111.4	1.0	0.0	0.0	2.9	2	0.0	Unnamed tributary to the San Dieguito River
D-967	Intermittent	30	46	350.1	N/A	N/A	Refer to Table D-2: Wetland Features (Features W-377, W-380, W-1374, W-1375, W-1376, and W-1625)	N/A	N/A	Refer to Table D-2: Wetland Features (Features W-377, W-380, W-1374, W-1375, W-1376, and W-1625)	San Dieguito River/Lake Hodges
D-214	Ephemeral	32	49	487.6	3.0	0.3	0.0	9.9	3	0.1	Unnamed tributary to the San Dieguito River
D-215	Ephemeral	33	50	1712.4	9.0	0.2	0.4	37.9	18	1.5	Unnamed tributary to the San Dieguito River
D-307	Ephemeral	34	52	143.4	1.5	0.1	0.0	4.0	3	0.0	Unnamed tributary to the San Dieguito River
D-308	Ephemeral	34	51	199.3	4.0	0.5	0.0	6.0	3	0.0	Unnamed tributary to the San Dieguito River
D-305	Ephemeral	35	53-54	3311.4	5.0	0.2	0.4	14.9	7	1.1	Unnamed tributary to Poway Creek
D-306	Ephemeral	35	53	104.7	4.1	0.1	0.0	10.2	3	0.0	Unnamed tributary to Poway Creek
D-303	Intermittent	36	55	34.2	10.0	1.0	0.0	20.0	8	0.0	Unnamed tributary to Poway Creek
D-304	Intermittent	36	54	166.5	15.0	2.0	0.1	29.9	10	0.1	Unnamed tributary to Poway Creek
D-300	Intermittent	38	58	447.5	3.1	0.3	0.0	7.8	4	0.1	Unnamed tributary to Poway Creek
D-301	Intermittent	38	57	521.2	24.9	2.0	0.3	39.8	5	0.5	Poway Creek

Feature ID	Hydrological Regime	Milepost Number	Page Number in Attachment A	Approximate Length of Drainage in Survey Area (feet)	Average Ordinary High Water Mark (OHWM) Width (feet)	Average OHWM Depth (feet)	Approximate USACE- and RWQCB-Jurisdictional Area (acres)	Average Top of Bank (TOB) Width (feet)	Average TOB Depth (feet)	Approximate CDFW-Jurisdictional Area (acres)	Feature Description
D-302	Intermittent	38	57	489.2	9.3	0.5	0.1	30.2	6	0.3	Unnamed tributary to Poway Creek
D-232	Ephemeral	39	59	193.5	5.0	0.5	0.0	12.0	4	0.1	Unnamed tributary to Beeler Creek
D-233	Intermittent	39	59	655.6	15.0	2.0	0.2	49.9	4	0.8	Beeler Creek
D-500	Ephemeral	39	59	143.4	1.0	0.0	0.0	4.0	3	0.0	Unnamed tributary to Beeler Creek
D-501	Ephemeral	39	59	306.8	3.0	0.0	0.0	7.0	3	0.1	Unnamed tributary to Beeler Creek
D-526	Ephemeral	40	60	126.4	3.0	1.0	0.0	3.0	3	0.0	Unnamed tributary to Beeler Creek
D-733	Ephemeral	41	62	335.3	0.3	0.1	0.0	2.0	1	0.0	Unnamed tributary to Carroll Canyon Creek
D-734	Ephemeral	41	62	84.3	1.0	1.0	0.0	4.9	1	0.0	Unnamed tributary to Carroll Canyon Creek
D-735	Ephemeral	41	63	168.8	3.0	0.1	0.0	3.0	0.0	0.0	Unnamed tributary to Carroll Canyon Creek
D-230	Intermittent	41-43	62-67	5198.7	3.7	0.3	0.4	7.7	3	0.9	Carroll Canyon Creek
D-738	Ephemeral	42	64	470.2	10.0	2.0	0.1	19.9	8	0.2	Unnamed tributary to Carroll Canyon Creek
D-739	Ephemeral	42	65	352.6	1.0	1.0	0.0	2.0	1	0.0	Unnamed tributary to Carroll Canyon Creek
D-740	Ephemeral	43	66	254.4	5.0	3.0	0.0	8.0	2	0.1	Unnamed tributary to Carroll Canyon Creek
D-741	Ephemeral	43	66	317.3	1.0	0.2	0.0	4.0	3	0.0	Unnamed tributary to Carroll Canyon Creek
D-805	Ephemeral	43	67	177.3	3.6	0.4	0.0	9.3	3	0.0	Unnamed tributary to Carroll Canyon Creek
D-102	Ephemeral	44	68	428.9	2.0	0.0	0.0	4.0	2	0.0	Unnamed tributary to Rose Creek
D-103	Ephemeral	44	68	374.7	1.6	0.1	0.0	2.6	1	0.0	Unnamed tributary to Rose Creek
D-101	Ephemeral	45	69	497.61	2.5	0.1	0.0	4.0	1	0.1	Rose Creek
D-104	Intermittent	45	70	414.8	3.0	0.2	0.0	9.0	5	0.1	San Clemente Canyon Creek
D-510	Ephemeral	45	69	250.0	8.0	0.5	0.1	8.0	0.0	0.1	Unnamed tributary to San Clemente Creek
D-228	Ephemeral	45-46	70	297.0	0.0	0.5	0.0	0.0	2	0.0	Unnamed tributary to Penasquitos Creek
D-229	Ephemeral	45-47	70	46.7	20.1	0.3	0.0	44.0	3	0.1	Unnamed tributary to Penasquitos Creek
D-109	Ephemeral	46	70	184.5	1.5	0.2	0.0	3.0	1	0.0	Unnamed tributary to Penasquitos Creek
D-110	Ephemeral	46	70	136.8	1.0	0.1	0.0	3.0	2	0.0	Unnamed tributary to Penasquitos Creek
D-111	Ephemeral	46	70	20.2	1.0	0.1	0.0	3.0	1	0.0	Unnamed tributary to Penasquitos Creek
D-220	Ephemeral	46	72	315.3	2.0	0.5	0.0	5.0	3	0.0	Unnamed tributary to the San Diego River
D-221	Intermittent	46	72	504.4	4.0	1.0	0.1	11.8	4	0.1	Elanus Canyon Creek
D-222	Ephemeral	46	71	105.1	0.5	0.1	0.0	2.0	1	0.0	Unnamed tributary to the San Diego River
D-224	Ephemeral	46	71	250.3	2.0	0.1	0.0	4.0	2	0.0	Unnamed tributary to the San Diego River
D-225	Ephemeral	46	71	237.1	4.0	0.5	0.0	10.0	2	0.1	Murphy Canyon Creek

Feature ID	Hydrological Regime	Milepost Number	Page Number in Attachment A	Approximate Length of Drainage in Survey Area (feet)	Average Ordinary High Water Mark (OHWM) Width (feet)	Average OHWM Depth (feet)	Approximate USACE- and RWQCB-Jurisdictional Area (acres)	Average Top of Bank (TOB) Width (feet)	Average TOB Depth (feet)	Approximate CDFW-Jurisdictional Area (acres)	Feature Description
D-226	Ephemeral	46	70	197.8	1.0	0.1	0.0	3.0	1	0.0	Unnamed tributary to Penasquitos Creek
D-236	Ephemeral	46	71	102.3	3.0	0.1	0.0	5.0	2	0.0	Unnamed tributary to the San Diego River
D-720	Intermittent	15, 17, 18	23, 24, 26-28	6401.8	7.5	0.4	1.0	13.9	4.8	2.5	Unnamed tributary to Moosa Creek, which is a tributary to the San Luis Rey River
Total				**96299.8**	**N/A**	**N/A**	**10.5**	**N/A**	**N/A**	**35.0**	

Table C-2: Wetland Features

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-604	Southern Coast Live Oak Riparian Forest	PFO	1	1	1.7
W-614	Southern Coast Live Oak Riparian Forest	PFO	1	1	0.8
W-619	Southern Coast Live Oak Riparian Forest	PFO	1	1	0.3
W-621	Southern Willow Scrub	PFO	1	1	0.1
W-623	Coastal and Valley Freshwater Marsh (disturbed)	PEM	1	1, 2	0.0
W-631	Coastal and Valley Freshwater Marsh (disturbed)	PEM	1	2	0.1
W-633	Coastal and Valley Freshwater Marsh (disturbed)	PEM	1	2	0.1
W-1396	Southern Willow Scrub	PFO	1	2	0.0
W-1436	Mule Fat Scrub	PSS	1	2	0.0
W-1439	Southern Willow Scrub	PFO	1	2	0.1
W-663	Southern Coast Live Oak Riparian Forest	PFO	2	4	0.7
W-1397	Emergent Wetland	PEM	2	4	0.0
W-1414	Southern Willow Scrub	PFO	3	6	0.1
W-701	Mule Fat Scrub	PSS	4	8, 7	0.0
W-705	Southern Willow Scrub	PFO	4	8	0.4
W-1429	Southern Willow Scrub (disturbed)	PFO	4	8	1.0
W-1444	Freshwater Seep (disturbed)	PEM	4	6, 7	0.1
W-1445	Southern Willow Scrub (disturbed)	PFO	4	6, 7	0.2
W-1448	Mule Fat Scrub	PSS	4	8, 7	0.0
W-1450	Southern Willow Scrub	PFO	4	8	0.4

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-560	Southern Coast Live Oak Riparian Forest	PFO	5	9	2.6
W-724	Southern Coast Live Oak Riparian Forest	PFO	5	9, 8	1.9
W-733	Southern Coast Live Oak Riparian Forest	PFO	5	9, 10	3.2
W-735	Southern Coast Live Oak Riparian Forest	PFO	5	10	0.4
W-1430	Southern Coast Live Oak Riparian Forest	PFO	5	8	1.0
W-1431	Southern Willow Scrub	PFO	5	8, 9	0.8
W-1432	Southern Willow Scrub	PFO	5	9	0.5
W-1458	Southern Willow Scrub	PFO	5	9	0.7
W-558	Southern Coast Live Oak Riparian Forest	PFO	6	10	2.5
W-1427	Southern Willow Scrub (disturbed)	PFO	6	11	1.0
W-1428	Southern Willow Scrub (disturbed)	PFO	6	11	0.7
W-749	Southern Willow Scrub	PFO	7	11, 12	2.3
W-1477	Southern Willow Scrub	PFO	7	13	0.3
W-1662	Freshwater Seep	PEM	7	12	0.0
W-530	Arundo-Dominated Riparian	PSS	9	15	2.0
W-533	Southern Cottonwood-Willow Riparian Forest	PFO	9	14, 15	0.5
W-940	Southern Willow Scrub	PFO	9	15	1.1
W-941	Southern Cottonwood-Willow Riparian Forest	PFO	9	15	1.5
W-1274	Mule Fat Scrub	PSS	9	14	0.7
W-1481	Southern Cottonwood-Willow Riparian Forest (disturbed)	PFO	9	14	0.4

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1482	Southern Cottonwood-Willow Riparian Forest (disturbed)	PFO	9	14	0.7
W-1483	Mule Fat Scrub	PSS	9	15	0.0
W-1495	Arundo-Dominated Riparian	Palustrine Scrub-Shrub (PSS)	9	15	0.6
W-1497	Southern Willow Scrub (disturbed)	PFO	9	15	0.1
W-1523	Mule Fat Scrub	PSS	11	17	0.0
W-1525	Southern Coast Live Oak Riparian Forest	PFO	11	17	0.0
W-1530	Mule Fat Scrub	PSS	11	17	0.1
W-1666	Freshwater Seep	PEM	11	17	0.0
W-501	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	12	19, 20	1.4
W-983	Southern Cottonwood-Willow Riparian Forest	PFO	12	19	2.6
W-984	Southern Cottonwood-Willow Riparian Forest	PFO	12	19	1.4
W-986	Southern Willow Scrub	PFO	12	19	0.6
W-994	Southern Cottonwood-Willow Riparian Forest	PFO	12	20	2.2
W-1534	Southern Coast Live Oak Riparian Forest	PFO	12	19	0.3
W-505	Southern Willow Scrub	PFO	13	20, 21	2.8
W-998	Southern Willow Scrub (disturbed)	PFO	13	20	0.9
W-999	Mule Fat Scrub	PSS	13	20	0.5
W-1012	Tamarisk Scrub	PSS	13	21	0.3
W-1018	Southern Willow Scrub	PFO	13	21	2.6

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1544	Mule Fat Scrub	PSS	13	20	0.3
W-1545	Mule Fat Scrub	PSS	13	20, 21	0.6
W-488	Southern Cottonwood-Willow Riparian Forest	PFO	14	22	1.2
W-1022	Southern Willow Scrub	PFO	14	21	0.4
W-1024	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	14	21, 22	1.3
W-1033	Southern Coast Live Oak Riparian Forest	PFO	14	22	0.9
W-1041	Southern Willow Scrub (disturbed)	PFO	14	22	0.2
W-1558	Southern Cottonwood-Willow Riparian Forest	PFO	14	22	0.2
W-475	Mule Fat Scrub	PSS	15	24	0.4
W-512	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	15	24	0.8
W-1055	Southern Willow Scrub	PFO	15	23	0.1
W-1056	Southern Coast Live Oak Riparian Forest	PFO	15	23	0.3
W-1063	Southern Coast Live Oak Riparian Forest	PFO	15	23	0.9
W-1090	Southern Coast Live Oak Riparian Forest	PFO	15	24, 23	1.1
W-1094	Southern Willow Scrub (disturbed)	PFO	15	24	0.3
W-1105	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	15	24	0.2
W-1106	Southern Coast Live Oak Riparian Forest	PFO	15	24	0.3
W-1107	Southern Willow Scrub	PFO	15	24	0.2
W-1567	Southern Coast Live Oak Riparian Forest	PFO	15	23	0.4
W-1568	Southern Willow Scrub	PFO	15	23	0.7
W-1573	Southern Willow Scrub (disturbed)	PFO	15	23	0.1

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1578	Southern Willow Scrub	PFO	15	24	0.5
W-1581	Southern Willow Scrub	PFO	15	24	0.4
W-1712	Southern Willow Scrub	PFO	15	24	0.0
W-472	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	16	24	0.2
W-1101	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	16	24	0.4
W-1580	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	16	24	0.3
W-1587	Southern Coast Live Oak Riparian Forest	PFO	16	25	0.4
W-1122	Southern Willow Scrub (disturbed)	PFO	17	26	0.3
W-1124	Southern Willow Scrub	PFO	17	26	0.5
W-1126	Southern Willow Scrub	PFO	17	27	0.3
W-1591	Southern Coast Live Oak Riparian Forest	PFO	17	26	0.3
W-1596	Southern Coast Live Oak Riparian Forest	PFO	17	27	0.2
W-1784	Southern Coast Live Oak Riparian Forest	PFO	17	27	0.3
W-1135	Southern Willow Scrub	PFO	18	27	0.1
W-1136	Mule Fat Scrub	PSS	18	27	0.2
W-1137	Southern Willow Scrub	PFO	18	27	0.1
W-1141	Mule Fat Scrub	PSS	18	27, 28	0.5
W-1599	Mule Fat Scrub	PSS	18	27	0.1
W-1714	Southern Willow Scrub (disturbed)	PFO	18	28	0.1
W-446	Southern Coast Live Oak Riparian Forest	PFO	19	29, 30	1.6
W-771	Southern Willow Scrub	PFO	19	29	0.4

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-773	Southern Coast Live Oak Riparian Forest	PFO	19	29, 30	0.3
W-778	Southern Coast Live Oak Riparian Forest	PFO	20	30	0.5
W-1718	Southern Coast Live Oak Riparian Forest	PFO	20	30	0.0
W-803	Southern Willow Scrub	PFO	21	32	0.1
W-412	Southern Willow Scrub (disturbed)	PFO	22	34	0.8
W-826	Southern Coast Live Oak Riparian Forest	PFO	22	33	0.9
W-838	Vernal Marsh/Herbaceous Wetland	PEM	22	34	0.1
W-839	Southern Willow Scrub	PFO	22	34	0.5
W-840	Coastal and Valley Freshwater Marsh	PEM	22	34	0.1
W-844	Coastal and Valley Freshwater Marsh	PEM	22	34	0.2
W-1608	Southern Willow Scrub	PFO	22	34	0.1
W-1609	Non-Native Riparian	PFO	22	34	0.1
W-854	Arundo-Dominated Riparian	Palustrine Scrub-Shrub (PSS)	24	36	0.2
W-1286	Southern Coast Live Oak Riparian Forest	PFO	27	41	3.7
W-1287	Southern Coast Live Oak Riparian Forest	PFO	27	41, 42	2.1
W-1288	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	27	42	3.7
W-1612	Southern Willow Scrub	PFO	27	41, 42	0.1
W-1719	Southern Coast Live Oak Riparian Forest	PFO	27	42	1.5
W-1289	Southern Coast Live Oak Riparian Forest	PFO	28	42, 43	7.5
W-1302	Southern Coast Live Oak Riparian Forest	PFO	28	43, 44	2.8

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1356	Southern Willow Scrub	PFO	28	43	0.3
W-1357	Southern Willow Scrub	PFO	28	43	0.3
W-1425	Southern Willow Scrub	PFO	28	43	0.3
W-1426	Southern Willow Scrub	PFO	28	43	0.2
W-383	Cismontane Alkali Marsh	PEM	29	45	2.8
W-385	Southern Willow Scrub	PFO	29	45	0.8
W-386	Cismontane Alkali Marsh	PEM	29	45	2.2
W-387	Southern Willow Scrub	PFO	29	45	0.3
W-1155	Southern Willow Scrub	PFO	29	45, 44	2.2
W-1158	Coastal and Valley Freshwater Marsh	PEM	29	45	1.4
W-1159	Southern Willow Scrub	PFO	29	45	0.2
W-1303	Non-Native Riparian	PFO	29	44	0.9
W-1308	Southern Willow Scrub	PFO	29	45, 44	0.6
W-1360	Southern Willow Scrub	PFO	29	45, 44	1.1
W-1362	Cismontane Alkali Marsh	PEM	29	45	0.4
W-1363	Southern Willow Scrub	PFO	29	45	0.1
W-1364	Cismontane Alkali Marsh	PEM	29	45	0.8
W-1365	Southern Willow Scrub	PFO	29	45	0.2
W-1367	Coastal and Valley Freshwater Marsh	PEM	29	45	0.0
W-1617	Southern Willow Scrub	PFO	29	45	0.1
W-1619	Southern Willow Scrub	PFO	29	45	0.1

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1620	Cismontane Alkali Marsh	PEM	29	45	0.1
W-1621	Cismontane Alkali Marsh	PEM	29	45	0.1
W-1685	Cismontane Alkali Marsh	PEM	29	45	0.0
W-377	Southern Willow Scrub	PFO	30	46	10.2
W-379	Southern Willow Scrub	PFO	30	45, 46	2.5
W-380	Tamarisk Scrub	PSS	30	46	0.8
W-1164	Southern Coast Live Oak Riparian Forest	PFO	30	47	0.1
W-1165	Southern Willow Scrub	PFO	30	47	0.1
W-1374	Southern Willow Scrub	PFO	30	46	2.1
W-1375	Cismontane Alkali Marsh	PEM	30	46	2.3
W-1376	Cismontane Alkali Marsh	PEM	30	46	0.3
W-1377	Southern Coast Live Oak Riparian Forest	PFO	30	46	0.2
W-1413	Tamarisk Scrub	PSS	30	46	0.7
W-1622	Coastal and Valley Freshwater Marsh	PEM	30	46	0.2
W-1625	Coastal and Valley Freshwater Marsh	PEM	30	46	0.1
W-1194	Coastal and Valley Freshwater Marsh	PEM	36	54	0.0
W-1379	Coastal and Valley Freshwater Marsh	PEM	36	55	0.0
W-1627	Coastal and Valley Freshwater Marsh	PEM	36	54	0.3
W-1628	Southern Willow Scrub	PFO	36	54	0.3
W-348	Southern Willow Scrub	PFO	38	57, 58	0.4
W-349	Southern Willow Scrub	PFO	38	57, 58	0.5

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1203	Southern Willow Scrub	PFO	38	57	0.1
W-1695	Coastal and Valley Freshwater Marsh	PEM	38	58	0.0
W-338	Southern Willow Scrub (disturbed)	Palustrine Forested (PFO)	39	59	0.9
W-1210	Southern Willow Scrub	PFO	39	59	0.1
W-1212	Southern Coast Live Oak Riparian Forest (disturbed)	PFO	39	59	0.3
W-1383	Southern Willow Scrub	PFO	39	59	0.2
W-1630	Southern Willow Scrub	PFO	39	59	0.0
W-1631	Vernal Marsh/Herbaceous Wetland (disturbed)	PEM	39	59	0.0
W-1243	Southern Willow Scrub	PFO	40	61	0.1
W-1248	Vernal Marsh/Herbaceous Wetland (disturbed)	PEM	41	62, 63	2.0
W-1249	Vernal Marsh/Herbaceous Wetland (disturbed)	PEM	41	63	0.8
W-1251	Non-Native Riparian	PFO	42	63, 64	4.4
W-1252	Non-Native Riparian	PFO	42	64	0.2
W-1254	Southern Willow Scrub (disturbed)	PFO	42	65	0.6
W-1385	Southern Willow Scrub (disturbed)	PFO	42	63	0.4
W-1708	Vernal Marsh/Herbaceous Wetland (disturbed)	PEM	42	64, 65	1.0
W-1258	Southern Willow Scrub (disturbed)	PFO	43	67	0.1
W-1711	Southern Willow Scrub	PFO	43	65	0.0
W-1386	Freshwater Seep	PEM	44	68	0.1
W-1280	Vernal Pool	PEM	45	69	0.0

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1282	Vernal Pool	PEM	45	69	0.0
W-1283	Vernal Pool	PEM	45	69	0.0
W-1391	Coastal and Valley Freshwater Marsh	PEM	45	70	0.0
W-1632	Vernal Marsh/Herbaceous Wetland	PEM	45	69	0.0
W-1634	Vernal Pool	PEM	45	69	0.0
W-1636	Vernal Pool	PEM	45	69	0.0
W-1637	Vernal Pool	PEM	45	69	0.0
W-1638	Vernal Marsh/Herbaceous Wetland	PEM	45	70	0.0
W-1639	Vernal Marsh/Herbaceous Wetland	PEM	45	70	0.0
W-1642	Mule Fat Scrub	PSS	45	70	0.1
W-75	Freshwater Seep	Palustrine Emergent (PEM)	46	71	0.0
W-84	Freshwater Seep	PEM	46	71	0.2
W-147	Freshwater Seep	PEM	46	70	0.0
W-148	Freshwater Seep	PEM	46	70	0.1
W-171	Mule Fat Scrub	Palustrine Scrub-Shrub (PSS)	46	72	0.0
W-1268	Mule Fat Scrub	PSS	46	72	0.2
W-1278	Vernal Pool	PEM	46	71	0.3
W-1279	Vernal Pool	PEM	46	70	0.0

Wetland Identification Number	Vegetation Type	Cowardin Classification	Milepost Number	Page Number in Attachment A	Approximate USACE- and RWQCB-Jurisdictional Area (acres)
W-1392	Freshwater Seep	PEM	46	71, 72	0.0
W-1724	Coastal and Valley Freshwater Marsh	PEM	46	71	0.0
W-1726	Freshwater Seep	PEM	46	71	0.0
Total					**139.3**