

ATTACHMENT C: BIOLOGICAL RESOURCES TECHNICAL REPORT ADDENDUM

**SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA GAS COMPANY'S
PIPELINE SAFETY & RELIABILITY PROJECT
BIOLOGICAL RESOURCES TECHNICAL REPORT
ADDENDUM**

JANUARY 2017

PREPARED FOR:



PREPARED BY:



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1 – INTRODUCTION

San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company (SoCalGas) (together, Applicants) filed a Proponent’s Environmental Assessment (PEA) on September 30, 2015 and a PEA Supplement on March 20, 2016 for a Certificate of Public Convenience and Necessity to construct and operate the proposed Pipeline Safety & Reliability Project (Proposed Project). Attachment 4.4-A: Biological Resources Technical Report (BRTR) in the PEA provided survey data and an impact analysis associated with all of the workspaces identified in the PEA. Since the PEA was submitted to the California Public Utilities Commission (Commission), the Applicants have advanced the engineering and design of the pipeline, which has resulted in minor design refinements to the information presented in Chapter 3 Project Description of the PEA, including laydown yards and minor route refinements that extend beyond the Biological Resources Study Area (BRSA) that was established in the BRTR.

This addendum to the BRTR summarizes the biological resources associated with workspaces that have been identified through the advancement of the engineering and design of the pipeline since submittal of the PEA that occur outside of the BRSA. The workspaces in this document include temporary impact areas associated with laydown yards and route refinements. The revised workspaces that occur outside of the BRSA are presented in Table 1: Summary of Revised Project Components and are shown in Attachment A: Vegetation Communities Map.

This addendum to the BRTR provides field methods and results of the 2016 survey for additional laydown yards and route refinements that were identified outside the limits of the BRSA.

2 – METHODOLOGY

This section includes background research and field survey methodology. A list of potentially occurring special-status plant and wildlife species was developed by compiling all species that are documented in the California Natural Diversity Database (California Department of Fish and Wildlife [CDFW] 2016) as being within five miles¹ of the Proposed Project. The plant and wildlife species lists were updated based on 2016 field conditions and the lists in the BRTR, and are provided in Attachment B: Special-Status Plant Species with Potential to Occur and Attachment C: Special-Status Wildlife Species with Potential to Occur.

Insignia Environmental (Insignia) biologists Darren Burton and Melissa Tu conducted the 2016 survey in November and December. The 2016 survey area included areas that were outside of the BRSA, and specifically the areas in Table 1: Summary of Revised Project Components, plus a 150-foot buffer around all workspaces for a total of approximately 187 acres.

¹ The use of a five-mile buffer is intended to capture all known occurrences within the vicinity and surrounding areas of the Proposed Project. A larger buffer typically includes many species that will not actually occur within the Proposed Project area, and a smaller buffer may omit species with larger geographic ranges from the potential-to-occur lists.

Table 1: Summary of Revised Project Components

Name/ Number	PEA Milepost (MP)	New MP²	Location	Attachment A Mapbook Page
Laydown Yards				
Rainbow Creek Road	0.0	0.0	Rainbow Valley Boulevard and Rainbow Creek Road	1
395 Stewart Canyon	6.0	6.0	Old Highway 395 and Stewart Canyon Drive	3
Boulder Knolls Road (formerly #4) ³	14.7	15.0	Champagne Boulevard and Boulder Knolls Road	9
Montego	21.5	21.8	Old Highway 395 and West Country Club Lane	10
Emmanuel Church Lot	26.3	26.6	East 17th Avenue and Encino Drive	11
Lake Hodges East	30.4	30.7	Highland Valley Road (Lake Hodges)	12
Alliant	43.7	44.0	Alliant University near Marine Corps Air Station Miramar	13
Route Refinements				
Milepost 3.3	3.3	3.3	South of Rainbow Hills Road and west of Interstate (I-) 15	2
State Route 76 (Highway 76) (MP 8.3)	8.3 to 9.8	8.3 to 9.8	Old Highway 395 and Highway 76 south to the horizontal directional drilling (HDD) location north and south of the San Luis Rey River	4-5
I-15 (MP 11.2)	11.2 to 12.6	11.4 to 12.8	Old Highway 395 and Urner Way south to MP 12.8 then east under I-15 to Old Highway 395	6-8

² Route refinements have resulted in a slight change to the overall length of the pipeline; therefore, the mileposts have changed from those presented in the PEA and BRTR.

³ In order to avoid revision errors associated with laydown yard numbering, each yard was assigned a unique name to avoid confusion, since the addition or removal of a yard will result in a non-congruent numbering system.

Table 2: Survey Schedule and Conditions presents the dates and times of the surveys, as well as the weather conditions.

Table 2: Survey Schedule and Conditions

Date	Date	Weather at Beginning of Survey
November 18, 2016	9:40 a.m. to 12:45 p.m.	75 degrees Fahrenheit (°F), winds up to 5 miles per hour (mph); 0-percent cloud cover
December 1, 2016	11:00 a.m. to 4:00 p.m.	60 °F; winds up to 5 mph; 35-percent cloud cover
December 6, 2016	9:00 a.m. to 11:45 a.m.	59 °F; winds up to 5 mph; 70-percent cloud cover
December 20, 2016	8:00 a.m. to 11:30 a.m.	62 °F; winds up to 5 mph; 20-percent cloud cover

During the surveys, Insignia biologists focused their habitat assessment on natural areas where ground disturbance is proposed, walking much of the survey area except areas that were too steep to navigate and areas that were developed (e.g., public roads, private homes, or businesses). Steep areas that were not included in surveys were primarily road cuts along I-15 and Old Highway 395 within the 150-foot buffer for the Highway 76 Route Refinement (MP 8.3) workspace. No Proposed Project components are located within these steep areas. During the habitat assessment, the biologists mapped vegetation communities, surveyed for hydrological features (e.g., potentially jurisdictional drainages, wetland features, and vernal pools), assessed habitat for special-status plant and wildlife species, and documented plant and wildlife species within the survey area. The presence of diagnostic habitat elements was noted and it was determined that there was potential for special-status plant and wildlife species to occur. Lists of plant and wildlife species observed during the 2016 surveys are included in Attachment D: Plant Species Observed during 2016 Surveys and Attachment E: Wildlife Species Observed during 2016 Surveys.

The BRTR includes additional details for vegetation mapping and special-status species methodology.

3 – RESULTS

This section includes descriptions of vegetation communities mapped during the 2016 surveys; temporary vegetation impacts from revised Proposed Project components; plant and wildlife species documented; and the potential for special-status plant and wildlife species to occur in the 2016 survey area.

Attachment A: Vegetation Communities Map shows the 2016 survey area (i.e., the revised Proposed Project components since the 2014-2015 habitat assessment, as well as a 150-foot buffer around the revised components) and the vegetation communities within the workspaces for the revised components.

3.0 VEGETATION COMMUNITIES

This section provides a description of the vegetation communities and land cover types observed within the 2016 survey area. The vegetation classification in this report is consistent with the BRTR and 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 (CDFW 2015). Definitions of terms applying to species cover, species frequency stratum cover, and the distinction between stratum (i.e., tree, shrub, and herbaceous) classes conform to the Vegetation Classification Manual for Western San Diego County (San Diego Association of Governments [SANDAG] 2011). Key terms (e.g., dominant, trace, etc.) used in the vegetation descriptions are also from the Vegetation Classification Manual for Western San Diego County.

Table 3: Temporary Vegetation Impacts presents the temporary impacts to laydown yards and route refinement workspaces that are outside of the BRSA described in the BRTR. The laydown yards are primarily within disturbed or developed/urban areas.

In addition to disturbed and developed/urban areas, 13 vegetation types were documented within the route refinement workspaces, laydown yards, and the 150-foot buffers during the 2016 surveys.

3.0.0 Arundo-Dominated Riparian

Arundo-dominated riparian stands are densely vegetated riparian thickets dominated almost exclusively by giant reed (*Arundo donax*), a highly invasive exotic grass species. This designation is restricted to areas where giant reed accounts for more than 50 percent of the total vegetative cover within a stand. Arundo-dominated riparian areas occur on loose, sandy, or fine gravelly alluvium deposited near stream channels in areas subject to frequent flood flows.

Approximately 5,000 square feet of Arundo-dominated riparian habitat was observed within the 150-foot buffer of the Highway 76 Route Refinement (MP 8.3) workspace, specifically southeast of the HDD location south of the San Luis Rey River, between Old Highway 395 and I-15, south of Dulin Road.

Table 3: Temporary Vegetation Impacts

Project Component	Vegetation Community	Approximate Temporary Impacts (acres)
Laydown Yards		
Rainbow Creek Road	Developed/Urban	<0.1
	Disturbed	3.2
	Subtotal	3.3
395 Stewart Canyon	Disturbed	4.1
	Coastal Sage Scrub (disturbed)*	<0.1
	Subtotal	4.2
Boulder Knolls Road	Disturbed	0.5
	Non-Native Grassland	4.1
	Subtotal	4.7
Montego	Eucalyptus Woodland	0.2
	Non-Native Grassland	4.8
	Ornamental	0.1
	Subtotal	5.2
Emmanuel Church Lot	Developed/Urban	3.9
Lake Hodges East	Disturbed	1.6
	Intensive Agriculture	0.2
	Subtotal	1.8
Alliant	Developed/Urban	0.1
	Disturbed	1.3
	Subtotal	1.4
Route Refinements		
Milepost 3.3	Orchard/Vineyard	1.1
	Coastal Sage Scrub*	1.9
	Subtotal	3.0
Highway 76 (MP 8.3)	Coastal Sage-Chaparral Transition*	0.3
	Coastal Sage Scrub*	0.7
	Coastal Sage Scrub (burned)*	0.1
	Coastal Sage Scrub (disturbed)*	0.7

Project Component	Vegetation Community	Approximate Temporary Impacts (acres)
Highway 76 (MP 8.3) (cont.)	Coastal Sage Scrub (restored)*	<0.1
	Developed/Urban	2.3
	Disturbed	3.9
	Eucalyptus Woodland	0.3
	Mulefat Scrub	0.4
	Non-Native Grassland	0.2
	Open Coast Live Oak Riparian Forest *	0.2
	Southern Cottonwood-Willow Riparian Forest (disturbed)*	3.2
	Southern Willow Scrub (disturbed)*	0.1
	Subtotal	12.4
I-15 (MP 11.2)	Coastal Sage-Chaparral Transition*	0.3
	Coastal Sage Scrub*	0.7
	Coastal Sage Scrub (disturbed)*	0.6
	Disturbed	2.1
	Developed/Urban	3.5
	Intensive Agriculture	15.9
	Orchard/Vineyard	0.3
	Southern Willow Scrub (disturbed)*	0.3
	Subtotal	23.7

Notes: * = Sensitive natural community. Totals may not be precise due to rounding.

3.0.1 Coastal Sage Scrub-Chaparral Transition

Coastal sage scrub/chaparral mix habitat is co-dominated by shrub species that typically occur in both coastal sage scrub and chaparral, including laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), California sagebrush (*Artemisia californica*), and California buckwheat (*Eriogonum fasciculatum*). To a lesser extent, this vegetation community also includes chamise (*Adenostoma fasciculatum*), lilac species (*Ceanothus* spp.), spicebush (*Cneoridium dumosum*), black sage (*Salvia melifera*), scrub oak (*Quercus berberidifolia*), broom baccharis (*Baccharis sarothroides*), and blue elderberry (*Sambucus nigra* spp. *caerulea*).

An approximately 0.3-acre area of coastal sage scrub-chaparral transition was observed within the Highway 76 Route Refinement (MP 8.3) workspace, and an approximately 0.3-acre area of coastal sage scrub-chaparral transition was also observed within the I-15 Route Refinement (MP 11.2) workspace. Coastal sage scrub-chaparral transition was also observed within the 150-foot buffer west of the Highway 76 Route Refinement (MP 8.3) workspace, and specifically southwest of the San Luis Rey River HDD location on steep slopes west of Old Highway 395 and south of Dulin Road.

3.0.2 Coastal Sage Scrub

Coastal sage scrub is made up of low, soft-woody subshrubs up to three feet in height. Most species commonly found in the community are drought-deciduous and include species such as California sagebrush, California buckwheat, white sage (*Salvia apiana*), deerweed (*Acmipson glaber*), and laurel sumac. The subtype of coastal sage scrub most commonly found in San Diego County is Diegan coastal sage scrub, which is generally found at elevations below 1,500 feet on steep, xeric slopes or clay-rich soils that release stored water slowly.

Coastal sage scrub was observed within the Milepost 3.3 Route Refinement, Highway 76 Route Refinement (MP 8.3), and I-15 Route Refinement (MP 11.2) workspaces and within the 150-foot buffer adjacent to the 395 Stewart Canyon Yard, Boulder Knolls Road Yard, Montego Yard, and Emmanuel Church Lot Yard. Coastal sage scrub communities within the 2016 survey area are dominated by California sagebrush, California buckwheat, black sage laurel sumac and lemonadeberry, with sparse patches of coast prickly-pear (*Opuntia littoralis*) and cholla species (*Cylindropuntia* spp.). Distinct types of coastal sage scrub were noted based on their species composition, relative disturbance levels, and landscape position. These definitions are consistent with the Vegetation Classification Manual for Western San Diego County (SANDAG 2011) and were mapped as follows:

- **Coastal sage scrub (burned)** stands were noted in areas where recent burns had removed nearly all vegetative cover. These areas were primarily observed within the perimeter of the Highway Fire, which burned approximately 400 acres south of Highway 76 and west of I-15 in May 2014. An area measuring approximately 0.1 acre of burned coastal sage scrub was observed within the Highway 76 Route Refinement (MP 8.3) workspace.
- **Coastal sage scrub (disturbed)** stands were mapped where the presence of non-native species was noted in greater-than-trace amounts and/or physical land disturbance (e.g., grading) was observed. An approximately 0.7-acre area of disturbed coastal sage scrub

was observed within the Highway 76 Route Refinement (MP 8.3) workspace, and an approximately 0.6-acre area of disturbed coastal sage scrub was observed within the I-15 Route Refinement (MP 11.2) workspace.

- **Coastal sage scrub (restored)** stands were mapped in areas that were likely part of a revegetation effort, such as in areas adjacent to or between roadways. Restored coastal sage scrub was observed in the 150-foot buffer west of the I-15 Route Refinement (MP 11.2) workspace, west of Old Highway 395.

3.0.3 Developed/Urban

Developed/urban land includes areas that have been built or otherwise physically altered to the extent that they no longer support native vegetation. Developed land is characterized by the presence of permanent or semi-permanent structures, and/or pavement or hardscape.

Developed/urban areas were observed adjacent to the Rainbow Creek Road yard, entirely within the Emmanuel Church Lot Yard (a paved parking lot), an approximately 0.1-acre area within the Alliant Yard, and within the Highway 76 and I-15 Route Refinements (MP 8.3 and MP 11.2) workspaces.

3.0.4 Disturbed Habitat

Disturbed habitat includes areas that have been physically disturbed by previous human activity and are no longer recognizable as a native or naturalized vegetation community, but continue to retain a soil substrate. This vegetation community often supports non-native, invasive plants, such as Russian thistle (*Salsola tragus*), tree tobacco (*Nicotiana glauca*), mustards (*Brassica* spp., *Hershfeldia* spp.), and non-native grasses (*Avena* spp., *Bromus* spp., *Schismus* spp.). It also supports some disturbance-related native species, such as broom baccharis; coyote brush (*Baccharis pilularis*); deerweed; and various weedy, native species, such as ragweed (*Ambrosia psilostachya*), horseweed (*Erigeron canadensis*), and doveweed (*Croton setiger*). Examples of disturbed habitat include areas that have been graded, have repeatedly been cleared for fuel management purposes, and/or have experienced repeated use that prevents natural vegetation from returning. Disturbed habitat includes all areas within the 2016 survey area that have been previously disturbed and have not returned to native habitat. The Rainbow Creek Road Yard, 395 Stewart Canyon Yard, Lake Hodges East Yard, and Alliant Yard were dominated by disturbed habitat; the Boulder Knolls Road Yard consisted of approximately 0.5 acre of disturbed habitat; and disturbed habitat was also observed in the Highway 76 and I-15 Route Refinements (MP 8.3 and MP 11.2) workspaces.

3.0.5 Eucalyptus Woodland

Typical eucalyptus woodlands are dominated by one or more species of eucalyptus (*Eucalyptus* spp.). Eucalyptus trees are native to Australia and are considered an invasive species because of their rapid rate of self-proliferation. The understory within well-established groves of eucalyptus is usually very sparse due to the closed canopy and the density and allelopathic⁴ nature of the leaf litter. Approximately 0.3 acre of eucalyptus woodland was observed within the Highway 76

⁴ Allelopathy is a biological phenomenon that is characteristic of some plants. An allelopathic plant produces certain biochemicals that influence the growth and development of other organisms. The biochemicals, called allelochemicals, can have a beneficial or detrimental effect on neighboring organisms.

Route Refinement (MP 8.3) workspace. This vegetation community was also observed within the southern edge of the Montego Yard, the 150-foot buffer south of the Rainbow Creek Road Yard, and the 150-foot buffer south and west of the Alliant Yard.

3.0.6 Intensive Agriculture

Intensive agriculture includes dairies, nurseries, and chicken ranches. This vegetation community also includes open spaces that are used for livestock and frequently tilled or altered to grow commercial crops, such as edible species and plants grown for ornamental decoration or landscaping. Due to the intensive use of this land for agricultural purposes, these areas provide habitat for a very limited number of wildlife species adapted to disturbance. Within the Proposed Project area, intensive agriculture consists primarily of active nurseries selling potted herbs, shrubs, and trees, as well as tilled, planted fields of rotating crops. The majority of the I-15 Route Refinement (MP 11.2) workspace is within an intensive agricultural area. Intensive agricultural uses were also observed within the western portion of the Lake Hodges East Yard and within the 150-foot buffer south of the Rainbow Creek Road Yard.

3.0.7 Mulefat Scrub

Mulefat scrub occurs in dense thickets of mulefat (*Baccharis salicifolia*) on loose, sandy, or fine gravelly alluvium deposited near stream channels and within ephemeral streams. This vegetation community is primarily dominated by mulefat and very little else, with occasional open patches containing herbaceous riparian associated species, such as wild tarragon (*Artemisia dracunculus*). Mulefat scrub was observed within the Highway 76 Route Refinement (MP 8.3) workspace, specifically within the San Luis Rey River HDD location between I-15 and Old Highway 395.

3.0.8 Non-Native Grassland

Typical non-native grassland areas are dominated by a dense to sparse cover of introduced annual grasses (e.g., bromes [*Bromus* spp.] and wild oats [*Avena* spp.]), and may include numerous species of herbaceous non-native herbs (e.g., filarees [*Erodium* spp.]), or weedy native herbs (e.g., ragweed). These annuals germinate with the onset of the rainy season and set seed in late winter or spring. Non-native grasslands are often associated with deep, fine-textured soils with some clay content. Non-native grassland was observed in the Montego Yard and is the dominant vegetation community in the Boulder Knolls Road Yard. It was also observed in small areas along the Highway 76 and I-15 Route Refinements (MP 8.3 and MP 11.2) workspaces.

3.0.9 Open Coast Live Oak Woodland

This woodland is dominated by coast live oak (*Quercus agrifolia*), an evergreen oak that reaches 32 to 82 feet in height. The shrub layer is poorly developed, but may include toyon (*Heteromeles arbutifolia*), gooseberry (*Ribes* spp.), laurel sumac, or blue elderberry. The herb component is continuous and dominated by ripgut grass (*Bromus diandrus*) and other introduced species. It often occurs on north-facing slopes and shaded ravines in Southern California. This community intergrades with coastal sage scrub and southern mixed chaparral on drier sites. Open coast live oak woodland has a canopy cover of less than 50-percent absolute cover. Coast live oak is often co-dominant with other chaparral or woodland types. A small patch of open coast live oak woodland was observed within the Highway 76 Route Refinement (MP 8.3)

workspace near the San Luis Rey River HDD location on the east side of Old Highway 395 and within the 150-foot buffer west of the 395 Stewart Canyon Yard.

3.0.10 Orchard/Vineyard

Orchards are planted stands with one or several tree or shrub species that are cultivated for crops. The trees are typically low and bushy with an open understory. Vineyards are fields of grapes planted in rows that are usually supported by wood and wire trellises. The understory of both orchards and vineyards is maintained and generally devoid of vegetation, or it supports short grasses and other weedy herbaceous plants. Orchards/vineyards within the Project area mainly include groves of avocado trees (*Persea americana*), citrus trees (*Citrus* spp.), and wine grapes (*Vitis vinifera*). Due to the large size of some of the trees, raptor species are known to use orchard areas for perching while foraging. Orchard/vineyard regions were observed within the Milepost 3.3 Route Refinement workspace, the northern and western portions of the I-15 Route Refinement (MP 11.2) workspace, and the 150-foot buffer west of the Rainbow Creek Road Yard. The Milepost 3.3 Route Refinement workspace is dominated by dead avocado trees that were formerly an avocado orchard.

3.0.11 Ornamental

Ornamental habitat includes areas that have been intentionally planted with vegetation that is typically non-native and serves a visual aesthetic purpose; provides value as shade, groundcover, erosion control, or windscreen; or indicates property boundaries. Ornamental habitat within the Project included a variety of shrub and tree species, such as lantana (*Lantana* sp.), bottlebrush (*Callistemon* sp.), melaleuca (*Melaleuca* sp.), eucalyptus, agave (*Agave* sp.), peppertree (*Schinus* sp.), and juniper (*Juniperus* sp.), among others. Ornamental areas were observed within the Montego Yard and within the 150-foot buffer adjacent to the Rainbow Creek Road Yard and the Alliant Yard.

3.0.12 Southern Coast Live Oak Riparian Forest

Southern coast live oak riparian forest is a dense riparian forest dominated by coast live oak with sparse amounts of woody riparian species, such as willows (*Salix* spp.) or western sycamores (*Platanus racemosa*). The canopy is closed or nearly closed. This vegetation community appears to be richer in herbs and poorer in understory shrubs than other riparian communities. These stands typically occur within bottomlands and outer floodplains along larger streams and on fine-grained, rich alluvium. Southern coast live oak riparian forest was observed within the Highway 76 Route Refinement (MP 8.3) workspace and within the 150-foot buffer east of the Highway 76 Route Refinement (MP 8.3) workspace, specifically east of the San Luis Rey River HDD location.

3.0.13 Southern Cottonwood-Willow Riparian Forest

Southern cottonwood-willow riparian forests are tall, open, broadleaved, winter-deciduous riparian forests dominated by Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*) and several tree willows. Understories usually are shrubby willows. These areas are typically found in sub-irrigated and frequently overflowed lands along rivers and streams. The dominant species require moist, bare mineral soil for germination and establishment. Characteristic species include Douglas mugwort (*Artemisia douglasiana*), mulefat, western sycamore, black willow

(*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and stinging nettle (*Urtica dioica* ssp. *holosericea*).

- **Southern cottonwood-willow riparian forest (disturbed)** stands also included open disturbed areas, non-native grasses, and other non-native plant species. Disturbed southern cottonwood-riparian forest was observed within the Highway 76 Route Refinement (MP 8.3) workspace near the San Luis Rey River HDD location between I-15 and Old Highway 395 and within the 150-foot buffer east of the Lake Hodges East Yard. The only amphibian observed—a chorus frog (*Pseudacris* sp.)—was found in disturbed southern cottonwood-willow riparian forest east of the Lake Hodges East Yard.

3.0.14 Southern Willow Scrub

Southern willow scrub consists of dense, broadleaved, winter-deciduous, riparian thickets dominated by several willow species, with scattered emergent Fremont cottonwood and western sycamore. Most stands are too dense to allow much understory development. Southern willow scrub occurs on loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. Characteristic species include arrow-weed (*Pluchea sericea*), black willow, sandbar willow (*Salix exigua*), arroyo willow, and red willow (*S. laevigata*). Southern willow scrub was observed north of the Lake Hodges East Yard.

- **Southern willow scrub (disturbed)** stands also included open disturbed areas, non-native grasses, and other non-native plant species. Disturbed southern willow scrub was observed within the Highway 76 and I-15 Route Refinements (MP 8.3 and MP 11.2) workspaces.

3.1 HYDROLOGIC FEATURES

No drainages were documented within the 2016 survey area.

3.2 SPECIAL-STATUS PLANT SPECIES

No special-status plant species were observed during the 2016 surveys. Eighteen special-status plant species with the potential to occur in the 2016 survey area are listed in Attachment D: Plant Species Observed during 2016 Surveys. The BRTR provides additional information for each of the 18 special-status plant species, including habitat preferences, distribution, flowering phenology/life form, and known records within five miles of the Proposed Project area.

3.3 SPECIAL-STATUS WILDLIFE SPECIES

Based on the BRTR and the 2016 field surveys, 37 special-status wildlife species have a potential to occur in the 2016 survey area. A list of these species is included in Attachment C: Special-Status Wildlife Species with Potential to Occur. The BRTR provides additional information for each of the 37 special-status wildlife species, including the life history of each species and known records within five miles of the Proposed Project area.

Because the federally endangered Stephens' kangaroo rat (*Dipodomys stephensi*) had potential to occur in four of the yards identified in the PEA (Rainbow Hills Road Yard, Boulder Knolls Road

Yard, Pala Mesa Yard, and Nutmeg Street Yard), the Applicants had a Stephens' kangaroo rat expert evaluate the laydown yards for sign of or suitable habitat for the species. Because the Applicants do not intend to utilize a laydown yard if Stephens' kangaroo rat is present, in accordance with Applicant-Proposed Measure BIO-13, the Applicants performed additional studies. In addition to the yards identified in the PEA, the Applicants also conducted a survey on the Montego Yard. The Montego Yard is one of seven additional yards, and it was determined that the yard could potentially support Stephens' kangaroo rat based on its location. Based on the results of the species-specific habitat evaluation and surveys, none of the laydown yards have the potential for Stephens' kangaroo rat. The report is provided in Attachment F: Habitat Suitability Survey for Stephens' Kangaroo Rat.

3.4 SPECIES OBSERVATIONS

3.4.0 Common Species Observations

Common bird species were observed in sensitive habitats and disturbed areas during the 2016 surveys, and included American crow (*Corvus brachyrhynchos*), yellow-rumped warbler (*Dendroica coronata*), Anna's hummingbird (*Calypte anna*), and mourning dove (*Zenaida macroura*). Common reptiles—including western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*)—were observed in non-native grassland within the Boulder Knolls Road Yard. One federally listed bird species and two special-status reptile species were observed during 2016 surveys and are described in Section 3.3 Special-Status Wildlife Species. The following species were also observed:

- California ground squirrels (*Spermophilus beecheyi*) were observed within non-native grassland in the Montego Yard.
- Numerous small mammal burrows were observed within non-native grassland at the Boulder Knolls Road Yard.
- Mule deer (*Odocoileus hemionus*) tracks were observed in the Lake Hodges East Yard
- Coyote (*Canis latrans*) and mountain lion (*Puma concolor*) tracks were observed along Old Highway Road just south of Pala Road.

3.4.1 Special-Status Wildlife Observations

The following three species covered by SDG&E's Subregional Natural Communities Conservation Plan were documented within the 2016 survey area:

- coastal California gnatcatcher (*Polioptila californica californica*), a federally threatened species;
- Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), a California Species of Special Concern (SSC); and
- Coronado skink (*Plestiodon skiltonianus interparietalis*), a California SSC.

On December 1, 2016, Insignia biologists heard a coastal California gnatcatcher in the dry Diegan coastal sage scrub east of the 395 Stewart Canyon Yard. Additional potentially suitable coastal sage scrub habitat for coastal California gnatcatcher occurs within the Highway 76 and I-15 Route Refinements (MP 8.3 and 11.2) workspaces and adjacent to the Boulder Knolls Road Yard, Montego Yard, Lake Hodges East Yard, and Alliant Yard.

On November 18, 2016, Insignia biologists observed a Belding's orange-throated whiptail in dry Diegan coastal sage scrub west of the Highway 76 Route Refinement (MP 8.3) workspace. Additional potentially suitable grassland, scrub, and shrub habitat for Belding's orange-throated whiptail occurs within the Highway 76 and I-15 Route Refinement (MP 8.3 and 11.2) workspaces and adjacent to the 395 Stewart Canyon Yard, Boulder Knolls Road Yard, Montego Yard, Lake Hodges East Yard, and Alliant Yard.

On December 1, 2016, Insignia biologists observed four adult and one juvenile Coronado skinks under old plywood in the non-native grassland within the Boulder Knolls Road Yard. Additional potentially suitable grassland, scrub, and shrub habitat for Coronado skink occurs within the Highway 76 and I-15 Route Refinement (11.2) workspaces and adjacent to the 395 Stewart Canyon Yard, Emmanuel Church Lot Yard, Lake Hodges East Yard, and Alliant Yard.

3.4.2 Critical Habitat

Critical habitat occurs within the 2016 survey area for the following species:

- coastal California gnatcatcher;
- least Bell's vireo (*Vireo bellii pusillus*);
- southwestern willow flycatcher (*Empidonax traillii extimus*); and
- arroyo toad (*Anaxyrus californicus*), a federally endangered species and SSC.

Within the Highway 76 Route Refinement (MP 8.3) workspace near the San Luis Rey River, critical habitat has been designated for coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and arroyo toad. Designated critical habitat for coastal California gnatcatcher is also located throughout the 2016 survey area in various locations. Figure A-7: Designated Critical Habitat in the BRTR presents the critical habitat areas that overlap the Proposed Project area.

4 – CONCLUSION

The BRSA in the BRTR covered approximately 2,264 acres. The 2016 surveys reviewed approximately 187 additional acres for a total of approximately 2,451 acres. No new vegetation communities or wildlife species were identified during the 2016 surveys that had not already been identified in the BRTR. As a result, impacts to sensitive biological resources—including special-status plant and wildlife species—that may occur in the revised Proposed Project areas will be similar to or less than the impacts to sensitive biological resources that were described in the BRTR. With the minor design refinements, the total Proposed Project impact area is approximately 39 acres larger, primarily due to the addition of seven laydown yards. However, the new laydown yards are dominated by disturbed land and habitat, developed/urban, agriculture, and eucalyptus woodland. Thus, most of the additional impact area will not result in impacts to native habitat or sensitive biological resources. Therefore, the new laydown yards and minor design refinements would not result in significant impacts to biological resources.

5 – REFERENCES

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Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge. 2008. Draft Vegetation Communities of San Diego County.

SANDAG. 2011. Vegetation Classification Manual for Western San Diego County.

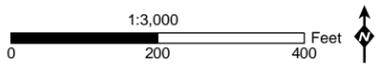
ATTACHMENT A: VEGETATION COMMUNITIES MAP



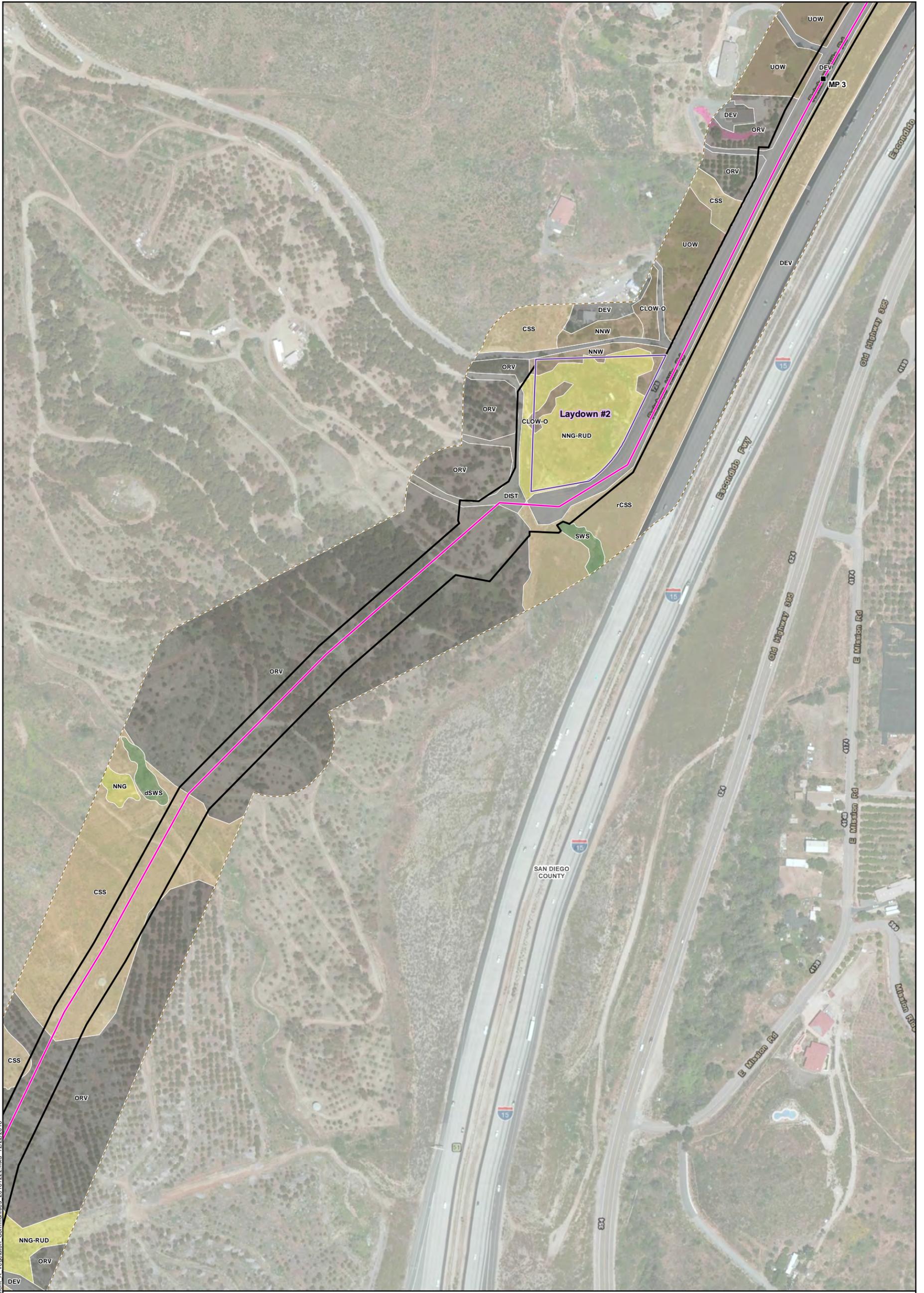
Attachment A: Vegetation Communities Map 1 of 13

Pipeline Safety & Reliability Project

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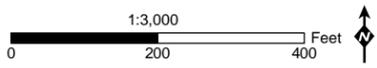
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Attachment A: Vegetation Communities Map 2 of 13

Pipeline Safety & Reliability Project

■ Milepost	Permanent Impacts	Temporary Impacts	Biological Resource Survey Area	Bog and Marsh	Grasslands, Vernal Pools, Meadows, and Other Herb Communities
— PSRP	Aboveground Facility	Bore Pit	City/County Boundary	Disturbed or Developed Habitat	Riparian and Bottomland Habitat
Existing Facility		Laydown Area		Scrub and Chaparral	Woodland

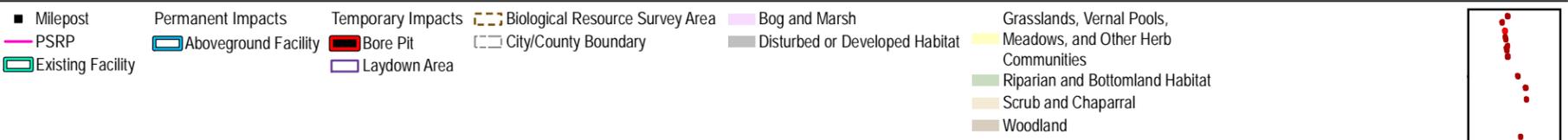


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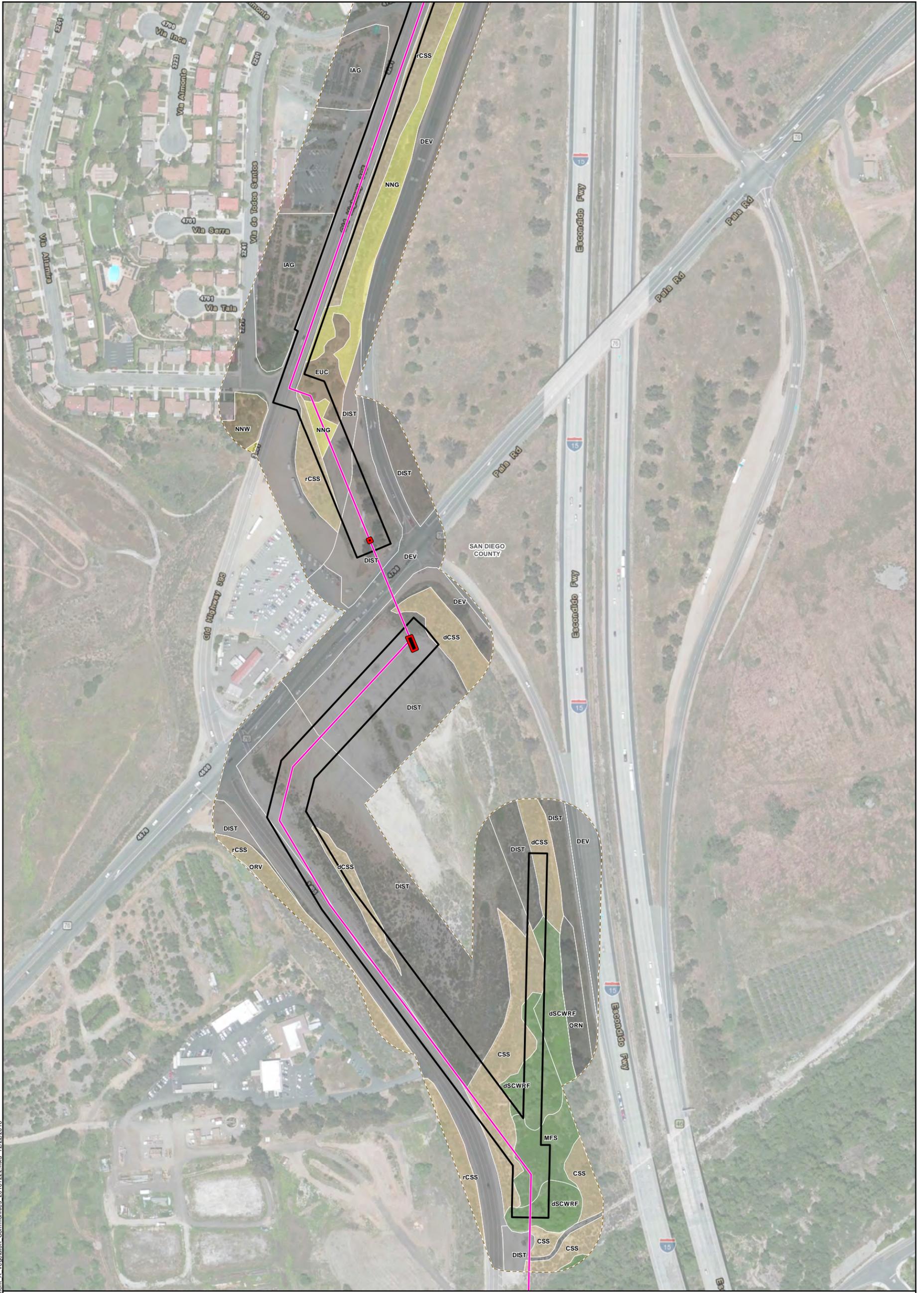


Attachment A: Vegetation Communities Map 3 of 13

Pipeline Safety & Reliability Project

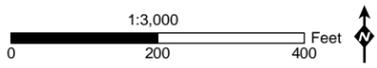


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Attachment A: Vegetation Communities Map 4 of 13

Pipeline Safety & Reliability Project

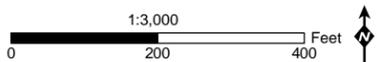
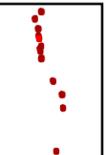




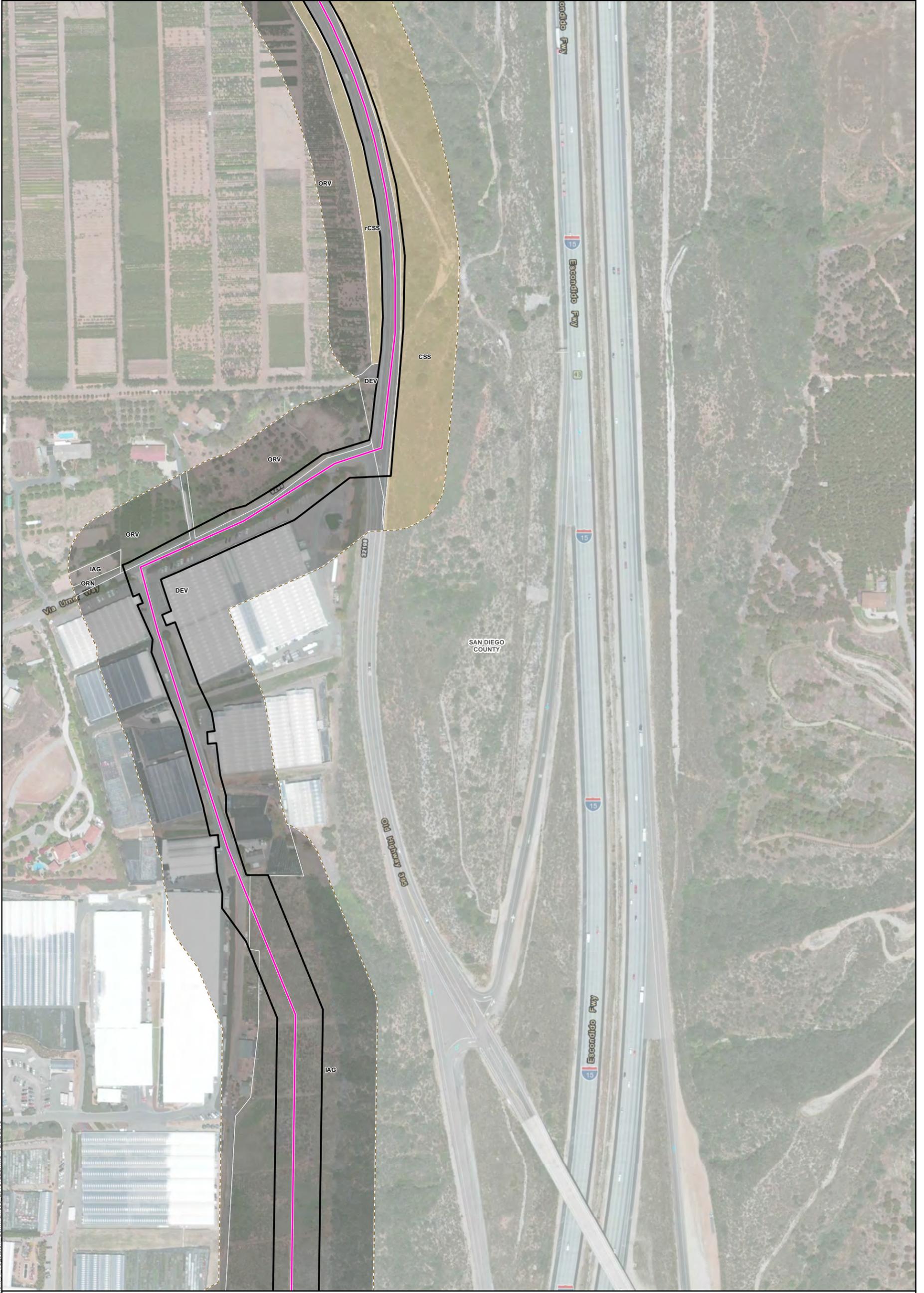
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Pipeline Safety & Reliability Project

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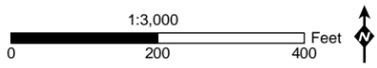


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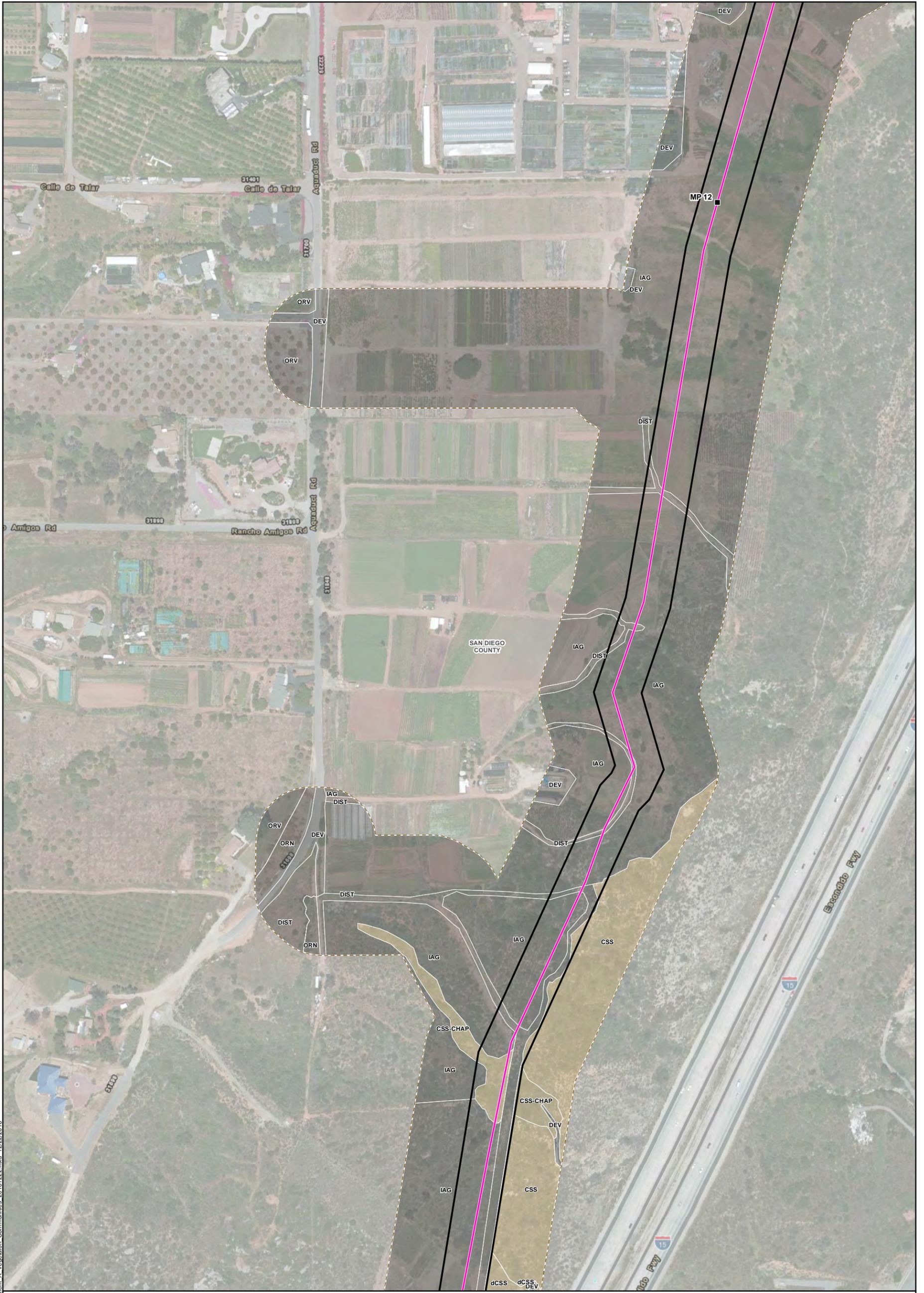


Attachment A: Vegetation Communities Map 6 of 13

Pipeline Safety & Reliability Project



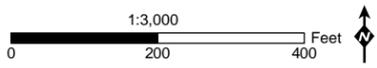
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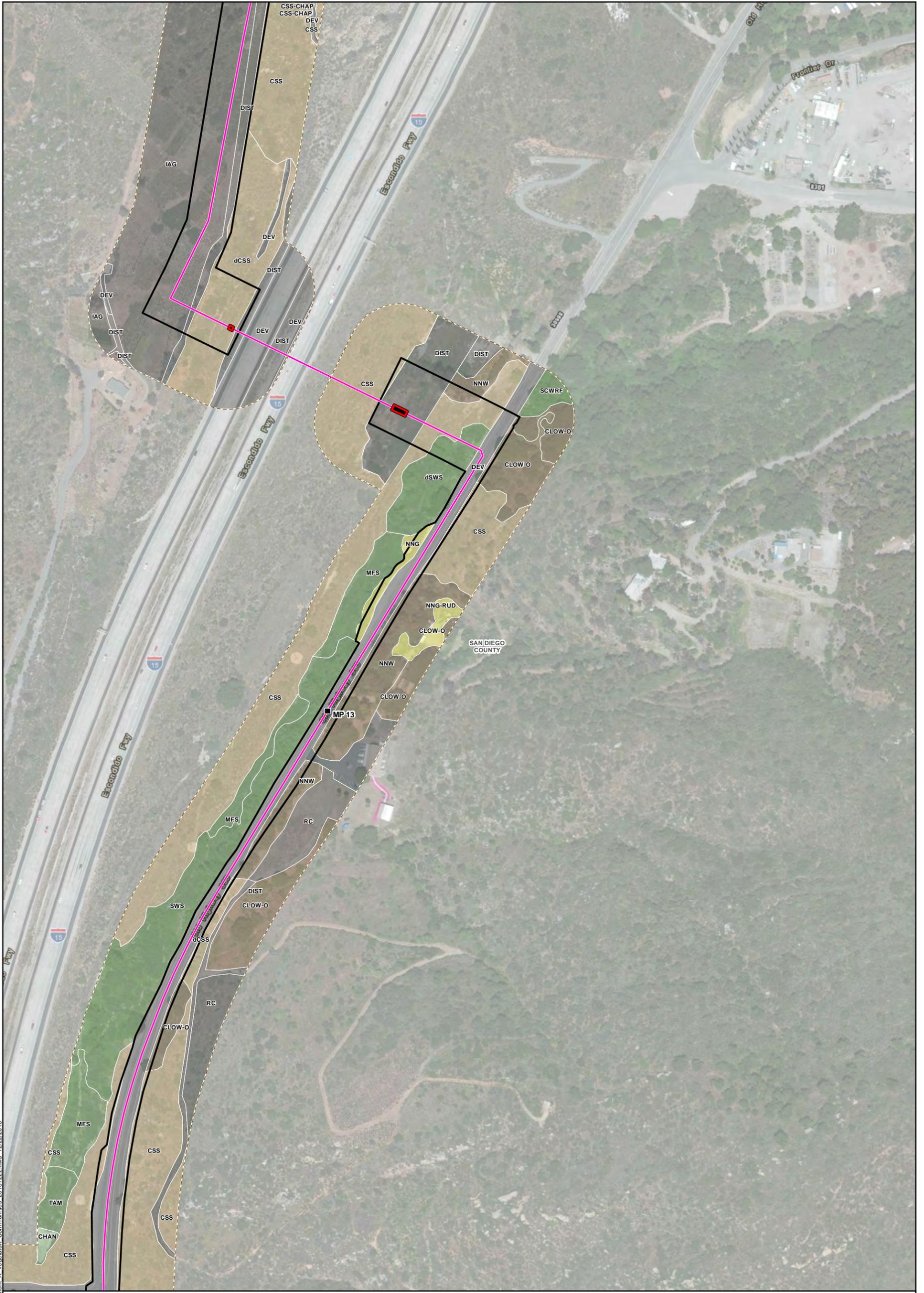
Attachment A: Vegetation Communities Map 7 of 13

Pipeline Safety & Reliability Project

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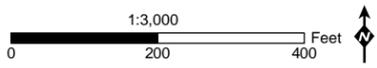


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Attachment A: Vegetation Communities Map 8 of 13

Pipeline Safety & Reliability Project

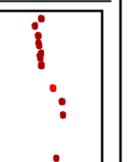
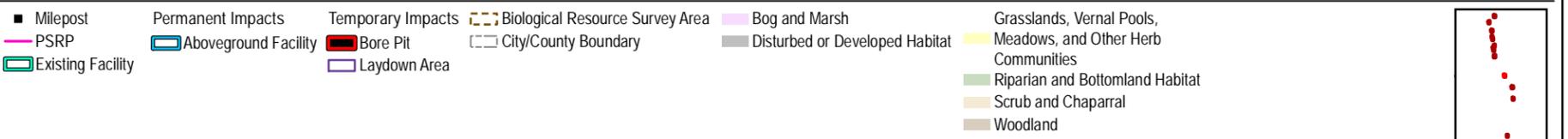


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Attachment A: Vegetation Communities Map 10 of 13

Pipeline Safety & Reliability Project

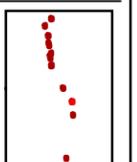
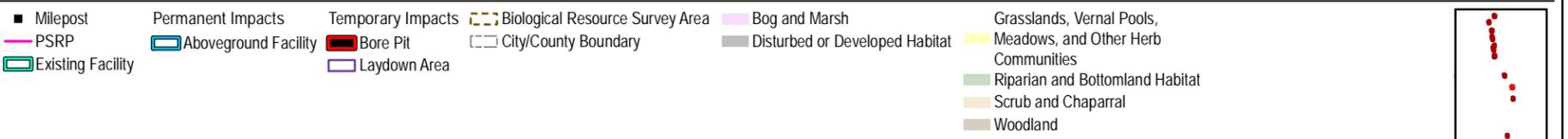


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Attachment A: Vegetation Communities Map 11 of 13

Pipeline Safety & Reliability Project



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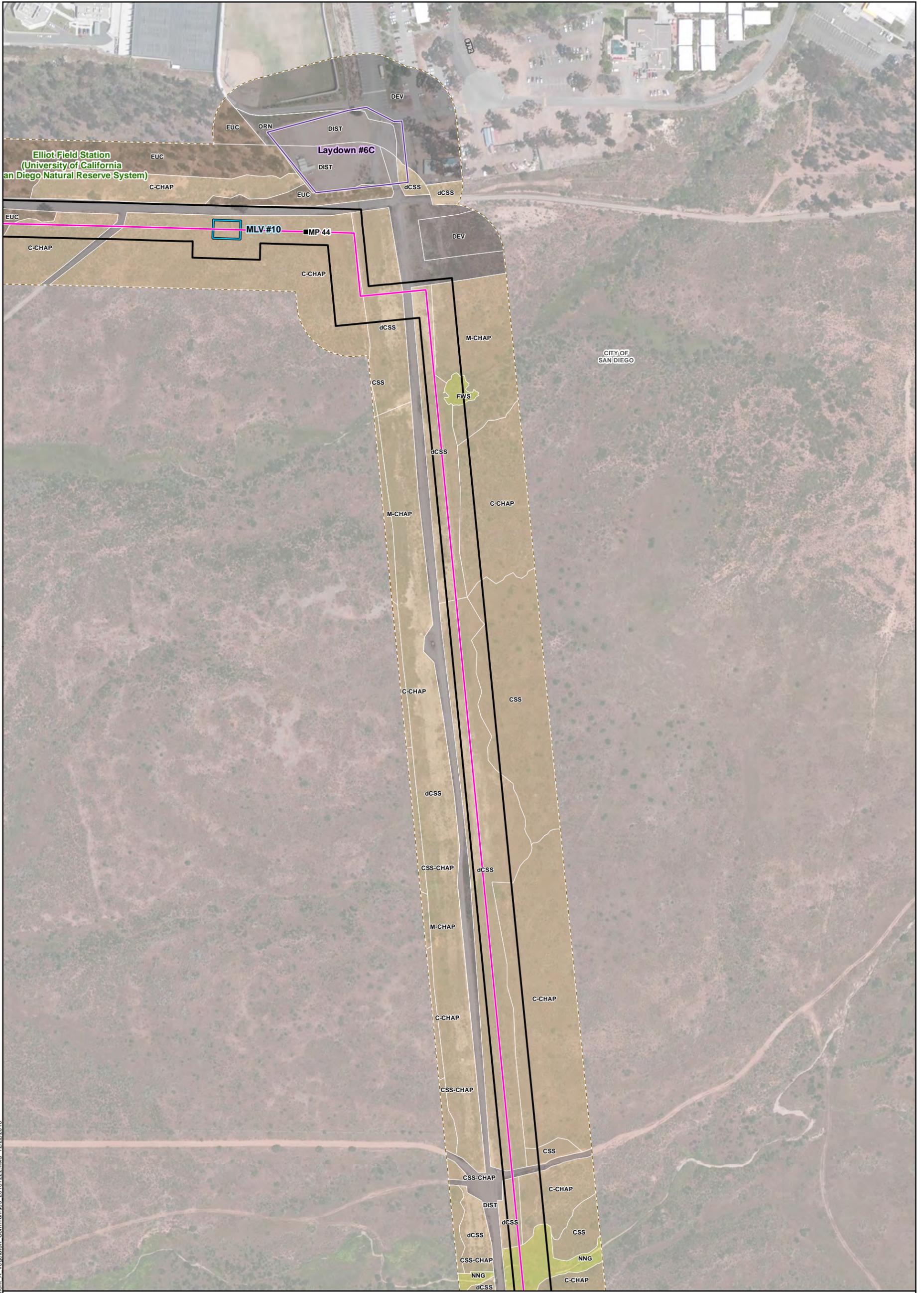
Attachment A: Vegetation Communities Map 12 of 13

Pipeline Safety & Reliability Project

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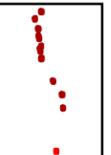
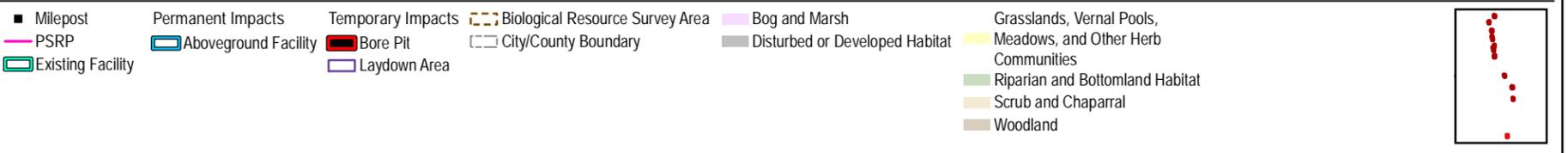


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Attachment A: Vegetation Communities Map 13 of 13

Pipeline Safety & Reliability Project



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ATTACHMENT B: SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR

ATTACHMENT B: SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR

Species Name	Federal, State, and CRPR ¹	Location	Potential to Occur ²
LYCOPHYTES			
Selaginellaceae – Spike Moss Family			
<i>Selaginella cinerascens</i> Ashy spike-moss	4.1	State Route 76 (Highway 76) Route Refinement (Milepost [MP] 8.3) Interstate 15 (I-15) Route Refinement (MP 11.2)	Moderate Potential
ANGIOSPERMS - DICOTS			
Asteraceae (Compositae) – Sunflower Family			
<i>Ambrosia pumila</i> San Diego ambrosia	FE 1B.1	Highway 76 Route Refinement (MP 8.3)	Low Potential
<i>Artemisia palmeri</i> San Diego sagewort	4.2	Lake Hodges East Yard Buffer	Moderate Potential
<i>Bahiopsis laciniata</i> San Diego County viguiera	4.2	Lake Hodges East Yard Buffer	Low Potential
<i>Holocarpha virgata</i> ssp. <i>elongata</i> Graceful tarplant	4.2	Alliant Yard Buffer	Low Potential
<i>Isocoma menziesii</i> var. <i>decumbens</i> Decumbent goldenbush	1B.2	Boulder Knolls Road Yard Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Low Potential

¹ Explanation of federal and state listing codes:

Federal listing codes:	California Rare Plant Ranks (CRPRs):	CRPR Threat Codes:
- FE: Federally Endangered Species	-1B: Rare or Endangered in California and elsewhere	-.1: Seriously Endangered in California (over 80 percent of occurrences Threatened/high degree and immediacy of threat)
	-2: Rare or Endangered in California, more common elsewhere	-.2: Fairly Endangered in California (20 to 80 percent of occurrences Threatened)
	-4: Plants of limited distribution; a watch list	

² Only species with a potential to occur are included in the table. The Biological Resources Technical Report (BRTR) includes additional species and habitat detail for each species. For additional information, refer to Table 4: Special-Status Plant Species with Potential to Occur in the BRTR.

Species Name	Federal, State, and CRPR ¹	Location	Potential to Occur ²
Cactaceae – Cactus Family			
<i>Ferocactus viridescens</i> San Diego barrel cactus	2B.1	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Moderate Potential
Convolvulaceae – Morning-Glory Family			
<i>Dichondra occidentalis</i> Western dichondra	4.2	Highway 76 Route Refinement (MP 8.3)	Moderate Potential
Ericaceae – Heath Family			
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> Summer holly	1B.2	I-15 Route Refinement (MP 11.2)	Low Potential
Fagaceae – Oak Family			
<i>Quercus dumosa</i> Nuttall's scrub oak	1B.1	I-15 Route Refinement (MP 11.2)	Moderate Potential
<i>Quercus engelmannii</i> Engelmann oak	4.2	Highway 76 Route Refinement (MP 8.3) Buffer Boulder Knolls Road Yard Buffer	Low Potential
Montiaceae – Miner's Lettuce Family			
<i>Calandrinia breweri</i> Brewer's calandrinia	4.2	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Moderate Potential
Picrodendraceae – Bitter-Tree Family			
<i>Tetracoccus dioicus</i> Parry's tetracoccus	1B.2	I-15 Route Refinement (MP 11.2)	Moderate Potential
Polygonaceae – Buckwheat Family			
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> Long-spined spineflower	1B.2	I-15 Route Refinement Buffer (MP 11.2)	Moderate Potential
Juncaceae – Rush Family			
<i>Juncus acutus</i> ssp. <i>leopoldii</i> Southwestern spiny rush	4.2	Highway 76 Route Refinement (MP 8.3)	Low Potential
Rhamnaceae – Buckthorn Family			
<i>Adolphia californica</i> California adolphia	2B.1	I-15 Route Refinement Buffer (MP 11.2)	Moderate Potential

Species Name	Federal, State, and CRPR ¹	Location	Potential to Occur ²
Themidaceae – Brodiaea Family			
<i>Bloomeria clevelandii</i> San Diego goldenstar	1B.1	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Buffer	Moderate Potential
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	1B.1	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Buffer	Low Potential

ATTACHMENT C: SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR

ATTACHMENT C: SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR

Species Name	Listing Status ¹	Location	Potential to Occur ²
Invertebrates			
Quino checkerspot butterfly (<i>Euphydryas editha quino</i>)	FE	State Route 76 (Highway 76) Route Refinement (Milepost [MP] 8.3) Interstate 15 (I-15) Route Refinement (MP 11.2)	Low Potential
Amphibians			
Arroyo toad (<i>Anaxyrus californicus</i>)	FE SSC	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	Moderate Potential
Western spadefoot (<i>Spea hammondi</i>)	SSC	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	High Potential
Reptiles			
Belding's orange-throated whiptail (<i>Aspidoscelis hyperythra beldingi</i>)	SSC	Milepost 3.3 Route Refinement	High Potential
		Highway 76 Route Refinement (MP 8.3)	Present
		I-15 Route Refinement (MP 11.2)	Presumed Present
Coast horned lizard (=Blainville's horned lizard) (<i>Phrynosoma blainvillii</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	High Potential
Coast patch-nosed snake (<i>Salvadora hexalepis virgultea</i>)	SSC	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	High Potential
Coronado skink	SSC	Milepost 3.3 Route Refinement	Moderate Potential

¹ Explanation of state and federal listing status:

Federal listing codes:

FE: Federally Endangered Species

FT: Federally Threatened Species

BGEPA: Bald and Golden Eagle Protection Act

California listing codes:

CE: State-listed as Endangered

CT: State-listed as Threatened

FP: Fully Protected Species

SSC: Species of Special Concern

² Only species with a potential to occur are included in the table. The Biological Resources Technical Report (BRTR) includes additional species and habitat detail for each species. For additional information, refer to Table 6: Special-Status Wildlife Species with Potential to Occur in the BRTR.

Species Name	Listing Status ¹	Location	Potential to Occur ²
<i>Plestiodon skiltonianus interparietalis</i>		Highway 76 Route Refinement (MP 8.3)	High Potential
		I-15 Route Refinement (MP 11.2)	Moderate Potential
		Boulder Knolls Road Yard	Present
		Lake Hodges East Yard Buffer	Moderate Potential
Red diamond rattlesnake <i>Crotalus ruber</i>	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	High Potential
Two-striped gartersnake <i>Thamnophis hammondi</i>	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Moderate Potential
Silvery legless lizard <i>Anniella pulchra pulchra</i>	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	High Potential
Western pond turtle <i>Actinemys marmorata</i>	SSC	Highway 76 Route Refinement (MP 8.3)	Presumed Present
Birds			
Coastal cactus wren <i>Campylorhynchus brunneicapillus sandiegensis</i>	SSC	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Nesting: Low Potential Foraging: Low Potential
Coastal California gnatcatcher <i>Polioptila californica californica</i>	FT SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Nesting: High Potential Foraging: Present
Golden eagle <i>Aquila chrysaetos</i>	BGEPA FP	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Nesting: Low Potential Foraging: Moderate Potential

Species Name	Listing Status¹	Location	Potential to Occur²
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	SSC	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Nesting: Moderate Potential Foraging: Moderate Potential
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE CE	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	Nesting: High Potential Foraging: Presumed Potential
Least bittern (<i>Ixobrychus exilis hesperis</i>)	SSC	Highway 76 Route Refinement (MP 8.3)	Nesting: Moderate Potential Foraging: Moderate Potential
Northern harrier (<i>Circus cyaneus</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Nesting: Moderate Potential Foraging: Presumed Present
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE CE	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	Nesting: Moderate Potential Foraging: High Potential
Western burrowing owl (<i>Athene cunicularia hypugaea</i>)	SSC	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Nesting: Low Potential Foraging: Moderate Potential
White-tailed kite (<i>Elanus leucurus</i>)	FP	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Lake Hodges East Yard Buffer	Nesting: Moderate Potential Foraging: Presumed Present
Yellow warbler (<i>Setophaga petechia</i>)	SSC	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	Nesting: High Potential Foraging: Presumed Present
Yellow-breasted chat (<i>Icteria virens</i>)	SSC	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	Nesting: High Potential Foraging: Presumed Present
Mammals			

Attachment C: Special-Status Wildlife Species with Potential to Occur

Species Name	Listing Status ¹	Location	Potential to Occur ²
American badger (<i>Taxidea taxus</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Low Potential
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	SSC	Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	High Potential
Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Moderate Potential
Mexican long-tongued bat (<i>Choeronycteris mexicana</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Low Potential
Northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Moderate Potential
Pallid bat (<i>Antrozous pallidus</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	Low Potential
Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	SSC	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	High Potential
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard	High Potential

Species Name	Listing Status¹	Location	Potential to Occur²
San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	High Potential
Stephens' kangaroo rat (<i>Dipodomys stephensi</i>)	FE CT	Rainbow Hills Road Yard Boulder Knolls Road Yard Nutmeg Street Yard Montego Yard	Low Potential
Townsend's big-eared bat (<i>Corynorhinus townsendii townsendii</i>)	CC/SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	Moderate Potential
Western mastiff bat (<i>Eumops perotis californicus</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2) Boulder Knolls Road Yard Buffer Lake Hodges East Yard Buffer	Moderate Potential
Western red bat (<i>Lasiurus blossevillii</i>)	SSC	Highway 76 Route Refinement (MP 8.3) Lake Hodges East Yard Buffer	Moderate Potential
Western yellow bat (<i>Lasiurus xanthinus</i>)	SSC	Milepost 3.3 Route Refinement Highway 76 Route Refinement (MP 8.3) I-15 Route Refinement (MP 11.2)	High Potential

ATTACHMENT D: PLANT SPECIES OBSERVED DURING 2016 SURVEYS

ATTACHMENT D: PLANT SPECIES OBSERVED DURING 2016 SURVEYS

Gymnosperms**Cupressaceae - Juniper Family**

<i>Juniperus</i> sp.* ¹	Ornamental juniper
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Pinaceae

<i>Pinus canariensis</i> *	Canary Island pine
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Angiosperms - Dicots**Adoxaceae - Muskroot Family**

<i>Sambucus nigra</i> ssp. <i>caerulea</i> ²	Blue elderberry
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Aizoaceae - Fig-Marigold Family

<i>Carpobrotus edulis</i> *	Fig-marigold
<i>Mesembryanthemum crystallinum</i> *	Crystalline ice plant

Amaranthaceae - Amaranth Family

<i>Amaranthus albus</i> *	Tumble pigweed
<i>Amaranthus californicus</i>	California amaranth
<i>Atriplex semibaccata</i> *	Australian saltbush
<i>Salsola tragus</i>	Russian thistle

Anacardiaceae - Sumac Family

<i>Malosma laurina</i>	Laurel sumac
<i>Rhus integrifolia</i>	Lemonadeberry
<i>Schinus molle</i> *	Peruvian pepper tree
<i>Schinus terebinthifolius</i> *	Brazilian pepper tree
<i>Toxicodendron diversilobum</i>	Western poison-oak

Apiaceae - Umbel Family

<i>Daucus carota</i> *	Queen Anne's lace
<i>Foeniculum vulgare</i> *	Sweet fennel

Apocynaceae - Dogbane Family

<i>Nerium oleander</i>	Oleander
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Asteraceae - Sunflower Family

<i>Ambrosia psilostachya</i>	Western ragweed
<i>Artemisia californica</i>	California sagebrush
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	Coyote brush
<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i>	Mulefat
<i>Baccharis sarothroides</i>	Broom baccharis
<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i> *	Italian thistle
<i>Centaurea melitensis</i> *	Tocalote
<i>Corethrogyne filaginifolia</i>	Sand-aster
<i>Deinandra fasciculata</i>	Common tarplant

¹ sp. = species (singular), * = non-native species² ssp. = subspecies

<i>Encelia californica</i>	California encelia
<i>Erigeron canadensis</i>	Horseweed
<i>Euryops pectinatus</i> *	Yellow daisy bush
<i>Hazardia squarrosa</i>	Saw-toothed hazardia
<i>Hypochaeris glabra</i> *	Smooth cat's-ear
<i>Isocoma menziesii</i>	Goldenbush
<i>Lactuca serriola</i> *	Prickly lettuce
<i>Pseudognaphalium californicum</i>	California everlasting
<i>Sonchus asper</i> *	Prickly sow-thistle
<i>Xanthium strumarium</i>	Cocklebur
<i>Boraginaceae - Borage Family</i>	
<i>Eriodictyon californicum</i>	Yerba santa
<i>Heliotropium curassavicum</i>	Salt heliotrope
<i>Phacelia</i> sp.	Phacelia species
<i>Brassicaceae - Mustard Family</i>	
<i>Brassica nigra</i>	Black mustard
<i>Hirshfeldia incana</i>	Shortpod mustard
<i>Raphanus sativus</i>	Wild raddish
<i>Cactaceae - Cactus Family</i>	
<i>Cylindropuntia</i> sp.	Cholla
<i>Opuntia ficus-indica</i> *	Edible prickly pear
<i>Opuntia littoralis</i>	Coast prickly pear
<i>Cucurbitaceae - Guord Family</i>	
<i>Marah macrocarpus</i>	Wild cucumber
<i>Euphorbiaceae - Spurge Family</i>	
<i>Croton setiger</i>	Doveweed
<i>Euphorbia maculata</i> *	Spotted spurge
<i>Ricinus communis</i> *	Castor bean
<i>Fabaceae - Legume Family</i>	
<i>Acacia redolens</i>	Desert carpet
<i>Acmispon glaber</i> var. <i>glaber</i> ³	Deerweed
<i>Lupinus</i> sp.	Lupine species
<i>Fagaceae - Oak Family</i>	
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak
<i>Quercus berberidifolia</i>	Scrub oak
<i>Geraniaceae - Geranium Family</i>	
<i>Erodium</i> sp.*	Filaree
<i>Pelargonium</i> sp.*	Geranium
<i>Lamiaceae - Mint Family</i>	
<i>Marrubium vulgare</i> *	Horehound

³ var. = variety

<i>Salvia apiana</i>	white sage
<i>Salvia mellifera</i>	Black sage
Malvaceae - Mallow Family	
<i>Malacothamnus fasciculatus</i>	Bush mallow
Myrtaceae - Myrtle Family	
<i>Eucalyptus</i> spp. ⁴	Gum tree
<i>Melaleuca citrina</i>	Bottlebrush
Oleaceae - Olive Family	
<i>Olea europaea</i> *	Olive
Onagraceae - Evening Primrose Family	
<i>Gaura</i> sp.*	Ornamental gaura
Plantaginaceae - Plantain Family	
<i>Plantago major</i>	Broadleaf plantain
Platanaceae - Plane-Tree Family	
<i>Platanus racemosa</i>	Western sycamore
Polygonaceae - Buckwheat Family	
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Rumex crispus</i> *	Curly dock
Plumbaginaceae - Leadwort Family	
<i>Plumbago auriculata</i>	Cape leadwort
Rosaceae - Rose Family	
<i>Adenostoma fasciculatum</i>	Chamise
<i>Rhaphiolepis indica</i> *	Indian hawthorn
Rutaceae - Citrus Family	
<i>Cneoridium dumosum</i>	Spice bush
Salicaceae - Willow Family	
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood
<i>Salix lasiolepis</i>	Arroyo willow
Saururaceae - Lizard's-Tail Family	
<i>Anemopsis californica</i>	Yerba mansa
Solanaceae - Nightshade Family	
<i>Datura wrightii</i>	Thornapple
<i>Nicotiana glauca</i> *	Tree tobacco
Tamaricaceae - Tamarisk Family	
<i>Tamarix ramosissima</i> *	Salt cedar
Verbenaceae - Verbena Family	
<i>Lantana camera</i> *	Lantana

⁴ spp. = species (plural)

Angiosperms - Monocots

Asparagaceae - Agave Family

<i>Agave americana</i> *	Century plant
<i>Agave attenuata</i> *	Lion's tail agave
<i>Cordyline australis</i> *	Tī kōuka

Alliaceae - Onion Family

<i>Allium</i> sp.*	Ornamental onion
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Arecaceae - Palm Family

<i>Washingtonia robusta</i> *	Mexican fan palm
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Cyperaceae - Sedge Family

<i>Cyperus eragrostis</i>	Tall flatsedge
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Iridaceae - Iris Family

<i>Diets grandiflora</i>	Fairy iris
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Poaceae - Grass Family

<i>Arundo donax</i> *	Giant reed
<i>Avena barbata</i> *	Slender wild oat
<i>Bromus</i> spp.*	Brome species
<i>Cortaderia selloana</i> *	Pampas grass
<i>Cynodon dactylon</i>	Bermuda grass
<i>Elymus condensatus</i>	Giant wildrye
<i>Hordeum murinum</i> *	Foxtail barley
<i>Lamarckia aurea</i> *	Goldentop
<i>Pennisetum setaceum</i> *	Purple fountaingrass
<i>Phalaris aquatica</i> *	Harding grass
<i>Polypogon monspeliensis</i> *	Rabbit's-foot grass
<i>Schismus barbatus</i> *	Mediterranean grass
<i>Stipa</i> sp.	Needlegrass

Juncaceae - Rush Family

<i>Juncus bufonius</i>	Toad rush
<i>Juncus dubius</i>	Mariposa rush

Typhaceae - Cattail Family

<i>Typha latifolia</i>	Cattail
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ATTACHMENT E: WILDLIFE SPECIES OBSERVED DURING 2016 SURVEYS

ATTACHMENT E: WILDLIFE SPECIES OBSERVED DURING 2016 SURVEYS
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Insects

Argentine ant	<i>Linepithema humile</i>
Painted lady butterfly	<i>Vanessa cardui</i>

Amphibians

Chorus frog	<i>Pseudacris</i> spp.
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Reptiles

Belding's orange-throated whiptail ^{1,2}	<i>Aspidoscelis hyperythrus beldingi</i>
Coronado skink ^{1,2}	<i>Plestiodon skiltonianus interparietalis</i>
San Diego night snake	<i>Hypsiglena ochrorhyncha klauberi</i>
San Diego alligator lizard	<i>Elgaria multicarinata webbia</i>
Western side-blotched lizard	<i>Uta stansburiana elegans</i>
Western (Great Basin) fence lizard	<i>Sceloporus occidentalis longipes</i>

Birds

Turkey vulture	<i>Cathartes aura</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
American kestrel	<i>Falco sparverius</i>
California quail	<i>Callipepla californica</i>
Killdeer	<i>Charadrius vociferus</i>
Mourning dove	<i>Zenaida macroura</i>
Greater roadrunner	<i>Geococcyx californianus</i>
Anna's hummingbird	<i>Calypte anna</i>
Black phoebe	<i>Sayornis nigricans</i>
Say's phoebe	<i>Sayornis saya</i>
Cassin's kingbird	<i>Tyrannus vociferans</i>
California (Western) scrub-jay	<i>Aphelocoma californica</i>
American crow	<i>Corvus brachyrhynchos</i>
Bewick's wren	<i>Thryomanes bewickii</i>
House wren	<i>Troglodytes aedon</i>
Coastal California gnatcatcher ^{2,3}	<i>Polioptila californica californica</i>
Wrentit	<i>Chamaea fasciata</i>
Western bluebird ²	<i>Sialia mexicana</i>
Northern mockingbird	<i>Mimus polyglottos</i>
European starling ⁴	<i>Sturnus vulgaris</i>
Cedar waxwing	<i>Bombycilla cedrorum</i>

¹ California species of special concern

² Covered under the San Diego Gas & Electric Subregional Natural Communities Conservation Plan

³ Federally threatened species

⁴ Non-native species

Yellow-rumped warbler	<i>Dendroica coronata</i>
California towhee	<i>Pipilo crissalis</i>
Song sparrow	<i>Melospiza melodia</i>
White-crowned sparrow	<i>Zonotrichia albicollis</i>
House finch	<i>Carpodacus mexicanus</i>
Lesser goldfinch	<i>Carduelis psaltria</i>
House sparrow	<i>Passer domesticus</i>

Mammals

Brush rabbit	<i>Sylvilagus bachmani</i>
California ground squirrel	<i>Spermophilus beecheyi</i>
Coyote (tracks, scat)	<i>Canis latrans</i>
Raccoon (tracks)	<i>Procyon lotor</i>
Mule deer (tracks, scat) ²	<i>Odocoileus hemionus</i>
Mountain lion (tracks) ²	<i>Puma concolor</i>

ATTACHMENT F: HABITAT SUITABILITY SURVEY FOR STEPHENS' KANGAROO RAT

SCOTT TREMOR BIOLOGICAL CONSULTING

September 23, 2016

Todd A. Easley
SDG&E Environmental Programs
571 Enterprise St. - SD1460
Escondido, CA 92029-1244

Subject: Habitat Suitability Survey for Stephens' Kangaroo Rat (*Dipodomys stephensi*) at Proposed Laydown Yards Along the Interstate 15 Corridor in Northern San Diego County. Permit Number TE-787716-8.

Dear Mr. Easley:

This report is intended to provide a summary of habitat suitability surveys for the Stephens' kangaroo rat (*Dipodomys stephensi*) [SKR] within four proposed laydown yards along the Interstate 15 corridor (Project Site). Surveys were focused on the determination of potential for presence of the federally listed endangered SKR.

This report includes the survey methods and results; Maps and photos (Figures 1-9, see appendix 1); and a copy of my US Fish and Wildlife Service 10 (a)(1)(A) permit.

INTRODUCTION

Project Location

The project sites are located in unincorporated San Diego County, south of Fallbrook and north of Escondido (Figure 1). Maps of each proposed laydown yards are presented in Appendix 1.

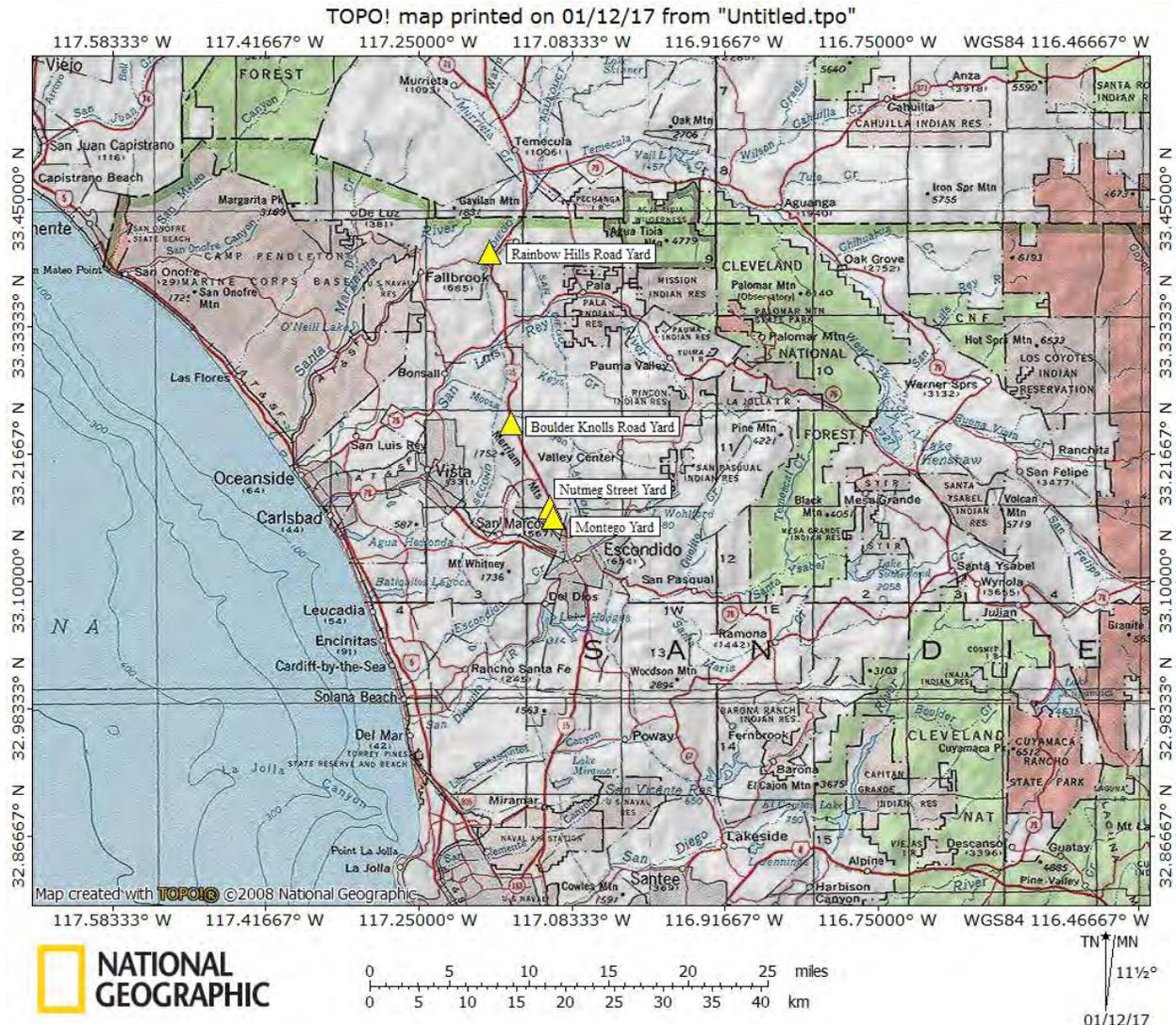


Figure 1. Yellow triangles overlay the four proposed laydown yards.

Existing Conditions

Currently, all proposed laydown yards are situated in fallow undeveloped lands and bordered by residential development or some type of agriculture. The soils vary between fine sand and loam with a flat to gradual slope. Each laydown yard is addressed below in more specific detail.

Rainbow Hills Road Yard (Figures 2 & 6)

Soils are Las Posas fine sandy loam and Wyman loam with 9 to 15% slope. Current land use consists of undeveloped land and a chipping mulch yard. Other recent activity shows sign of recent mowing. An abandoned avocado orchard on a steep slope lies adjacent to the proposed yard. The vegetation is non-native grassland dominated by brome grasses (*Bromus* spp.) and eight California live oak (*Quercus agrifolia*). Sign of other vertebrates include: Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), and California Quail (*Callipepla californica*).

Boulder Knolls Road Yard (Figures 3 & 7)

Soils are Visalia sandy loam with a 2 to 5% slope. Current land use is undeveloped ruderal land. Adjacent land use is residential but mostly open space. The vegetation is non-native grassland dominated by dense brome grasses (*Bromus* spp.). Sign of other vertebrates include: Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), and side-blotched lizard (*Uta stansburiana*).

Nutmeg Street Yard (Figures 4 & 8)

Soils are Ramona sandy loam and Vista coarse sandy loam with a 0 to 9% slope. Current land use is undeveloped ruderal land. Recent mowing has reduced the non-native grasses to near bare ground. Adjacent land is developed housing and open space dominated by coastal sage scrub. However, this site and adjacent lands are surrounded by paved roads on all sides. Sign of other vertebrates include: Botta's pocket gopher (*Thomomys bottae*), coyote (*Canis latrans*), and side-blotched lizard (*Uta stansburiana*).

Montego Yard (Figures 5 & 9)

Soils are Cienega coarse sandy loam, Escondido very fine sandy loam, Huerhuero loam with a 2 to 15% slope. Current land use is undeveloped ruderal land that appears to have been recently mowed. The non-native grassland is dominated with brome grasses (*Bromus* sp.) with patches of tobacco tree (*Nicotiana glauca*) and wild fennel (*Foeniculum vulgare*). Recent mowing has reduced vegetation to near bare ground. Immediately north of the site is dense riparian oak woodland. Sign of other vertebrates include: Botta's pocket gopher (*Thomomys bottae*), coyote (*Canis latrans*), and desert cottontail (*Sylvilagus audubonii*).

Background Information

The Stephens' kangaroo rat is a federally endangered species, considered threatened by the state, that is endemic to Riverside and San Diego Counties. It has a very restricted range that formerly extended into extreme southwestern San Bernardino County.

Stephens' kangaroo rat is a habitat specialist that occupies open grassland dominated by annual forbs or sparse coastal sage scrub with minimal shrub cover (30%) and extensive bare ground. Usually the habitat is vegetated with both native and non-native forbs, such as filaree, dove weed, tar plant, and goldfields. Extensive grass or shrub cover can exclude the Stephens' kangaroo rat by interfering with movement. Soils are usually loamy which allowing for digging and support of burrow systems. They usually avoid slopes greater than 40%. Often found near pocket gophers and California ground squirrels, the Stephens' kangaroo rat exploits other species' burrowing efforts when prime habitat is already occupied.

As a pioneer species the Stephens' kangaroo rat may colonize an area after some form of disturbance such as fire, grazing, or agriculture. These disturbances favor more open conditions and often provide the weedy forbs that they prefer.

METHODS

Based on location and habitat conditions (i.e. vegetation and soils) examined during a preliminary survey, four potential laydown yards were identified as having potential for SKR to occur and required further review. Each site was walked and appraised for potential by Scott Tremor on September 15, 2016.

RESULTS

Results are listed below for each laydown yard.

Rainbow Hills Road Yard

No sign of SKR was found at this location. No similar sized burrows were found other than Bottas pocket gopher (*Thomomys bottae*).

Boulder Knolls Road Yard

No sign of SKR was found at this location. No similar sized burrows were found other than Bottas pocket gopher (*Thomomys bottae*). Bare ground was limited as the dense brome grasses (*Bromus* spp.) dominated the site.

Nutmeg Street Yard

No sign of SKR was found at this location. No similar sized burrows were found other than Bottas pocket gopher (*Thomomys bottae*) and California ground squirrel (*Otospermophilus beecheyi*).

Montego Yard

No sign of SKR was found at this location. No similar sized burrows were found other than Bottas pocket gopher (*Thomomys bottae*) and California ground squirrel (*Otospermophilus beecheyi*).

SUMMARY

The nearest extant population known to date persists at Fallbrook Naval Weapons Station, roughly 9 km from the closest proposed yard. All are small and occur in highly fragmented areas, further reducing potential to occur. Despite reports of moderate appropriate habitat, the current conditions have a low probability of occurrence for Stephens' kangaroo rat, and sign was not found at any of the proposed laydown yards. Therefore it is presumed to be absent and protocol level surveys are not warranted.

Summary Table 1: Habitat conditions and sign of SKR at laydown yards.

Laydown Yard	Habitat	Potential to occur	SKR Sign Observed
Rainbow Hills Road Yard	Ruderal	Low	No
Boulder Knolls Road Yard	Ruderal	Low	No
Nutmeg Street Yard	Ruderal	Low	No
Montego Yard	Ruderal	Low	No

Appendix 1

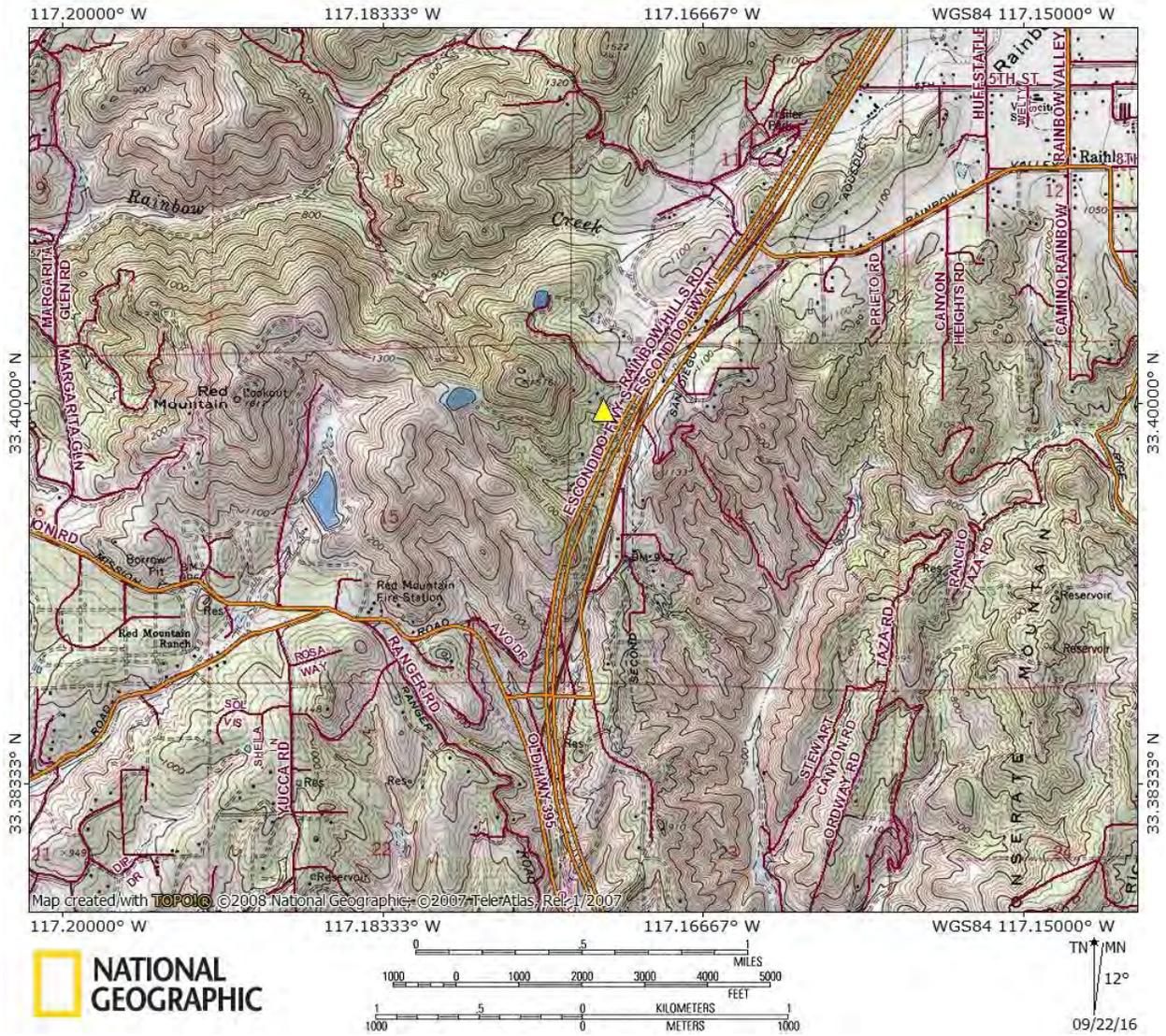


Figure 2. Rainbow Hills Road Yard, located 1.73 miles southwest of Rainbow (33.397162, -117.173284).

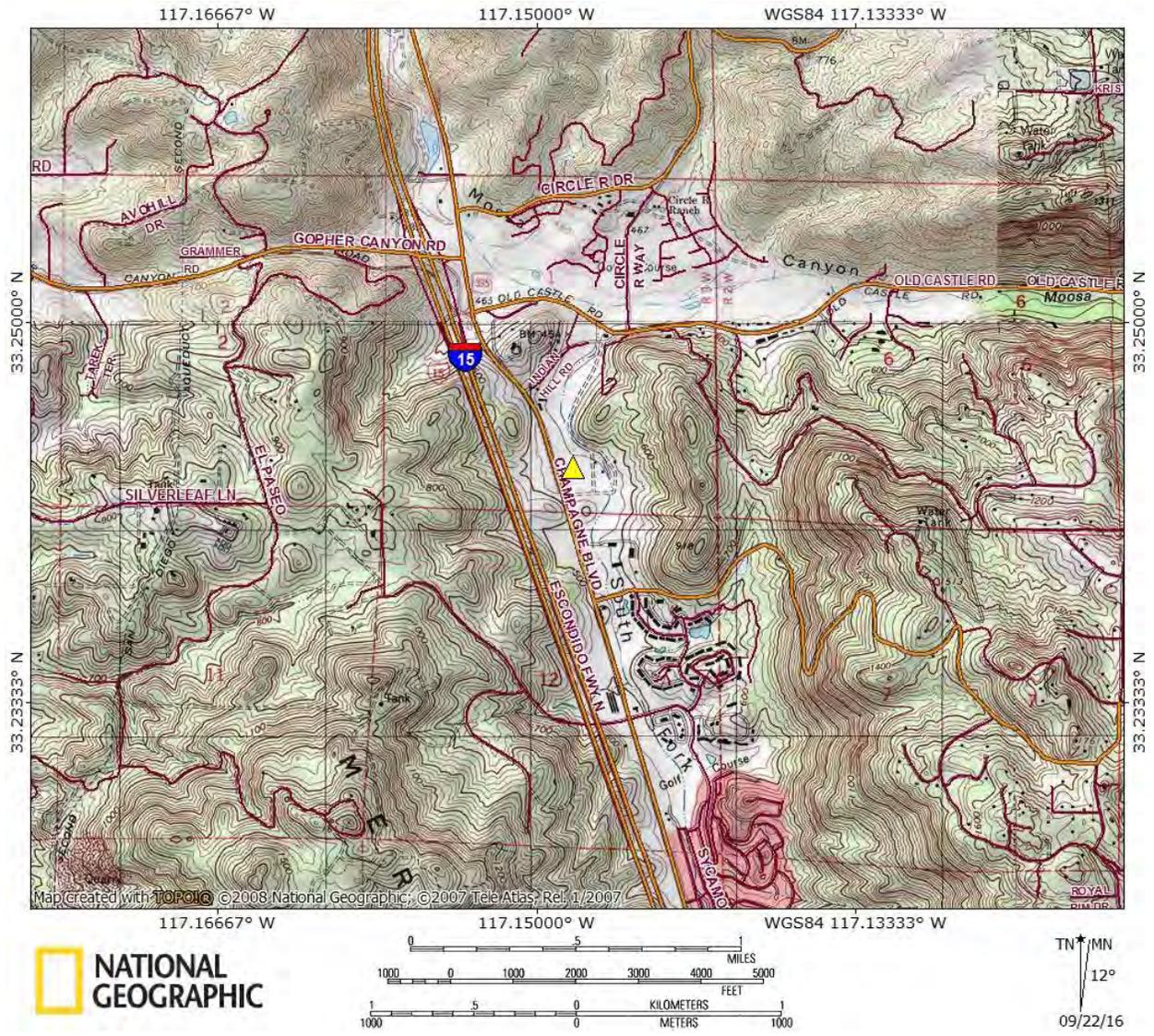


Figure 3. Boulder Knolls Road Yard, located 6.91 miles northwest of Valley Center (33.243457, -117.148331)

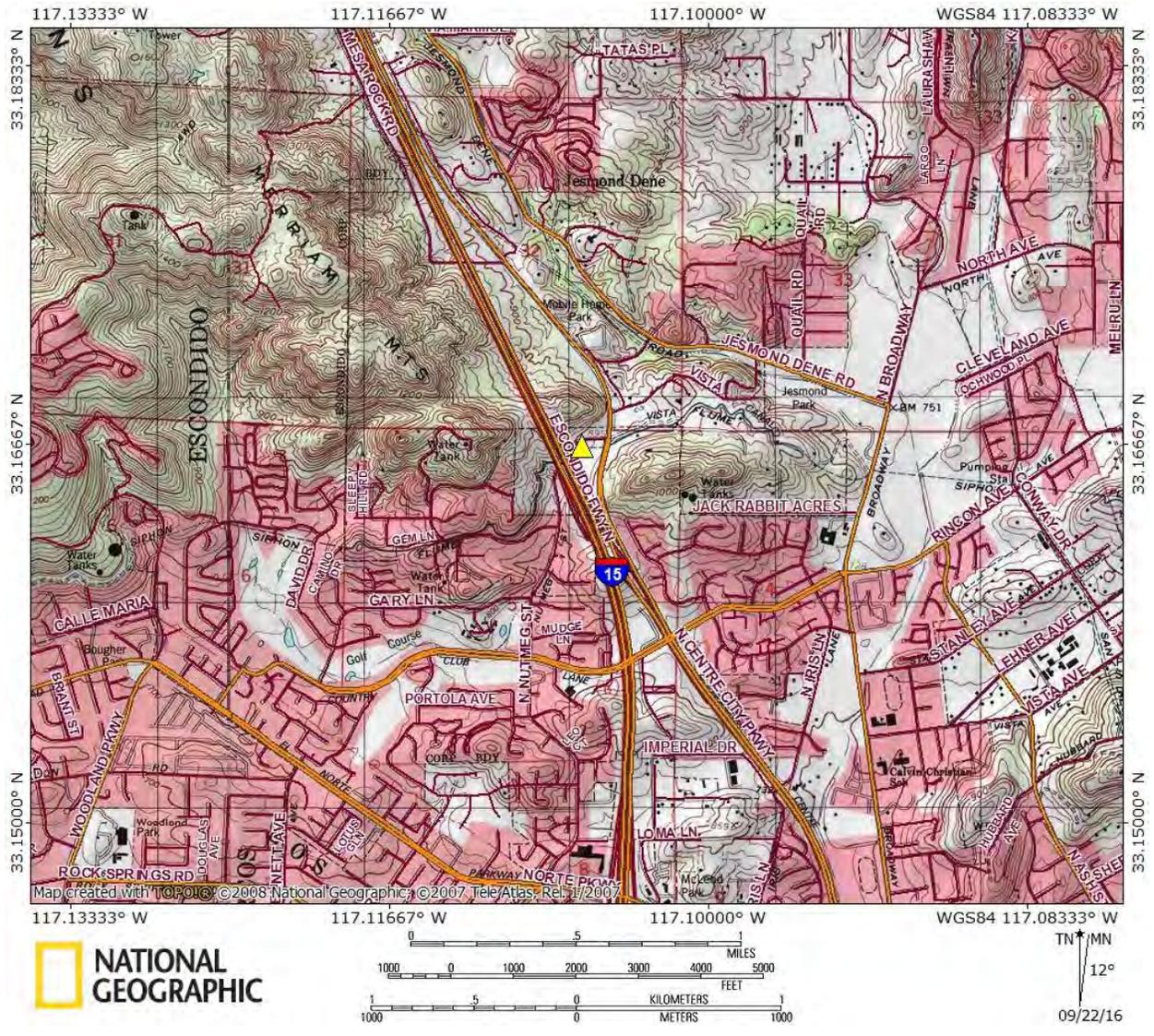


Figure 4. Nutmeg Street Yard, located 3.67 miles northwest of Escondido (33.166484, -117.106382).

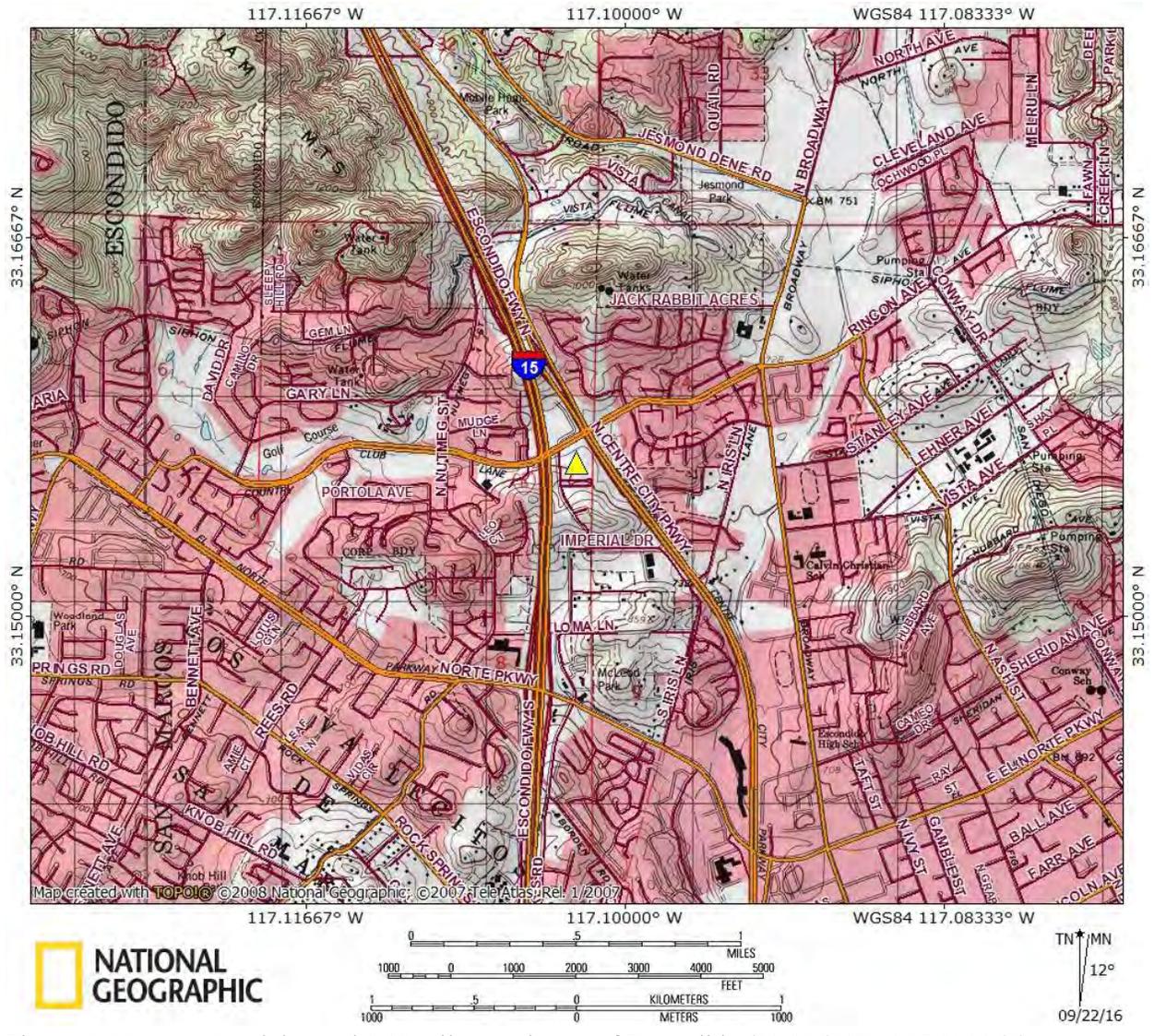


Figure 5. Montego Yard, located 2.81 miles northwest of Escondido (33.156997, -117.102360).



Figure 6. Rainbow Hills Road Yard



Figure 7. Boulder Knolls Road Yard



Figure 8. Nutmeg Street Yard



Figure 9. Montego Yard

