Appendix D
Biological Resources Assessment

Biological Resources Assessment, Jurisdictional Delineation, and Impact Assessment

Dockweiler Road Extension Project

Santa Clarita, California

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1.0 SUMMARY

The proposed project involves the extension of Dockweiler Drive from the Masters College site generally northward, connecting with the existing Arch Street at its intersection with Placerita Canyon Road and 12th Street. In addition, the proposed project includes a road extension that would connect the proposed Dockweiler Drive extension with Lyons Avenue. This extension would include a proposed bridge crossing of Newhall Creek (**Figure 1**). The proposed bridge will be comprised of four 25-foot-wide and 8-foot-deep openings in a concrete box bridge at the crossing of the Newhall Creek channel and the channel improvement to trapezoidal sections with 80-foot-wide soft base and 2:1 slopes. Elevations on the project site range from approximately 1,260 to 1,285 feet and the project site totals approximately 6.67 acres. Approximately 2 acres of this area is already paved or otherwise developed.

2.0 INTRODUCTION

This report summarizes the methods and results of a literature search and field investigations conducted by Impact Sciences, Inc. These investigations focused on the identification of biological resources existing or potentially occurring on the project site.

The purpose of this report is to provide the project applicant, the City of Santa Clarita (City), and reviewing regulatory agencies information regarding current on-site biological resources, the suitability of on-site habitats to support sensitive biological resources, and analyze impacts to these resources should the project be implemented.

3.0 METHODS

3.1 Project Site Descriptions

Due to the irregular shape of the proposed project, several terms are used to describe the project site in this report. "Project site" is defined as the disturbance area associated with the proposed project inclusive of the road right-of-way and adjacent areas disturbed by grading. "Project area" includes the project site as well as a 200 foot buffer occurring on either side of the grading limit line. The "project region" includes the Newhall, California US Geologic Survey (USGS) 7.5-minute quadrangle, in which the project site is located, as well as the following eight surrounding quadrangles: Mint Canyon, Green Valley, Warm Springs Mountain, Whitaker Peak, Val Verde, Santa Susana, Oat Mountain, and San Fernando.

3.2 Literature Search

Prior to any field investigations, documentation pertinent to biological resources that may occur on and near the proposed project site were reviewed and analyzed. Data sources reviewed included: (1) the

Federal Register listing package for the federally listed species known to occur in the area;[1] (2) literature pertaining to habitat requirements of sensitive species potentially occurring on the project site; (3) the most recent updates of California Natural Diversity Data Base[2] (CNDDB) information regarding sensitive species potentially occurring on and near the project site; and (4) the most recent updates of the California Native Plant Society[3] (CNPS) database. The CNPS database query focused on the project region and as such, included the Newhall, California USGS 7.5-minute quadrangle, in which the project site is located, as well as the surrounding Mint Canyon, Green Valley, Warm Springs Mountain, Whitaker Peak, Val Verde, Santa Susana, Oat Mountain and San Fernando quadrangles.

Additional information pertinent to biological resources that may occur within the project site, area, and region was also reviewed and analyzed. The following documents and sources of information included the following.

- Baldwin, B.G., D.H. Goldman, D. J. Keil, R. Patterson, T.J. Rosatti, and D. H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California.* Second Edition. University of California Press, Berkeley.

- California Department of Fish and Wildlife, Natural Diversity Database. September 2014. *Special Animals List*. Periodic publication. 52 pp.

- California Department of Fish and Game (January 2010). *Special Vascular Plants, Bryophytes, and Lichens List*. Natural Heritage Division, Natural Diversity Data Base.

- California Department of Fish and Game (September 2010). *Natural Communities List*. Available at: http://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf

- California Department of Fish and Game, *Vegetation Classification and Mapping Program, List of Vegetation Alliances and Associations*. September 2010. http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. (FWS/OBS-79/31.) US Fish and Wildlife Service, Washington, DC.

- Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands: California (Region 0). (Biological Report 88[26.10].) US Fish and Wildlife Service, Ft. Collins, Colorado.

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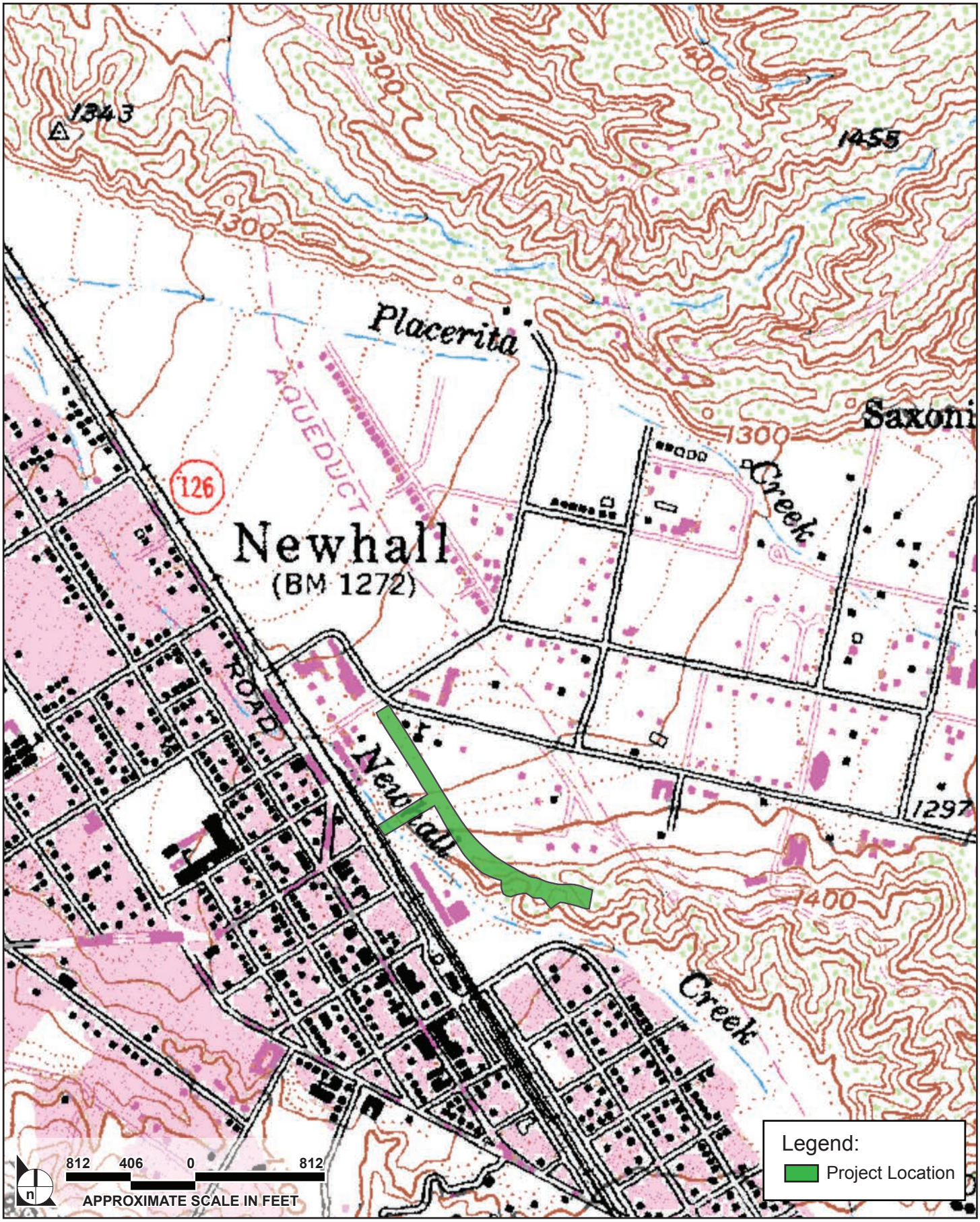
1 US Fish and Wildlife Service. *Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Proposed Rule* Federal Register 50, CFR Part 17. US Department of the Interior. Washington, DC. 1996.

2 California Department of Fish and Wildlife (CDFW). California Natural Diversity Database (CNDDB). Commercial Version, Update September 2, 2014.

3 California Native Plant Society. Accessed September 2, 2014. *Inventory of Rare and Endangered Plants*. Sacramento, CA. Web site. Available at: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi



SOURCE: USGS, October 2014

FIGURE **1**

Project Location

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- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society, Sacramento. http://www.dfg.ca.gov/biogeodata/vegcamp/veg_manual.asp

3.3 Field Surveys

On June 17, July 17, and October 10, 2013, on-site field surveys were conducted by Impact Sciences biologists to delineate jurisdictional resources, inventory wildlife and plants, and map vegetation associations that occur within the project site and area. The entire project area was traversed along meandering transects (**Table 1**). Vegetation associations were mapped in the field using aerial photographs and direct observation.

For the jurisdictional delineation, features within the project area were assessed for indicators of stream, riparian, or wetland functions. Plant taxonomy used in the delineation followed the current flora of California[4]

Table 1
Survey Details Table

Survey Date	Survey Type	Time Period	Methods	Surveyors
6/17/2013	Jurisdictional Delineation	0800–1400	Walking transects, soil evaluation test pits, stream channel measurements	Dr. Edith Read
7/17/2013	Wildlife Survey	0800–1500	Walking transects within and adjacent to project limits. Visual and audible identifications.	Dave Crawford
10/10/2013	Vegetation Mapping	1230–1830	Walking transects, utilization of aerial photographs	Damini Sindhar

Nomenclature in this report is based on the following resources:

Plants:

- Munz, P. 1974. *A Flora of Southern California*. Berkeley, California: University of California Press.
- Hickman, J.C. (Ed.). 1993. *The Jepson Manual: Higher Plants of California*. Berkeley, California: University of California Press.
- Baldwin, B 2012: *The Jepson Manual: Vascular Plants of California, 2nd edition. Berkeley*, California*: University of California Press.*

[4] Baldwin, B.G., D.H. Goldman, D. J. Keil, R. Patterson, T.J. Rosatti, and D. H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California.*2nd Edition. University of California Press, Berkeley.

- Jepson Flora Project (eds.) 2013. Jepson eFlora, http://ucjeps.berkeley.edu/IJM.html, accessed on June 5 and Oct 4, 2013.

Wildlife:

- Reptiles and amphibians: The Center for North American Herpetology Academic Portal to North American Herpetology: http://www.cnah.org/index.asp
- Birds: The American Ornithologists' Union Check-list of North American Birds: http://www.aou.org/checklist/north/full.php
- Mammals: The Smithsonian National Museum of Natural History List of North American Mammals: http://www.mnh.si.edu/mna/main.cfm or CNDDB when specific subspecies are listed.

Although focused special-status plant surveys were not conducted specifically for this project, they were conducted in spring of 2014 on the adjacent Masters College site situated to the east and included the eastern portion of this project's boundaries. Similarly, focused US Fish and Wildlife Service (USFWS) protocol surveys for California gnatcatcher were performed on the adjacent Master's College site and the survey reach did extend to the west and included all suitable habitats within the project area associated with the proposed Dockweiler Road extension project.

4.0 RESULTS

4.1 General

As described, the proposed project involves the extension of Dockweiler Drive from the Masters College site generally northward, connecting with the existing Arch Street at its intersection with Placerita Canyon Road and 12th Street. In addition, the proposed project includes a road extension that would connect the proposed Dockweiler Drive extension with Lyons Avenue. This extension would include a proposed bridge crossing of Newhall Creek (**Figure 1**). As described above, elevations on-site range from approximately 1,260 to 1,285 feet and the project site totals approximately 2.32 acres.

Existing land uses in the vicinity of the project site include railroad tracks and a train station to the south, industrial and commercial development to the southwest, west, and northwest and north. Rural residential land uses occur to the northeast and undeveloped open space occurs east of the project site.

4.2 Literature Search

The literature search indicated several special-status plant and wildlife species have been recorded from the project region. Only observed species and those with a moderate to high potential of occurrence on the project site or area are described in this report. However, all species defined within a nine-quad search, including the project site, are presented, and analyzed in the Special Status Species Tables (**Appendices A** and **B**).

Special status species include species listed as endangered, threatened, or rare under the federal or state Endangered Species Acts, Candidate Species for listing as endangered or threatened, California Fully Protected Species, and, pursuant to *California Environmental Quality Act (CEQA) Guidelines* Section 15380(d), all other species tracked by the California Natural Diversity Database (CNDDB) which are considered by the California Department of Fish and Wildlife (CDFW) to be those species of greatest conservation concern. Plant species with a California Rare Plant Rank (Rank) of 1 (plants presumed extinct in California, or rare, threatened, or endangered in California and elsewhere), Rank 2 (plants that are rare, threatened, or endangered in California but more common elsewhere), or Rank 4 (plants of limited distribution in California) are included in this definition. Plant species with a Rare Plant Rank of 3 (plants for which insufficient information is available to determine their status) are not included in this definition. Species tracked by the CNDDB are listed in CDFW's lists of Special Plants and Special Animals.

4.3 Field Surveys

4.3.1 Vegetation Communities

Seven distinct native vegetation communities were identified within the project site. In descending order of prevalence, these include chamise chaparral, rubber rabbitbrush scrub, scale broom/mulefat scrub, California sagebrush/California buckwheat scrub, scale broom scrub, coast prickly pear scrub, and narrow-leaf willow thicket. Developed and disturbed areas were also mapped, and include developed/ornamental landscaping, cleared/disturbed areas, exotic trees, and components of the native plant communities listed above (**Figure 2**). Each of these vegetation communities is described below.

Chamise Chaparral (*Adenostoma fasciculatum*) Alliance (1.64 acres)

This is the dominant native vegetation association within the project site. This community is dominated by chamise along with gray California buckwheat (*Eriogonum fasciculatum* var. *polifolium*), occasional chaparral yucca (*Hesperoyucca whipplei*). This alliance dominates the southeastern portion of the site and includes a small pocket of coast prickly pear cactus scrub (*Opuntia littoralis*).

Disturbed Chamise Chaparral (0.32 acre)

An area of Disturbed Chamise Chaparral Alliance also occurs in the southeastern portion of the site, adjacent to cleared/disturbed areas.

Rubber Rabbitbrush (*Ericameria nauseosa)* Scrub Alliance (0.74 acre)

This Alliance is dominated by rubber rabbitbrush, along with occasional big sagebrush (*Artemisia tridentata*) and California buckwheat (*Eriogonum fasciculatum*) and occurs in three areas of the site. Rubber rabbitbrush is a fast-growing shrub that develops quickly after disturbance.

Scalebroom–Mulefat Scrub (*Lepidospartum squamatum–Baccharis salicifolia* Shrubland Alliance) (0.43 acre)

Scalebroom-mulefat scrub occurs on the banks (0.32 acre) and in the active channel of Newhall Creek (0.11 acre). Dominant plants present within this alliance include scalebroom and mulefat, occurring together in densities ranging from 10 percent to 40 percent cover. **Figure 2** illustrates the separation, but for the purposes of this discussion, it is considered one habitat.

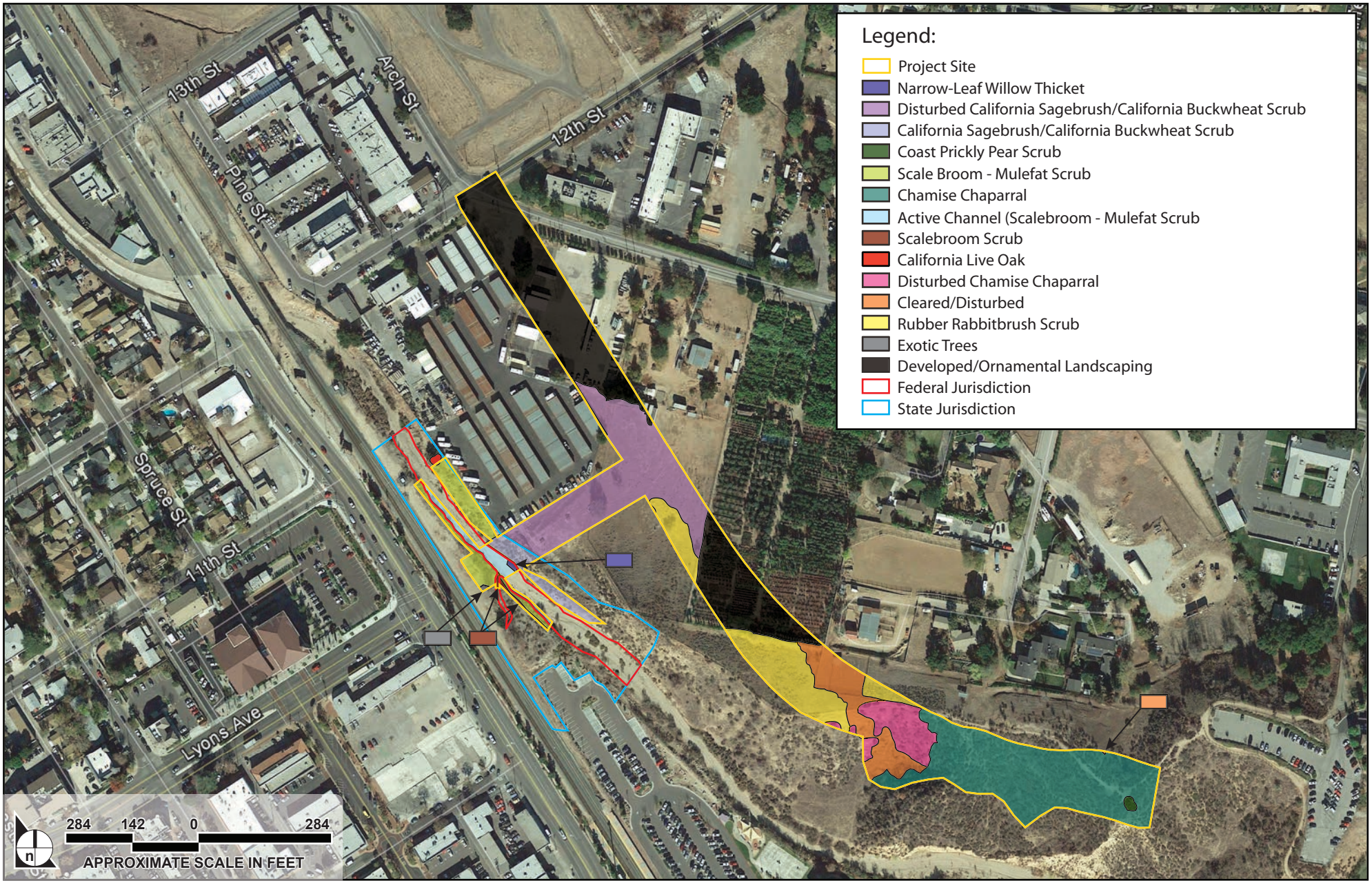
Vegetation is sparse within the Newhall Creek channel. The most common species include scalebroom and mulefat, together resulting in less than 10 percent cover. With the exception of a small cluster of narrow-leaf willow (described below), the creek channel is characterized as a scoured sandy streambed.

California Sagebrush-California Buckwheat Scrub (*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance) (0.18 acre)

The area identified as California Sagebrush-California Buckwheat Scrub supports approximately 80 percent native cover where it occurs on a south-facing slope above Newhall Creek in the southwestern portion of the project site. Sawyer and Keeler-Wolf describe this plant community as *Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance since the dominant shrub is California sagebrush and the co-dominant shrub is California buckwheat. Other shrubs present include chamise (*Adenostoma fasciculatum*), black sage (*Salvia mellifera*), non-native grasses and forbs such as wild oats (*Avena* sp.), and brome (e.g., *Bromus sp.*).

Disturbed California Sagebrush-California Buckwheat Scrub (1.28 acres)

An additional area of disturbed California Sagebrush-California Buckwheat Scrub occurs near the center of the site. This community has undergone disturbance in the recent past, evidenced by the sparse nature of the vegetation and influx of non-native species. Remnants of California sagebrush and California buckwheat remain, though the area is now co-dominated by non-native grasses and forbs including summer mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*) and yellow star thistle (*Centaurea solstitialis*). The weedy native cocklebur (*Xanthium strumarium*) is also present.



SOURCE: Google Inc., October 2014, Imagery December 2013

FIGURE **2**

Vegetation Communities

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Scalebroom Scrub (*Lepidospartum squamatum* Shrubland Alliance) (0.02 acre)

Areas dominated by scalebroom are present on both sides of Newhall Creek in the south-western portion of the project site within a relatively flat area. This community includes a few scattered mulefat and big sagebrush (*Artemisia tridentata*) shrubs.

Coast Prickly Pear Scrub - *Opuntia littoralis* Shrubland Alliance (0.015 acre)

One small patch of coast prickly pear is found in the extreme southeast extent of the property, surrounded entirely by chamise chaparral.

Narrow-Leaf (Sandbar) Willow Thickets - *Salix exigua* Shrubland Alliance (0.007 acre)

Narrow-leaf willows occur in a small stand (25 feet x 12 feet) within the alignment of the proposed bridge. While this species is a wetland indicator, other wetland indicators are absent. The vegetation occurs on the opposite side of Newhall Creek from the ephemeral tributary, and likely receives periodic dry-season runoff from streets to the west.

Coast Live Oak (0.008 acre)

Two coast live oak trees (*Quercus agrifolia*) occur along with one blue elderberry (*Sambucus nigra* ssp. *caerulea*) immediately adjacent to and outside the development limits along Newhall Creek, north of the proposed bridge location.

Developed/Ornamental Landscaping (1.98 acre)

These areas support structures, pavement, or non-native ornamental landscaping associated with development. This is the second largest vegetation association within the project site. Two small clusters of non-native locust trees (*Robinia* sp.) are situated within the project site, between the railroad tracks and Newhall Creek in the southern portion of the project site, and occupy approximately 178 square feet (0.004 acre). These exotic (non-native) either volunteered or where planted. This species is considered undesirable because of its tendency to invade natural areas where it may out-compete native plants.

Cleared/Disturbed Areas (0.46 acre)

This area occurs in several small locations generally in the southern portion of the site. These areas are nearly devoid of vegetation, supporting mostly open bare soil.

4.3.2 Wildlife

Weather during the surveys was warm and clear, providing conditions suitable for high wildlife activity. However, due to the relatively small size of the project site and area, combined with the presence of nearby urban development and the associated human disturbance, wildlife diversity on the project site is relatively low. The only reptile observed on site was side-blotched lizard (*Uta stansburiana*). Tracks, scat, burrows, and other sign observed indicate the presence of California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*). Common bird species recorded during the field surveys included mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), and Say's phoebe (*Sayornis saya*). All of these species are relatively tolerant of human encroachment. Several additional avian species are expected to occur on site seasonally. Small rodents including Botta's pocket gopher (*Thomomys bottae*) and deer mouse (*Peromyscus maniculatus*) are likely present and evidence of California ground squirrel (*Otospermophilus beecheyi*) and evidence of coyote (*Canis latrans*) were observed.

4.3.3 Wildlife Movement

Habitat used by wildlife as a movement corridor generally link large areas of open space that are otherwise separated by rugged terrain, changes in vegetation, human disturbance, or the encroachment of urban development. The fragmentation of natural habitat creates isolated 'islands' of vegetation that may not individually provide sufficient area to accommodate sustainable populations and can adversely impact genetic and species diversity. Corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic exchange with separate populations; (2) provide escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire, flood, or disease) will result in population or species extinction; and (3) serving as travel paths for animals that require larger home ranges to meet their normal requirements of food, water and cover.

The proposed project site is generally surrounded on three sides by development, including road networks. However, Newhall Creek provides a passage through the developed areas between the Santa Clara River and the Angeles National Forest to the southeast.

Stream corridors in general are considered important movement corridors for wildlife, because they provide water, food, and often cover by riparian vegetation for protection from predators. On and near the proposed project site Newhall Creek does not flow year-round. Riparian vegetation on the project site is limited to sparse shrubs, and steep banks on the project site also limit available cover. However, Newhall Creek does provide, as stated above, a connection between the Santa Clara River and the Angeles National Forest to the southeast. Although, much of the length of the creek occurs adjacent to

dense development and wildlife activity is expected to be somewhat limited, Newhall Creek is considered part of a wildlife movement or migration corridor that connects larger areas of natural open space.

4.3.4 Special-Status Plant and Animal Resources

Based upon review of the California Natural Diversity Database (CNDDB) database for special-status plant species of the Newhall, California and eight adjacent quadrangles, 37 special-status plant and 39 special-status animal species have been reported from the region.

The potential for special-status species to occur on the project site is based on the proximity of the project site to previously recorded occurrences in the CNDDB database, habitat requirements of each species, evaluation of on-site vegetation and habitat quality, topography, elevation, soils, surrounding land uses, and geographic ranges of special-status plant and wildlife species known to occur in the region. Potential special-status plant species that may occur on project site is summarized in **Appendix A, Special-Status Plant Species Recorded from the Project Region.** Likewise, special status wildlife species recorded in the region that may occur on the project site are summarized in **Appendix B, Special-Status Wildlife Species Recorded from the Project Region**.

The occurrence potential described in **Appendices A** and B are classified according to the following:

> *Not Expected: There is no suitable habitat present on the proposed project site (i.e., habitats on the proposed project site are clearly unsuitable for the species requirements [e.g., foraging, breeding, cover, substrate, elevation hydrology, plant community, disturbance regime, etc.]). The species has an extremely low probability of being found on the proposed project site and no further surveys are required.*
>
> *Low Potential: Either significantly limited quantity and/or quality of suitable habitat is present on the proposed project site (i.e., not enough area of the habitat is present to support the species, few of the habitat components meeting the species requirements are present and/or the majority of habitat on the proposed project site is unsuitable or of very low quality). There are no or few recent known records of occurrence in the near vicinity of the proposed project site. The species has a low probability of being found on the proposed project site and no further surveys are required.*
>
> *Moderate Potential: Some suitable habitat is present on the proposed project site (i.e., some of the habitat components meeting the species requirements are present and/or the quantity the habitat on the proposed project site is marginal). Additionally, there are known records of occurrences in the region of the proposed project site, but not necessarily in the immediate vicinity. The species has a moderate probability of being found on the proposed project site and additional surveys may be required.*
>
> *High Potential: Suitable quantity and quality of habitat is present on the proposed project site (i.e., all habitat components meeting the species requirements are present and/or habitat(s) on the proposed project site is highly suitable or of high quality). Additionally, there are recent known*

records of occurrences in the vicinity of the proposed project site. Species having a high probability of being found on the proposed project site may require additional surveys to fully determine presence/absence.

Present: Species was observed on the proposed project site during surveys associated with this report or by other persons.

4.3.4.1 Special-Status Plants

Based on habitat conditions and the small size of the proposed project site, only general botanical surveys were conducted on project site and area. Focused rare plant surveys were performed adjacent to and east of the project site. The only special-status plants observed during the field investigations were two coast live oaks. No other special-status plants are considered to have a high potential for occurrence within the project site.

Native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10 passed by the City Council on April 25, 1989). A permit is required for encroachment into the Protected Zone, defined as 5 feet outside the dripline and further defined as extending no less than 15 feet outward from the trunk of an oak tree.

4.3.4.2 Special-Status Wildlife

No special-status wildlife species were directly observed during field investigations conducted on the proposed project site or area. Although Newhall Creek traverses the project site, it is considered a seasonal drainage, and it is apparent within the project site, when flows do occur, they are rapid enough to scour the channel. Therefore, none of the special-status fish defined in **Appendix B** are expected to occur on site, with the possible exception of a potential temporary presence after storm events. Likewise, aquatic conditions are not suitable for special-status amphibians defined in **Appendix B**. In most areas of the proposed project site the banks of Newhall Creek are too severe for amphibians to traverse. As such, they too are expected to have no more than a low potential for occurrence. Some of the more highly motile species such as birds and bats may briefly and infrequently occur on site to forage. However, there is no on-site habitat of a size or quality that could reasonably support a sustainable resident population of any of the special-status wildlife species identified in **Appendix B**. Notwithstanding, one special-status reptile is considered to have a moderate potential to occur on site.

Silvery legless lizard (*Anniella pulchra pulchra*), ***California Species of Special Concern.*** This small lizard is often mistaken for a snake or worm since, as it has no limbs. Silvery legless lizard spends most of its life below surface soils where it forages on insects and larvae. It is most commonly found in and around the roots of trees and shrubs, often beneath leaf litter where its prey is most abundant. Moisture is a key ingredient in its habitat requirement. Silvery legless lizards will dig deeper into the soils to reach the

correct moisture level. As such, this species is rarely observed unless one actively seeks it out. Though apparently very dry at the surface, some of areas within the project site may have sub-surface soils with the moisture content necessary to support this species. Therefore silvery legless lizard is considered to have a moderate potential for occurrence on the proposed project site.

4.3.5 Jurisdictional Waters, Streambed, and Riparian Resources

The portion of Newhall Creek present on the proposed project site is under the jurisdictional authority of federal and state regulatory agencies. Impacts to "Waters," streambeds and adjacent riparian vegetation, as defined in the regulations cited below, typically require authorizations from these agencies. Regulatory agencies and the limits of their jurisdiction are discussed below.

4.3.5.1 US Army Corps of Engineers (USACE)

Federal regulations of "Waters of the United States" stem from Section 10 of the Federal Rivers and Harbors Act of 1899, enacted to regulate activities within navigable waters. In 1972, the federal Clean Water Act was passed. This act regulates discharges into Waters of the United States and Section 404 of this act regulates activities including fills placed into wetlands that are adjacent to navigable waters.

Waters of the United States are defined in 33 CFR 328.3(a) as:

- All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters.
- Waters that are or could be used by interstate or foreign travelers for recreational or other purposes.
- Waters from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- Waters that are used or could be used for industrial purpose by industries in interstate commerce.
- All impoundments of waters otherwise defined as Waters of the US under the definition.
- The territorial seas.
- Tributaries of Waters of the US.
- Wetlands adjacent to Waters of the US.

USACE jurisdiction in non-tidal waters typically extends to the ordinary high water mark (OHWM). The OHWM for intermittent streams, for example, can be determined by "the fluctuations of water as indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR 328.3(e)). In arid areas of the southwest, the OHWM may occur at a lower level than where the typical physical indicators are present, due to unusually high flows not occurring on a typical annual cycle (Allen, et al. 2001). Most impacts to areas delineated as Waters of the United States, if determined to be jurisdictional by the USACE, require a project to obtain approval under the authority of the Clean Water Act and its implementing regulations.

4.3.5.2 California Department of Fish and Wildlife (CDFW)

The State of California regulates water resources under Sections 1600 to 1619 of the Fish and Game Code of California. Section 1602 mandates that:

> *An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake or dispose of debris, waste, or other material where it may pass into any river stream, or lake.*

Unless certain requirements are met, CDFW considers most natural drainages to be streambeds unless it can be demonstrated otherwise. Streambeds are defined in the California Code of Regulations Title 14, Chapter 1, Section 1.72 as follows:

> *A stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and that support fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.*

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses, and is often extended to the limit of riparian habitats that are located contiguous to the water resource that function as part of the watercourse system. In this analysis, the area generally corresponding to the limit of riparian habitats located contiguous to the water resource is referred to as the "resource line." Section 2785(e) of the Fish and Game Code of California states:

> *Riparian habitat means lands which contain habitat which grows close to and which depends on soil moisture from a nearby freshwater source.*

4.3.5.3 Regional Water Quality Control Board

Section 401 of the Federal Clean Water Act authorizes the State of California to certify federal permits and licenses. The state's implementing regulations to conduct certifications are codified under the California

Code of Regulations Title 23 Waters, Sections 3830–3869. Projects qualifying for an USACE Section 404 Permit must submit materials for review to the appropriate Regional Water Quality Control Board (RWQCB) and request a Section 401 Certification. Much of the same information (project description, potential impacts, and mitigation measures) necessary to apply for USACE Section 404 and Fish and Game Code Section 1603 Permits is required for the Section 401 Certification.

Direct and indirect impacts on wetland and riparian areas may also be subject to the jurisdiction of several additional state and federal agencies, including the Los Angeles RWQCB.

4.3.6 Delineation Results

A delineation of regulatory agency jurisdictional limits was performed in September 2013 (**Appendix C**).

A map illustrating the topography of the region, as well as photographs showing the project site are provided in **Appendix C**. **Figure 4** shows the vegetation and jurisdictional features in the survey area.

Two jurisdictional features are defined within the project site, area, and region:

1. **Newhall Creek**, upstream of its confluence with Placerita Creek and the south fork of the Santa Clara River. This creek is mapped by the USGS as a "blue-line" intermittent stream. On and near the project site the direction of flow is from southeast to northwest. Banks of the creek are nearly vertical, with the south bank containing artificial fill (pieces of concrete and asphalt). Railroad tracks and Railroad Avenue are situated to the west, beyond the top of the bank. Areas immediately east of the creek are vacant except for an industrial yard northeast of the proposed bridge location. No surface water was present during the April survey and sparse vegetation cover within the channel indicates frequent scour during the rainy season. Therefore, this wetland feature on the project site is best described as intermittent riverine, relatively permanent water (RPW) that has seasonal continuous flow, is a tributary to the Santa Clara River which flows into the Pacific Ocean, and can be defined as a traditionally navigable water (TNW).

   On the project site, vegetation and surface features indicate that seasonal flows migrate across the entire channel, which averages 35 feet in width at the base (federal jurisdiction). The distance between the tops of the banks (limits of state jurisdiction) average approximately 100 feet. No indicators of prolonged water saturation or ponding, such as surface mud cracks, were observed on site during the field survey.

2. **Un-named ephemeral tributary to Newhall Creek**. This narrow tributary is about 3.5 feet in width at its base (federal jurisdiction) and is entirely within state jurisdiction over Newhall Creek. It is assumed that flow from this tributary enters the project area from a culvert underneath the railroad tracks and Railroad Avenue (this could not be confirmed during the survey due to presence of a homeless camp at the presumed culvert location). The distinct bed and bank structure of this feature, and regional topography, indicate this tributary is more than a "gully" resulting from localized erosion. Wetland indicators are absent from this feature.

Appendix C provides details regarding the vegetation occurring within the delineation survey boundaries. Of the vegetation identified in this area, only narrow-leaf willow thicket is a wetland indicator (*Salix exigua* – Facultative Wet). However, it is concluded that this thicket is probably not a jurisdictional wetland at the federal or state level. More detail is provided in the discussion that follows.

4.3.7 Wetland Determination

4.3.7.1 Federal

Hydrology and soils present in the project area and site (floodplains/gravel bars and sand) are naturally problematic for wetland delineation. The following paragraphs include excerpts (in italics) from the Arid West supplement[5] of the wetland determination procedure for problematic sites where soils may meet the definition of a hydric soil but do not exhibit typical indicators. Our observations are described for each step of the procedure.

1. *Verify that one or more indicators of hydrophytic vegetation are present or that the vegetation is disturbed or problematic. If so, proceed to step 2.*

   Site observations: Narrow-leaf willow has an indicator ranking for the Arid West of Facultative Wetland. Therefore, it can be concluded hydrophytic vegetation is present.

2. *Verify that at least one primary or two secondary indicators of wetland hydrology are present or that indicators are absent due to disturbance or other factors. If so, proceed to step 3. If indicators of hydrophytic vegetation and/or wetland hydrology are absent, then the area is probably no-wetland and no further analysis is required.*

   Site observations: No other primary indicators of wetland hydrology are present. Only one secondary indicator of wetland hydrology (dominance of Facultative Wet vegetation) is present.

Based on this information, and the observation that redoximorphic soil features are sparse and, where present, are faintly expressed, it can be concluded that the willow thicket (300 square feet or 0.007 acre) is probably not a federally jurisdictional wetland. Unfortunately, the Arid West procedure does not allow for a more definitive conclusion.

4.3.7.2 State

According to the wetland definition at the state level, it is concluded that the narrow-leaf willow thicket would not meet the definition of wetland. While narrow-leaf willow is a hydrophyte, there is no evidence of continuous or recurrent saturation of the upper substrate and no evidence of anaerobic conditions are present.

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5 USACE, 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0). Report No. ERDC/EL TR-08-28, issued September 2008.

4.3.8 Non-Wetland Jurisdiction

The proposed bridge will impact Newhall Creek in a section of the creek that is classified as "riverine and relatively permanent water, with continuous flow at least seasonally." The bridge may also impact a narrow, ephemeral tributary to Newhall Creek. The extent of permanent and temporary construction impacts need to be known in order to provide a more precise analysis of impacts.

5.0 PROJECT IMPACTS

5.1 Methodology

Direct impacts of a proposed project on biological resources typically involve the loss, modification, or disturbance of natural habitat (i.e., plant communities or other naturally occurring areas) which in turn, directly and indirectly affect plant and wildlife species dependent on that habitat. The significance of potential impacts on biological resource is determined by an evaluation of the overall biological value of a habitat area in comparison with significance threshold criteria that are described below. The relative value of each of the plant communities present on site is measured by such factors as disturbance history, biological diversity, importance to particular plant and wildlife species, uniqueness or sensitivity status, as well as the surrounding environment and the presence of special-status resources. The significance of impacts with respect to direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the project site and from a regional perspective, and the sensitivity status if the species is considered special status by resource agencies. These factors are evaluated based on the results of on-site biological surveys and studies, results of literature and database reviews, and established and recognized ecological and biodiversity theories and assumptions.

5.2 Direct Impacts

5.2.1 Vegetation

As described in **Section 4.3.1**, eight vegetation communities occur on the project site that include: California Sagebrush-California Buckwheat Scrub, Disturbed California Sagebrush- California Buckwheat Scrub, Scale Broom–Mulefat scrub, Scalebroom Scrub, Active Channel, Exotic Trees, Developed/Ornamental Landscaping, and Cleared (**Figure 2**). Site grading plans indicate that within the project site 2.32 acres of vegetation would be removed (100 percent of the vegetation resources present). Of the vegetation communities impacted Disturbed California Sagebrush-California Buckwheat Scrub is the dominant plant community present by area and approximately 0.63 acre of this habitat would be lost through site grading and project implementation.

Due to its proximity to adjacent developed areas, the site has been subject to historic disturbances. Combined with its small size (2.32 acres), invasive plant species observed on the project site (e.g., mustard, tree tobacco, cocklebur, yellow star thistle) indicate a high percentage of plants that are generally associated with ruderal or highly disturbed places.

The loss of 2.32 acres of vegetation on the project site is considered adverse. However, due to the disturbance history, its small size, the lack of sensitive plant communities, the lack of structure for wildlife, and high percentage of invasive and non-native plant species generally associated with disturbed areas, impacts associated with the loss of 2.32 acres of vegetation present on-site is considered less than significant.

5.2.2 Wildlife

Construction activity and grading operations of the proposed project would disturb and/or threaten the survival of common wildlife species present. Some species would be expected to relocate to other areas of similar habitat within the local area. However, wildlife that migrates to off-site areas is vulnerable to mortality by predation, potential conflicts with people and cars, and unsuccessful competition for food and territory. It is expected that species of low mobility (particularly small mammals, amphibians, and reptiles) would be lost during site preparation, grading, and construction.

Site grading and project implementation would eliminate approximately 2.32 acres of natural habitat present on-site, and would result in an incremental reduction in native wildlife species abundance and diversity. However, due to nearby urban development and the associated human disturbance, field investigations indicate wildlife diversity and abundance on the project site is relatively low. The only reptile observed on site was side-blotched lizard (*Uta stansburiana*). Tracks, scat, burrows, and other sign observed indicate the presence of California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*). Small rodents including deer mouse (*Peromyscus maniculatus*) are likely also present and evidence of coyote (*Canis latrans*) was observed. Common bird species recorded during the field surveys included mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), and Say's phoebe (*Sayornis saya*). All of these species are relatively tolerant of human encroachment. Several additional avian species are expected to occur on site seasonally. Because of the relatively common occurrence of these wildlife species that would be displaced or lost, project implementation is not expected to cause a current wildlife population on or adjacent to the project site to drop below self-sustaining levels. Therefore, impacts to common wildlife species is not considered significant.

5.3 Significance Threshold Criteria

The City of Santa Clarita's Environmental Guidelines are the City's Thresholds of Significance for the purpose of CEQA. Because these guidelines incorporate all minimum thresholds of significance identified in the *State CEQA Guidelines*, thresholds of significance defined in Appendix G of the *State CEQA Guidelines* are not repeated here.

5.3.1 City of Santa Clarita Environmental Guidelines/Thresholds of Significance

According to the City of Santa Clarita Environmental Guidelines, a project would have a significant effect on the environment if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.

The first five criteria in the Santa Clarita Environmental Guidelines are addressed in the Direct Impacts analysis provided below. The sixth criterion is not relevant to the proposed project, because the project site is not located within an area defined as a Habitat Conservation Plan or Natural Community Conservation Plan.

5.3.2 Consistency with Defined Thresholds of Significance

5.3.2.1 Threshold 1

Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS?

Analysis

An assessment of biological resources present on the project site determined that one special-status wildlife species has a moderate potential to occur within the project site and could be directly impact through project implementation.

Silvery legless lizard is a California species of special concern. On the project site, some limited habitat suitable for this species is present in the sandier terraces of Newhall Creek and possibly within the areas of scrub habitat north of the creek.

This species is almost completely fossorial (i.e., occurring beneath the surface) and is dependent upon moisture levels in the soils where they live. During dry periods they will burrow deeper to find the necessary levels of moisture. As such, silvery legless lizard can be difficult to find, especially in dry seasons or years. Although sands within the Newhall Creek bed may currently be suitable for silvery legless lizard, they are unlikely to occur within the creek itself as it periodically supports storm flows and would scour any away legless lizards that could be seeking refuge. Therefore, the only suitable habitat remaining is a small area above the ordinary high water mark, north of the creek. This area may support individual species of silvery legless lizard, but is not likely to support a sustainable population.

The grading plan indicates the areas north of the site would be disturbed during grading and project construction. Although it can be concluded that bridge construction associated with the proposed project would not impact populations of silvery legless lizard, disturbances associated with grading and implementation of the road extension may impact individuals of this California species of special concern. Therefore, impacts are considered significant without mitigation.

Additionally, most native bird species when nesting, are protected by the Migratory Bird Treaty Act and the California Fish and Game Code, which prohibit the take (defined as destroy, harm, harass, etc.) of bird nests with eggs or young. Project-related activities associated with site preparation and construction could result in the direct loss of active nests or the abandonment of active nests by adult birds should grading occur during the nesting season. The loss of active bird nests would be in conflict with the Migratory Bird Treaty Act and the California Fish and Game Code. As such, impacts to active nests are a significant impact without mitigation.

Conclusion

Without mitigation, the project could result in potentially significant impacts to silvery legless lizard and active nesting birds. Implementation of **Mitigation Measure BIO-1** and **Mitigation Measure BIO-2** would reduce impacts to silvery legless lizard and nesting birds to a less than significant level.

5.3.2.2 Threshold BIO-2

Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS?

Analysis

Riparian habitat or other habitat defined as significant does not occur on the project site or within the project area.

Conclusion

Given that riparian habitat is not present on site direct impacts would not occur and impacts are not considered significant. No mitigation is proposed or is required.

5.3.2.3 Threshold BIO-3

Will the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Analysis

Based on field investigations, a small area of narrow-leaf willow thicket (300 square feet or 0.007 acre) is present. Where it occurs on-site, redoximorphic soil features are sparse and faintly expressed and as such the narrow-leaf willow thicket present on the project site is probably not a federally jurisdictional wetland. Further, according to the wetland definition at the state level, narrow-leaf willow thicket present on-site would not meet the criteria of wetland as defined by the State of California. While narrow-leaf willow is a hydrophyte, there is no evidence of continuous or recurrent saturation of the upper substrate and no evidence of anaerobic conditions are present.

Two jurisdictional features do occur within the project site and area. Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek occur on the project site and fall under the jurisdiction of the CDFW. Although these jurisdictional do not support riparian vegetation or sensitive wetland resources, Newhall Creek does support features that lie within the jurisdiction of CDFW.

As discussed in above, the proposed bridge and associated infrastructure would result in both temporary and permanent impacts to areas of the Newhall Creek and its associated tributary and are classified as "riverine and relatively permanent water, with continuous flow at least seasonally" and as such are

under CDFW jurisdiction. Without consultation with, and a formal agreement with CDFW, such impacts would be in violation of the Fish and Game Code and, are considered a significant impact.

Conclusion

Without mitigation, the project would result in potentially significant impacts to CDFW jurisdictional resources (i.e., Newhall Creek and its associated tributary). **Mitigation Measure BIO-3** would reduce impacts to jurisdictional resources to a less than significant level.

5.3.2.4 Threshold BIO-4

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

Analysis

The proposed project site is generally surrounded on three sides by development and road networks. However, Newhall Creek does extend through the site and provides a passage through developed areas between the Santa Clara River and the Angeles National Forest to the southeast.

Stream corridors in general are considered important movement corridors for wildlife, because they provide water, food, and often cover by riparian vegetation for protection from predators. On and near the proposed project site Newhall Creek does not flow year-round. Riparian vegetation on the project site is limited to sparse shrubs, and steep banks on the project site limit cover. However, Newhall Creek does provide, as stated above, a connection between the Santa Clara River and the Angeles National Forest. Though much of the length of the creek occurs adjacent to dense development and wildlife activity is expected to be somewhat limited, Newhall Creek is considered part of a wildlife movement or migration corridor that connects larger areas of natural open space.

To limit impacts to wildlife movement, an open span bridge is proposed where the proposed roadway extension crosses Newhall Creek. As designed, this bridge would not result in any barrier to wildlife movement and would serve to protect Newhall Creek as a functioning wildlife movement corridor.

Conclusion

The project as proposed would not result in significant impacts to wildlife movement. No mitigation measures are proposed or are required.

5.3.2.5 Threshold BIO-5

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Analysis

The City of Santa Clarita Open Space Element includes several goals that focus on the preservation and protection of biological resources. Each relevant goal is defined below followed by an analysis of the consistency of this project with that goal of the Open Space Element.

Goal 3: Goal 3 of the Santa Clarita General Plan Open Space and Conservation Element is "to protect significant ecological resources and ecosystems, including, but not limited to, sensitive flora and fauna habitat areas."

Consistency: Riparian habitat or other sensitive biological habitat does not occur on the project site or within the project area. As such, no impact to riparian or sensitive other sensitive biological resources would occur as a result of project implementation. The project is consistent with Goal 3 of the City of Santa Clarita Open Space Element.

Policy 3.1: Incorporate standards for a Significant Ecological Areas (SEA) Overlay Zone in the Municipal Zoning Code.

Consistency: The project site does not occur in an area defined by the City of Santa Clarita as a Significant Ecological Area (SEA). Given that this project would not disturb any portion of a defined SEA the project is considered consisted with Policy 3.1 of the City of Santa Clarita Open Space Element.

Policy 3.2: Encourage the preservation of oak woodlands, oak savannahs, and individually significant oak trees through enforcement and revisions to the Oak Tree Ordinance.

Consistency: Oak trees, oak woodlands, or oak savannah do not occur on the project site and none would be directly or indirectly impacted by project implementation. Therefore, the project as proposed is considered consisted with Policy 3.2 of the City of Santa Clarita Open Space Element.

Policy 3.7: Preserve to the extent feasible natural riparian habitat and ensure that adequate setback is provided between riparian habitat and surrounding urbanization.

Consistency: Riparian habitat does not occur on the project site or within the project area. As such no impact to riparian habitat would occur as a result of project implementation. The project is consistent with Policy 3.7 of the City of Santa Clarita Open Space Element.

Policy 3.10: Development shall consider to the extent feasible, preservation of wildlife corridors and provide adequate setbacks.

Consistency: The proposed project site is generally surrounded on three sides by development, including road networks. However, Newhall Creek does extend through the site and provides a passage through developed areas between the Santa Clara River and the Angeles National Forest to the southeast.

Stream corridors in general are considered important movement corridors for wildlife, because they provide water, food, and often cover by riparian vegetation for protection from predators. On and near the proposed project site, Newhall Creek does not flow year-round. Riparian vegetation on the project site is limited to sparse shrubs, and steep banks on the project site limit available cover. However, Newhall Creek does provide a connection between the Santa Clara River and the Angeles National Forest. Although, much of the length of the creek occurs adjacent to dense development in the vicinity of the project site, wildlife activity is expected to be somewhat limited. However, Newhall Creek is considered part of a wildlife movement or migration corridor that connects larger areas of natural open space.

To limit impacts to wildlife movement, an open span bridge is proposed where the proposed roadway extension crosses Newhall Creek. As designed, this bridge would eliminate any barrier to wildlife movement and would serve to protect Newhall Creek as a functioning wildlife movement corridor. Therefore, the project as proposed would not result in direct or indirect impacts to wildlife movement and no mitigation measures are proposed or are required. Therefore, the project is consistent with Policy 3.7 of the City of Santa Clarita Open Space Element.

5.4 Indirect Impacts

Indirect impacts to biological resources would occur in those habitat areas that remain proximal to the project site subsequent to project construction and operation. It is expected that implementation of the proposed project would result in indirect impacts to biological resources in the following ways:

- Construction activity;
- Increase in populations of non-native plant species;
- Increased light and glare;

- Stormwater runoff

Indirect impacts associated with the proposed project are not quantifiable but are reasonably foreseeable. As such, the discussion that follows provides a common-sense identification of the types and magnitude of indirect or secondary impacts such that decision makers and the general public are aware of this project's indirect impact potential. This type of analysis is consistent with the requirements of CEQA.

5.4.1 Construction Activity

Project construction (particularly site clearing and grading operations and implementation of the road surface) would have the potential to impact surrounding areas including adjacent plant communities and plant and animal species. Specifically, these impacts can include displacement and disturbance of wildlife, which could result in possible nest or den abandonment during the breeding season, siltation and erosion into drainages, excessive dust accumulation on vegetation that could result in the degradation or loss of some plant species, and soil compaction.

Construction-related activities could have adverse effects on plant and wildlife habitat, and together, would be considered a significant impact. Implementation of **Mitigation Measure BIO-4** would reduce these construction-related impacts to levels that are not considered significant.

5.4.2 Increase in Populations of Non-Native Species

Subsequent to project completion, the number of non-native plant and wildlife species occurring in the vicinity of the roadway alignment would be expected to increase. These species are more adapted to urban environments could potentially displace native species because of their ability to compete more effectively for resources. Non-native plants tend to be more adaptable to urban or disturbed settings and can out-compete native plants for available resources.

However, observations indicate historical and ongoing development in the vicinity of the project site have already supported continual and ongoing increases and proliferation of non-native plant and wildlife species populations in the area adjacent to the project site. Consequently, the proposed project is not expected to substantially increase the distribution of non-native plants and wildlife in adjacent open space areas situated to the east.

Therefore, impacts to the remaining natural areas as a result of potential increases in non-native plants and wildlife resulting from project implementation are expected to be less than significant, given compliance with **Mitigation Measure BIO-5**.

5.4.3 Increased Light and Glare

It is logical to assume that nighttime headlamp illumination would increase in areas adjacent to the project site. Nighttime light can disturb breeding and foraging behavior and can potentially alter breeding cycles of birds, mammals, and nocturnal invertebrates. Headlamp illumination could deter some animal species, especially the larger mammals, from using Newhall Creek as a wildlife movement corridor. If uncontrolled, such light could adversely impact the composition and behavior of the animal species that occur in these areas. The project site is currently surrounded on three sides by development, and much of the site and nearby natural area already receives some nighttime illumination from the adjacent urban areas. However, the project would increase light and glare effects proximal to the Newhall Creek corridor. **Mitigation Measure BIO-6** would decrease this impact to less than significant.

5.4.4 Stormwater and Urban Runoff

It is expected that stormwater runoff would be limited to pavement runoff during periodic storm events. Runoff from paved surfaces can increase eutrophication, deplete oxygen levels, increase long-term buildup of toxic compounds and heavy metals, and other adverse effects to biological resources associated with aquatic systems. Although this impact is not quantifiable, it is reasonable to assume runoff could substantially affect special-status species potentially occurring downstream from the project site and incrementally diminish habitat values for fish, wildlife, or plants, and degrade the quality of the environment.

As described above, any runoff that flows into the Newhall Creek could result in increased eutrophication, depleted oxygen levels, long-term build-up of toxic compounds and heavy metals downstream as Newhall Creek connects to the Santa Clara River. Although potentially significant, the City's standard stormwater requirements are specifically designed to minimize these effects. Therefore, with implementation of the required design criteria, impacts to Newhall Creek resulting from stormwater runoff would be less than significant.

6.0 MITIGATION MEASURES

Mitigation measures defined in defined below would eliminate impacts associated with this project to levels that are not considered significant.

6.1 Direct Impacts

Mitigation Measures

BIO-1: The applicant shall retain a qualified biologist with a CDFW Scientific Collection Permit and Memorandum of Understanding to conduct preconstruction surveys for the silvery

legless lizard within the project site and area. In the event this species is located on the project site during preconstruction surveys all individuals shall be relocated, with the concurrence of the City and CDFW, to an approved site with suitable habitat. Surveys and relocation of silvery legless lizard may occur prior to construction; however, focused surveys must occur within 30 days prior to construction. Survey and relocation methods shall be approved by CDFW prior to commencement of grading.

BIO-2: Active nests of native bird species are protected by the Migratory Bird Treaty Act (16 USC 704) and the California Fish and Game Code (Section 3503). If activities associated with construction or grading are planned during the bird nesting/breeding season, generally January through March for early nesting birds (e.g., Coopers hawks or hummingbirds) and from mid-March through September for most bird species, the applicant shall have a qualified biologist conduct surveys for active nests. The project management shall endeavor to avoid the breeding season.

In the event it is not feasible to avoid the nesting season, a qualified biologist shall perform weekly nesting bird surveys beginning 30 days prior to initiation of ground-disturbing activities, with the last survey conducted no more than three days prior to the start of clearance/construction work. If ground-disturbing activities are delayed, additional pre-construction surveys shall be conducted so that no more than three days have elapsed between the survey and ground-disturbing activities.

Surveys shall include examination of natural habitat for nesting birds. Several bird species such as killdeer and night hawks are known to nest on bare ground. Protected bird nests that are found within the construction zone shall be protected by a buffer deemed suitable by a qualified biologist, and verified by CDFW. Typically, a 300-foot buffer is required for most species and a 500-foot buffer for raptor species. Buffer areas shall be delineated with orange construction fencing or other exclusionary material that would inhibit access within the buffer zone. Installation of the exclusionary material delineating the buffer zone shall be verified by a qualified biologist prior to initiation of construction activities. The buffer zone shall remain intact and maintained while the nest is active (i.e., occupied or being constructed by the adults bird(s)) and until young birds have fledged and no continued use of the nest is observed, as determined by a qualified biologist.

BIO-3: Prior to project construction, the following is required to mitigate impacts to jurisdictional resources:

Areas of impact proposed by the project shall be calculated and permits for these proposed impacts shall be obtained (the discharge of fill into USACE jurisdictional areas will require a permit pursuant to Section 404 of the Clean Water Act and a 401 Certification from the State Water Resources Control Board, and any modification to a streambed, including removal of riparian vegetation, will require a streambed alteration agreement from CDFW pursuant to Section 1600 of the California Fish and Game Code). Both the streambed alteration agreement and the 401 and 404 permits will require specific mitigations for any impacts within their respective jurisdictions.

Because the proposed bridge is a 'span' design, it does not require footings within the bed of the stream. However, plan designs do include approximately 450 feet of bank stabilization on both sides of the stream that would lie within CDFW, USACE and Regional Water Quality Control Board jurisdiction. Since little vegetation exists within this drainage, it is uncertain what mitigation these regulatory agencies may require.

The stream in the impacted area would not be conductive to re-vegetation as the area of the project is deeply incised with little existing vegetation and newly planted vegetation would likely be washed away with the next storm event.

Mitigation can be completed off site. Because there is essentially no riparian vegetation being removed with implementation of this project, revegetation off site, in a location approved by the City and CDFW, would be accomplished at a 1:1 area ratio.

Upon City and agency approval of a suitable location, a detailed restoration plan shall be prepared that provides a planting palette, planting methods, and irrigation plan (as appropriate). The plan will also include a five-year monitoring effort to ensure success of the restoration effort. The monitoring plan will include monitoring methods, monitoring frequency, success criteria, and contingency actions should the success criteria not be met for any reason. Annual monitoring reports shall be provided to both CDFW and the City.

BIO-4: The following guidelines shall be implemented to minimize impacts on remaining biological resources on the site as a result of construction and grading activities and to ensure that potential impacts on these resources will remain less than significant.

A City-approved biologist shall be retained by the applicant as a construction monitor to ensure that incidental construction impacts on retained biological resources are avoided or minimized. Responsibilities of the construction monitor shall include the following:

- Attend all pre-grading meetings to ensure that the timing and location of construction activities do not conflict with mitigation requirements.
- Conduct meetings with the contractor and other key construction personnel, describing the importance of restricting work to within the project boundaries and outside of the preserved areas. The monitor shall also work with the contractor to determine the most appropriate staging/storage areas for equipment and materials.
- Guide the contractor in marking/flagging the construction area limits, in accordance with the final approved grading plan.
- Periodically and routinely visit the site during construction to coordinate and monitor compliance with the above provisions.

The construction contractor shall install temporary erosion control measures to reduce impacts to and protect on site drainages from excess sedimentation, siltation, and erosion. These measures shall consist of minimization of existing vegetation removal; the use of temporary soil covers, such as hydro-seeding with native species, mulch/binder and erosion control blankets to protect exposed soil from wind and rain erosion; and/or the installation of silt fencing, berms, and dikes to protect storm drain inlets and drainages.

No changing of oil or other fluids, or discarding of any trash or other construction waste materials shall occur on the project site. Vehicles carrying supplies, such as concrete, shall not be allowed to empty, clean out, or otherwise place materials into natural areas on or immediately adjacent to the site.

Any equipment or vehicles driven and/or operated within or adjacent to drainages shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. No equipment maintenance shall be conducted within the drainage channels or within 50 feet of channels. (Fuel-powered vehicles and equipment shall not be left idling or operated beyond periods needed to accomplish approved tasks.)

Construction personnel shall be prohibited from entry into areas outside the designated construction area, except for necessary construction related activities, such as surveying. All such construction activities in or adjacent to remaining open space areas shall be coordinated with the project biologist.

Standard dust control measures of the South Coast Air Quality Management District shall be implemented to reduce impacts on nearby plants and wildlife. This includes a variety of options to reduce dust including replacing ground cover in disturbed areas as quickly as possible, watering active sites regularly, and suspending all excavating and grading operations during periods of high winds.

Upon completion of construction, the contractor shall be held responsible to restore any haul roads, access roads, or staging areas that are outside of approved grading limits. This restoration shall be done in consultation with the project biologist.

BIO-5: Any landscaping plan(s) associated with the project shall be reviewed by a qualified biologist or resource specialist, who shall recommend appropriate provisions to prevent invasive plant species from colonizing in natural areas. These provisions may include the following: (1) review and screening of proposed plant palette and planting plans to identify and avoid the use of invasive species; (2) weed removal during the initial planting of landscaped areas; and (3) the monitoring for and removal of weeds and other invasive plant species as part of ongoing landscape maintenance activities.

BIO-6: All street lighting shall be downcast luminaries or directional lighting with light patterns directed away from natural areas.

7.0 CUMULATIVE IMPACTS

As discussed, the development of the project site would potentially result in impacts to biological resources if left unmitigated. The outlined mitigation measures would reduce those impacts to a less than significant level. There are no proposed developments in the immediate vicinity of the site. The only exception to this would be the proposed Masters College project situated to the east, which is currently being evaluated. However, the impacts from both the Masters College project and the Dockweiler Road extension that is the subject of this analysis have been previously evaluated as part of the City's General Plan. The extension of Dockweiler Road would not be growth inducing as this project is consistent with the City's General Plan for this area. Therefore, development associated with the proposed project and other development in the vicinity of the project site in the City Santa Clarita, would not result in a significant cumulative impact related to biological resources.

APPENDIX A

Special-Status Plant Species Recorded From the Project Vicinity

Appendix A
Special-Status Plant Species Recorded From the Project Vicinity

Scientific and Common Name	Status			Habitat Requirements	Elevation Range, Life Form, and Flowering Period	Potential Occurrence
	Federal	State	CNPS			
Nevin's barberry *Berberis nevinii*	FE	SE	1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub; sandy or gravelly	274–825 m S(e) March–June	**Low Potential**; subject parcel is in species' range and limited suitable habitat is present. This perennial shrub was not observed on site. Potential is low due to it not being seen and the high level of disturbance on site.
Round-leaved filaree *California macrophylla*	--	--	1B.1	Cismontane woodland, valley and foothill grassland; clay soils	15–1200 m AH March–May	**Not Expected**. No suitable habitat present on site.
Slender mariposa lily *Calochortus clavatus* var. *gracilis*	--	--	1B.2	Chaparral, coastal scrub, valley and foothill grassland	360–1,000 m PH(b) March–June	**Low Potential**. Very limited suitable habitat present on site.
Late-flowered mariposa lily *Calochortus fimbriatus*	--	--	1B.3	Chaparral, cismontane woodland; riparian woodland; often serpentinite	275–1,905 m PH(b) June–August	**Not Expected**. No suitable habitat present on site.
Plummer's mariposa lily *Calochortus plummerae*	--	--	4.2	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland within granitic/rocky substrate	100–1,700 m PH(b) May–July	**Low Potential;** Only a small amount of marginally suitable habitat is present and the site does not contain granitic/rocky substrate.
Pierson's morning-glory *Calystegia peirsonii*	--	--	4.2	Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland	30–1,500 m RH April–June	**Low Potential;** Very limited suitable habitat is present on site. None observed during general botanical surveys.
San Fernando Valley spineflower *Chorizanthe parryi* var. *fernandina*	FC	SE	1B.1	Coastal scrub, valley and foothill grassland; sandy soils	150–1,220 m AH April–July	**Low Potential**; subject parcel is in species' range but typical habitat is lacking. The plant was not observed on site.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	--	--	1B.1	Coastal scrub, chaparral, cismontane woodlands, valley and foothill grassland; sandy or rocky openings	275–1,220 m AH April–June	**Low Potential**; subject parcel is in species' range but typical habitat is lacking. The plant was not observed on site.

Scientific and Common Name	Status			Habitat Requirements	Elevation Range, Life Form, and Flowering Period	Potential Occurrence
	Federal	State	CNPS			
Santa Susana tarplant *Deinandra minthornii*	--	CR	1B.2	Chaparral and coastal scrub; associated with sandstone outcroppings and rocky areas.	280–760 m S (d) July–November	**Not Expected**. No suitable habitat present on site.
Slender-horned spineflower *Dodecahema leptoceras*	FE	SE	1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan); sandy	200–760 m AH April–June	**Low Potential**. Typical habitat and alluvial fan soils not present on site.
San Gabriel bedstraw *Galium grande*	--	--	1B.2	Broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest	425–1,500 m S(d) January–July	**Not Expected**. No suitable habitat present on site.
Palmer's grapplinghook *Harpagonella palmeri*	--	--	4.2	Chaparral, coastal scrub, valley and foothill grassland; clay	20–955 m AH March–May	**Low Potential**. Limited suitable habitat and no suitable clay soils.
Newhall sunflower *Helianthus inexpectatus*	--	--	1B.1	Marshes and swamps, riparian woodland; freshwater, seeps.	None listed RH August–October	**Not Expected**. No suitable habitat present on site.
Ross' pitcher sage *Lepechinia rossii*	--	--	1B.2	Chaparral, in soil derived from reddish fine-grained sedimentary rock.	305–790 m S(e) May–September	**Not Expected**. No suitable habitat present on site.
Robinson's pepper-grass *Lepidium virginicum* var. *robinsonii*	--	--	1B.2	Chaparral, coastal scrub	1–885 m AH January–July	**Not Expected**. No suitable habitat present on site.
Davidson's bush mallow *Malacothamnus davidsonii*			1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland	185–855 m S(e) June–January	**Low Potential**; subject parcel is in species' range and limited suitable habitat is present. This perennial shrub was not observed on site. Potential is low due to it not being seen and the high level of disturbance on site.
Spreading navarretia *Navarretia fossalis*	FT		1B.1	Chenopod scrub, marshes and swamps, playas, vernal pools	30–655 m AH April–June	**Not Expected**. No suitable habitat present on site.
Ojai navarretia *Navarretia ojaiensis*	FT	--	1B.1	Chaparral (openings), coastal scrub (openings), valley and foothill grassland	275–620 m AH May–July	**Low Potential**; subject parcel is in species' range but typical habitat is lacking. The plant was not observed on site.

Scientific and Common Name	Status			Habitat Requirements	Elevation Range, Life Form, and Flowering Period	Potential Occurrence
	Federal	State	CNPS			
Piute Mountains navarretia *Navarretia setiloba*	--	--	1B.1	Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland; clay or gravelly loam	285–2,100 m AH April–July	**Not Expected**. No suitable habitat present on site.
Short-joint beavertail *Opuntia basilaris* var. *brachyclada*	--	--	1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland	425–1,800 m PSS April–August	**Not Expected**. No suitable habitat present on site.
California orcutt grass *Orcuttia californica*	FE	SE	1B.1	Vernal pools	15–660 m AH April–August	**Not Expected**. No suitable habitat present on site.
Chaparral ragwort *Senecio aphanactis*	--	--	2.2	Dry alkaline flats within cismontane woodland, coastal scrub.	15–800 m AH Jan–April	**Not Expected**. No suitable habitat present on site.
Greata's aster *Symphyotrichum greatae*	--	--	1B.3	Chaparral, cismontane woodland, coastal scrub on drying alkaline flats.	15–800 m AH Jan–April	**Not Expected**. No suitable habitat present on site.

STATUS KEY:

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

State
CE: State Endangered
CR: State Rare

CNPS
List 1B: Plants rare and endangered in California and elsewhere
List 2: Plants rare, threatened and endangered in CA but more common elsewhere
1: Seriously Endangered in California
2: Fairly Endangered in California

LIFE FORM KEY:

AH: Annual Herb
PH: Perennial Herb
RH: Rhizomatous Herb
S: Shrub
PSS: Perennial stem succulent
(b): bulb
(d): deciduous
(e): evergreen

APPENDIX B

Special-Status Wildlife Species Recorded From the Project Vicinity

Appendix B
Special-Status Wildlife Species Recorded From the Project Vicinity

Common Name *Scientific Name*	Status		Habitat Requirements	Potential Occurrence on the Project Site
	Federal	State		
INVERTEBRATES				
Monarch butterfly (wintering sites) *Danaus plexippus*	--	sa	Winter roost sites located in wind-protected tree groves (gum trees, Monterey pine, and cypress trees), with water sources nearby.	**Not Expected**. Individual monarchs may periodically occur, but no suitable wintering roost sites are present within or adjacent to survey area.
FISHES				
Santa Ana sucker *Catostomus santaanae*	FE (excludes Santa Clara River population)	SSC	Rivers and streams	**Low Potential**. May occur temporarily when water is present, though it appears water only occurs within survey reach during and shortly after storm events.
Unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	FE	SE	Slow-moving or back water sections of warm to cool streams	**Not Expected**. It appears water only occurs within survey reach during and shortly after storm events. This species is not able to swim in swift currents so it is not expected to be present on site even when water is present.
Arroyo chub *Gila orcutti*	--	SSC	Rivers and streams	**Low Potential**. May occur temporarily when water is present, though it appears water only occurs within survey reach during and shortly after storm events.
Santa Ana speckled dace *Rhinichthys osculus* ssp. *3*	--	SSC	Rivers and streams	**Not Expected**. This species does not occur within the Santa Clara River watershed.

Common Name *Scientific Name*	Status		Habitat Requirements	Potential Occurrence on the Project Site
	Federal	State		
AMPHIBIANS & REPTILES				
Arroyo toad *Anaxyrus californicus*	FE	SSC	Semi-arid regions near washes or intermittent streams including valley foothill and desert riparian streams. Rivers with sandy terraces, riparian trees.	**Not Expected**. No suitable breeding pools or adjacent upland habitat is present within or adjacent to the project limits.
Western spadefoot *Spea hammondii*	--	SSC	Open sandy, gravelly areas in mixed woodlands, grasslands, alluvial fans, playas, vernal pools where rainpools do not contain predators.	**Not Expected**. No suitable habitat on site.
California red-legged frog *Rana draytonii*	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	**Not Expected**. No suitable habitat within or adjacent to proposed project area.
Sierra Madre yellow-legged frog *Rana muscosa*	FE	SC	Lakes, ponds, meadow streams, isolated pools and sunny riverbanks.	**Not Expected**. No suitable habitat within or adjacent to proposed project area.
Western pond turtle *Emys marmorata*	--	SSC	Streams, rivers, ponds, freshwater marshes, and lakes with growth of aquatic vegetation.	**Not Expected**. No suitable habitat within or adjacent to proposed project area.

Common Name *Scientific Name*	Status		Habitat Requirements	Potential Occurrence on the Project Site
	Federal	State		
Silvery legless lizard *Anniella pulchra pulchra*	--	SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential.	**Moderate Potential**. Upland areas relatively disturbed and surrounded by development. However, species is known to occur in disturbed habitats.
Coast horned lizard *Phrynosoma blainvillii*	--	SSC	Relatively open grasslands, scrublands, and woodlands with fine, loose soil.	**Low Potential**. Upland areas relatively disturbed and surrounded by development. Not typical of occupied habitat.
Coastal whiptail *Aspidoscelis tigris stejnegeri*	--	sa	Open areas in semiarid grasslands, scrublands, and woodlands.	**Low Potential**. Limited suitable open scrub areas are present within the proposed project area. However they are highly disturbed and are not typical of occupied habitat.
Rosy boa *Charina trivirgata*	--	sa	Woodlands, grassland, chaparral, and scrub habitats; often found in mesic areas under rocks, logs, and debris.	**Low Potential**. Limited suitable grassland and remnant scrub areas are present within the proposed project area. However they are highly disturbed and are not typical of occupied habitat.
Two-striped garter snake *Thamnophis hammondii*	--	SSC	Perennial and intermittent streams and man-made lakes and stock ponds; requires dense riparian vegetation.	**Not Expected**. No suitable habitat within or adjacent to proposed project area.
BIRDS				
Cooper's hawk *Accipiter cooperi*	--	WL *(Nesting)*	Dense stands of live oaks and riparian woodlands.	**Low Potential**. Species may occur as infrequent forager, but no suitable roosting or nesting habitat on site.
So. California rufous-crowned sparrow *Aimophila ruficeps canescens*	--	WL *(Nesting)*	Chaparral, Coastal sage scrub.	**Low Potential**. Very limited suitable foraging and no suitable nesting habitat present on site.

Common Name *Scientific Name*	Status		Habitat Requirements	Potential Occurrence on the Project Site
	Federal	State		
Grasshopper sparrow *Ammodramus savannarum*	--	WL	Grasslands and marshes.	**Not Expected.** No suitable habitat present on site.
Bell's sage sparrow *Amphispiza belli belli*	--	WL	Coastal sage scrub and chamise chaparral.	**Low Potential**. Very limited suitable foraging and no suitable nesting habitat present on site.
Burrowing owl *Athene cunicularia*	--	SSC *(Burrow sites, some wintering sites)*	Open, dry annual or perennial grasslands, deserts and scrublands with low-growing vegetation	**Low Potential**. Very limited suitable foraging habitat. Some limited suitable burrow habitat present upstream on the north side of the creek in association with the rip-rap. Occasional migrant could occur infrequently.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FC	SE *(Nesting)*	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with dense understory.	**Not Expected**. No suitable habitat present on site.
Yellow warbler *Dendroica petechial brewsteri*	--	SSC	Riparian Woodland	**Not Expected**. No suitable habitat present on site.
White-tailed kite *Elanus leucurus*	--	CFP	Open vegetation and uses dense woodlands for cover.	**Low Potential**. Species may occur as infrequent forager, but no suitable roosting or nesting habitat on site.
California horned lark *Eremophila alpestris actia*	--	WL	Grasslands, disturbed areas, agriculture fields, and beach areas.	**Low Potential**. May occur as infrequent forager, but surrounding disturbance likely precludes this species from occurring.
California condor *Gymnogyps californianus*	FE	SE	Chaparral, valley and foothill grassland	**Not Expected**. This species typically avoids human activity. No suitable nesting habitat present on site.

Common Name *Scientific Name*	Status		Habitat Requirements	Potential Occurrence on the Project Site
	Federal	State		
Yellow-breasted chat *Icteria virens*	--	SSC *(Nesting)*	Riparian forest, riparian scrub, riparian woodland	**Not Expected**. No suitable habitat present on site.
Loggerhead shrike *Lanius ludovicianus*	--	SSC *(Nesting)*	Grasslands, open scrub, disturbed areas, agriculture fields	**Low Potential**. May occur as infrequent seasonal forager. No suitable nesting habitat present on site.
California gnatcatcher *Polioptila californica*	FT	SSC	Coastal sage scrub in areas of flat or gently sloping terrain.	**Not Expected**. No suitable habitat present on site.
Bank swallow *Riparia riparia*	--	ST *(Nesting)*	Riparian scrub, riparian woodland	**Low Potential**. May occur as infrequent seasonal forager. No suitable nesting habitat present on site.
Least Bell's vireo *Vireo bellii pusillus*	FE	SE *(Nesting)*	Low riparian scrub in vicinity of water or in dry river beds.	**Not Expected**. No suitable habitat present on site.
MAMMALS				
Spotted bat *Euderma maculatum*	--	SSC	Variety of habitats from arid deserts and grasslands to mixed coniferous forests; feeds over water and washes.	**Not Expected**. Very limited and seasonal aquatic foraging habitat and no suitable roosting habitat present on site.
California leaf-nosed bat *Macrotus californicus*	--	SSC	Desert riparian, desert wash, desert scrub, alkali scrub & pond oases; rocky terrain with mines or caves for roosting.	**Not Expected**. Very limited and seasonal aquatic foraging habitat and no suitable roosting habitat present on site.

Common Name *Scientific Name*	Status		Habitat Requirements	Potential Occurrence on the Project Site
	Federal	State		
Hoary bat *Lasiurus cinereus*	--	sa	Dense trees for cover and open areas or habitat edges for feeding; requires water	**Not Expected**. No suitable foraging or roosting habitat on site.
Pallid bat *Antrozous pallidus*	--	SSC	Deserts, grasslands, woodlands & forests; open dry habitats with rocky areas for roosting	**Low Potential**. May occur as infrequent forager, but very limited suitable roosting habitat present on site.
Western mastiff bat *Eumops perotis californicus*	--	SSC	Arid and semi-arid habitats including conifer & deciduous woodlands, coastal scrub, chaparral, grasslands; roosts in crevices in cliff faces, high buildings, trees & tunnels	**Not Expected**. May occur as infrequent forager, but species uncommon in area and no suitable roosting habitat present on site.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	--	SSC	Open chaparral, coastal sage scrub, and grasslands.	**Low Potential**. Very little suitable habitat present on site and adjacent surrounding development and lack of refugia likely precludes this species from occurring here.
Lodgepole chipmunk *Neotamias speciosus speciosus*	--	sa	Open mixed coniferous forests	**Not Expected**. No suitable habitat present on site.
San Diego desert woodrat *Neotoma lepida intermedia*	--	SSC	Chaparral and coastal sage scrub; rock outcrops, rocky cliffs and slopes	**Not Expected**. No suitable habitat present on site.

Common Name *Scientific Name*	Status		Habitat Requirements	Potential Occurrence on the Project Site
	Federal	State		
Southern grasshopper mouse *Onychomys torridus ramona*	--	SSC	Desert scrub, washes, succulent scrub, and other desert habitats.	**Not Expected**. No suitable habitat present on site,

KEY:

(nesting) = For most taxa the CNDDB is interested in sightings for the presence of resident populations. For some species (primarily birds), the CNDDB only tracks certain parts of the species range or life history (e.g., nesting locations). The area or life stage is indicated in parenthesis after the common name.

Status:

Federal -- US Fish and Wildlife Service

FE: Federally endangered
FT: Federally threatened
FC: Proposed for federal Listing

State -- California Department of Fish and Wildlife

SE: State-listed endangered Species
ST: State-listed threatened Species
SC: State Candidate for listing as endangered or threatened

CFP: California Fully Protected Species
SSC: California Species of Special Concern
WL: CDFW Watch List

sa: California Special Animal (species with no official federal or state status, but are included on CDFW's Special Animals list as CDFW is interested in collecting distribution and population data)

APPENDIX C

Jurisdictional Delineation Report

Federal and State Jurisdictional Waters and Wetlands Proposed Dockweiler Road Bridge Santa Clarita, Los Angeles County, CA

September 10, 2013

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LIST OF ACRONYMS

CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey

1 PROJECT DESCRIPTION

Dockweiler Road is proposed to be extended to Railroad Avenue in Newhall. The road extension includes a bridge over Newhall Creek, a tributary of the Santa Clara River. The project is located in an un-numbered section of Township 4 North, Range 16 West, of the U.S. Geological Survey ("USGS") Newhall 7.5' quadrangle (Figure 1). Newhall Creek is at an elevation of about 1,264 feet above mean sea level at the bridge location.

The Project will require notification to State and Federal agencies with jurisdiction over stream resources. However, the potential disturbance area for bridge construction is not known at this time. The purpose of this Delineation is to describe the limits of State and Federal jurisdiction within 200 feet upstream and downstream of the bridge location.

2 METHODS

2.1 Document Review

Site-Specific Data. A desktop analysis of potential jurisdictional features was conducted for guidance in the field, based on the USGS topographic map of the project area and aerial photographs. Soil survey data available from the National Cooperative Soil Survey (USDA-NRCS) were not used because these data are not intended to be used at the fine scale of this project.

Delineation Protocols. Documents consulted for delineation of Federal jurisdiction consisted of Lichvar and McColley (2008) regarding identification of "ordinary high water mark" in arid regions, the U.S. Army Corps of Engineers (USACE) guidelines for interpretation of Federal jurisdiction following the Rapanos, Carabell, and SWANCC decisions (USACE, 2007; USACE and EPA, 2007), the USACE 1987 Wetland Delineation Manual (Environmental Laboratory, 1987), and USACE guidelines and forms for jurisdictional determination in the arid southwest (USACE, 2001, 2008). Delineation of California State jurisdiction (CDFW and RWQCB) was based on definitions and regulations specified by Sections 1600-1616 of the Fish and Game Code, Title 14 of the California Code of Regulations, and Section 13050 of the California Water Code.

2.2 Field Survey

A field survey of the site was conducted by Edith Read on June 17, 2013. Site features were assessed for indicators of stream, riparian, or wetland functions. Indicators of stream functions, particularly surface flows, typically include a clearly defined bed and bank structure, bank shelving, deposits of organic debris, cracked mud or clay, and/or water marks on rocks or soil. Indicators of wetland functions typically include wetland or riparian vegetation, and/or soils with anaerobic, redoxymorphic, or hydric features. Plant taxonomy followed the current flora for California (Baldwin et al., 2012). Plant community designations for indigenous vegetation types were based on Sawyer et al. (2009). Determination of the wetland occurrence rating of plant species was based on the 2012 ratings for the Arid West Regional Supplement (USACE, 2012).

2.3 Delineation Criteria

CDFW

At the State level, the California Department of Fish and Wildlife (CDFW; formerly CDFG) has jurisdiction over rivers, streams, and lakes.[1] The California Code of Regulations defines a stream as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish and other aquatic life including watercourses having a surface or sub surface flow that supports or has supported riparian vegetation."[2] CDFW jurisdiction typically extends between the top of each bank or to the outer edge of contiguous riparian vegetation, whichever is greater.

For this project, limits of CDFW jurisdiction within the potential work area were drawn to the tops of the levees on both sides of Newhall Creek.

USACE

At the Federal level, the USACE regulates placement of "dredge" and "fill" in waters of the U.S. including adjacent wetlands under the authority of Section 404 of the Clean

[1] Fish & Game Code §§ 1600 – 1616

[2] California Code of Regulations (C.C.R.), Title 14 § 1.72

Water Act.[3] The Code of Federal Regulations defines "waters of the U.S." as intrastate lakes, rivers, streams, mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. Wetlands are defined as "areas that are inundated or saturated by surface water 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." Assessment of Federal jurisdiction is based on two main factors: 1) nexus or connectivity to "traditionally navigable waters" or "relatively permanent waters"; and 2) presence of "ordinary high water marks."

RWQCB

Federal authority over water quality under Section 401 of the Federal Clean Water Act is typically delegated to regional water quality control boards unless a project encompasses more than one region, in which case the State Water Resources Control Board may assert regulatory authority. The current Project falls under the authority of the Los Angeles Regional Water Quality Control Board. Section 401 of the Clean Water Act requires that "any applicant for a Federal permit for activities that involve a discharge to Waters of the U.S., shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act."

In addition to Section 401 of the Federal Clean Water Act, the RWQCB exerts authority over "Waters of the State" and water quality by means of State law. "Waters of the State" are broadly defined by sections of the California Water Code, known as the Porter-Cologne Water Quality Control Act, as "any surface water or groundwater, including saline waters, within the boundaries of the state."[4]

As of this writing, the State Water Resources Control Board is considering adoption of a Wetland Area Protection Policy and regulations governing the discharge of dredge or fill material into waters of the State that would apply at State and regional levels

[3] Clean Water Act of 1972 § 404. See also 33 U.S.C. § 1341

[4] California Water Code § 13050(e)

(California State Water Resources Control Board, 2013). This policy is intended to improve consistency in the definition of a wetland and regulatory mechanisms affecting wetland protection, and an approach for collecting and tracking aquatic resource monitoring data. One difference between existing regulations and the new policy is in the definition of a wetland, wherein wetland vegetation does not have to be present for a feature to qualify as a wetland. Specifically, an area is defined as a wetland if, under normal circumstances: 1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; 2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and 3) the area either lacks vegetation or the vegetation is dominated by hydrophytes. This definition is adopted here in anticipation of the new regulations.

3 RESULTS AND DISCUSSION

Figure 2 shows topography of the region, and Figure 3 shows photographs representing the project site. Figure 4 shows vegetation and jurisdictional features in the survey area.

3.1 Watershed Connectivity, Geomorphology and Hydrology

There are two jurisdictional features at the project location:

1. Newhall Creek, upstream of its confluence with Placerita Creek and the south fork of the Santa Clara River. This creek is mapped by the USGS as a "blue-line" intermittent stream. The direction of creek flow is from southeast to northwest. Banks of the creek are nearly vertical, with the south bank containing artificial fill (pieces of concrete and asphalt). Railroad tracks and Railroad Avenue are to the west, beyond the top of the bank. Areas immediately east of the creek are vacant except for an industrial yard northeast of the proposed bridge location. No surface water was present during the June survey, but sparse vegetation cover within the channel indicates frequent scour during the rainy season. Therefore this feature is best described as an intermittent riverine, relatively permanent water ("RPW") that has seasonal continuous flow and is tributary to the Santa Clara River, which flows into the Pacific Ocean, a traditionally navigable water ("TNW"). Vegetation and surface features indicate that seasonal

flows migrate across the entire width of the channel, which averages 35 feet in width at the base (Federal jurisdiction). The distance between the tops of the banks (limits of State jurisdiction) averages 100 feet.

No indicators of prolonged water saturation or ponding, such as surface mud cracks, were observed during the survey.

2. Un-named ephemeral tributary to Newhall Creek. This narrow tributary is about 3.5 feet in width at its base (Federal jurisdiction) and is entirely within State jurisdiction over Newhall Creek. It is assumed that flow enters the project area from a culvert underneath the railroad tracks and Railroad Avenue – this could not be confirmed during the survey due to presence of a homeless camp at the presumed culvert location. The distinct bed and bank structure of this feature, and regional topography shown prior to extensive development in the area, indicate that it is more than just a gully resulting from localized erosion. Wetland indicators are absent from this feature.

3.2 Vegetation

The following vegetation types occur within the survey area. Of these types, only the narrow-leaf willow thicket is a wetland indicator (*Salix exigua* – FACW). This vegetation is discussed in more detail below.

Active Channel

Vegetation is sparse within the active channel. The most common species are not wetland indicators. They include scalebroom (*Lepidospartum squamatum* -- FACU) and mulefat (*Baccharis salicifolia* – FAC).

Narrow-Leaf Willow Thicket

Narrow-leaf willows (*Salix exigua* – FACW) occur in a small stand (25 ft x 12 ft) within the alignment of the proposed bridge. While this species is a wetland indicator, other wetland indicators are absent. The vegetation occurs on the opposite side of Newhall Creek from the ephemeral tributary, and likely receives periodic dry-season runoff from streets to the west. We conclude that this thicket is probably not a jurisdictional

wetland at the Federal level, and is not a jurisdictional wetland at the State level. See Section 3.4 for additional discussion.

Scrub Vegetation

Scrub vegetation consists of scalebroom, mulefat, California sagebrush (*Artemisia californica* -- NI), and buckwheat (*Eriogonum fasciculatum* -- NI) in a range of densities on slopes above the active channel of Newhall Creek. None of these species are wetland indicators.

Trees

Three native trees occur adjacent to the northwest boundary of the survey area, about 200 feet northwest of the bridge location. Two of the trees are large California live oaks (*Quercus agrifolia* – NI) with trunk diameters ranging from four inches to two feet. The third tree is an elderberry (*Sambucus nigra* – FAC) and located under the oak canopy.

Small groves of exotic trees (tentatively identified as locust – *Robinia* sp.) occur on the west side of Newhall Creek along the railroad right-of-way.

3.3 Soil

Soil was evaluated at one location under the canopy of the narrow-leaf willow thicket. Figure 4 shows a photograph of the test pit. Below the litter, two stratified layers are visible, consisting of rock/cobble/sand in the first 12 inches, then six inches of sand down to the base of the pit. This sand layer changes in color, value, and chroma from light gray (5YR 7/1) to black (5YR 2.5/1) toward the bottom of the test profile. No odor was detected during sampling. While a few of the coarse fragments in the upper part of the profile had some faint orange streaks (5YR 5/8) indicative of reducing conditions, these features were not dominant.

3.4 Wetland Determination

3.4.1 Federal

The hydrology and soils of the survey area (floodplains/gravel bars and sand) are naturally problematic for wetland delineation. The following paragraphs include

excerpts (in italics) from the Arid West supplement (USACE 2008, page 98) of the wetland determination procedure for problematic sites where soils may meet the definition of a hydric soil but do not exhibit typical indicators. Our observations are described for each step of the procedure.

> *1. Verify that one or more indicators of hydrophytic vegetation are present or that the vegetation is disturbed or problematic. If so, proceed to step 2.* Site observations: Narrow-leaf willow has an indicator ranking for the Arid West of Facultative Wetland. Therefore hydrophytic vegetation is present.
>
> *2. Verify that at least one primary or two secondary indicators of wetland hydrology are present or that indicators are absent due to disturbance or other factors. If so, proceed to step 3. If indicators of hydrophytic vegetation and/or wetland hydrology are absent, then the area is probably non-wetland and no further analysis is required.* Site observations: no primary indicators of wetland hydrology are present. Only one secondary indicator of wetland hydrology (dominance of FACW vegetation) is present.
>
> Based on this information, and the observation that redoximorphic soil features are sparse and (where present) faintly expressed, we conclude that the willow thicket (300 square feet or 0.007 acre) is probably not a Federally jurisdictional wetland. Unfortunately, the Arid West procedure does not allow for a more definitive conclusion.

3.4.2 State

According to the wetland definition under review at the State level, we conclude that the narrow-leaf willow thicket would not meet this definition. While narrow-leaf willow is a hydrophyte, there is no evidence of continuous or recurrent saturation of the upper substrate and no evidence of anaerobic conditions.

3.5 Non-Wetland Jurisdiction

The proposed bridge will impact Newhall Creek, in a section of the creek that is classified as riverine and relatively permanent water, with continuous flow at least seasonally. The bridge may also impact a narrow, ephemeral tributary to Newhall

Creek. The extent of permanent and temporary construction impacts need to be known in order to provide a more precise analysis of impacts.

4 RECOMMENDATIONS

The narrow-leaf willow thicket, occupying 300 square feet (25 linear feet and 0.007 acre) within the bridge footprint, could not be definitely concluded to be a wetland using Federal jurisdictional delineation procedures. The only conclusions that could be reached are that the willow thicket is "probably" a non-wetland under Federal criteria, and is not a wetland under State criteria. Given the uncertainty at the Federal level, we recommend the following:

1. Disclosure of the uncertain determination when applying for a permit under the Clean Water Act; and
2. If the bridge project is delayed for more than one year from the date of this report (i.e. beyond 2014), consider one or both of the following two actions: a) re-evaluate the wetland status of the willow thicket site in the field, using evaluation procedures for problematic sites specified in the Arid West manual (USACE 2008), with special focus on soils; and/or b) to avoid a possible permitting issue, assume the willows constitute a wetland and mitigate accordingly.

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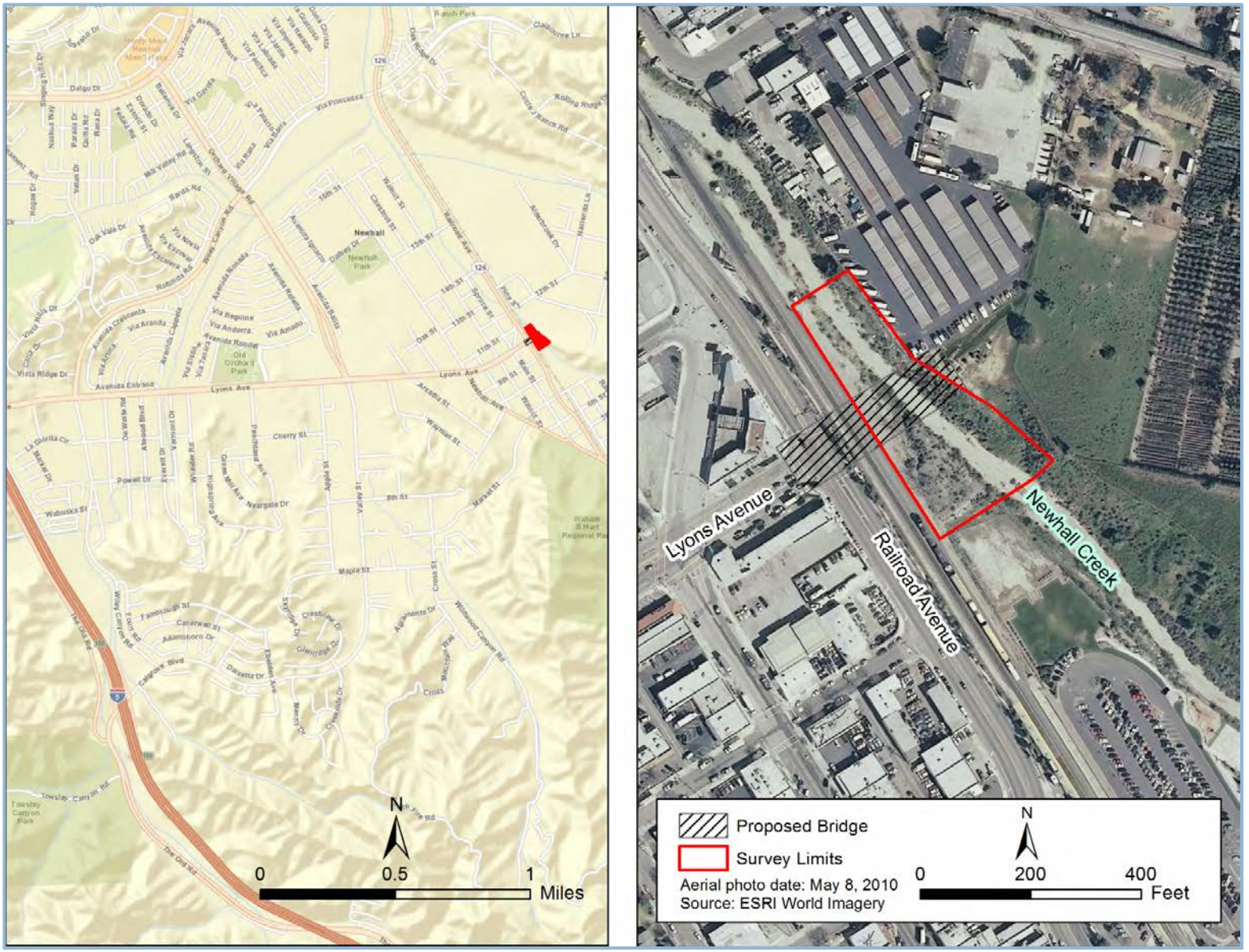

Figure 1. Project Location

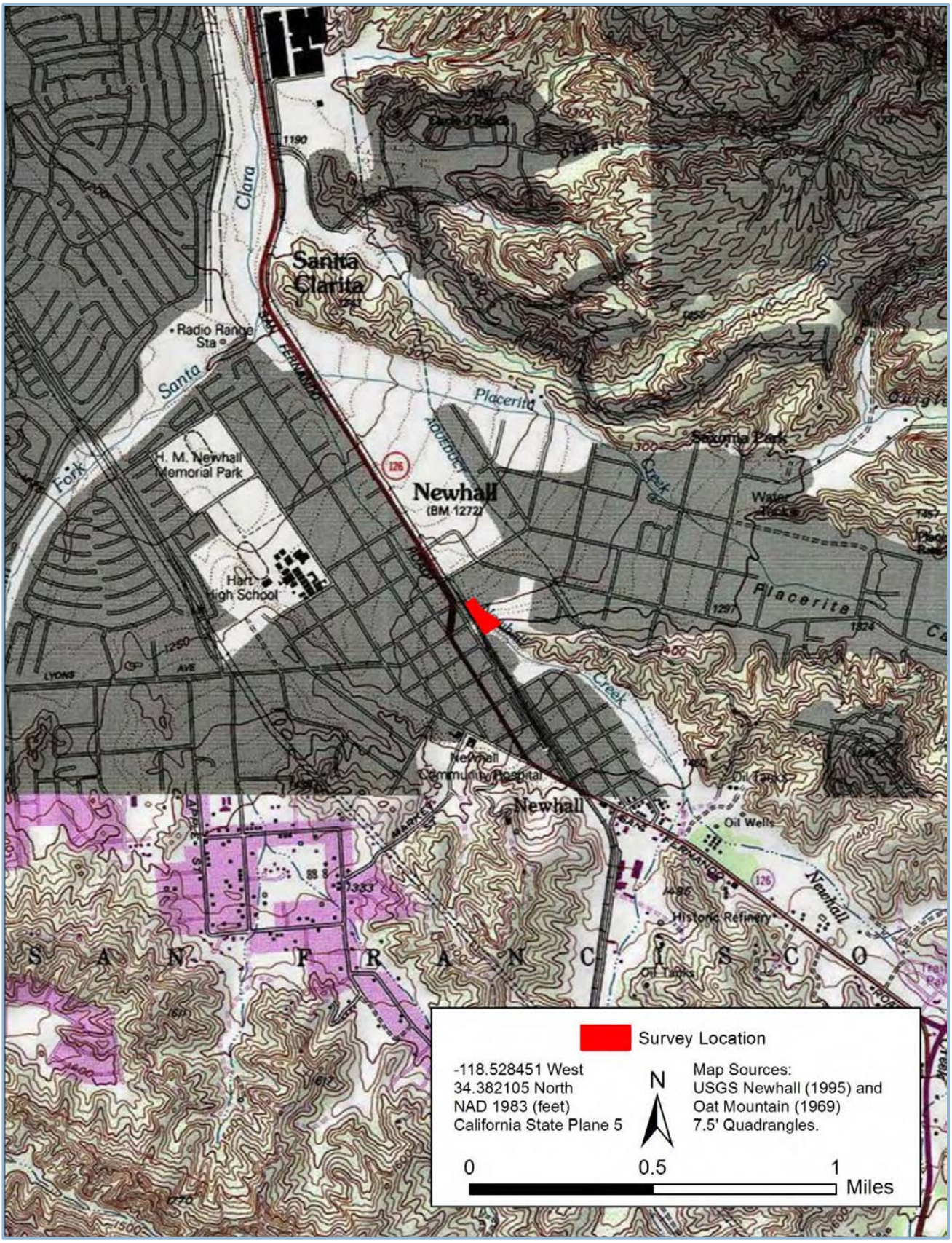

Figure 2. Regional Topography

Newhall Creek: OHWM width avg. 35 feet. Top of Bank avg. 100 feet. Top Left: View to the northwest. Top Right: View to the southeast.

Arrows indicate location of ephemeral tributary, which is below a stand of exotic trees.

Bottom Left: Ephemeral tributary to Newhall Creek.

Lower arrow indicates OHWM width of 3.5 feet.

Upper arrow indicates Top of Bank width of about 40 feet.

Figure 3. Site Photographs

Top: Narrow Leaf Willow Thicket (*Salix exigua*, FACW).

Bottom: Soil evaluation pit. See text for discussion.

Figure 4. Willow Thicket and Soil Evaluation

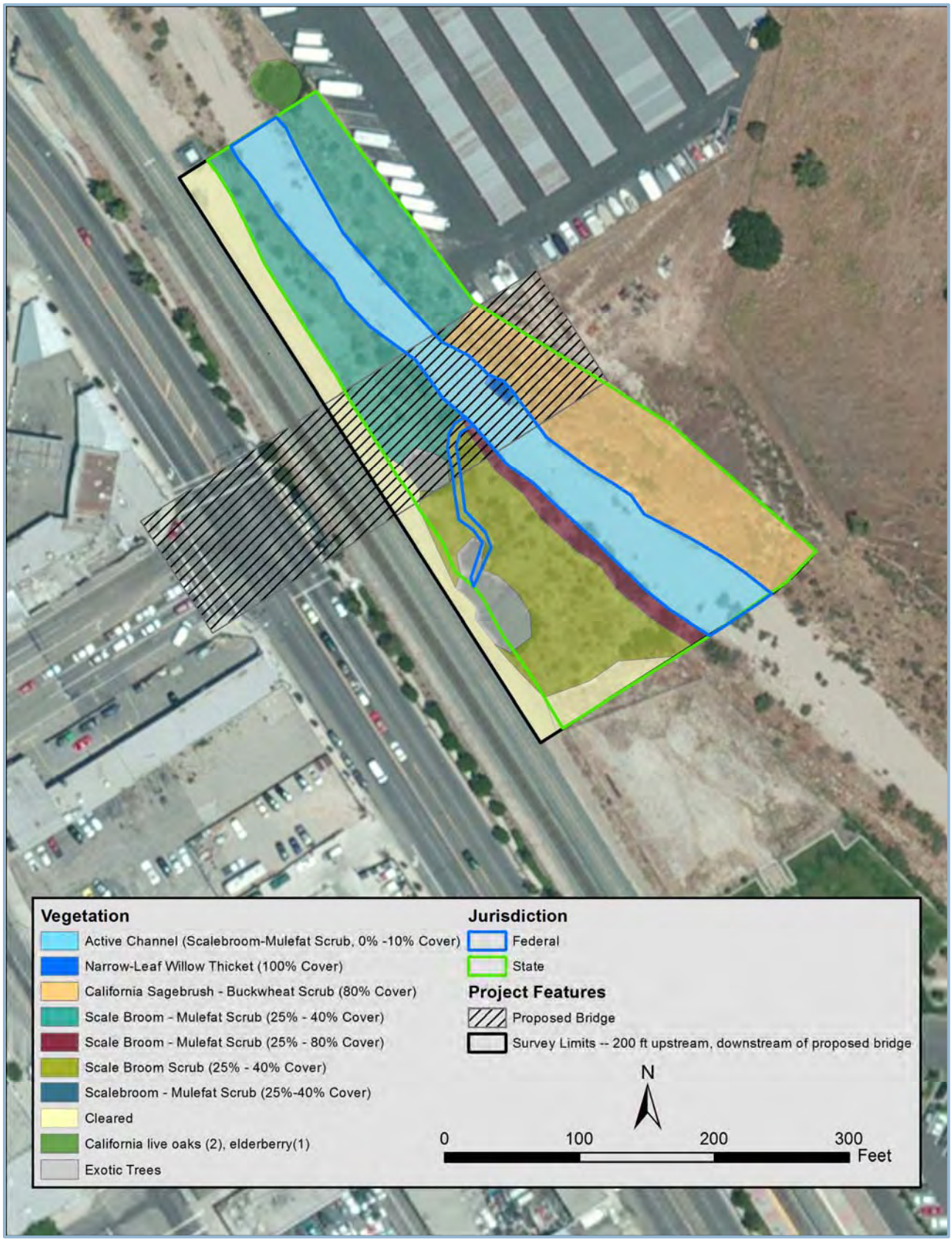

Figure 4. Vegetation Types and Jurisdiction Limits

Appendix 1. Jurisdictional Determination Form

APPROVED JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: CA County/parish/borough: Los Angeles County City: Newhall

Center coordinates of site (lat/long in degree decimal format): Lat. 34.382105° N, Long. -118.528451 ° W.

NAD 1983 California State Plane 5

Name of nearest waterbody: Newhall Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean

Name of watershed or Hydrologic Unit Code (HUC): Santa Clara River

X Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

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

☐ Office (Desk) Determination. Date:

X Field Determination. Date(s): 6/17/2013

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There is no "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [5]

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

X Relatively permanent waters[6] (RPWs) that flow directly or indirectly into TNWs

X Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 500 linear feet: 35 ft width (ft) between OHWM. Proposed project is within a fraction of this (approx. 100 linear feet).

Wetlands: 0 acres.

c. Limits (boundaries) of jurisdiction based on: **Established by OHWM.**

---

[5] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[6] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

Elevation of established OHWM (if known):1,264 msl.

2. Non-regulated waters/wetlands (check if applicable):[7]

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: .

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs: DO NOT OCCUR WITHIN PROJECT LIMITS

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

[7] Supporting documentation is presented in Section III.F.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[8] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 1030 square miles is the watershed of the Santa Clara River, of which Newhall Creek is a part.

Drainage area: Pick List

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

X Project waters are 30 (or more) river miles from TNW.

Identify flow route to TNW[9]: Flow from Newhall Creek is into the South Fork of the Santa Clara River, which connects to the main stem of the Santa Clara River. The Santa Clara River enters the Pacific Ocean.

(b) General Tributary Characteristics (check all that apply):

[8] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

[9] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary is: ☐ Natural

☐ Artificial (man-made). Explain: .

X Manipulated (man-altered). Explain: Floodplain is confined within levees on both sides.

Tributary properties with respect to top of bank (estimate):

Average width: 100 feet

Average depth: feet

Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts X Sands ☐ Concrete

X Cobbles X Gravel ☐ Muck

☐ Bedrock X Vegetation. Type/% cover: alluvial scrub/0 to 10 percent

☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.

Presence of run/riffle/pool complexes. Explain: No evidence observed.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): <1 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **6-10**

Describe flow regime: seasonally continuous.

Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: .

Subsurface flow: **Pick List.** Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

X Bed and banks

☐ OHWM[10] (check all indicators that apply):

X clear, natural line impressed on the bank X the presence of litter and debris

☐ changes in the character of soil X destruction of terrestrial vegetation

X shelving ☐ the presence of wrack line

☐ vegetation matted down, bent, or absent X sediment sorting

☐ leaf litter disturbed or washed away X scour

☐ sediment deposition ☐ multiple observed or predicted flow events

☐ water staining ☐ abrupt change in plant community

☐ other (list):

☐ Discontinuous OHWM.[11] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:

☐ oil or scum line along shore objects ☐ survey to available datum;

☐ fine shell or debris deposits (foreshore) ☐ physical markings;

☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.

☐ tidal gauges

X other (list): levee base

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: no water present during survey.

Identify specific pollutants, if known: .

[10] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

[11] Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

X Riparian corridor. Characteristics (type, average width): sparse alluvial scrub across entire floodplain (approx. 35 ft.

☐ Wetland fringe. Characteristics: .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

Not applicable to this Project

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: Pick List. Explain: .

Surface flow is: Pick List

Characteristics: .

Subsurface flow: Pick List. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width): .

☐ Vegetation type/percent cover. Explain: .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. **DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):**

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.

   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .

   X Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: scarcity of vegetation within active channel.

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

3. **Non-RPWs[12] that flow directly or indirectly into TNWs.**

   ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   ☐ Tributary waters: linear feet width (ft).
   ☐ Other non-wetland waters: acres.
   Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

   ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

   ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale
   indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is
   directly abutting an RPW: .

   ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

[12]See Footnote # 3.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.**[13]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

☐ Demonstrate that impoundment was created from "waters of the U.S.," or

☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or

☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[14]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.

☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

☐ which are or could be used for industrial purposes by industries in interstate commerce.

☐ Interstate isolated waters. Explain: .

☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

☐ Wetlands: acres.

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[13] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[14] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

F. **NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.

☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).

☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .

☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).

☐ Lakes/ponds: acres.

☐ Other non-wetland waters: acres. List type of aquatic resource: .

☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).

☐ Lakes/ponds: acres.

☐ Other non-wetland waters: acres. List type of aquatic resource: .

☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. **SUPPORTING DATA. Data reviewed for JD (check all that apply** - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

X Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .

☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

☐ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps: .

☐ Corps navigable waters' study: .

☐ U.S. Geological Survey Hydrologic Atlas: .

☐ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

X U.S. Geological Survey map(s). Cite scale & quad name:1:24,000 Newhall.

☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .

☐ National wetlands inventory map(s). Cite name: .

☐ State/Local wetland inventory map(s): .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

X Photographs: X Aerial (Name & Date): .

or ☐ Other (Name & Date): .

☐ Previous determination(s). File no. and date of response letter: .

☐ Applicable/supporting case law: .

☐ Applicable/supporting scientific literature: .

☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

Appendix 2. Arid West Wetland Determination Form

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Dockweiler Bridge City/County: Newhall / Los Angeles Sampling Date: 6-17-2013

Applicant/Owner: _____ State: CA Sampling Point: 1 of 1

Investigator(s): E Read Section, Township, Range: T4N, R16W section not numb.

Landform (hillslope, terrace, etc.): streambed Local relief (concave, convex, none): concave Slope (%): <1

Subregion (LRR): C Lat: 34.382105 N Long: -118.528451 W Datum: NAD83 ft

Soil Map Unit Name: N/A NWI classification: N/A

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

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

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

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

Remarks:
Site is a gravel bar in a small floodplain (problematic hydrology)
Soil consists of sand (Entisol) (problematic soil)

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 25 x 12 ft)			
1. Salix exigua	100	Y	FACW
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 100 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 100	x 2 = 200
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
12-16	5YR 7/1						Sand	no organics
16-18	5YR 2.5/1						Sand	no organics
10			5YR 5/6	<1%	CS	M		sparse

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present): not present

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
stratified layers (A5) not applicable because ~~this~~ observed stratification does not occur within ~~the top~~ 6" of the surface.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

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

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

Wetland Hydrology Present? Yes _____ No X

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

Remarks: