Jurisdictional Delineation of Waters and Streambeds, Impact Sciences, August 2010

PRELIMINARY JURISDICTIONAL DELINEATION
FOR
VIA PRINCESSA EAST EXTENSION

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EXECUTIVE SUMMARY

The ±100-acre project referred to as Via Princessa East Extension, is located in the City of Santa Clarita, west of Highway 14, north of San Fernando Road, and immediately east of Golden Valley Road. The current site use is undeveloped land with a utility corridor along the eastern portion of the project area. This report summarizes the results of an April 2010 preliminary jurisdictional delineation of the extent of potential "waters of the United States," "waters of the state," and streambeds of the Via Princessa East Extension alignment. Impact Sciences, Inc., conducted the jurisdictional delineation pursuant to Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG) procedures and guidelines. The California Water Quality Control Board (RWQCB) will use the USACE delineation methodology to identify "waters of the state" not regulated by USACE, but potentially subject to regulation under the California Porter Cologne Act.

Field investigations determined that portions of the study area might potentially qualify as "waters of the United States," subject to regulation by the USACE under Section 404 of the federal Clean Water Act (CWA), and the federal implementing regulations. Portions of the study area may also comprise streambeds subject to regulation by CDFG under Section 1600, et seq., of the California Fish and Game Code and "waters of the state" subject to regulation by the RWQCB under Section 401 of the CWA and the California Porter-Cologne Act. A total of 0.47 acre of potential jurisdictional waters, having an ordinary high water mark (OHWM) and meeting the federal adjacency criteria was identified. This jurisdictional delineation report (JDR) also identified and mapped 0.62 acre of streambeds and riparian habitat potentially subject to CDFG regulation.

ACRONYMS USED IN THIS DOCUMENT

Agencies

CDFG = California Department of Fish and Game

EPA = Environmental Protection Agency

NRCS = Natural Resources Conservation Service (Formerly the Soil Conservation Service

RWQCB = Regional Water Quality Control Board

SCS = Soil Conservation Service

USACE = US Army Corps of Engineers, Regulatory Branch

USFWS = US Fish and Wildlife Service

USGS = US Geological Survey

Others

CFR = Code of Federal Regulations

CWA = Clean Water Act

GIS = Geographic Information System

GPS = Global Positioning System

IP = Individual Permit

JD = Jurisdictional Determination

JDR = Jurisdictional Delineation Report

msl = mean sea level

NWP = Nationwide Permit

OHWM = Ordinary high water mark

WDR = Waste Discharge Requirements

INTRODUCTION

The Via Princessa East Extension area (the site) encompasses approximately 100 acres within eastern City of Santa Clarita (**Figure 1, Regional and Project Site Location**).

The development of Via Princessa East Extension is proposed to:

- implement the goals of the Circulation Element of the Santa Clarita General Plan, including connectivity between Golden Valley Road and Rainbow Glen Parkway;
- improve local access to residential and commercial areas within the City of Santa Clarita; and
- improve roadway level of service and the circulation network; and
- reduce vehicle miles traveled by creating a more direct route for motorists, eliminating circuitous driving patterns.

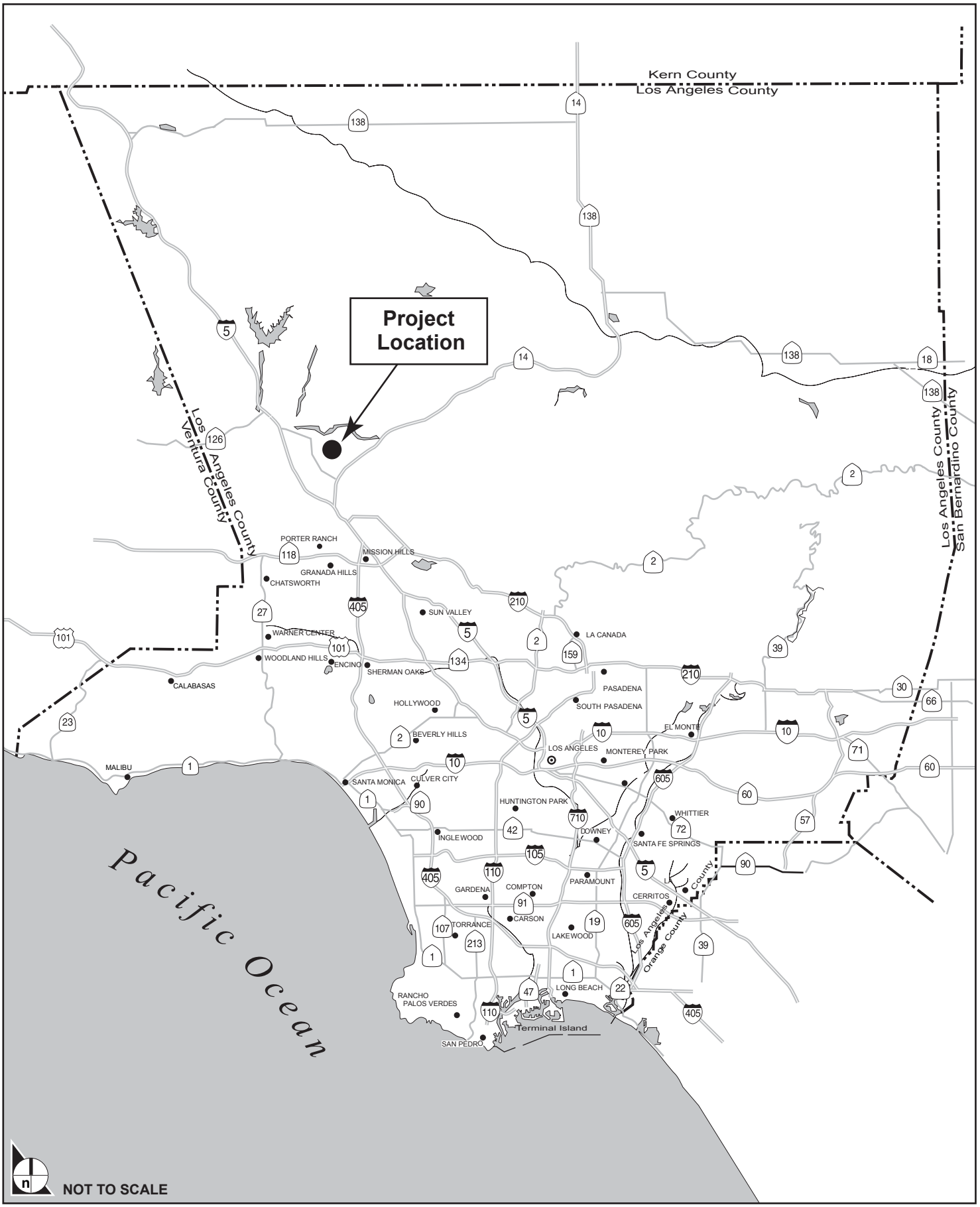
This report provides the City of Santa Clarita with planning level discussion of the jurisdictional information potentially under state and federal jurisdiction of waters and streams. This JDR describes a conservative estimate of what jurisdictional resources may exist and be impacted on site at present. A formal delineation consistent with USACE protocol and an impact analysis will be conducted prior to project implementation, during the permit process. Impact Sciences conducted the fieldwork for this study on the watercourses and riparian corridors in April 2010.

REGULATORY FRAMEWORK

The USACE, a federal agency, and two state agencies, the CDFG and the RWQCB, have jurisdictional authority over certain waters and streambeds that occur within California project areas. The following section summarizes each agency's general jurisdiction.

US Army Corps of Engineers

The US Army Corps of Engineers (USACE) regulates activities that affect navigation of "waters of the United States" under Section 10 of the Federal Rivers and Harbors Act of 1899, and any fill of such waters under Section 404 of the federal Clean Water Act (CWA).



SOURCE: Impact Sciences, Inc. – August 2010

FIGURE **1**

Regional and Project Site Location

Wetlands, creeks, streams, and permanent and intermittent drainages are generally subject to the jurisdiction of the USACE under Section 404 of the federal Clean Water Act. The USACE has jurisdiction up to the "ordinary high water mark" of rivers, creeks, and streams that are considered "waters of the US" as defined by the Clean Water Act. If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. Wetlands are defined by USACE as "those areas that are inundated or saturated by surface or groundwater at a frequency or duration to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."[1] The presence and extent of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site. The USACE definition of wetlands requires that all three wetland identification parameters be met.

"Waters of the United States" is defined in 33 *Code of Federal Regulations (*CFR) Section 328.3(a) to include:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
>
> *(2) All interstate waters including interstate wetlands;*
>
> *(3) 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;*
>
> *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
>
> *(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*
>
> *(iii) Which are used or could be used for industrial purpose by industries in interstate commerce;*
>
> *(4) All impoundments of waters otherwise defined as waters of the United Sates under the definition;*
>
> *(5) Tributaries of waters identified in paragraphs (a)(1) through (4) of this section;*
>
> *(6) The territorial seas;*
>
> *(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.*

1 US Army Corps of Engineers (USACE), *Corps of Engineers Wetlands Delineation Manual*, 1987.

In non-tidal waters that are generally tributaries to navigable waters, USACE jurisdiction typically extends to the OHWM. The OHWM for intermittent and ephemeral streams 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 and due to unusually high storm flows that create the appearance of an OHWM at locations above the recurrent levels, the OHWM may occur at a lower level than where typical physical indicators may be present.

USACE has published the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987, referred to as the "1987 Manual"). Subsequently, additional guidance documents, notably the "Arid West Interim Regional Supplement" to the 1987 Wetland Delineation Manual (Army Corps of Engineers, 2006) has been issued by USACE, which further clarifies the use of the 1987 Manual, and is now used to determine the extent of USACE jurisdiction in wetlands. During this delineation of waters, no wetlands were found to be present on the site.

After a delineation of waters is completed, a jurisdictional determination (JD) of each water is made by the USACE. This determination is typically valid for a period of five years after the JD is approved, unless the applicant requests a new jurisdictional determination be made or unless significant changes are documented.

In general, jurisdictional "waters of the United States," typically include navigable waterways and waters that have either a surface or subsurface connection with these downstream drainages. Intrastate water, isolated or non-navigable waters could under certain circumstances, be subject to USACE jurisdiction if they have a demonstrated direct or significant nexus with "waters of the United States." Therefore, any soil disturbances or use of heavy equipment in drainage channels, including clearing of vegetation with such equipment, will require approval by USACE, under its authority under the CWA and the Act's implementing regulations.

Section 404 Permits

The deposition of fill into an area determined by the USACE to be a "waters of the United States," including wetlands, requires a permit or other approval by the USACE Regulatory Branch pursuant to Section 404 of the CWA. *Fill* is broadly defined to include most materials (rock, soil, pilings, concrete, wood, some incidental fallback of soil from earthmoving equipment, and, in some cases, additional water) that might be discharged into a jurisdictional water or wetland.

USACE issues Individual Permits (IPs) and General Permits (GPs), depending on the extent of fill required by a project. General Permits may be "Nationwide," "Statewide," or "Regional" in scope.

General Permits are typically authorized for use by public or private applicants for Section 404 permits when projects meet specific permit conditions. General Permits are issued for categories of activities that are considered to have *de minimus* impacts on the environment. According to the draft 2007 Nationwide Permits (NWPs)(Federal Register, September 26, 2006), if a project's impacts from fill are greater than 0.5 acre or will impact 300 or more linear feet of any perennial, intermittent, or ephemeral stream, the project cannot qualify for coverage under any NWPs, but may be permitted under an IP.

Individual Permits may be issued for fills of jurisdictional waters that exceed the NWP thresholds. The IP process generally includes more significant project review by the USACE, public comment period, and an alternatives analysis that identifies the least environmentally damaging practicable alternative for the proposed fill. This differs from the California Environmental Quality Act (CEQA) alternatives in that the alternatives focus on the impact to USACE jurisdictional "waters."

Consistent with regional guidance and practice, as well as the provisions of the Arid West Interim Supplement (US Army Corps of Engineers. 2006, most Section 404 permits require mitigation to address impacts to jurisdictional resources in accordance with USACE guidance.

California Department of Fish and Game

Sections 1600 et seq. of the California Fish and Game Code states that:

> *It is unlawful for any person to divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the [CDFG], or use any material from the streambeds, without first the department of that activity.*

CDFG considers most natural drainages to be streambeds unless it is demonstrated otherwise. Streambeds are defined in the *California Code of Regulations* (Title 14, Chapter 1, Section 1.72) to include:

> *a body of water that follows 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.*

CDFG has jurisdiction includes ephemeral, intermittent, and perennial watercourses, and this jurisdiction is often extended to the limit of any riparian habitats located contiguous to, and that function as part of, a watercourse system. Section 2785(e) of the Fish and Game Code defines riparian habitat as:

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

Streambed Alteration Agreements

Projects that propose impacts to CDFG-jurisdictional areas, including fills, vegetation removal, or bridging, require the completion of a CDFG Streambed Alteration Agreement (SAA). A SAA typically identifies construction, storm water, and biological resource Best Management Practices (BMPs) that are intended to reduce impacts as much as possible. SAAs are a negotiated with the CDFG and are subject to mediation if the applicant and the CDFG cannot agree on the applicable terms.

Regional Water Quality Control Board

California implements its authority to certify Section 404 permits under Section 401 of the CWA and those "waters of the State," not regulated by the Clean Water Act by the state's Porter-Cologne Act under the auspices of the RWQCB.

Section 401 Certifications

Under Section 401 of the federal CWA, the State of California is authorized to certify federal permits and licenses. The State of California implementing regulations to conduct Section 401 certifications are codified under the California Code of Regulations, Title 23 Waters, Sections 3830 through 3869. Under Section 401 of the CWA, the RWQCB's review and approval of a project's proposed impacts, avoidance, and mitigation measures is a required element of the USACE Section 404 process. The USACE will not issue a Section 404 permit until the Section 401 certification is complete.

Waste Discharge Reports

In response to certain federal court decisions that limited USACE jurisdiction, the State of California issued several directives to the Regional Boards regarding the regulation of isolated waters no longer regulated by the USACE. At present, the RWQCBs are to:

1. continue issuing Section 401 certifications for federal permits;

2. issue Waste Discharge Requirements (WDRs) for dredge or fill discharges to waters deemed by the USACE as not subject to federal jurisdiction, referencing the same regulatory considerations that are used to issue general WDRs.

A Section 401 certification and a WDR application may be prepared on the same form. However, the State Board has issued a model letter for submittal with the WDR application to clarify that the WDRs are intended to cover those "waters of the State" which are not covered by the Section 401 certification, and not subject to the USACE regulations.

LITERATURE SEARCH

Prior to beginning the field work, the following references were examined to determine the locations of known or potential areas of jurisdiction:

- US Geological Survey (USGS) 7.5-minute Mint Canyon quadrangle map;
- US Fish and Wildlife Service (USFWS), National Wetlands Inventory maps, Mint Canyon quadrangle;
- Current digital (2-foot pixels) aerial photograph with USGS topographic overlay; and
- Soil Survey of Ventura Area, California (US Department of Agriculture 1970).

DELINEATION METHODOLOGY

The jurisdictional waters and streambeds of the site were delineated using methods and directives approved by the permitting agencies. Methods used included the identification of the OHWM for USACE "non-wetland waters," as well as the streambed and riparian limits for CDFG jurisdiction.

Non-Wetland Waters/Streams located between Ordinary High Water Marks

Potential USACE jurisdictional features include those drainages exhibiting a bed and defined bank (a defined channel) and connecting, by either defined channel or culvert to other "waters of the US" To perform a delineation of these features and determination of length of each feature, in April 2010, Impact Sciences used a combination of:

- evaluation of topographic maps, aerials, and Geographic Information System (GIS) measurements; and
- walking the course of each potentially jurisdictional drainage and estimating and recording the width of the boundaries of the distance between Ordinary High Water Marks (OHWMs).

Streambeds and Riparian Corridors

CDFG streambed jurisdiction includes ephemeral, intermittent, and perennial watercourses, and a stream's bed, channel, or bank (at a minimum), extending to the adjacent limit of the riparian habitat, or to the outside canopy edge of plants that both occur contiguous with the watercourse and depend on soil moisture from the stream to survive. Where a vegetated riparian corridor is lacking, the bed and channel that are within CDFG jurisdiction may be the same as would apply using the USACE delineation criteria.

In April 2010, the delineation of waters that were potentially CDFG-jurisdictional was conducted by Impact Sciences, using a combination of:

- walking the course of each potentially jurisdictional drainage and field-checking for the presence of a channel and any associated riparian vegetation.

For each of these jurisdictional resources, the locations of the stream/drainage segments and the average width of each were plotted onto the aerial photograph with the topography overlaid, using GIS. This process involved either and taking electronic positions of the boundaries of OHWMs, and associated riparian vegetation, or in the absence of riparian vegetation, the tops of the stream banks. In some locations with vertical banks, the boundaries of each potential jurisdiction were overlaid or identical.

Segment lengths, widths, and areas were derived from topographic map, GIS, and field measurements. Final calculations integrated the area with GIS data and feature locations determined GPS.

ENVIRONMENTAL SETTING

Topography

The site topography consists of gentle to steep sloping terrain, ranging from relatively level mesa tops to very steep along canyon sides and drainages. Elevations on the site range from approximately 1,430 feet above sea level in the northwest, where drainages exit the site, to 1,690 feet in the northeast. Some areas have vertical slopes in excess of a 50 percent gradient.

Hydrology

The site is in the mid portion of the watershed; the upper portion of the watershed extends to the east of the site. On-site drainages found within the project boundary deliver surface flows in a generally northwest direction where they are captured, off-site, by the City of Santa Clarita's storm drain system, which at these locations is directly tributary to the Santa Clara River.

All runoff from the site flows generally northwest towards the Santa Clara River, which lies approximately 1.5 miles to the north. The central portion of the site is dominated by a mesa that supports an approximate 0.19-acre vernal pool wetland.

Soils

Ungraded areas of the site are mantled by surface soils consisting of moderate- to yellowish-brown and yellowish-gray silty sand with scattered pebbles. Soil developed in the alluvial flats and in the relatively flat mesa areas has been disturbed by past agricultural and grading activities.

Minor amounts of recent river-channel deposits are present in the lower elevations of the project site, largely underlying the immediate modern drainage and major tributaries of the Santa Clara River. The alluvial deposits consist of interbeds of sandy, silty, and clayey soils with gravels and pebbles.

Vegetation

Vegetation types present on site include grassland, coastal scrub, chaparral, riparian, vernal pool, and disturbed types. The field surveys were conducted on a project area of greatest potential impact from combined roadway and corrective grading.

Typical riparian trees present in various areas include species of willows and coast live oak. A list of the species identified as characteristic along or adjacent to the streams and riparian corridors, and the wetlands are listed in **Table 1, Partial List of Plant Species Found In, Along, or Adjacent to the Riparian Corridors**.

Table 1
Partial List of Plant Species Found In, Along, or Adjacent to the Riparian Corridors

Scientific Name	Common Name	Native Species (Yes/No)
ANGIOSPERMS		
DICOTYLEDONS		
ADOXACEAE	**MOSCHATEL FAMILY**	
Sambucus nigra ssp. caerulea	Blue elderberry	Yes
ANACARDIACEAE	**SUMAC-CASHEW FAMILY**	
Rhus aromatica	Skunk bush	Yes
Toxicodendron diversilobum	Poison oak	Yes
ASTERACEAE	**SUNFLOWER FAMILY**	
Artemisia californica	California Sagebrush	Yes
Baccharis salicifolia	Mule fat	Yes
Centaurea melitensis	Star thistle	No
Corethrogyne filaginifolia	Common California-aster	Yes
Gnaphalium palustre	Western marsh cudweed	Yes
Heterotheca grandiflora	Telegraph weed	Yes
Sonchus oleracea	Common sowthistle	No
Stephanomeria virgata	Twiggy wreath plant	Yes
BRASSICACEAE	**MUSTARD FAMILY**	
Hirschfeldia incana	Short-pod mustard	No
Sisymbrium orientale	Eastern rocket	No
CACTACEAE	**CACTUS FAMILY**	
Opuntia basilaris var. basilaris	Beavertail cactus	Yes
CHENOPODIACEAE	**GOOSEFOOT FAMILY**	
Chenopodium californicum	California goosefoot	Yes
FABACEAE	**LEGUME FAMILY**	
Lotus scoparius	Common deerweed	Yes

Scientific Name	Common Name	Native Species (Yes/No)
Melilotus indicus	Yellow sweetclover	No
FAGACEAE	**OAK FAMILY**	
Quercus agrifolia	Coast live oak	Yes
GERANIACEAE	**GERANIUM FAMILY**	
Erodium cicutarium	Red-stemmed filaree	Yes
GROSSULARIACEAE	**GOOSEBERRY FAMILY**	
Ribes aureum	Golden currant	Yes
Ribes malvaceum	Chaparral currant	Yes
LAMIACEAE	**MINT FAMILY**	
Marrubium vulgare	Horehound	No
Salvia apiana	White sage	Yes
Salvia leucophylla	Purple Sage	Yes
Salvia mellifera	Black Sage	Yes
MALVACEAE	**MALLOW FAMILY**	
Malacothamnus marrubioides	Pink-flowered bushmallow	Yes
ONAGRACEAE	**EVENING PRIMROSE FAMILY**	
Epilobium pygmaeum	Vernal pool boisduvalia	Yes
POLYGONACEAE	**BUCKWHEAT FAMILY**	
Eriogonum fasciculatum	California buckwheat	Yes
ROSACEAE	**ROSE FAMILY**	
Cercocarpus betuloides var. betuloides	Mountain mahogany	Yes
Heteromeles arbutifolia	Toyon	Yes
SALICACEAE	***WILLOW FAMILY***	
Populus fremontii ssp. *fremontii*	Fremont's cottonwood	Yes
Salix lasiolepis	Arroyo willow	Yes
SCROPHULARACEAE	**SNAPDRAGON FAMILY**	
Castilleja exserta ssp. *exserta*	Purple owl's-clover	Yes
SOLANACEAE	**NIGHTSHADE FAMILY**	
Nicotiana glauca	Tree tobacco	No
ANGIOSPERMS		
MONOCOTYLEDONS		
LILIACEAE	**LILY FAMILY**	
Yucca whipplei	Our Lord's candle	Yes
POACEAE	**GRASS FAMILY**	
Avena barbata	Slender oats	No
Bromus diandrus	Ripgut brome	No
Bromus hordeaceus	Soft chess brome	No
Bromus madritensis ssp. *rubens*	Madrid brome	
Deschampsia danthonioides	Annual hairgrass	Yes
Leymus condensatus	Giant wildrye	Yes
Melica imperfecta	Coast Range melic	Yes
Nassella lepida	Foothill needlegrass	Yes
Nassella pulchra	Purple needlegrass	Yes

Site-Specific Methods

- To map those areas determined to be potentially jurisdictional by the protocols described above, a standard method was employed. Aerial photography was used to determine the routing of a number of small tributaries in steep areas. On the ground verification was completed during the site visit.

JURISDICTIONAL DELINEATION AND DETERMINATIONS

On-site drainages within the project boundaries deliver surface flows in a generally northwest direction where they are captured off site by the City of Santa Clarita's storm drain system, which at these locations is directly tributary to the Santa Clara River. Floral constituents of these drainages are discussed as a vegetation types above, in **Riparian Communities**, **Vernal pool**, and **Hillside seep**, above. There is 0.62 acre of potential CDFG jurisdiction and 0.47 acre of potential USACE jurisdiction on the project site. These acreages include intermittent and ephemeral streams in a generally natural state and setting, a small seep supporting a stand of Mexican wire rush, and a vernal pool wetland. The breakdown of jurisdictional areas by type and regulatory trustee agency is given in **Table 2, Jurisdictional Areas on the Via Princessa Site**, and their locations on site are shown in **Figure 2, Jurisdictional Impact Assessment**.

Table 2
Potential Jurisdictional Areas on the Via Princessa Site

Resource type	CDFG potential jurisdiction [acres]	USACE potential jurisdiction [acres]
Drainages	0.38	0.23
Hillside seep	0.05	0.05
Vernal pool	0.19	0.19
TOTAL	**0.62**	**0.47**

SUMMARY OF FINDINGS

Ultimately, the waters on site flow northwest into the Santa Clara River. Where a defined bed and bank occurs, the source of these bed and banks, and drainage flows is principally from rainfall sheet flow. From the USACE-regulatory perspective, the site's drainages would be ephemeral. These drainages (0.23 acre) meeting of "waters of the United States" criteria, however, the USACE will have to determine jurisdiction.

Legend:

Potential Grading Limit

Potentially Permanently Impacted Areas

USACE Waters (Approx. 0.23 acres)

CDFG Streambeds (Approx. 0.38 acres)

Hillside seep
- USACE and CDFG Wetland (0.05 acres)

Vernal Pool
- USACE and CDFG Wetland (0.19 acres)

400 200 0 400

1 inch = 400 feet

This delineation map was prepared by Impact Sciences, Inc. using regulatory agencies' approved methodologies. This map should be submitted to those agencies for concurrence. Until this jurisdictional determination is made this map should be used only for general planning purposes and should not be relied on for purposes such as engineering or impact analysis.

SOURCE: Image - Google Earth 2009
Impact Sciences, Inc. - April 2010

FIGURE **2**

Jurisdictional Impact Assessment

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All of the drainages and riparian vegetation surveyed (0.38 acre) are likely to be regulated by the CDFG. Since the streams may be relatively high-energy systems (high flows due to rapid runoff) flowing through erodible soils, some of the natural stream/drainage banks are on nearly vertical slopes. In cases where the natural banks are vertical, the USACE and CDFG jurisdictions are similar on the horizontal plain (map view), but not in the vertical plain (topographic view). Where banks are not vertical, or where riparian vegetation canopies are present, the USACE and CDFG jurisdictions likely diverge.

Federally jurisdictional waters are also subject to RWQCB jurisdiction under CWA Section 401. Under the Porter Cologne Act, "waters of the state" also delineated as "waters of the US" but not regulated by the USACE may be subject to RWQCB jurisdiction.

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