

Vegetation Assessment Report

PROJECT: **OROVISTA AVENUE NORTH OF BIG TUJUNGA CANYON ROAD
(W.O. E6000347)**

Prepared by: William Jones, Environmental Supervisor I
Bureau of Engineering,
Environmental Management Group (EMG).

Report Date: May 23, 2013



Photo 1

Introduction

The City of Los Angeles proposes to perform maintenance (channel realignment and grading of sediments) within Big Tujunga Canyon Wash in the vicinity of Oro Vista Avenue and within the Community of Sunland. The area of treatment includes channels to the east of the Oro Vista overcrossing, and culvert outlets lying, just to the west (Figure A). At the northern end of the Oro Vista Avenue Crossing, an existing bridge spans the perennial stream channel of Big Tujunga Canyon. The existing ephemeral creek bed will be graded to control flow into the culverts under the Oro Vista crossing. To accomplish this, some existing vegetation will need to be removed from within the maintenance zone. The gross project area covers about 0.67 hectares (1.66 acres).

The purpose of this study is to provide a record of existing vascular plant species, and characterize their vegetation communities, which may be affected, assess the significance of that impact and, if appropriate, recommend mitigation measures. Information from this report will also be used to prepare environmental permit applications, and/or mitigation measures for the loss of vegetation from the impacted areas.

Location Description

The project site is located in the bottom of Big Tujunga Wash (Figure B), in the community of Sunland. The wash drains the southwestern San Gabriel Mountains. The approximate

site elevation ranges from 395 to 398 meters (1,297 to 1,306 feet), above mean sea-level (Sunland 7.5 minute quadrangle).

Current Conditions

The perennial stream channel of Big Tujunga Canyon flows southward to the northwest of the project site. An overflow or bypass channel runs north to south through the western portion of the project site. Within the potential maintenance-impact zone, both disturbed and less disturbed habitats were present. Since construction of the roadway, adjacent areas have been frequently cleared or disturbed by flooding. Bare areas were common. Boulders and cobbles are interspersed within a matrix of unsorted sands, gravels and silts. Several large berms, comprising similar materials, lie to the northeast of the existing roadway. Numerous pioneer and alien, "weedy," species are common in the disturbed areas. Native vegetation fringes upon and has re-invaded some of the previously disturbed areas.

Methods

The floristic survey was conducted on May 1, 2013. A follow up visit was made on May 17, 2013. EMG performed previous surveys at this location in 1997, 2006, and 2010.

All vascular plant species were recorded, and California native plant species noted, within the designated maintenance zone. The potentially impacted area extends approximately 60 meters (200 feet) upstream, and approximately 15 meters (50 feet) downstream from Oro Vista Avenue. Some realignment work may be required to maintain the perennial stream channel, at a point upstream, about 1,000 meters (3,000 feet) to the east.

The survey was conducted by walking the project area and recording all vascular plant species encountered.

Fresh voucher specimens, of problem plant species, were collected for identification. Nomenclature followed Munz (1974) and Baldwin, et al. (2012). Other references – CALFLORA (2013), CNPS (2013), Consortium of California Herbaria (2013), Jones (1997), McMinn (1964), McMinn and Maino (1967), Raven et al. (1986 edition), Vasek (1982), Watson and Dalwitz (1992-1998) and Whitson (1992) - were also used.

Based upon the results, native California plant species, which appeared on the California Department of Fish and Game list of state and federally designated, rare and endangered plants, were to be noted and precautions taken for their preservation or replacement. Native plant species were checked against the December 1995 version of the California Native Plant Society's electronic inventory of rare and endangered vascular plants of California (Skinner and Pavlik, eds. 1994). The inventory includes the state (§1904, Ch. 10 of the Native Plant Protection Act or §2074.2 and §2075.5 of the California Endangered Species Act) and federal legal status (50 CFR 17.12) for each listed, rare and endangered plant.

The plant species list will be used to prepare re-vegetation plans for the impacted maintenance areas. In the ephemeral stream channel, mature, native trees, in excess of 7.6 cm (3 inches) in diameter, are to be replaced.

Results

Outside of the maintenance zone, the native vegetation forms a mosaic of sclerophyllic evergreen shrubs with a few small trees, and mostly sub-shrubs and grasses on adjacent terrace slopes. Within much of the proposed maintenance zone, vegetation consists of mostly scattered shrubs, subshrubs, perennials and annuals in one or two (ground and shrub) layers. Both [Riversidian] Alluvial Scrub and Cottonwood-Willow Forest Vegetation Communities are present. The highest density of growth, both spatially and physiognomically, occurred along the ephemeral stream channel. A few large, arborescent (3 meter or taller) shrubs (*Malosma laurina*, laurel sumac and small trees (*Salix sp.*, willows) were present within the maintenance zone.

Riparian wetland vegetation occurs in the vicinity of the culvert inlets and outlets. At these locations, surface water is present and groundwater is shallow. Vegetation in this section will have to be removed. Although small in areal extent, the microsites have positively trending indicators for hydrology, vegetation and soils, which indicates a technical wetland under the jurisdiction of the U.S. Army Corps of Engineers.

As listed in Table I, seventy-one vascular plant species were recorded in the survey across the construction zone. About two-thirds (64.8%) of the total number (46) of plant species were found to be California natives. The remainder consisted of nonnative, ruderal or garden escapee, species. No state or federal listed rare, endangered or sensitive species were recorded or sighted within the project area. One CNPS –listed rare plant species was present, *Malacothamnus davidsonii* (Robinson) E. Greene.

From Table I, many of the listed native species are also commonly found in chaparral or coastal sage scrub communities. Many species favor disturbed sites. Nearly three-fifths (57%) of the total number of species are found in wet or damp places, such as arroyos, or along perennial streams.

Within the ephemeral stream channel, dominant species include several willow species-shinning or yellow willow (*Salix lucida* Muhl.) (Photo 2), arroyo willow (*S. Lasiolepis* Benth.), and narrow-leaf willow (*S. exigua* Nutt.) (Photo 3). Other tree species included Fremont and black cottonwood (*Populus fremontii* S. Wats.) and (*P. balsamifera* L. var. *trichocarpa*: Torr. & A. Gray) Brayshaw. Other common, native shrub species included California sagebrush, (*Artemisia californica* Less.), wishbone bush (*Mirabilis laevis* (Benth.) Curran), laurel sumac (*Malosma laurina* (Nutt.) Abrams), buckwheat (*Eriogonum fasciculatum* Benth.), coast goldenbush (*Isocoma menziesii* (Hook. Arn.) Neesom), and mule fat (*Baccharis salicifolia* (Ruiz Lopez and Pavon) Pers.). Common native, annual herbaceous species included yellow pincushion (*Chaenactis glabriuscula* var. *megacephala* A. Gray) (Photo 4), foothill poppy (*Eschscholzia caespitosa* Nutt.) (Photo 5) and stinging lupine (*Lupinus hirsutissimus* Benth.) (Photo 6).

One rare shrub species- Davidson's Bush Mallow (*Malacothamnus davidsonii* ((Robinson) E. Greene) - was recorded just upstream from the culvert inlets at Oro Vista Avenue (Photo 7). Several individuals are present. All morphological characters align with *M. davidsonii*, except that the stellate hairs are white, instead of yellow. The species is listed (1B.2) in the California Native Plant Society's state inventory of native, rare and endangered vascular plant species.

Common, nonnative, species included giant reed (*Arundo donax* L.), brome (*Bromus* sp.), mustard (*Brassica* sp.), tree tobacco (*Nicotiana glauca* Graham) and castor bean (*Ricinus communis* L.).



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7

Recommendations

Based upon the floristic survey results, the Environmental Management Group recommends that the following steps be taken in order to mitigate impacts to vegetation within the construction zone:

1. The potential maintenance impact zone perimeter should be fenced in order to prevent additional damage to adjacent vegetation and habitat.
2. Re-vegetate the site with native tree species as necessary. Replacement plants should be the same species as recorded in this plant survey. Composition of the replacement plants should also reflect the results of this plant survey.
3. Replace removed, native trees greater than 7.5 centimeters (three inches) in diameter. Removed trees shall be replaced with the same species on a three-for-one basis. One native tree species – golden (or shining) willow (*Salix lucida* Mulenb.) - is involved. Since two trees are to be removed, six replacement trees will be required mitigation.
4. Completely eradicate nonnative plants, specifically Arundo grass and castor bean, as well as other CALEPPC-listed invasive plant species from the re-vegetated areas.
5. The re-vegetation plan should be designed by a licensed, landscape design contractor, preferably knowledgeable in the use of California native plants. The landscape contractor should be competent and experienced in native re-vegetation projects.
6. Replacement plants should be maintained for an adequate period, approximately two to three years, in order to ensure establishment and survival.

Oroveg.rpt
May 2013

References

- Baldwin, B. et al. (ed.), 2012. *The Jepson Manual: Higher Plants of California*. Berkeley, CA: U.C. Press.
- CALFLORA: Information on California plants for education, research and conservation. 2013. Berkeley, CA (<http://www.calflora.org/>).
- California Exotic Pest Plant Council. 2013. *California Exotic Pest Plant List*. (<http://www.caleppc.org/info/pestplants06.pdf>).
- California Native Plant Society (CNPS). 2013. *Inventory of Rare and Endangered Plants (online edition, v8-01a)*. California Native Plant Society. Sacramento, CA.
- Consortium of California Herbaria. 2013. (<http://www.ucjeps.berkeley.edu/consortium/>).
- State of California, Department of Fish and Game. 2009. *Natural Diversity Database, Rarefind 3: Government Edition*. Sacramento, CA.
- State of California, Department of Fish and Game. 2013. Natural Diversity Database. Sacramento, CA.
- Gibson, A. and B. Prigge. 2003. "Revised Flora of the Santa Monica Mountains: Final Report Task Agreement Number- J8540010001." Los Angeles: UCLA Herbarium.
- Integrated Taxonomic Information System (ITIS) IT IS. 2009, International Taxonomic Information System Retrieved [April, 2009]. (<http://www.itis.gov>).
- Jones, W. 1997. Vegetation Assessment Report, Oro Vista Avenue North of Big Tujunga Canyon Road (W.O. E6000347). June 17, 1997.
- McMinn, H. 1964. An Illustrated Manual of California Shrubs. Berkeley, CA: U.C. Press.
- McMinn, H. and E. Maino 1967. *An Illustrated Manual of Pacific Coast Trees*. Berkeley, CA: U.C. Press.
- Munz, P. 1974. A Flora of Southern California. Berkeley, CA: U.C. Press.
- Raven, P.H., H.J. Thompson and B.A. Prigge. 1986. Flora of the Santa Monica Mountains, California, second edition. Los Angeles, CA: Southern California Botanists Special Publication No. 2.
- Sawyer, J. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. Sacramento, CA: California Native Plant Society.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2009. The PLANTS Database (<http://plants.usda.gov>, June 2009). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- United States Department of the Army, U.S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual: Wetlands Research Program, Technical Report Y-87-1. Vicksburg, Mississippi.
- U.S. Department of the Interior, U.S.G.S. "Sunland, California," Topographic Map. 1972 edition (1:24,000).
- Vasek, F. 1982. *A Vegetative Guide to Perennial Plants of Southern California: Part I. Trees, Shrubs, Sub-shrubs and Vines*. Redlands, California: San Bernardino County Museum Association.

Watson, L. and M. Dalwitz. 1992-2013. *The Families of Flowering Plants: Descriptions, Illustrations, Identification, and Information Retrieval*. Ver. Th. UR. (<http://biodiversity.uno.edu/delta/>).

Whitson, T., et al. (ed), 1992. *Weeds of the West*. Jackson, WY: Pioneer Press of Jackson Hole.

List of Attachments:

Figures-

- A. Map of a portion of the Sunland Quadrangle (1:24000) Topographic Map Showing the Project location.
- B. Vertical Aerial Photograph Overlay Showing the Project Site and Project Boundaries.

Tables-

- I. List of Plant Species Recorded within the Area of Potential Effect.

Photos-

1. **Across Oro Vista Avenue, looking northeast.**

Figure A: Map of a portion of the Sunland, 7.5 Minute Quadrangle (1:24000) Topographic Map showing the Project Location.

Figure B: Vertical Aerial Photograph Overlay Showing the Project Site and Project Boundaries.
