

**APPENDIX E**  
**BIOLOGICAL SURVEY REPORT**

August 22, 2001

Mr. Kelvin Lew  
Los Angeles Department of Water & Power  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

**Subject: Supplemental Coast Live Oak and California Walnut Survey to Determine Extent of Impact From Mulholland Water Pipeline Project**

Dear Mr. Lew:

On August 15 and 16, 2001, a URS scientist conducted a biological resource survey of Coast Live Oak (*Quercus agrifolia*) and California Walnut (*Juglans californica*) trees along the proposed Mulholland Water Pipeline Project alignment ('Dirt' Mulholland Drive, between Greenbriar Drive and Saltillo Street) to supplement previous surveys completed for the Draft/Final Environmental Impact Report (EIR). The purpose of the supplemental survey was to document more detailed information of potentially impacted trees identified in the EIR.

The surveys were conducted along the entire length of the proposed project alignment between the hours of 7:30am and 3:30pm (August 15) and between 7:30am and 9:30am (August 16). The temperature from the morning to the late afternoon was between 75 and 100 degrees Fahrenheit (August 15) and approximately 70 degrees Fahrenheit (August 16), with mostly sunny skies and calm winds. These surveys were performed in general accordance with mitigation measures discussed in the Mulholland Water Pipeline Biological Resources Report performed by URS Corporation, dated March 2001. However, because the Coast Live Oaks and California Walnuts mitigation measures detailed in the EIR did not provide a reference point from which to measure from, URS and LADWP agreed that all potentially affected Coast Live Oaks and California Walnuts will be measured from the defined edge of the existing road to a maximum length of 20 feet.

The supplemental survey involved the use of a Sonin Combo Pro Distance Meter to measure and verify the distance of each tagged tree. An 18" - 50cm 18" Caliper Haglof and 100 meter measuring tape were also used. In addition, digital photographs were taken of each potentially impacted tree. Each tagged tree was visited and measurements were taken. The information was recorded in a worksheet which included: 1) distance

from base of tree to edge of roadway, 2) distance between edge of road and edge of canopy, 3) distance of canopy over roadway, 4) estimated percent crown cover of tree over roadway, 5) diameter of tree at breast height (DBH), 6) width of roadway adjacent to tree, and 7) suggested avoidance criteria.

The preliminary survey conducted on June 4, 2001 identified a total of 50 individual California Walnut trees and 15 Coast Live Oak trees potentially impacted by the project. The supplemental survey revised this total to 34 California Walnuts and 12 Coast Live. Each identified tree met one or more of the following criteria: 1) the tree crown is over the existing right-of-way or 2) the tree is rooted along the same approximate plane as Mulholland Drive and the trunk base or crown is located within 20 feet of either side of Mulholland Drive. Furthermore, each tree selected had a diameter at breast height (dbh) greater than four inches. The field data is summarized in the attached table, Enclosure 1. Enclosure 2 includes a photographic log which corresponds with Table 1. Finally, Enclosure 3 includes a revised aerial map with the location of those trees identified as potentially being affected by the proposed pipeline project.

Because the width of the existing road ranges from 12 feet to 27 feet, it is possible that many of the identified trees can avoid requiring mitigation. This particular mitigation, 'avoidance', can be achieved by conducting trenching activities beyond 20 feet from the base of potentially affected trees and beyond their root protection zones. **The root protection zone (RPZ)** is the most critical area of the oak and is half the distance from the trunk to the drip-line (Oak Tree Foundation website: [http://www.californiaoaks.org/html/oak\\_tree\\_care.html](http://www.californiaoaks.org/html/oak_tree_care.html)). Most of the root system of oaks occurs within the top three feet of the soil and its horizontal or lateral roots provide the tree with moisture and nutrients. Deep-growing vertical roots extend off the lateral system within ten feet of the trunk. Therefore, taking a conservative approach, the recommended 'avoidance' criteria stipulate the entire distance from the trunk to the drip-line which should not be encroached upon when determining the alignment of the pipeline. The edge of the roadway was defined as the clearly defined and traveled path. Table 1 defines 'avoidance' as the suggested safe distance from the edge of the road in the opposite direction of a tree, at which trenching may occur (trench zones may occur **beyond** this point to qualify as avoidance). It should be noted that an additional one-foot was added to each avoidance unit to account for measurement variations.

Should the recommended avoidance criteria not be met for a particular tree, that tree is eligible for mitigation and replacement at a ratio of 5:1. Replacement of the species shall occur in existing open space within the general vicinity of the project site. Appropriate planting techniques shall be exercised to provide for the long-term viability of the newly planted trees (i.e., installation of irrigation).

Should you have any questions, regarding these surveys, please call me at (714) 648-2835.

Sincerely,



**URS CORPORATION** For:  
Charles E. Smith, AICP  
Senior Project Planner

3 Enclosures

**ENCLOSURE 1**



**TABLE 1**

**Supplemental Sensitive Tree Survey for Mulholland Water Pipeline Project**

\* Distance measured from edge of road to base of trunk when either upslope or downslope

\*\* Distance measures from edge of road to trunk when at same plane as road

\*\*\* Distance measured from edge of road to outer-most edge of canopy (drip-line). This value pertains to actual canopy over the road. "[ ]" indicates distance to canopy off road.

CW	California Walnut	N/S	North or South side of the road
CLO	Coast Live Oak	U/D	Upslope or Downslope
-	On same plane or no entry		Individual trees previously identified as potentially affected, but has been determined to be outside the impact area.
NA	Not Affected	Est.	Estimated

**Avoidance:** Refers to URS suggested minimum safe distance from the edge of the road in the opposite direction of a tree to avoid mitigation.

This also implies that the zone of pipeline trenching will start on the opposite side of this minimum safe distance.

Example: S - 4' / 6' ; translates to: the URS suggested minimum safe distance from the edge of the road should be to the south at 4' feet to be beyond the RPZ and 6' feet to be beyond the 20' zone.

This is based on the conservative view that the root protection zone (RPZ) will extend from the base of the tree to the edge of the drip-line and 20 feet from the tree base.

In addition, a distance of one foot has been added to all avoidance values to account for measurement variations.

Tree ID	Species	Location (N/S)	Slope (U/D)	Est. Vertical Difference	To Base*	To Trunk**	To Crown***	Est. Crown Radius	% Cover	RPZ / 20'			
										Avoidance/Comment	DBH	Road Width	Picture #
1	CW	S	U	15'	20'	0	[5]	12'	0	N - 0' / 1'	6"	15'	2
2	CW	S	U	6'	17'	0	[2]	15'	5	N - 0' / 4'	6.5"	15'	1
3	CW	N	D	2'	0	24'	1'	15'	<1	S - 0' / 2'	10.5"	20'	3
4	CW	N	U	4'	0	10.5'	2'	15'	5	S - 3' / 10.5'	7"	15'	4
5	CW	S	U	3'	0	24'	[13']	11'	0	NA - Distance	6.5"	13'	51
6	CW	N	D	6'	0	20'	[13']	7'	0	NA - Distance	YES	12'	-
7	CW	S	U	8'	12'	0	1'	13'	<1	N - 2' / 9'	8.5"	16'	49
8	CW	N	U	3'	0	12'	3'	15'	5	S - 4' / 6'	4"	13'	48
9	CW	S	U	6'	0	15'	[6']	4'	0	N - 0' / 6'	1"	13'	47
10	CW	S	U	5'	0	15'	[7']	4'	0	N - 0' / 6'	1"	13'	46
11	CW	N	U	1'	0	6.5'	6'	12.5'	50	S - 7' / 8.5'	4.5"	19'	45
12	CW	N	D	4'	0	16.5'	1'	17.5'	<1	S - 2' / 3.5'	7"	19'	45
13	CW	S	U	4'	-	15'	2'	22'	7	N - 3' / 3'	>7"	19'	44
14	CW	S	U	1'	-	7'	[1']	6'	0	N - 0' / 14'	2.5"	19'	44
15	CW	S	-	-	-	12'	[2']	10'	0	N - 0' / 9'	3.5"	19'	42
16	CW	S	U	1'	-	10'	5'	15'	10	N - 6' / 11"	7"	19'	41
17	CW	S	-	-	-	-	-	-	-	NA - DBH	2.5-3.5"	-	-
18	CW	S	U	3'	-	21'	[5']	16'	0	NA - Distance	11-15"	24'	40

**TABLE 1 (continued)**  
**Supplemental Sensitive Tree Survey for Mulholland Water Pipeline Project (continued)**

RPZ / 20'

Tree ID	Species	Location (N/S)	Slope (U/D)	Vertical Difference	To Base*	To Trunk**	To Crown***	Crown Radius	% Cover	Avoidance/Comment	>4" DBH	Road Width	Picture #
19	CW	S	U	5'	-	10'	8'	18'	30	N - 9' / 11'	8.5"	24'	39
20	CW	N	-	-	-	-	-	-	-	NA - DBH	3.5"	-	-
21	CW	N	U	1'	-	12'	1'	13'	3	S - 2' / 9'	4"	14'	38
22	CW	S	U	3'	-	13'	4'	17'	7	N - 5' / 8'	5.5"	17'	37
23	CW	S	U	15'	-	20'	0	20'	0	N - 1' / 1'	10"	24'	36
24	CW	S	U	1'	-	23'	3'	26'	5	N - 4' / 0'	10"	20'	35
25	CW	N	D	2'	-	28.7'	[3']	25.7'	0	NA - Distance	8.5"	20'	34
26	CW	N	-	-	-	24'	[7']	17'	0	NA - Distance	4.5"	19'	33
27	CW	N	-	-	-	20'	[4']	17'	0	S - 0' / 1'	7"	19'	32
28	CW	N	U	2'	-	17'	[3']	14'	-	S - 1' / 4'	7"	19'	32
29	CW	S	U	10'	18'	-	1'	18'	<1	N - 1' / 2'	6"	19'	31
30	CW	N	U	6'	-	19'	0	19'	0	S - 1' / 2'	6.5"	21'	30
31	CW	S	U	7'	-	17'	[5']	12'	-	N - 1' / 4'	4.5"	21'	29
32	CW	S	-	-	-	>25'	-	-	-	NA - Distance	-	-	-
33	CW	S	-	-	-	>25'	-	-	-	NA - Distance	-	-	-
34	CW	S	U	4'	-	20'	[1']	19'	-	N - 1' / 1'	>4"	18'	28
35	CW	S	U	2'	12.5'	-	.5'	12'	<1	N - 1' / 8'	>4"	18'	27
36	CW	S	U	12'	17'	-	[1']	20'	-	N - 2' / 4'	>6"	19'	26
37	CW	N	-	-	-	24.5'	[6']	18.5'	0	NA - Distance	4"	19'	25
38	CW	N	D	5'	-	23'	3'	26'	10	S - 4' / 4'	4"	19'	22
38A	CW	N	-	-	-	22'	[10']	12'	-	NA - Distance	4"	19'	24
39	CW	S	U	6'	9'	-	0	9'	-	N - 0' / 12'	11"	18'	23
40	CW	S	U	3'	31.6'	-	-	-	-	NA - Distance	-	-	-
41	CW	N	N	-	-	13.5'	[3']	10.5'	-	S - 0' / 7.5'	2.5"	25'	21
42	CW	N	U	1'	7'	-	3'	10'	7	S - 4' / 14'	10"	20'	18
43	CW	N	D	-	-	>30'	-	-	-	NA - Distance	-	-	12
44	CW	N	D	6'	-	15.5'	3'	18.5'	4	S - 4' / 5.5'	6.5"	20'	13
45	CW	S	D	7'	-	26'	[2']	24'	0	NA - Distance	8.5"	20'	9
46	CW	S	U	3'	19'	-	[7']	12'	-	N - 0' / 2'	5"	20'	9
47	CW	S	U	4'	20'	-	2'	10'	10	N - 3' / 1'	4"	18'	5
48	CW	S	-	-	-	10'	[3']	5'	-	NA - DBH	2.5"	25'	6
49	CW	S	-	-	-	12'	1'	4'	5	NA - DBH	2.5"	27'	6
50	CW	S	-	-	-	10'	[1']	5'	-	NA - DBH	3"	27'	6
1	CLO	S	U	3'	-	7'	3'	10'	5	N - 4' / 14'	5.5"	16'	50
2	CLO	S	U	10'	24'	-	[3']	21'	0	NA - Distance	16.5"	16'	50
3	CLO	S	U	5'	-	16'	3'	19'	10	N - 4' / 5'	4.5"	18'	20
4	CLO	S	U	6'	20'	-	[2']	18'	0	N - 0' / 1'	4"	18'	19



**TABLE 1 (continued)**

**Supplemental Sensitive Tree Survey for Mulholland Water Pipeline Project**

RPZ / 20'													
Tree ID	Species	Location (N/S)	Slope (U/D)	Vertical Difference	To Base*	To Trunk**	To Crown***	Crown Radius	% Cover	Avoidance/Comment	>4" DBH	Road Width	Picture #
5	CLO	S	U	15'	-	28'	1'	27'	<1	N - 2' / 0'	12"	18'	19
6	CLO	S	U	3'	-	21'	9'	35'	20	N - 10' / 0'	12"	25'	17
7	CLO	S	U	20'	21'	-	[6']	15'	0	NA - Distance	12"	20'	16
8	CLO	N	D	2'	-	9'	10'	19'	25-30	S - 11' / 12'	12"	20'	14
9	CLO	N	-	-	-	7'	2'	19'	7	S - 13' / 14'	12"	20'	14
10	CLO	S	U	15'	23'	-	[3']	20'	0	NA - Distance	12"	20'	15
11	CLO	S	U	15'	19'	-	[4']	15'	0	N - 0' / 2'	6"	20'	15
12	CLO	S	U	3'	13'	13'	1'	15'	<1	N - 2' / 8'	6"	30'	11
13A	CLO	S	U	1'	-	26.5'	[7']	11'	20	NA - Distance	6"	18'	10
13	CLO	S	U	1'	-	26.5'	10'	36.5'	0	N - 11' / 0'	6"	18'	10
14	CLO	N	-	-	-	15'	[1']	10'	0	S - 0' / 6'	6"	20'	7
15	CLO	S	U	15'	15'	-	[1']	15'	0	S - 0' / 6'	4"	15'	8

Notes:

1 - 38A-CW and 13A-CLO were not included in the original tree count (survey June 4, 2001) based on their distance from the road.

2 - June 4, 2001 Total = 65 (CW = 50 and CLO = 15)

3 - August 14, 15 Total = 46 (CW = 34 and CLO = 12)



**ENCLOSURE 2**

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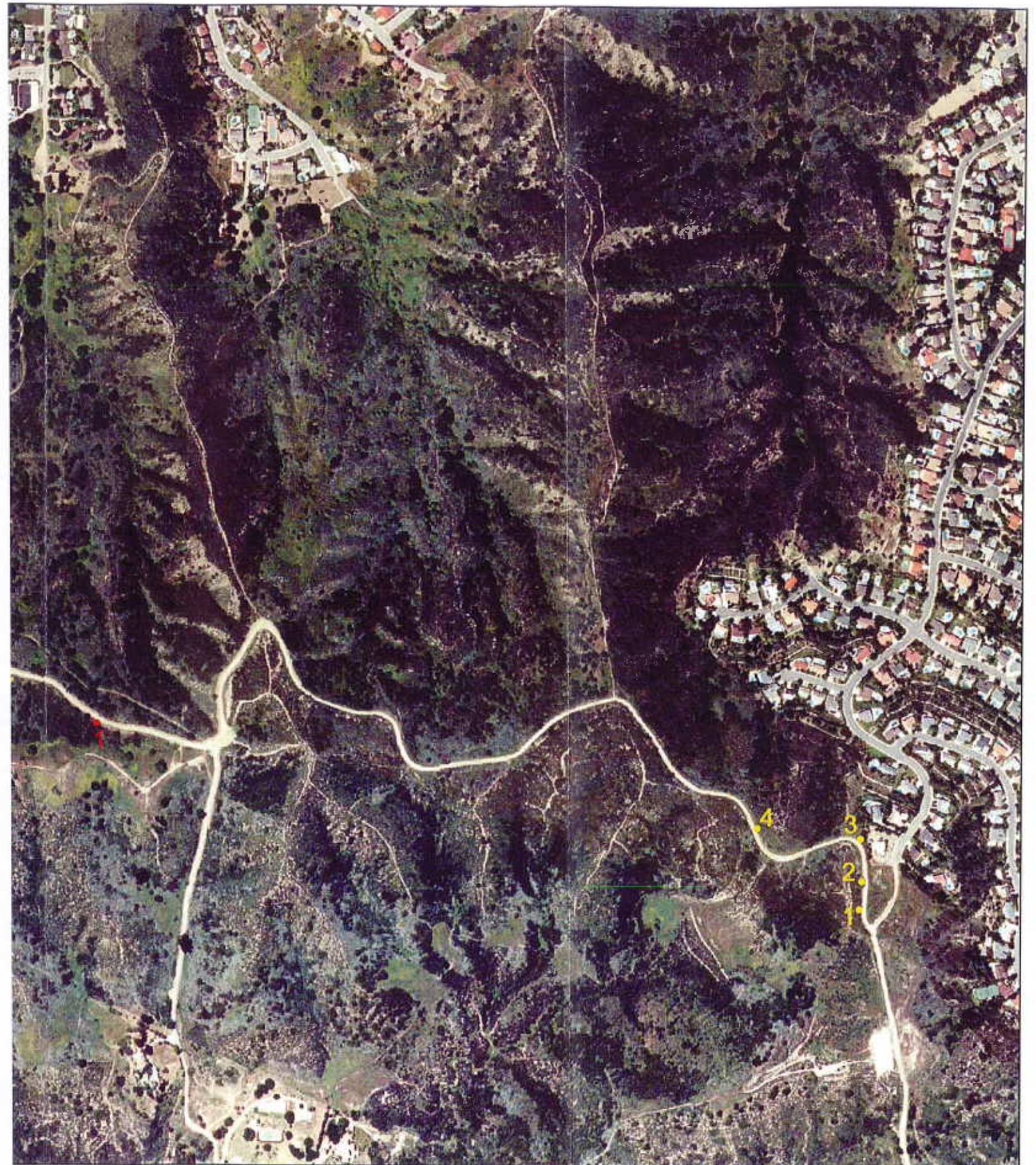


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**ENCLOSURE 3**



**HOLLAND WATER PIPELINE**

ive Oaks and California Walnuts Likely to be Directly Impacted

Figure 1

Vegetation Type
● Coast Live Oak
● California Walnut





June 25, 2001

Mr. Kelvin Lew  
Los Angeles Department of Water & Power  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

**Subject: Rare Plant Survey and Identification of Coast Live Oaks and California Walnuts Likely to be Directly Impacted as a Result of the Proposed Mulholland Water Pipeline Project.**

Dear Mr. Lew:

On June 4, 2001, URS biologists conducted two biological resource surveys along the proposed Mulholland Water Pipeline Project (Mulholland Drive, between Greenbriar Drive and Picasso Avenue). These surveys consisted first of a focused rare plant survey and secondly identification of individual Coast Live Oaks and California Walnuts that may be deleteriously affected as a result of the proposed project. The surveys were conducted along the entire length of the proposed project alignment. The temperature was approximately 75 degrees Fahrenheit, with mostly sunny skies and calm winds. These surveys were performed in accordance with mitigation measures discussed in the Mulholland Water Pipeline Biological Resources Report performed by URS Corporation, dated March 2001.

Prior to the surveys, the California Natural Diversity Database (CNDDDB) was queried for plant and animal species and habitats considered sensitive by the United States Fish and Wildlife Service (USFWS), California Native Plant Society (CNPS), and the California Department of Fish and Game (CDFG) in the Canoga Park United States Geological Survey (USGS) 7.5' minute quadrangle. The CNDDDB for the Canoga Park quadrangle lists four sensitive plant species: Santa Susana tarplant (*Deinandra* (*Hemizonia*) *minthornii*; CNPS List 1B), Braunton's milk vetch (*Astragalus brauntonii*; Federal endangered), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*; CNPS List 1B), and Plummer's mariposa lily (*Calochortus plummerae*; CNPS List 1B). Focused surveys for plant species that are considered sensitive by the CNDDDB were conducted during the appropriate flowering period (between late May and early June).

URS Corporation  
2020 East First Street, Suite 400  
Santa Ana, CA 92705  
Tel: 714.835.6886  
Fax: 714.667.7147

Mr. Kelvin Lew

June 25, 2001

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As previously identified in the March 2001 Biological Resources Report, three sensitive habitats - Coast Live Oak Woodlands, California Walnut Woodlands, and Coastal Sage Scrub - are located adjacent to Mulholland Drive. Because the proposed project will be confined to the existing road, direct impacts to Coastal Sage Scrub are not considered likely. In contrast, because the root systems associated with the large native Coast Live Oaks and California Walnuts presumably extend under the existing right-of-way, these trees are likely to incur root damage as a result of trenching for the proposed pipeline. Therefore, mitigation measures require the identification of individual Coast Live Oaks and California Walnuts likely to be directly impacted.

The entire length of the proposed alignment was surveyed on foot two times. The first survey consisted of walking the project alignment west to east in search of the above mentioned rare plants. Random transects, perpendicular to Mulholland Drive, were walked to examine the habitat directly adjacent to the Project Site. No rare or sensitive plants were observed.

The second survey consisted of walking the project alignment east to west identifying individual Coast Live Oaks and California Walnuts which are likely to be affected as result of the proposed project. Individual trees were selected based on the following criteria: 1) the tree crown is over the existing right-of-way; or 2) the tree is rooted along the same approximate plane as Mulholland Drive and is located within 20 feet of either side of Mulholland Drive. Furthermore, each tree selected must have a diameter at breast height (dbh) greater than four inches. Each tree selected was assigned a global position using a Garmin GPS 12 hand held unit, flagged with a numbered ribbon, and mapped on an aerial photograph (Figure 1). A total of 50 individual California Walnut trees and 15 Coast Live Oaks were selected.

All Coast Live Oaks and California Walnuts selected and tagged are eligible for mitigation and replacement at a ratio of 5:1. Replacement of the species shall occur in existing open space within the general vicinity of the project site. Appropriate planting techniques shall be exercised to ensure the long-term viability of the newly planted trees (i.e., installation of irrigation).



Mr. Kelvin Lew  
June 25, 2001  
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Should you have any questions, regarding these surveys, please call me at (714) 648-2835.

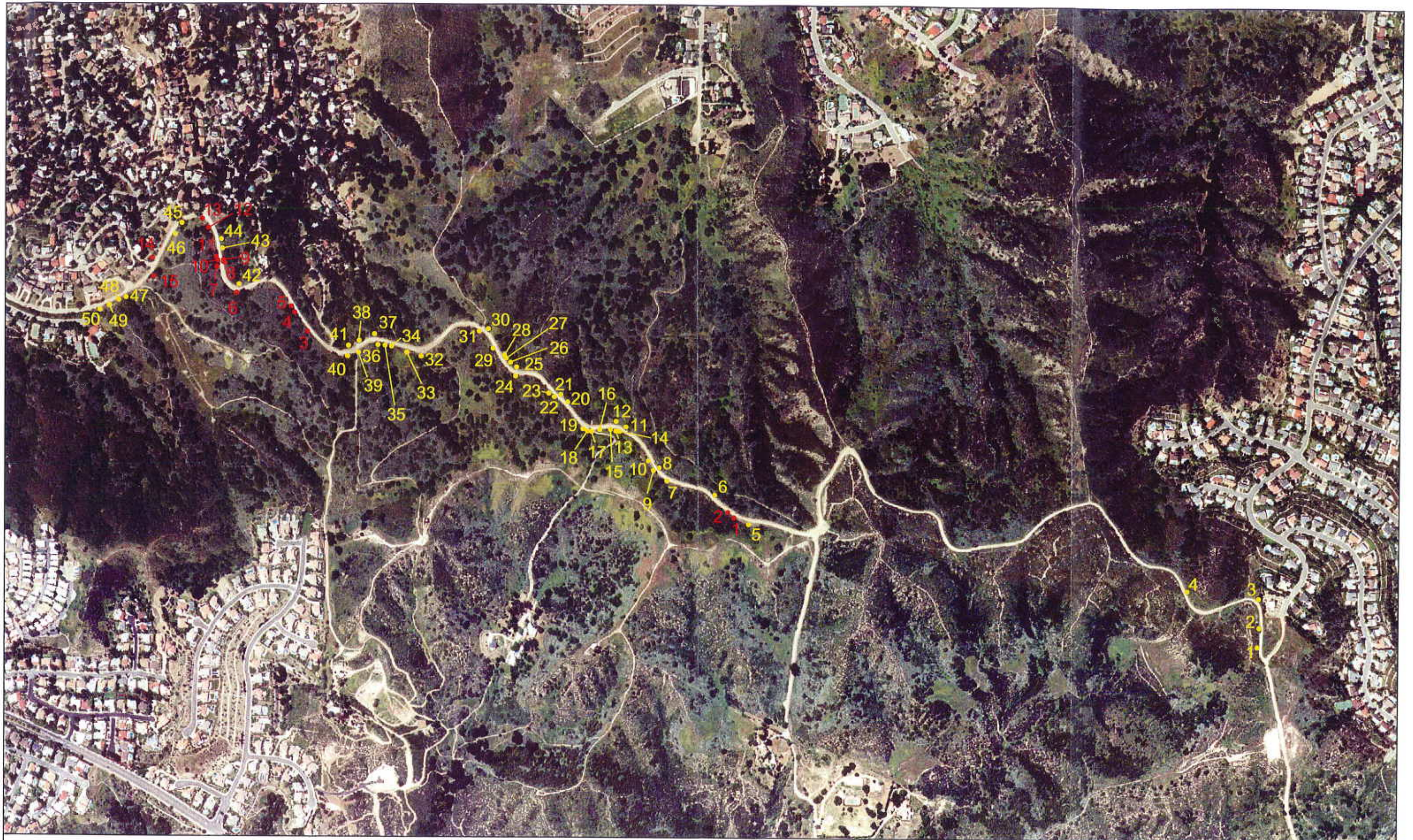
Sincerely,

**URS CORPORATION**

A handwritten signature in black ink, appearing to read 'Charles E. Smith'.

Charles E. Smith, AICP  
Senior Project Planner





**Project: MULHOLLAND WATER PIPELINE**

Project No.: 5700170019.02

June 2001

Locations of Coast Live Oaks and California Walnuts Likely to be Directly Impacted

Figure 1

Vegetation Type  
 ● Coast Live Oak  
 ● California Walnut





# **FINAL BIOLOGICAL RESOURCES REPORT**

## **Mulholland Water Pipeline**

Prepared by:

URS  
2020 East First Street, Suite 400  
Santa Ana, California 92705  
Project No. 57-00170019.02

Prepared for:

City of Los Angeles Department of Water and Power

**March 15, 2001**



**FINAL  
BIOLOGICAL RESOURCES  
REPORT**

MULHOLLAND WATER PIPELINE

PREPARED FOR:

**CITY OF LOS ANGELES DEPARTMENT  
OF WATER AND POWER**

URS Job No. 57-00170019.02

**MARCH 15, 2001**



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## FIGURES

- 1 REGIONAL LOCATION MAP
- 2 ALTERNATIVE PROJECT LOCATIONS
- 3 MULHOLLAND WATER PIPELINE VEGETATION MAP

## APPENDICES

- A MULHOLLAND WATER PIPELINE PLANT SPECIES LIST
- B MULHOLLAND WATER PIPELINE ANIMAL SPECIES LIST
- C PHOTOGRAPHIC LOG
- D CALIFORNIA NATURAL DIVERSITY DATABASE QUERY



## 1.0 Introduction

The Project Site is located in the Woodland Hills area of the City of Los Angeles (Figure 1) and consists of a paved and unpaved section of Mulholland Drive that spans approximately 2.9 miles. The Project Site is the primary location for the installation of a water pipeline proposed by the City of Los Angeles Department of Water and Power (LADWP).

The Mulholland Water Pipeline is a proposed project that involves the installation of approximately 13,000 linear feet of new 16-inch diameter water distribution pipeline along Mulholland Drive, between Greenbriar Drive and Saltillo Road. This portion of Mulholland Drive is a dirt road that traverses State-owned parklands and low density residential housing. Adjacent plant communities along this portion of Mulholland Drive include coastal sage scrub, coast live oak and California walnut woodlands, and southern mixed chaparral.

The proposed project involves the installation of approximately 2,200 linear feet of a 16-inch diameter water pipeline located along Mulholland Drive between Saltillo Road and Picasso Avenue. This portion of Mulholland Drive is paved and is located within a residentially developed area. The construction would also consist of the installation of a water regulating station and valves along Mulholland Drive.

According to the LAWDP, the proposed project impact area would be limited to the existing roadway and construction would use open trench methodologies. Excavation for the pipeline installation would average 5 feet in depth and 5 feet in width. Construction of the regulating station would be approximately 10 feet in depth, 20 feet in width and 30 feet in length. Construction is anticipated to progress at a rate of 54 to 72 feet per day with less than 250 linear feet of construction zone being active at the same time. Construction is anticipated to take approximately 18 to 20 months. Working hours would be from 0700 to 1700 weekdays and Saturday, as necessary.

In addition to the proposed Mulholland Drive alignment, the LADWP has selected three alternative route for the water pipeline (Figure 2). No surveys were performed along any of the alternative locations; however, these proposed sites were generally assessed based on low level aerial photographs, observation from Mulholland Drive, and other available information. The Alternative 1 route consists of a mix of developed and undeveloped land dominated by chaparral, coastal sage scrub, and woodlands. The Alternate 2 route includes developed public roadways. The Alternative 3 location is





currently developed with a water tank and an asphalt paved pad. Alternative 3 is adjacent to chaparral vegetation and residential development.



## 2.0 Methods

URS biologists conducted a biological survey along the entire length of the proposed alignment on February 22, 2001. The temperature ranged from 55 to 60 degrees Fahrenheit, with partly cloudy skies and calm winds. Measurable amounts of precipitation were recorded in the Woodland Hills area the night before and early morning hours the day of the survey. The survey was conducted to assess the biological resources on and adjacent to the proposed alignment (Mulholland Drive, between Greenbriar Drive and Picasso Avenue) and to assess the potential direct, indirect, and cumulative impacts associated with the proposed project.

The entire length of the proposed alignment was surveyed on foot. Random transects, perpendicular to Mulholland Drive, were walked to examine the habitat directly adjacent to the Project Site. Adjacent plant communities were identified and mapped (Figure 3). Animals were identified using scat, tracks, burrows, vocalizations, or direct observation with the aid of binoculars. A floral and faunal species list is provided in Appendix A and Appendix B, respectively.

Prior to the surveys, the California Natural Diversity Database (CNDDDB) was queried for plant and animal species and habitats considered sensitive by the United States Fish and Wildlife Service (USFWS), California Native Plant Society (CNPS), and the California Department of Fish and Game (CDFG) in the Canoga Park United States Geological Survey (USGS) 7.5' minute quadrangle.

The survey was performed on February 22, 2001, before the flowering period of most annual plants, including the sensitive plant species identified in the CNDDDB query. However, the proposed alignment is within the limits of an actively used dirt roadway that does not support any native vegetation. It is unlikely that sensitive plant species occur within the area of potential effect associated with the proposed Mulholland Drive alignment. Due to the timing of the survey, URS recommends that a focused rare plant survey be conducted prior to construction within the areas immediately adjacent to the Project Site during the appropriate flowering period for sensitive species listed in the CNDDDB.



## 3.0 Results

### 3.1 Existing Conditions

The Project Site consists of the existing roadway (Mulholland Drive), which has three distinct sections: public-paved road (i.e. public vehicle access); public-unpaved road; and private-unpaved road (i.e. no public vehicle access) (Figure 2). The public-paved road section extends east from Picasso Avenue to approximately Saltillo Street. Adjacent property along this section of Mulholland Drive is developed with single-family residential dwellings. The public-unpaved road section extends from Saltillo Street to Santa Maria Road, which intersects Mulholland Drive near the center of the proposed alignment. The private-unpaved road section is located between Santa Maria Road and Greenbriar Drive. Greenbriar Drive represents the eastern boundary of the Project Site. The topography of the Project Site is varied, with rolling hills, terraces, and steep slopes.

The existing dirt road does not support native vegetation. The vegetation adjacent to the road is dominated by coastal sage scrub, southern mixed chaparral, coast live oak woodland, California walnut woodland, and disturbed vegetation. Areas of disturbed vegetation were particularly notable along the public-unpaved section of the Project Site. These areas of disturbance are parallel to the roadway, forming a soft shoulder. The disturbed areas range in width from 2 to 15 feet and are dominated by ruderal species (non-native, invasive broad-leaved weeds). In contrast, the private-unpaved section supports dense native shrubs with no shoulder between the road and the adjacent native vegetation.

#### 3.1.1 Plant Communities

A list of the floral species observed on the Project Site is provided in Appendix A. Figure 3 depicts the vegetative communities located in the vicinity of the proposed alignment.

- **Coastal sage scrub** is comprised of low, soft-woody subshrubs to about 1 meter (3 ft) high, many of which are facultatively drought-deciduous. This association is typically found on dry sites, such as steep, south-facing slopes. Dominant shrub species in this vegetation type vary depending on local site factors and levels of disturbance. The coastal sage scrub along Mulholland Drive consists of purple sage (*Salvia leucophylla*), California sagebrush (*Artemisia californica*), flat-topped buckwheat (*Eriogonum fasciculatum*), red-bush monkeyflower (*Mimulus*

*aurantiacus*), California encelia (*Encelia californica*), black sage (*Salvia mellifera*) coastal goldenbush (*Isocoma menziesii*), and bush penstemon (*Keckiella cordifolia*).

- **Chaparral** is widely distributed throughout California on dry slopes and ridges at low and medium elevations where it occupies thin, rocky, or heavy soils. It is typically composed of broad-leaved, sclerophyllous shrubs (e.g. bearing stiff, leathery leaves), although species composition varies considerably with location. The plants of this community have developed the ability to survive recurrent fires by producing seeds that require a fire-related cue to stimulate germination and/or by stump sprouting after being burned. The chaparral along Mulholland Drive can be classified as subtype Southern Mixed Chaparral (Holland 1986) due to its relatively high species diversity. Species found in this plant community are greenbark ceanothus (*Ceanothus spinosus*), chamise (*Adenostoma fasciculatum*), laurel sumac (*Malosma laurina*), gooseberry (*Ribes aureum* and *R. malvaecium*), toyon (*Heteromeles arbutifolia*), and scrub oak (*Quercus dumosa*).
- **Non-native Grassland** is characterized by dense to sparse cover of annual grasses, often with native and nonnative annual forbs (Holland 1986). This habitat is a disturbance-related community most often found in old fields, openings in native scrub habitats, or along roads. The disturbed areas along Mulholland Drive support non-native grassland consisting of wild oat (*Avena* sp.), soft chess (*Bromus hordeaceus*), red brome (*B. madritensis ssp. rubens*), riggut brome (*Bromus diandrus*), and barley (*Hordeum murinum ssp. leporinum*). Forbs present include filaree (*Erodium cicutarium* and *E. moschatum*), mustard (*Brassica* spp.) and bur clover (*Medicago polymorpha*).
- **Developed/Ornamental** areas support no native vegetation due to past disturbances associated with the presence of buildings, roads, and other infrastructure. The level of soil disturbance is such that only the most “weedy” plant species would be expected. Ornamental vegetation is often found adjacent to developed areas as landscape plantings. The developed/ornamental areas within the Project Site include Mulholland Drive and adjacent residential development with associated ornamental plantings such as pepper trees (*Schinus* spp.) and pines (*Pinus* sp.).
- **Disturbed/Ruderal Habitat** is any land on which the native vegetation has been significantly altered by land-clearing activities, and the species composition and site conditions are not characteristic of any disturbed phase of native plant association (e.g. disturbed coastal sage scrub). Such habitat is typically found in recently cleared areas, vacant lots, roadsides, construction staging areas, and is dominated by a lack of vegetation or an inclusion of non-native broadleaf species. The disturbed/ruderal habitat onsite occupies the disturbed land immediately adjacent to Mulholland Drive and consists of filaree (*Erodium* spp.), mustard (*Brassica* sp.), bur clover (*Medicago polymorpha*) and a lesser percent cover of non-native grasses. This habitat often intergrades with non-native grassland.



- **Coast Live Oak Woodland** is characterized by coast live oaks (*Quercus agrifolia*). The shrub layer is typically poorly-developed but may include poison oak (*Toxicodendron diversiloba*), toyon, gooseberry (*Ribes spp.*), laurel sumac, and mexican elderberry (*Sambucus mexicana*). The herbaceous component is continuous and often dominated by non-native, weedy species and grasses. There is both sparse and dense phases of coast live oak woodland along Mulholland Drive. The adjacent drainages support denser woodlands with the slopes supporting a less dense distribution of coast live oaks with an understory of coastal sage scrub or southern mixed chaparral.
- **Southern California Walnut Woodland** is dominated by California walnut (*Juglans californica var. californica*), often with an understory of coastal sage scrub, chaparral or grassland. The walnut woodlands adjacent to Mulholland Drive occupy several drainages and slopes and form a mixed woodland community of California walnut and coast live oak.

### 3.1.2 Wildlife

Wildlife species, or their sign, were identified throughout the Project Site and include mammals such as mule deer, coyote, bobcat, rabbits, and rodents. Various species of birds including songbirds and raptors were identified. Domestic dogs are also present on the Project Site. A list of the species detected on the Project Site is provided in Appendix B.

## 3.2 Sensitive Resources

### 3.2.1 Sensitive Habitats

Sensitive habitats are plant communities or species that are considered rare or seriously declining within the region, are listed by the California Natural Diversity Database (CNDDDB), or are habitats that support sensitive plants or wildlife. Sensitive habitats adjacent to the Project Site include coastal sage scrub, Coast Live oak woodland, and California walnut woodland. The coastal sage scrub and California walnut woodland are given the highest priority by the CNDDDB.

**COASTAL SAGE SCRUB:** Coastal sage scrub is considered sensitive by the California Native Plant Society (CNPS), California Department of Fish and Game (CDFG) and USFWS, and is present on the Project Site. Impacts on coastal sage scrub habitat are considered significant since this habitat is ranked as "very threatened" by the CNDDDB. Coastal sage scrub is of particular importance in southern California because it provides habitat for approximately 100 other sensitive species. The USFWS estimated that coastal sage scrub habitat has been reduced by over 70 percent of its historical extent (USFWS,



1991), primarily due to agriculture and urban development. Additional evidence of the decline of this once common habitat is the growing number of declining plant and animal species dependent upon it, coastal populations of cactus wren, rufous-crowned sparrow, orange-throated whiptail, and several sensitive plant species, such as Plummer's mariposa lily.

**COAST LIVE OAK WOODLAND:** Oak woodlands in southern California have been substantially reduced and are considered important habitat for a diverse list of plant and wildlife species. Oaks have a sensitive root system that may extend 25 feet beyond the canopy dripline of the tree. Soil disturbance with this root zone can reduce substantially the viability of the affected tree. Similarly, excessive summer-time irrigation can cause root rot and kill the tree.

**CALIFORNIA WALNUT WOODLANDS:** California Walnut Woodland habitat are considered significant due to its relative rarity. This habitat is categorized as "endangered" by the CNDDDB. Threats to this community include urbanization and too frequent wildland fires.

### 3.2.2 Sensitive Plants

Two sensitive plant species, Coast Live oak and California walnut, were observed adjacent to Mulholland Drive. These species are considered sensitive by URS and other jurisdictions due to their high wildlife value and contribution to habitat value and contribution to habitat diversity within the local landscape. No other sensitive plant species was found, however, the winter-season timing of the surveys precluded detection of spring/summer flowering herbaceous species. Focused surveys for plant species that are considered sensitive by the CNDDDB should be conducted during the appropriate flowering period. The CNDDDB for the Canoga Park quadrangle lists four sensitive plant species:

***Santa Susana tarplant* (*Deinandra (Hemizonia) minthornii*; CNPS List 1B)** – This July-November flowering deciduous species inhabits chaparral and rocky coastal sage scrub areas and is known from Los Angeles (Santa Susana Mountains) and Kern counties. There is a low potential for this plant to occur immediately adjacent to Mulholland Drive.

***Braunton's milk vetch* (*Astragalus brauntonii*; Federal endangered)** – This March-July flowering perennial herb inhabits chaparral, coastal sage scrub, valley foothill grasslands and coniferous forests. There is a moderate potential for this plant to occur immediately adjacent to Mulholland Drive.





*San Fernando Valley spineflower* (*Chorizanthe parryi* var. *fernandina*; CNPS List 1B) – This April-June flowering annual herb occurs in sandy coastal sage scrub areas. There is a moderate potential for this plant to occur immediately adjacent to Mulholland Drive.

*Plummer's mariposa lily* (*Calochortus plummerae*; CNPS List 1B) – This May-July blooming perennial bulb has been found in chaparral, coastal sage scrub, grasslands, and coniferous forests. The flowering stalk of a species of *Calochortus* was observed immediately adjacent to Mulholland Drive during the survey, but the condition of the dead stem precluded accurate identification. There is moderate potential for this plant to occur immediately adjacent to Mulholland Drive.

### 3.2.3 Sensitive Wildlife

General surveys were conducted for wildlife species that are considered sensitive by the CNDDDB in the vicinity of the Project Site. The CNDDDB listed San Diego Horned Lizard (*Phrynosoma coronatum blainvillei*) as a sensitive species. In addition, the California Department of Fish and Game has identified the California Coast Horned Lizard (*Phrynosoma coronatum frontale*) as a sensitive species. No sensitive wildlife species were observed during the survey.

Birds of prey (raptors), such as northern harrier (*Circus cyaneus*), sharp-shinned hawk (*Accipiter striatus*), white-tailed kite (*Elanus leucurus*), and Cooper's hawk (*Accipiter cooperii*), potentially use the habitat adjacent to the Project Site. A pair of American Kestrel (*Falco sparverius*), a pair of Red-tail hawk (*Buteo jamaicensis*), and a Cooper's Hawk were detected onsite. No raptor nests were observed during surveys, but nesting activity likely occurs in the project vicinity.

### 3.2.4 Wildlife Movement

The dirt road portion of Mulholland Drive likely supports local movements of common terrestrial wildlife species, including coyote, bobcat, and deer. Sign of coyote and deer were detected during the survey.



## 4.0 Impact Assessment

### 4.1 Significance Criteria

Direct impacts occur when sensitive biological resources are altered or destroyed during the course of, or as a result of, project implementation. Examples of such impacts include removal of sensitive vegetation, filling of wetland habitats, or severing or physically restricting the width of wildlife corridors. Other direct impacts may include loss of foraging or nesting habitat and loss of individual species as a result of habitat clearing. Indirect impacts may occur due to elevated levels of noise or lighting, change in surface water hydrology within a floodplain, and increased erosion or sedimentation. These types of indirect impacts can affect vegetation communities or their potential use by sensitive wildlife species.

The California Environmental Quality Act (CEQA) Guidelines define “significant effect on the environment” as a “substantial, or potentially substantial adverse change in the environment.” The CEQA Guidelines further indicate that there may be a significant effect on biological resources if the project will:

- Substantially affect an endangered, rare, or threatened species of animal or plant or the habitat of the species;
- Interfere substantially with the movement of resident or migratory fish or wildlife species to the extent that it adversely affects the population dynamics of the species;
- Substantially diminish habitat for fish, wildlife, or plants; or
- Affect a substantial portion of the distribution of plant communities defined as threatened or very threatened by the Nature Conservancy Heritage Program or as designated in the CNDDB.





## 4.2 Direct Impacts

### 4.2.1 Vegetation

According to the LADWP, the construction of the water pipeline would occur within the existing road. Based on our biological survey, the existing road does not support native vegetation. Native trees such as coast live oak and California walnut, located adjacent to the road, may have roots that extend under the existing dirt road. Therefore, any excavation operations within 25 feet of either oak or walnut trees may adversely affect tree viability. Any direct impacts resulting from construction activities should be avoided where practicable or, if necessary, can be mitigated.

### 4.2.2 Sensitive Species

Based on this biological survey, the existing road does not support suitable habitats for sensitive species. Therefore, no significant direct impacts to sensitive species would occur if the proposed project is implemented as proposed. A pre-construction rare plant survey is recommended so any directly adjacent sensitive plant populations can be protected and monitored during the construction process.

### 4.2.3 Wildlife Movement

The proposed construction process would be limited to 250-foot segments of the alignment and construction activities would be limited to day-time hours. Construction activities are not expected to impede local wildlife movement in the vicinity of the Project Site. Potential impacts to wildlife movement is less than significant.

## 4.3 Indirect Impacts

There is the potential for indirect impacts to occur as a result of implementation of the proposed project. The areas where potential indirect impacts have the potential to occur could extend 150 feet from the development edge into the adjacent habitat. Such indirect impacts may include:

- Introduction of invasive exotic plant species into the project area.
- If any migratory non-game, native bird species are nesting adjacent to the Project Site, they may be disturbed by the proposed construction.

Since the construction activities will be limited to 250-foot segments over a 10-day period, the short-term disturbance to nesting wildlife directly adjacent to the construction site is considered less than significant. Since the construction area is limited primarily to the dirt roadway, the opportunity for invasive species to become established is less than significant.

## 4.4 Cumulative Impacts

Other approved or proposed projects affecting biological resources within this portion of Mulholland Drive include the following:

- Mulholland Scenic Parkway Specific Plan calls for the installation of fire hydrants along Dirt Mulholland as a mitigation to address the increased fire hazards as a result of the implementation of this specific plan.

Similar to the LADWP water pipeline project, the Mulholland Scenic Parkway Specific Plan is a linear project along an existing road (Mulholland Drive). The potential for these projects to affect biological resources within the vicinity of the Project Site is less than significant.

## 4.5 Alternatives to the Project

In addition to the Mulholland Drive site, the LADWP has selected three alternative route for the water pipeline (Figure 2). No focused surveys were performed along any of the alternative locations; however, based on a review of recent low elevation aerial photographs, observations from Mulholland Drive, and available information, the assessment of the biological resources associated with these alternatives are as follows:

- **Alternative 1 – Mulholland Gateway Park:** Biological resources would incur significant direct and indirect impacts since this alternative alignment would proceed directly through intact Coastal Sage Scrub, Chaparral, Oak Woodland and Walnut Woodlands, and potential habitat of rare plant species.
- **Alternative 2 – Ellenita/Wells/Canoga Alignment:** This route is located on existing paved streets, no biological resources would be significantly impacted.
- **Alternative 3 – Topanga Tank Expansion:** The current tanks pad would require modification and expansion. The expansion would require the removal of a mixed





community of Coastal Sage Scrub and Chaparral. This would be considered significant if loss of native vegetation exceeded 5 acres.

- **Alternative 4 – No Project:** No project alternative would avoid any adverse biological impacts in that no use of heavy machinery would occur within or alongside the roadway. Existing vegetation would remain in tact and wildlife present in the vicinity would remain undisturbed.



## 5.0 Mitigation

Should the proposed Mulholland Drive Water Pipeline Project be implemented the following mitigation measures are recommended:

- A pre-construction focused survey should be conducted by a qualified biologist to: 1) identify rare plants, if any, located within 50 feet of either side of the proposed construction zone (must be surveyed between late May and early June) and 2) identify the location of nesting raptors, if any, within close proximity to the proposed construction zone. Should nesting raptors be present, construction of the pipeline within 500-feet of an active nest shall be avoided until after the breeding season has ended.
- Additional tasks associated with the pre-construction survey efforts include identifying and tagging Coast Live Oaks and California Walnuts which would likely incur root damage as a result of trenching for the proposed pipeline. Those trees with a diameter at breast height (dbh) greater than four inches, located within 25 feet and on the same approximate horizontal plane as that of the approved alignment should be tagged eligible for mitigation and replaced at a ratio of 5:1. Replacement of the species should occur in existing conserved and degraded open space (i.e., Santa Monica Mountains Conservancy land, State, County, City land) within the general vicinity of the project site. Appropriate planting techniques should be exercised to ensure the long term viability of the newly planted trees (e.g., use of gel packs to ensure ample water source). Monitoring of the newly planted trees is recommended once every Spring and Fall.
- All limits of grading and construction activities should be clearly delineated (e.g., with rollout, temporary mesh fencing) so that no native vegetation outside the delineated limits would be disturbed by construction personnel or equipment.





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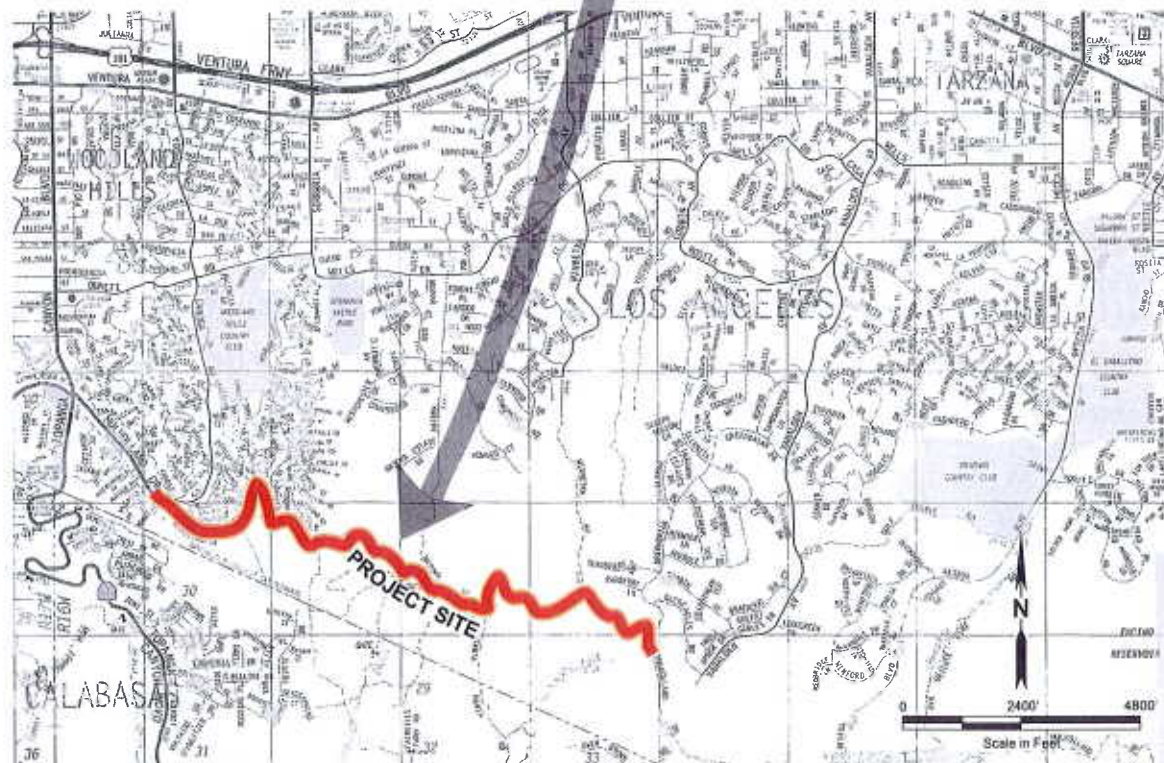
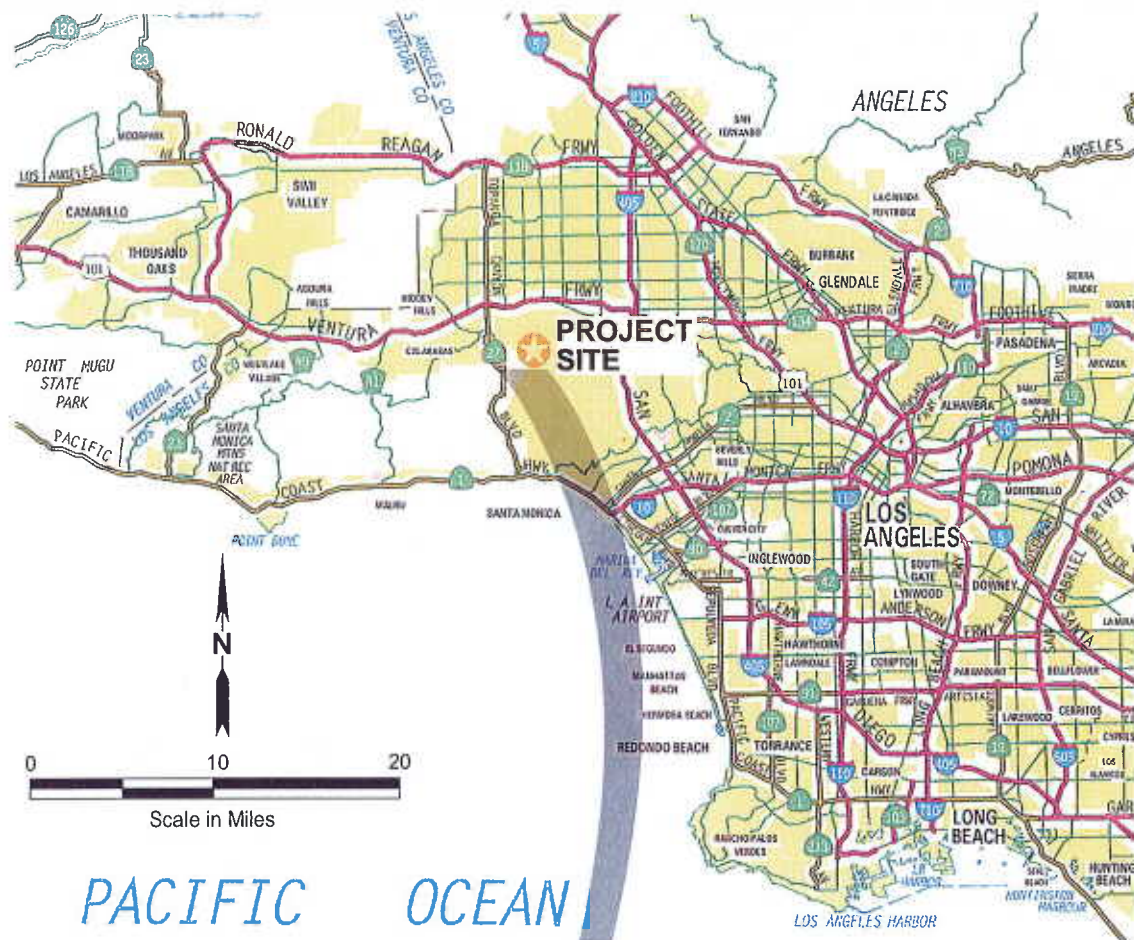
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**URS**

**FIGURES**



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### REGIONAL AND SITE LOCATION MAP

Project No.: 5700170019.02

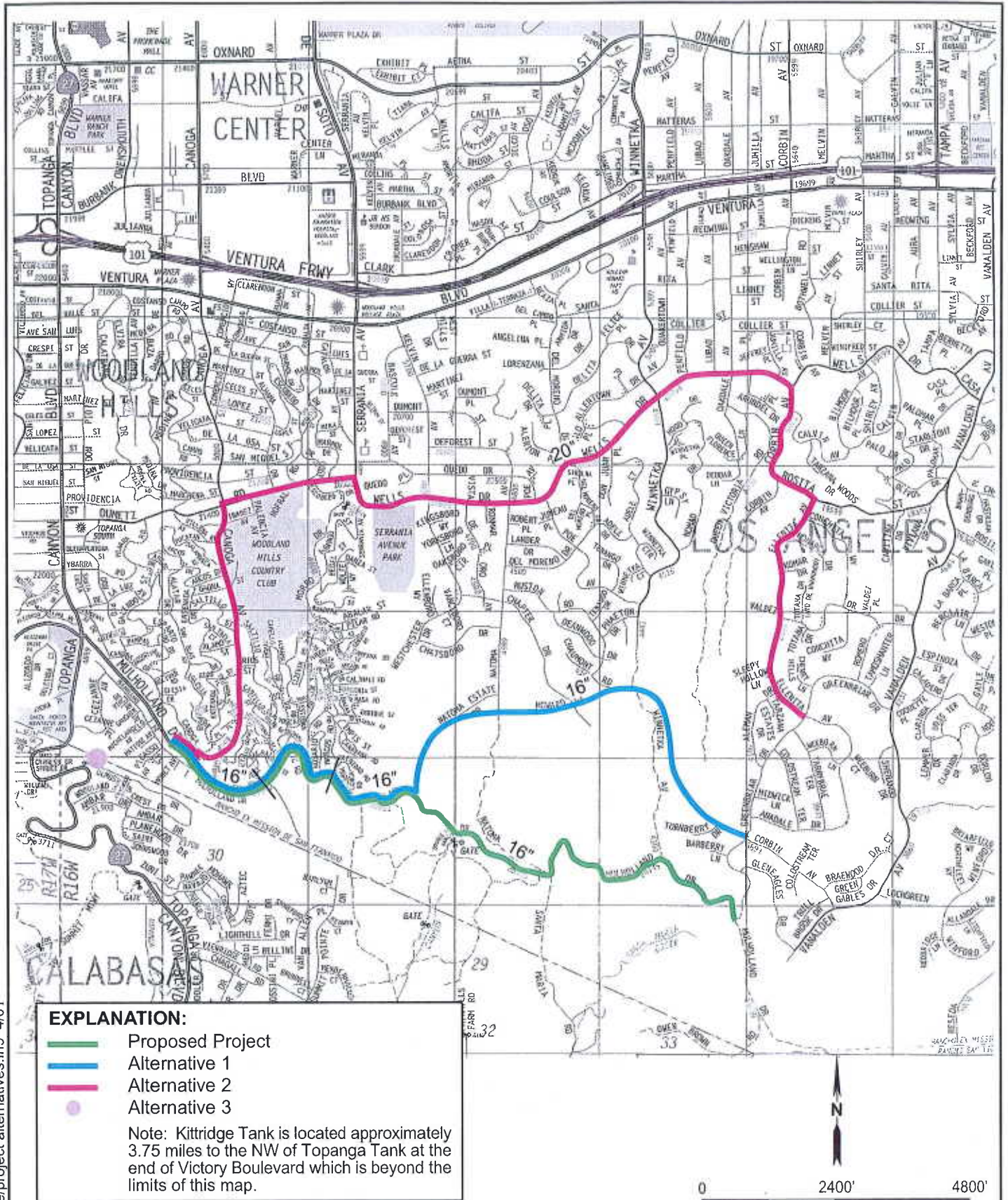
Date: APRIL 2001

Project: MULHOLLAND WATER PIPELINE

Figure 1







**EXPLANATION:**

- Proposed Project
- Alternative 1
- Alternative 2
- Alternative 3

Note: Kittridge Tank is located approximately 3.75 miles to the NW of Topanga Tank at the end of Victory Boulevard which is beyond the limits of this map.

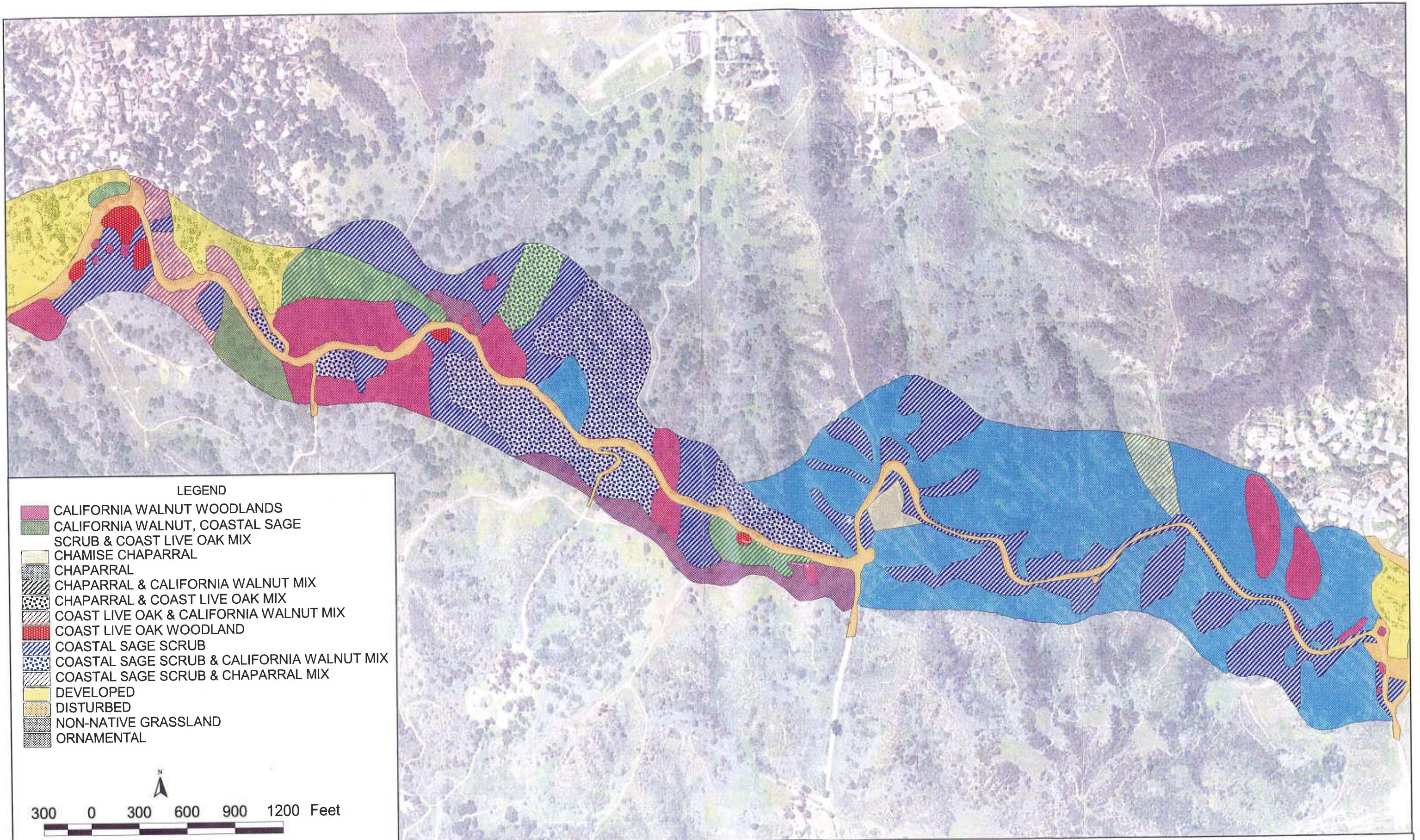
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**PROJECT ALTERNATIVES ALIGNMENT**

Project No.: 5700170019.02	Date: APRIL 2001	Project: MULHOLLAND WATER PIPELINE	Figure 2
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**VEGETATION COVERAGE**



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# **APPENDIX A**

MULHOLLAND WATER PIPELINE  
PLANT SPECIES LIST

**ANGIOSPERMS (FLOWERING PLANTS)**

**MONOCOTYLEDONEAE**

**LILIACEAE** – Lily Family

*Calochortus* sp. – mariposa lily

*Yucca whipplei* ssp. *whipplei* – our lord's candle

**POACEAE** - Grass Family

\**Arundo donax* – giant reed

\**Avena barbata* - slender wild oat

\**Bromus diandrus* – ripgut brome

\**Bromus hordeaceus* – soft chess

\**B. madritensis* ssp. *rubens* - foxtail chess

\**Hordeum murinum* ssp. *leporinum*

**DICOTYLEDONEAE**

**ANACARDIACEAE** – Sumac Family

*Malosma laurina* – laurel sumac

*Rhus integrifolia* - lemonadeberry

*Rhus ovata* – sugarbush

\**Schinus molle* – California pepper tree

*Toxicodendron diversilobum* – poison oak

**APIACEAE** – Carrot Family

\**Apium graveolens* - celery

**APOCYNACEAE** – Dogbane Family

*Oleander* sp.

**ASTERACEAE** - Sunflower Family

*Ambrosia psilostachya* – western ragweed

*Artemisia californica* – California sagebrush

*Baccharis pilularis* - coyote brush

*Baccharis salicifolia* – mulefat

*Brickellia californica*

\**Centaurea melitensis* – tocalote

*Gnaphalium bicolor*

*Hazardia squarrosa* var. *squarrosa* – saw-toothed goldenbush

*Heterotheca grandiflora* – telegraph weed

*Isocoma* sp.

*Malacothrix saxatilis*

\**Silybum marianum* – white thistle

**BRASSICACEAE** - Mustard Family

\**Brassica nigra* – black mustard

\**Raphanus sativus* - wild radish

**CAPRIFOLIACEAE** – Honeysuckle Family

*Lonicera* sp. - honeysuckle

*Sambucus mexicana* – Mexican elderberry



**CHENOPODIACEAE** - Goosefoot Family

\**Salsola tragus* – Russian thistle

**CUCURBITACEAE** – Gourd Family

*Marah macrocarpus*

**CUSCUTACEAE** – Dodder Family

*Cuscuta* sp. - dodder

**FABACEAE** - Pea Family

*Astragalus trichopodus* var. *leucopsis*

*Lotus scoparius* – deerweed

*Lupinus* sp. - lupine

\**Medicago polymorpha*

\**Melilotus alba* - white sweetclover

**FAGACEAE** – Oak Family

*Quercus agrifolia* – coast live oak

*Quercus dumosa* – nuttall's scrub oak

**GERANIACEAE** - Geranium Family

\**Erodium cicutarium* - red-stem filaree

\**E. moschatum*

**GROSSULARIACEAE** – Gooseberry Family

*Ribes aureum*

*Ribes malvaeceum*

**HYDROPHYLLACEAE** – Waterleaf Family

*Phacelia* sp.

**JUGLANDACEAE** – Walnut Family

*Juglans californica* var. *californica* – California walnut

**LAMIACEAE** - Mint Family

\**Marrubium vulgare* – horehound

*Monardella lanceolata*

*Salvia mellifera* – black sage

*Salvia apiana* – white sage

*Salvia leucophylla* – purple sage

*Stachys* sp. – hedgenettle

**MALVACEAE** - Mallow Family

*Malacothamnus fasciculatus* – bush mallow

\**Malva parviflora* - cheeseweed

**OXALIDACEAE** – Wood Sorrel Family

*Oxalis pes-caprae* - sorrel

**PAEONIACEAE** – Peony Family

*Paeonia californica* – California peony

**POLYGONACEAE** – Buckwheat Family

*Eriogonum fasciculatum* var. *fasciculatum* – flat-top buckwheat

**PORTULACACEAE** – Purslane Family

*Claytonis perfoliata*

**RHAMNACEAE** – Buckthorn Family

*Ceanothus cuneatus* - buckbrush

*Ceanothus spinosus* – greenbark ceanothus

*Rhamnus crocea* – spiny redberry

*Rhamnus ilicifolia* – holly-leaf redberry

**ROSACEAE** - Rose Family

*Adenostoma fasciculatum* - chamise

*Heteromeles arbutifolia* – toyon

**SCROPHULARIACEAE** – Figwort Family

*Castilleja affinis*

*Castilleja foliolosa* – woolly Indian paintbrush

*Keckiella cordifolius*

*Mimulus aurantiacus* – red bush monkey flower

**SOLANACEAE** – Nightshade Family

\**Nicotiana glauca* – tree tobacco

*Solanum xantii*



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## **APPENDIX B**

MULHOLLAND WATER PIPELINE  
WILDLIFE SPECIES LIST

## Mulholland Drive Faunal Species List

### Birds

<i>Accipiter cooperi</i>	Cooper's Hawk
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Falco sparverius</i>	American Kestrel
<i>Callipepla californica</i>	California Quail
<i>Zenaida macroura</i>	Mourning Dove
<i>Calypte anna</i>	Anna's Hummingbird
<i>Colaptes auratus</i>	Northern Flicker
<i>Sayornis nigricans</i>	Black Phoebe
<i>Aphelocoma coerulescens</i>	Scrub Jay
<i>Corvus corax</i>	Common Raven
<i>Thryomanes bewickii</i>	Bewick's Wren
<i>Regulus calendula</i>	Ruby-crowned Kinglet
<i>Chamaea fasciata</i>	Wrentit
<i>Mimus polyglottos</i>	Northern Mockingbird
<i>Toxostoma redivivum</i>	California Thrasher
<i>Dendroica coronata</i>	Yellow-rumped Warbler
<i>Pipilo erythrophthalmus</i>	Rufous-sided Towhee
<i>Pipilo crissalis</i>	California Towhee
<i>Melospiza melodia</i>	Song Sparrow
<i>Zonotrichia leucophrys</i>	White-crowned Sparrow
<i>Icterus bullockii</i>	Bullock's Oriole
<i>Psaltriparus minimus</i>	Bushtit
<i>Junco hyemalis</i>	Dark-eyed Junco
<i>Pipilo erythrophthalmus</i>	Spotted Towhee
<i>Carpodacus mexicanus</i>	House Finch

### Mammals

<i>Sylvilagus audubonii</i>	Audubon's Cottontail
<i>Odocoileus hemionus</i> (tracks)	Mule Deer
<i>Spermophilus beecheyi</i>	California Ground Squirrel
<i>Canis latrans</i> (scat)	Coyote



**URS**

**APPENDIX C**

PHOTOGRAPHIC LOG

**PHOTOGRAPHIC LOG**  
**LADWP Mulholland Pipeline Project EIR**  
**Biological Assessment**



Photo 1: View of the east end of the Project Site (Mulholland Drive) facing west.



Photo 2: View of mixed vegetation facing north of the Project Site.





Photo 3: View facing west of the Project Site. Note dense shrubs on both sides of road.



Photo 4: View facing south of Project Site (half-way point and end of public vehicle access).



Photo 5: View of west half of Project Site facing west.



Photo 6: View facing east near west end of the Project Site.



**URS**

# **APPENDIX D**

**CALIFORNIA NATURAL DIVERSITY  
DATABASE RECORDS QUERY**

California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

*PHRYNOSOMA CORONATUM BLAINVILLEI*

SAN DIEGO HORNED LIZARD  
Element Code: ARACF12021

-----List Status-----  
Federal: None  
State: None

-----NODB Element Ranks-----  
Global: G4T3T4  
State: S2S3

-----Other Lists-----  
CDFG Status: SC

-----Habitat Associations-----

General: INHABITS COASTAL SAGE SCRUB AND CHAPARRAL IN ARID AND SEMI-ARID CLIMATE CONDIT  
Micro: PREFERS FRIABLE, ROCKY, OR SHALLOW SANDY SOILS.

Occurrence No. 126      Map Index:00835      ---Dates Last Seen---      Lat/Long: 34°07'41" / 118°38'14"      Township: 01N  
Occ Rank: Unknown      Element: XXXX-XX-XX      UTM: Zone-11 N3777375 E349030      Range: 17W  
Origin: Natural/Native occurrence      Site: XXXX-XX-XX      Precision: NON-SPECIFIC      Section: 35 Qtr NW  
Presence: Presumed Extant      Symbol Type: POINT      Meridian: S  
Trend: Unknown      Radius: 1 mile      Elevation: 1200 ft  
Main Source: BRODE, J. 1986 (PERS)  
Quad Summary: CALABASAS (3411826/112B)\*, TOPANGA (3411815/112D), MALIBU BEACH (3411816/112C), CANOGA PARK (3411825/112A)  
County Summary: LOS ANGELES  
SNA Summary:  
Location: TOPANGA CANYON; WEST RIDGE, 2.5 MI SW WOODLAND HILLS.

-----Comments-----

Distribution:  
Ecological:  
Threat:  
General: LACM SPECIMEN. DATE OF COLLECTION UNKNOWN.  
Owner/Manager: UNKNOWN



California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

CALIFORNIA WALNUT WOODLAND

Element Code: CTT71210CA

-----List Status----- NDDB Element Ranks----- Other Lists-----  
Federal: None Global: G2  
State: None State: S2.1

-----Habitat Associations-----

General: None for this Element  
Micro: None for this Element

Occurrence No. 4 Map Index:00970 ---Dates Last Seen--- Lat/Long: 34°08'38" / 118°34'47" Township: 01N  
Occ Rank: Unknown Element: 1983-XX-XX UTM: Zone-11 N3779042 E354352 Range: 16W  
Origin: Natural/Native occurrence Site: 1983-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX  
Presence: Presumed Extant Symbol Type: POINT Meridian: S  
Trend: Unknown Radius: 1/5 mile Elevation: 1200 ft  
Main Source: BURKE, M. 1980 (LIT)  
Quad Summary: CANOGA PARK (3411825/112A)  
County Summary: LOS ANGELES  
SNA Summary:  
Location: SE OF WOODLAND HILLS, ALONG MULLHOLLAND DR AND NATOMA AVE.  
-----Comments-----  
Distribution:  
Ecological: CANOPY 50-75% COVER. CHAPARRAL ON RIDGES ON E & W.  
Threat: DISTURBED BY ORVS, HORSE TRAILS. RAPID RESIDENTIAL DEVEL AND FIRE HAZARD ARE THREATS.  
General: THIS WAS OCC #004 OF CTT71210CA.  
Owner/Manager: UNKNOWN

Occurrence No. 10 Map Index:01030 ---Dates Last Seen--- Lat/Long: 34°07'44" / 118°33'40" Township: 01N  
Occ Rank: Unknown Element: 1983-XX-XX UTM: Zone-11 N3777352 E356042 Range: 16W  
Origin: Natural/Native occurrence Site: 1983-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX  
Presence: Presumed Extant Symbol Type: POINT Meridian: S  
Trend: Unknown Radius: 1 mile Elevation: 1600 ft  
Main Source: RIEFNER, R. 1983 (PERS)  
Quad Summary: CANOGA PARK (3411825/112A)\*, TOPANGA (3411815/112D)  
County Summary: LOS ANGELES  
SNA Summary:  
Location: ALONG S SIDE MULHOLLAND DR 3.5 MI E OF RTE 27 (TOPANGA CYN BLVD).  
-----Comments-----  
Distribution:  
Ecological:  
Threat: DISTURBED BY ORV ROADCUTS. RAPID RESIDENTIAL DEVELOPMENT AND FIRE HAZARD A THREAT. NEAR SITE OF PLANNED WATER TANK.  
General: THIS WAS OCC #010 OF CTT71210CA.  
Owner/Manager: UNKNOWN

Occurrence No. 36 Map Index:00842 ---Dates Last Seen--- Lat/Long: 34°08'09" / 118°38'05" Township: 01N  
Occ Rank: Unknown Element: 1934-XX-XX UTM: Zone-11 N3778241 E349277 Range: 17W  
Origin: Natural/Native occurrence Site: 1934-XX-XX Precision: SPECIFIC Section: 26 Qtr SW  
Presence: Presumed Extant Symbol Type: POLYGON Meridian: S  
Trend: Unknown Area: 133.1 ac Elevation: 1075 ft  
Main Source: WIESLANDER, A. 1934 (MAP)  
Quad Summary: CALABASAS (3411826/112B)\*, CANOGA PARK (3411825/112A)  
County Summary: LOS ANGELES  
SNA Summary:  
Location: NEAR JCT MULHOLLAND HWY & OLD TOPANGA RD.  
-----Comments-----  
Distribution:  
Ecological: MAPPED BY WIESLANDER SURVEY AS TWO STANDS OF OPEN WOODLAND: WEST PART W/QUERCUS AGRIFOLIA AND JUGLANS CALIFORNICA OVER SALVIA LEUCOPHYLLA; EAST STAND W/J. CALIFORNICA AND Q. AGRIFOLIA OVER GRASS IN PART AND OVER S. LEUCOPHYLLA IN PART.  
Threat:  
General: THIS WAS OCC #036 OF CTT71210CA.  
Owner/Manager: UNKNOWN

California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

CALIFORNIA WALNUT WOODLAND (cont.)

Element Code: CTT71210CA	-----List Status----- Federal: None State: None	NDDB Element Ranks----- Global: G2 State: S2.1	-----Other Lists-----
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Occurrence No. 75      Map Index:21405      ---Dates Last Seen---      Lat/Long: 34°09'39" / 118°33'39"      Township: 01N  
 Occ Rank: None      Element: 1980-10-XX      UTM: Zone-11 N3780904 E356110      Range: 16W  
 Origin: Natural/Native occurrence      Site: 1980-10-XX      Precision: NON-SPECIFIC      Section: XX Qtr XX  
 Presence: Possibly Extirpated      Symbol Type: POLYGON      Meridian: S  
 Trend: Unknown      Area: 865.5 ac      Elevation: 1400 ft  
 Main Source: BURKE, M. 1980 (LIT)  
 Quad Summary: CANOGA PARK (3411825/112A)  
 County Summary: LOS ANGELES  
 SNA Summary:  
 Location: ALONG THE NORTH FLANK OF THE SANTA MONICA MTNS. STRETCHING FROM NE OF ENCINO RESERVOIR IN A WESTWARD TRENDING ARC 2.5 M.

-----Comments-----

Distribution: 5 LARGE PATCHES RANGING FROM 75 TO OVER 200 ACRES.  
 Ecological: SOME OF THE LARGEST WALNUT STANDS LEFT IN THE S.FERN. VALLEY IN 1980; MOST OF OCC APPEARS EXTIRPATED IN 1986 ORTHOPHOTO QUAD. DOM BY JUGLANS CALIF., SALVIA APIANA, S. LEUCOPHYLLA ASSOC. GRASSY UNDERSTORY. CHAPARRAL ON ADJACENT RIDGES.  
 Threat: URBANIZATION ENCROACHES FROM THE NORTH.  
 General: JUST NORTH OF TOPANGA STATE PARK. THIS WAS OCC #075 OF CTT71210CA.  
 Owner/Manager: UNKNOWN

Occurrence No. 76      Map Index:21404      ---Dates Last Seen---      Lat/Long: 34°08'37" / 118°34'52"      Township: 01N  
 Occ Rank: Good      Element: 1980-10-XX      UTM: Zone-11 N3779023 E354213      Range: 16W  
 Origin: Natural/Native occurrence      Site: 1986-XX-XX      Precision: NON-SPECIFIC      Section: XX Qtr XX  
 Presence: Presumed Extant      Symbol Type: POLYGON      Meridian: S  
 Trend: Unknown      Area: 80.8 ac      Elevation: 1400 ft  
 Main Source: BURKE, M. 1980 (LIT)  
 Quad Summary: CANOGA PARK (3411825/112A)  
 County Summary: LOS ANGELES  
 SNA Summary:  
 Location: WEST OF NATOMA AVENUE, 0.5 MILE NORTH OF THE LOS ANGELES CITY BORDER.

-----Comments-----

Distribution: TWO STANDS FACING EACH OTHER ON EITHER SIDE OF A STREAM DRAINAGE, BOTH ROUGHLY 50 ACRES IN SIZE. APPEARS EXTANT FROM 1986 ORTHOPHOTO QUAD.  
 Ecological: JUGLANS CALIFORNICA DOMINATES, SALVIA APIANA AND S. LEUCOPHYLLA ARE COMMON ASSOCIATES. GRASSY UNDERSTORY OF UNKNOWN COMP. CHAPARRAL DOMINATES THE RIDGES EAST AND WEST OF THE STANDS.  
 Threat: URBANIZATION ENCROACHES FROM THE NORTH.  
 General: JUST NORTH OF TOPANGA STATE PARK. THIS WAS OCC #076 OF CTT71210CA.  
 Owner/Manager: UNKNOWN



California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

SOUTHERN SYCAMORE ALDER RIPARIAN WOODLAND

Element Code: CTT62400CA

-----List Status-----NDDB Element Ranks-----Other Lists-----  
Federal: None Global: G4  
State: None State: S4

-----Habitat Associations-----

General: None for this Element  
Micro: None for this Element

Occurrence No. 18 Map Index: 01023 ---Dates Last Seen--- Lat/Long: 34°07'14" / 118°33'47" Township: 01N  
Occ Rank: Unknown Element: 1987-XX-XX UTM: Zone-11 N3776431 E355849 Range: 16W  
Origin: Natural/Native occurrence Site: 1987-XX-XX Precision: NON-SPECIFIC Section: XX Qtr XX  
Presence: Presumed Extant Symbol Type: POINT Meridian: S  
Trend: Unknown Radius: 1 mile Elevation: 1200 ft  
Main Source: ALLEN, L. 1987 (LIT)  
Quad Summary: TOPANGA (3411815/112D)\*, CANOGA PARK (3411825/112A)  
County Summary: LOS ANGELES  
SNA Summary:  
Location: GARAPITO CR, E OF SYLVIA PARK.  
-----Comments-----  
Distribution: TWO STRETCHES OF INTERMITTENT STREAMS SUPPORTING RIPARIAN WOODLANDS.  
Ecological: TREES EXPECTED IN VICINITY ARE PLATANUS RACEMOSA, ALNUS RHOMBIFOLIA, SALIX SPP & QUERCUS AGRIFOLIA.  
VEGETATION COMPOSITION OF THIS PARTICULAR STAND UNKNOWN.  
Threat:  
General: THIS WAS OCC #018 OF CTT62400CA.  
Owner/Manager: DPR-TOPANGA SP, UNKNOWN

California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

DEINANDRA MINTHORNII  
SANTA SUSANA TARPLANT  
Element Code: PDAST4R0J0

-----List Status-----NDDB Element Ranks-----Other Lists-----  
Federal: Species of Concern Global: G2 CNPS List: 1B  
State: Rare State: S2.2 R-E-D Code: 2-2-3

-----Habitat Associations-----

General: CHAPARRAL, COASTAL SCRUB. KNOWN ONLY FROM LOS ANGELES AND VENTURA COUNTIES.  
Micro: ON SANDSTONE OUTCROPS AND CREVICES, IN SHRUBLAND. 280-760M.

Occurrence No. 38 Map Index: 38640 ---Dates Last Seen--- Lat/Long: 34°14'55" / 118°37'39" Township: 02N  
Occ Rank: Unknown Element: 1995-10-19 UTM: Zone-11 N3790714 E350120 Range: 17W  
Origin: Natural/Native occurrence Site: 1995-10-19 Precision: SPECIFIC Section: 23 Qtr NE  
Presence: Presumed Extant Symbol Type: POLYGON Meridian: S  
Trend: Unknown Area: 17.5 ac Elevation: 1400 ft  
Main Source: WHITE, S. 1995 (OBS)  
Quad Summary: CALABASAS (3411826/112B)\*, CANOGA PARK (3411825/112A)  
County Summary: LOS ANGELES  
SNA Summary:  
Location: NORTH OF CHATSWORTH RESERVOIR, 0.25 MI EAST OF LAX/VEN COUNTY LINE AND 0.6 MI NORTH OF VALLEY CIRCLE BLVD,  
SIMI HILLS.

-----Comments-----

Distribution: THREE COLONIES MAPPED WITHIN THE N 1/2 NE 1/4 SECTION 23.  
Ecological: IN COASTAL SAGE SCRUB DOMINATED BY MALACOTHAMNUS FASCICULATUS AND ANNUAL GRASSLAND. ASSOCIATES INCLUDE  
HETEROTHECA GRANDIFLORA AND SALSOLA TRAGUS. SOILS THIN; COMPACTED AT FORMER HELICOPTER LANDING PAD.  
Threat: TWO OF THREE SITES HAVE BEEN MOWN REPEATEDLY.  
General: 55+ PLANTS OBSERVED IN COLONIES RANGING IN SIZE FROM 5 TO 40 PLANTS IN 1995.  
Owner/Manager: UNKNOWN



California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

ASTRAGALUS BRAUNTONII

BRAUNTON'S MILK-VETCH

Element Code: PDFAB0F1G0

—List Status—

Federal: Endangered

State: None

NDDB Element Ranks

Global: G2

State: S2.1

—Other Lists—

CNPS List: 1B

R-E-D Code: 3-3-3

—Habitat Associations—

General: CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro: RECENT BURNS OR DISTURBED AREAS; IN STIFF GRAVELLY CLAY SOILS OVERLYING GRANITE OR LIMESTONE. 4-640M.

Occurrence No. 2

Map Index: 41759

—Dates Last Seen—

Lat/Long: 34°05'25" / 118°36'11"

Township: 01S

Occ Rank: Unknown

Element: 1917-05-01

UTM: Zone-11 N3773135 E352098

Range: 16W

Origin: Natural/Native occurrence

Site: 1917-05-01

Precision: NON-SPECIFIC

Section: 07 Qtr XX

Presence: Presumed Extant

Symbol Type: POLYGON

Meridian: S

Trend: Unknown

Area: 1,241.4 ac

Elevation: 750 ft

Main Source: PEIRSON, F. #592 RSA (HERB)

Quad Summary: TOPANGA (3411815/112D)\*, CANOGA PARK (3411825/112A)

County Summary: LOS ANGELES

SNA Summary:

Location: TOPANGA CANYON.

—Comments—

Distribution: EXACT LOCATION WITHIN CANYON NOT KNOWN. SITE MAPPED TO INCLUDE LENGTH OF ENTIRE CANYON.

Ecological:

Threat:

General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS 1917 COLLECTION BY PEIRSON.

Owner/Manager: UNKNOWN

California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

CHORIZANTHE PARRYI VAR FERNANDINA  
SAN FERNANDO VALLEY SPINEFLOWER  
Element Code: PDPGN040J1

List Status	NDDB Element Ranks	Other Lists
Federal: Candidate	Global: G2T1	CNPS List: 1B
State: Candidate	State: S1.1	R-E-D Code: 3-3-3

Habitat Associations

General: COASTAL SCRUB. FORMERLY KNOWN FROM SOUTHERN CALIFORNIA; PROBABLY EXTINCT.  
Micro: SANDY SOILS. 1000-1700M.

Occurrence No. 7	Map Index: 41264	Dates Last Seen	Lat/Long: 34°15'26" / 118°36'02"	Township: 02N
Occ Rank: None		Element: 1901-04-04	UTM: Zone-11 N3791668 E352623	Range: 16W
Origin: Natural/Native occurrence		Site: 1901-04-04	Precision: NON-SPECIFIC	Section: 18 Qtr XX
Presence: Possibly Extirpated			Symbol Type: POINT	Meridian: S
Trend: Unknown			Radius: 1 mile	Elevation: 1000 ft

Main Source: ABRAMS, L. #1337 POM (HERB)  
Quad Summary: OAT MOUNTAIN (3411835/138D)\*, CANOGA PARK (3411825/112A)  
County Summary: LOS ANGELES  
SNA Summary:  
Location: CHATSWORTH PARK.

Comments

Distribution: EXACT LOCATION NOT KNOWN; MAPPED IN GENERAL VICINITY OF CHATSWORTH.  
Ecological:  
Threat:  
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1901 COLLECTION BY ABRAMS.  
Owner/Manager: UNKNOWN



California Department of Fish and Game  
Natural Diversity Data Base

Canoga Park

**CALOCHORTUS PLUMMERAE**

PLUMMER'S MARIPOSA LILY

Element Code: PML1L0D150

-----List Status-----	NDDB Element Ranks-----	Other Lists-----
Federal: Species of Concern	Global: G3	CNPS List: 1B
State: None	State: S3.2	R-E-D Code: 2-2-3

-----Habitat Associations-----

General: COASTAL SCRUB, CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.  
Micro: OCCURS ON ROCKY AND SANDY SITES, USUALLY OF GRANITIC OR ALLUVIAL MATERIAL. 90-1610M.

Occurrence No. 45	Map Index: 27694	-----Dates Last Seen-----	Lat/Long: 34°07'48" / 118°29'56"	Township: 01N
Occ Rank: Unknown		Element: 1992-XX-XX	UTM: Zone-11 N3777377 E161791	Range: 15W
Origin: Natural/Native occurrence		Site: 1992-XX-XX	Precision: NON-SPECIFIC	Section: XX Qtr XX
Presence: Presumed Extant			Symbol Type: POLYGON	Meridian: S
Trend: Unknown			Area: 16.2 ac	Elevation: 1700 ft

Main Source: MCDONALD & STOKKINK 1992 (PERS)

Quad Summary: VAN NUYS (3411824/111B)\*, CANOGA PARK (3411825/112A)

County Summary: LOS ANGELES

SNA Summary:

Location: MULHOLLAND DRIVE ABOUT 0.2 MILE EAST OF ENCINO ROAD (ENCINO HILLS DRIVE?), SANTA MONICA MOUNTAINS.

-----Comments-----

Distribution: NORTH SIDE OF MULHOLLAND DR ON EDGE OF ROADCUT ABOVE THE ROAD. SOURCE LISTS CROSS STREET AS ENCINO RD. ACCORDING TO AAA MAPS, THE ONLY "ENCINO RD" THAT INTERSECTS MULHOLLAND DR IS ENCINO HILLS DRIVE, ABOUT 2 MILES WEST OF I-405.

Ecological:

Threat:

General: 7 PLANTS OBSERVED IN 1992. ONLY SOURCE OF INFORMATION IS 1992 OBSERVATION REPORTED BY MCDONALD AND STOKINK (1992).

Owner/Manager: UNKNOWN