



September 1, 2015

Ms. Jemellee Cruz, P.E.  
Los Angeles County Flood Control District  
Flood Maintenance Division  
900 South Fremont Avenue, Annex Building, 2<sup>nd</sup> Floor  
Alhambra, California 91803

**VIA EMAIL**  
**[jcruz@dpw.lacounty.gov](mailto:jcruz@dpw.lacounty.gov)**

**Subject:** Results of Special Status Plant Surveys for the 54 Soft-Bottom Flood Control Channel Reaches in the Santa Clara River Watershed, Los Angeles County, California

Dear Ms. Cruz:

This Letter Report presents the findings of focused surveys for special status plant species conducted in the 54 Soft-Bottom Flood Control Channel Reaches of the Santa Clara River Watershed in Los Angeles County. All 54 channel reaches are maintained by the Los Angeles County Flood Control District (LACFCD). These focused surveys were performed for the Santa Clara River Watershed Feasibility Study. Table 1 below lists the number, length, and name of each channel reach, and their locations in a Thomas Guide.

**TABLE 1**  
**CHANNEL REACH INFORMATION**

26 Soft-Bottom Channel Reaches			
Reach No.	Reach Length (feet)	Reach Name	Thomas Guide Location
45	102	Sand Canyon (PD T1307) Main Channel Inlet	4552-C1
46	84	Sand Canyon (PD T1307) Main Channel Outlet	4552-C1
47	1,658	Santa Clara River Main Channel (PD 1733 Unit 1)	4552-A3 to 4551-J3
48	2,501	Mint Canyon Channel - Sierra Hwy to Adon Ave	4552-A1 to 4551-J2
49	385	Mint Canyon Channel - Adon Ave to Scherzinger Lane	4551-J2
50	735	Mint Canyon Channel - Solamint Rd to Soledad Canyon Rd	4551-J2 to J3
51	931	Mint Canyon Main Channel Outlet (PD 1894)/Santa Clara River	4551-J3 to H3
52	772	Sierra Hwy Rd Drainage (CDR 523.203)	4551-J3
53	35	Santa Clara River Non-main Channel (PD 832)	4551-H4
54	316	Santa Clara River Non-main Channel (PD 832)	4551-H3 to H4
55*	3,518	Santa Clara River Main Channel (PD's 910, 832, 1758, 1562 Unit 2 )	4551-H3 to G4

**TABLE 1  
CHANNEL REACH INFORMATION**

<b>26 Soft-Bottom Channel Reaches</b>			
<b>Reach No.</b>	<b>Reach Length (feet)</b>	<b>Reach Name</b>	<b>Thomas Guide Location</b>
56*	2,346	Santa Clara River Main Channel (PD 832)	4551-G3
57	695	Whites Canyon (PD T704) Main Channel Inlet	4551-G1
58	2,644	Santa Clara River Main Channel (PD 374)	4551-G3 to F3
60	3,166	Santa Clara River Main Channel (PD 1339 & 374)	4551-F3 to E2
61	4,715	Santa Clara River Main Channel (PD 659 and 754)	4551-E2
63	914	Oak Ave Rd Drainage (CDR 523.081)	4551-C2
64	574	Soledad Canyon Rd Drain (CDR 523.071 D outlet)	4551-B2
66	710	Santa Clara River Main Channel (PD 1538)	4550-H2
67	6,344	Bouquet Canyon Upper (PD's 1201, 802, 700B, & 625)	4461-D1 to C6
69	7,326	Bouquet Canyon Middle (PD's 722, 773, 1365, 1065, & 451)	4461-C6 to A7
70	3,503	Bouquet Canyon Lower (PD's 544 & 345)	4550-J1 to H1
71	242	Santa Clara River Main Channel (PD 1946)	4550-E2
72	101	South Fork – Santa Clara River (Smizer Ranch Main Channel Inlet)	4640-F2
73	83	Wildwood Canyon Channel (PD T361) M.C.I.	4640-H2
74	116	Wildwood Canyon Channel (PD T361)	4640-H2
75	14,075	South Fork – Santa Clara River (PD's 725, 916, 1041, & 1300)	4640-F1 to 4550-G3
76	4,116	Pico Canyon (PD 813)	4550-F7 to G7
77	2,092	Newhall Creek Outlet	4550-H6
78	376	Placerita Creek	4550-H6
79	168	South Fork – Santa Clara River (Valencia Blvd Bridge Stabilizer)	4550-G3
80	2,686	South Fork – Santa Clara River (PD's 1947 & 1946)	4550-F2
82	849	Santa Clara River Main Channel (PD 2278)	4550-D1
86	1,006	Violin Canyon Main Channel Outlet	4369-J7
87**	225	Castaic - Old Road Drain (CDR 525.021D)	4459-H5
88	1,051	Hasley Canyon Upper (PD T1496)	4459-C3
89	341	Hasley Canyon South Fork (PD T1496)	4459-C3
90	1,051	Hasley Canyon Lower (North Fork PD T1496)	4459-C3
91	599	San Martinez Chiquito Canyon - u/s Keningston Rd	4459-A6 to B6
92	768	San Martinez Chiquito Canyon (N. Fork) unnamed channel	4459-A6
93	1,072	San Martinez Chiquito Canyon - Keningston Rd to Val Verde Park	4459-B6
94	2,446	San Martinez Chiquito Canyon - Val Verde Park to d/s of Madison St	4459-C6 to D7
95	1,823	Project No 1224	4287-H5
97**	2,002	PD T1982, Castaic Creek	4459-H5 to H6
101	1,818	Violin Canyon (PD 1707 & 2312)	4369-G5 to G6
102	975	Violin Canyon (PD 2275)	4369-E5 to F5
103	1,348	Bouquet Canyon Channel (PD 2225)	4550-H1, H2, & G2
104	2,223	Castaic Creek (PD 2441 Units 1 & 2)	4459-H6 to H7
105	833	San Francisquito Canyon Channel (PD 2456)	4460-F6
106	751	Castaic Drain Outlet	4460-B7

26 Soft-Bottom Channel Reaches			
Reach No.	Reach Length (feet)	Reach Name	Thomas Guide Location
107	1,028	The Old Road Channels (RMD Channel)	4640-F4
108	3,100	Pico Canyon (PD 2528)	4550-B6 to G6
109	372	Santa Clara River – South Bank West of McBean Pkwy MTD1510	4550-E2
110	3,737	Hasley Canyon Channel (PD 2262)	4369-F5 to G6
*Reaches 55 & 56 combined for survey effort			
**Reaches 87 & 97 combined for survey effort			

## **METHODS**

Botanical surveys were floristic in nature and consistent with the protocols created by the California Department of Fish and Wildlife (CDFW) (CDFG 2009). Prior to the field surveys, a literature search was conducted to identify special status plant species reported from the vicinity of the project site. Sources reviewed include the USGS Littlerock, Mint Canyon, Newhall, Oat Mountain, Val Verde, Warm Springs Mountain, and Whitaker Peak 7.5-minute quadrangles in the California Native Plant Society's (CNPS') Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2014) and the CDFW's California Natural Diversity Database (CNDDDB) (CDFW 2014).

Rainfall received in the winter and spring determines the germination of many annual and perennial herb species. According to the National Weather Service (NWS), the region (data taken from Bob Hope Airport in Burbank) received 5.33 inches of precipitation between October 1, 2013 and May 31, 2014, which was approximately 11.55 inches below normal for that time period (NWS 2014).

Reference populations were monitored for annual and difficult-to-detect target species to ensure that the surveys were comprehensive. This is especially relevant during periods of unusual rainfall patterns or below average rainfall. If conditions at a nearby reference population are suitable for germination and growth, then it can be inferred that conditions would also be suitable within the survey areas. Table 2 summarizes the flowering status of known reference populations monitored during the 2014 special status plant survey period. Reference populations were not monitored for large perennials (e.g., Nevin's barberry [*Berberis nevinii*] and short-joint beavertail [*Opuntia basilaris* var. *brachyclada*]), which would be identifiable throughout the year.

**TABLE 2**  
**REFERENCE POPULATION BLOOMING DATES**

Species	Area Monitored for Blooming	Date Observed Blooming
<i>California macrophylla</i> round-leaved filaree	Simi Hills	April 16, 2014
<i>Calochortus clavatus</i> var. <i>gracilis</i> x <i>C.c.</i> var. <i>clavatus</i> slender/club-haired mariposa lily hybrid	Castaic	April 17, 2014
<i>Calochortus plummerae</i> Plummer's mariposa lily	San Gabriel Mountains	June 1, 2014
<i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower	West of the San Fernando Valley	April 11, 2014 (detectable but not blooming)
<i>Dodecahema leptoceras</i> slender-horned spineflower	Santa Clarita	April 28, 2014 (detectable but not blooming)
<i>Symphotrichum</i> [ <i>Aster</i> ] <i>greatae</i> Greata's aster	Angeles National Forest near Hidden Springs/Singing Springs	September 4, 2014

Surveys were conducted by BonTerra Psomas Senior Biologists Brian Daniels, Jennifer Pareti and Allison Rudalevige, BonTerra Psomas Biologists Jason Mintzer, and Sarah Thomas, and Leatherman Consulting Senior Botanist Sandra Leatherman. The survey dates and personnel are listed below in Table 3. Early and late spring surveys were conducted in all reaches in April, May, and June for spring and early summer blooming special status plant species. Summer surveys were conducted for Reaches 87 and 97 because the early surveys determined that suitable habitat for summer/fall blooming special status plant species were present along these reaches. In addition, vegetation transects surveys were conducted at all soft bottom reaches in the fall months allowing for addition observations to occur for fall blooming species.

A total of 200 person-hours were spent conducting all focused plant surveys. In addition, vegetation transects surveys were conducted at all soft bottom reaches in the fall months allowing for addition observations to occur for fall blooming species.

**TABLE 3**  
**SURVEY DATES AND PERSONNEL**

Reach	Early Spring Survey	Surveyors	Late Spring Survey	Surveyors
45	April 10, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
46	April 10, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
47	April 25, 2014	Leatherman, Mintzer	June 3, 2014	Pareti, Mintzer
48	April 10, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
49	April 10, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
50	April 10, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
51	April 25, 2014	Leatherman, Mintzer	June 2, 2014	Pareti, Rudalevige
52	April 10, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
53	May 9, 2014	Pareti, Mintzer	June 17, 2014	Leatherman, Thomas, Daniels
54	April 10, 2014	Pareti, Mintzer	June 2, 2014	Pareti, Rudalevige

**TABLE 3**  
**SURVEY DATES AND PERSONNEL**

Reach	Early Spring Survey	Surveyors	Late Spring Survey	Surveyors
55	April 25, 2014	Leatherman, Mintzer	June 2, 2014	Pareti, Rudalevige
56	April 25, 2014	Leatherman, Mintzer	June 2, 2014	Pareti, Rudalevige
57	April 10, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
58	April 25, 2014	Leatherman, Mintzer	June 2, 2014	Leatherman, Thomas
59	April 25, 2014	Leatherman, Mintzer	June 2, 2014	Leatherman, Thomas
60	April 28, 2014	Leatherman, Pareti, Mintzer, Thomas,	June 2, 2014	Leatherman, Thomas
61	April 28, 2014	Pareti, Mintzer	June 2, 2014	Leatherman, Thomas
62	April 28, 2014	Leatherman, Thomas	June 2, 2014	Pareti, Rudalevige
63	April 28, 2014	Pareti, Mintzer	June 3, 2014	Pareti, Mintzer
64	April 28, 2014	Leatherman, Thomas	June 3, 2014	Pareti, Mintzer
66	April 28, 2014	Leatherman, Thomas	June 3, 2014	Pareti, Mintzer
67	April 7, 2014	Leatherman, Pareti	May 27, 2014	Leatherman, Mintzer
69	April 7, 2014	Leatherman, Pareti	May 27, 2014	Leatherman, Mintzer
70	April 7, 2014	Leatherman, Pareti	May 27, 2014	Leatherman, Mintzer
71	April 29, 2014	Leatherman, Mintzer	June 3, 2014	Leatherman, Thomas
72	May 9, 2014	Pareti, Mintzer	June 3, 2014	Leatherman, Thomas
73	April 25, 2014	Pareti, Rose	June 11, 2014	Leatherman, Thomas, Daniels
74	April 24, 2014	Pareti, Rose	June 11, 2014	Leatherman, Thomas, Daniels
75	April 29, 2014	Pareti, Rudalevige, Rose	May 28, 2014	Leatherman, Pareti
76	April 25, 2014	Pareti, Rose	May 28, 2014	Leatherman, Pareti
77	April 25, 2014	Pareti, Rose	May 28, 2014	Leatherman, Pareti
78	April 25, 2014	Pareti, Rose	May 28, 2014	Leatherman, Pareti
79	April 29, 2014	Leatherman, Mintzer	June 3, 2014	Leatherman, Thomas
80	April 29, 2014	Leatherman, Mintzer	June 3, 2014	Leatherman, Thomas
82	April 29, 2014	Leatherman, Mintzer	June 3, 2014	Pareti, Mintzer
86	April 25, 2014	Rudalevige, Thomas	May 27, 2014	Leatherman, Mintzer
87**	May 1, 2014	Pareti, Mintzer	June 10, 2014	Leatherman, Thomas, Daniels
88	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Pareti, Mintzer
89	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Pareti, Mintzer
90	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Pareti, Mintzer
91	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Pareti, Mintzer
92	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Pareti, Mintzer
93	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Pareti, Mintzer
94	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Pareti, Mintzer
95	April 28, 2014	Thomas, Mintzer	May 28, 2014	Leatherman, Pareti
97**	May 1, 2014	Pareti, Mintzer	June 10, 2014	Leatherman, Thomas, Daniels
101	April 25, 2014	Rudalevige, Thomas	May 27, 2014	Leatherman, Mintzer
102	May 1, 2014	Pareti, Mintzer	May 27, 2014	Leatherman, Mintzer

**TABLE 3  
 SURVEY DATES AND PERSONNEL**

Reach	Early Spring Survey	Surveyors	Late Spring Survey	Surveyors
103	April 29, 2014	Leatherman, Mintzer	June 17, 2014	Leatherman, Daniels Thomas,
104	May 1, 2014	Pareti, Mintzer	June 10, 2014	Leatherman, Daniels Thomas,
105	May 9, 2014	Pareti, Mintzer, Thomas	June 3, 2014	Leatherman, Thomas
106	May 1, 2014	Pareti, Mintzer	June 10, 2014	Leatherman, Daniels Thomas,
107	May 9, 2014	Pareti, Mintzer, Thomas	June 3, 2014	Leatherman, Thomas
108	May 9, 2014	Pareti, Mintzer, Thomas	June 17, 2014	Leatherman, Daniels Thomas,
109	April 29, 2014	Leatherman, Mintzer	June 3, 2014	Leatherman, Thomas
110	May 1, 2014	Rudalevige, Thomas	June 10, 2014	Leatherman, Daniels Thomas,
<p>**Reaches 87 and 97 were surveyed during the summer blooming window for white rabbit-tobacco (<i>Pseudognaphalium leucocephalum</i>) on August 7, 2014 by Leatherman, Mintzer and on August 19, 2014 by Leatherman, Thomas.</p>				

All potentially suitable habitats for special status plant species within the survey areas were systematically surveyed. The survey areas included habitats on the earthen bottom of each channel reach but also on the adjacent channel banks where appropriate. All plant species observed were recorded in field notes. Plant species were identified in the field or collected for later identification. Plants were identified to the taxonomic level necessary to determine whether or not they are a special status species. Plants were identified using taxonomic keys, descriptions, and illustrations in Baldwin et al. (2011), Hickman (1993), Munz (1974), Abrams (1923, 1944, 1951), and Abrams and Ferris (1960). Taxonomy and nomenclature follows Baldwin et al. (2011), Hickman (1993), and current scientific journals for scientific and common names. Any voucher specimens collected will be deposited with the herbarium at Rancho Santa Ana Botanic Gardens in Claremont, California.

**SURVEY RESULTS**

Table 3 identifies the special status plants with potential to in the surveyed reaches and the survey results. A list of all plants observed on the project site during the surveys can be found in Attachment A. Special status species observed during the survey effort are discussed below; CNDDDB forms for each species observed are included as Attachment B.

**TABLE 4**  
**SPECIAL STATUS PLANT SPECIES REPORTED FROM**  
**THE PROJECT SITE VICINITY**

Species	Status			Potential to Occur In Surveyed Reaches; Results of Survey
	USFWS	CDFW	CRPR	
<i>Allium howellii</i> var. <i>clokeyi</i> Mount Pinos onion	-	-	1B.3	Outside elevation range; not expected to occur.
<i>Astragalus brauntonii</i> Braunton's milk-vetch	-	-	1B.1	Marginally suitable habitat; not observed during focused surveys.
<i>Berberis nevinii</i> Nevin's barberry	FE	SE	1B.1	Suitable habitat; not observed during focused surveys
<i>California macrophylla</i> round-leaved filaree	-	-	1B.1	Marginally suitable habitat; not observed during focused surveys.
<i>Calochortus clavatus</i> var. <i>gracilis</i> slender mariposa lily	-	-	1B.2	Marginally suitable habitat; not observed during focused surveys.
<i>Calochortus plummerae</i> Plummer's mariposa lily	-	-	4.2	Marginally suitable habitat; not observed during focused surveys.
<i>Calystegia peirsonii</i> Peirson's morning-glory	-	-	4.2	No suitable habitat; not expected to occur.
<i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower	FC	SE	1B.1	Suitable habitat; not observed during focused surveys.
<i>Deinandra minthornii</i> Santa Susana tarplant	-	SR	1B.2	Marginally suitable habitat; not observed during focused surveys.
<i>Dodecahema leptoceras</i> slender-horned spineflower	FE	SE	1B.1	Suitable habitat; not observed during focused surveys.
<i>Galium grande</i> San Gabriel bedstraw	-	-	1B.2	No suitable habitat; not expected to occur.
<i>Harpagonella palmeri</i> Palmer's grapplinghook	-	-	4.2	Marginally suitable habitat; not observed during focused surveys.
<i>Helianthus inexpectatus</i> Newhall sunflower	-	-	1B.1	Marginally suitable habitat; not observed during focused surveys.
<i>Juglans californica</i> Southern California black walnut	-	-	4.2	<b>Suitable habitat; observed in reaches 72, 75, 107.</b>
<i>Lepechinia rossii</i> Ross' pitcher sage	-	-	1B.2	No suitable habitat; not expected to occur.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> ocellated Humboldt lily	-	-	4.2	Marginally suitable habitat; not observed during focused surveys.
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	-	-	1B.2	Suitable habitat; not observed during focused surveys.
<i>Navarretia fossalis</i> spreading navarretia	FT	-	1B.1	No suitable habitat; not expected to occur.
<i>Navarretia ojaiensis</i> Ojai navarretia	-	-	1B.1	Suitable habitat; not observed during focused surveys.
<i>Navarretia setiloba</i> Piute Mountains navarretia	-	-	1B.1	Outside elevation range; not expected to occur.
<i>Opuntia basilaris</i> var. <i>brachyclada</i> short-joint beavertail	-	-	1B.2	Outside elevation range; not expected to occur.
<i>Orcuttia californica</i> California Orcutt grass	FE	SE	1B.1	No suitable habitat; not expected to occur.
<i>Potentilla newberryi</i> Newberry's cinquefoil	-	-	2B.3	Outside elevation range; not expected to occur.

**TABLE 4  
 SPECIAL STATUS PLANT SPECIES REPORTED FROM  
 THE PROJECT SITE VICINITY**

Species	Status			Potential to Occur In Surveyed Reaches; Results of Survey
	USFWS	CDFW	CRPR	
<i>Pseudognaphalium leucocephalum</i> White rabbit-tobacco	–	–	2B.2	Suitable habitat; observed in reaches 87 and 97.
<i>Senecio aphanactis</i> chaparral ragwort	–	–	2B.2	Marginally suitable habitat; not observed during focused surveys.
<i>Symphotrichum greatae</i> Greata's aster	–	–	1B.3	Marginally suitable habitat; not observed during focused surveys.
<b>LEGEND:</b>				
USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; CRPR: California Rare Plant Rank.				
<u>Federal (USFWS)</u> <u>State (CDFG)</u>				
FE      Endangered                      SE      Endangered				
FT      Threatened                      SR      Rare				
FC      Candidate Species				
<u>California Rare Plant Rank (CRPR)</u>				
1B      Plants Rare, Threatened, or Endangered in California and Elsewhere				
2B      Plants Rare, Threatened, or Endangered in California But More Common Elsewhere				
4      Plants of Limited Distribution – A Watch List				
<u>CRPR Threat Rank Extensions</u>				
.1      Seriously Endangered in California (over 80% of occurrences threatened; high degree and immediacy of threat)				
.2      Fairly Endangered in California (20–80% of occurrences threatened)				
.3      Not Very Threatened in California (low degree/immediacy of threat or no current threats known)				

**White Rabbit-Tobacco**

White rabbit-tobacco (*Pseudognaphalium leucocephalum*) has a CRPR of 2B.2. It typically blooms between July and October (Baldwin et al. 2012). This biennial herb occurs in sandy or gravelly benches and in dry stream bottoms (Baldwin et al. 2012). It occurs in the southern South Coast Ranges, San Bernardino Mountains, Peninsular Ranges of California and into Arizona, New Mexico and Mexico at elevations between sea level and approximately 1,650 feet above msl (Baldwin et al. 2012).

A total of 144 individuals of white rabbit-tobacco were observed in the combined survey area of Reaches 87 and 97 on August 7, 2014 (Table 5; Exhibit [x]). The 5 population locations occurred in an open cobble wash with sparse vegetation. The associated species occurring with the identified while-rabbit tobacco included scale-broom (*Lepidospartum squamatum*), deerweed (*Acmispon glaber*), shortpod mustard (*Hirschfeldia incana*), red brome (*Bromus madritensis* ssp. *rubens*). These plants were observed on flat or gently sloping areas mapped as having Riverwash and sandy alluvial soils. A CNDDDB form for the white rabbit-tobacco occurrence is included as Appendix B.



**TABLE 5**  
**WHITE RABBIT-TOBACCO POPULATIONS OCCURRING IN THE COMBINED**  
**SURVEY AREA OF REACHES 87 AND 97**

Location	Number of Individuals	Percent Phenology		
		Vegetative	Flowering	Fruiting
1	3	67	33	0
2	11	45	55	0
3	128	22	78	0
4	1	0	100	0
5	1	0	100	0
<b>Total</b>	<b>144</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**Southern California Black Walnut**

Southern California black walnut (*Juglans californica*) has a CRPR of 4.2. It typically blooms between March and May (Baldwin et al. 2012). This monoecious tree occurs on hillsides and in canyons at elevations between approximately 98 and 2,953 feet above msl (Baldwin et al. 2012). It is known from the outer South Coast Ranges and throughout southwestern California (Baldwin et al. 2012).

A total of 46 southern California black walnut trees were observed within 3 soft-bottom reaches: Reach 72 (1 tree), Reach 75 (30 trees), and Reach 107 (15 trees) (Table 6; Exhibit [x]). The associated species occurring with the identified southern California black walnut trees included Fremont cottonwood (*Populus fremontii*), red willow (*Salix leavigata*), blue elderberry (*Sambucus nigra*), sandbar willow (*Salix exigua*), thick-leaf yerba santa (*Eriodictyon crassifolium*), (*Artemisia tridentata*), (*Artemisia douglasiana*), (*Lepidium lapatifolium*), shortpod mustard, red brome. These plants were observed on sandy areas within the riverbottom adjacent riverbanks. Mapped soils included Yolo loam soils. A CNDDDB form for the southern California black walnut tree occurrences is included as Appendix B.

Section 17.02 of the Los Angeles County Ordinance No. 177404 details the protection of Southern California native tree species within Los Angeles County ([http://cityplanning.lacity.org/Code\\_Studies/Other/ProtectedTreeOrd.pdf](http://cityplanning.lacity.org/Code_Studies/Other/ProtectedTreeOrd.pdf)). Southern California black walnut is a protected species under this ordinance, and a permit from the County would be required prior to any removal or disturbance of this species.

**TABLE 6  
 SOUTHERN CALIFORNIA BLACK WALNUT TREE POPULATIONS  
 OCCURRING IN REACHES 75 AND 107**

Reach	Location	Number of Individuals	Percent Phenology		
			Vegetative	Flowering	Fruiting
72	1	1	0	0	100
75	1	2	0	100	0
75	2	1	100	0	0
75	3	16	56	6	38
75	4	4	75	0	25
75	5	1	100	0	0
75	6	1	100	0	0
75	7	5	80	0	20
107	1	2	0	0	100
107	2	2	0	0	100
107	3	4	100	0	0
107	4	2	0	0	100
107	5	2	100	0	0
107	6	2	100	0	0
107	7	1	100	0	0
	<b>Total</b>	<b>46</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**CONCLUSIONS/RECOMMENDATIONS**

Based on overall species distribution, size, and listing status (CRPR 2.2), impacts on the white-rabbit tobacco would likely be considered significant. Avoidance and preservation of the white-rabbit tobacco populations during vegetation clearing is recommended, to the extent feasible. For populations that cannot be avoided, mitigation measures may be necessary. A conceptual mitigation plan should be prepared and implemented to compensate for impacts on white-rabbit tobacco.

Given the CRPR of southern California black walnut (i.e., 4.2) and that southern California black walnut trees are protected under the Los Angeles County Ordinance No. 177404, any impacts to these trees would require a permit from the Los Angeles County.

Although reference populations and regional rainfall amounts were monitored to ensure the scientific adequacy of these focused surveys, there is always a minimal potential for false negative survey results as species could possibly be present on a site but may not be detectable at the time of the surveys.

If you have any comments or questions, please call Marc Blain at (626) 351-2000.

Sincerely,  
**BonTerra Psomas**



Marc T. Blain  
Senior Project Manager

R:\Projects\DPW\J245\CoLADPW J245 Plant Rpt 090115.doc

## REFERENCES

- Abrams, L. 1951. *Illustrated Flora of the Pacific States*. Vol. III: Geraniums to Figworts (*Geraniaceae* to *Scrophulariaceae*). Stanford, CA: Stanford University Press.
- . 1944. *Illustrated Flora of the Pacific States*. Vol. II: Buckwheats to Kramerias (*Polygonaceae* to *Krameriaceae*). Stanford, CA: Stanford University Press.
- . 1923. *Illustrated Flora of the Pacific States*. Vol. I: Ferns to Birthworts (*Ophioglossaceae* to *Aristolochiaceae*). Stanford, CA: Stanford University Press.
- Abrams, L. and R. Ferris. 1960. *Illustrated Flora of the Pacific States*. Vol. IV: Bignonias to Sunflowers (*Bignoniaceae* to *Compositae*). Stanford, CA: Stanford University Press.
- Baldwin, B.G., et al. (Eds.). 2011. *The Jepson Manual: Vascular Plants of California* (Second ed.). Berkeley, CA: University of California Press. <http://ucjeps.berkeley.edu/jepsonmanual/review/> on July 1, 2011.
- BonTerra Consulting. 2013. *Biological Constraints Report for the Operable Unit 7 Groundwater Remedial Action Plan Area of the Former Whittaker-Bermite Project Site, City of Santa Clarita, Los Angeles County, California*. Irvine, CA: BonTerra Consulting.
- California Department of Fish and Game (CDFG). 2014. California Natural Diversity Database. Records of Occurrence for the USGS Littlerock, Mint Canyon, Newhall, Oat Mountain, Val Verde, Warm Springs Mountain, and Whitaker Peak 7.5-minute quadrangle maps. Sacramento, CA: CDFG, Natural Heritage Division.
- . 2009 (November 24). *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Sacramento, CA: CDFG.
- California Native Plant Society (CNPS). 2011. Electronic Inventory of Rare and Endangered Vascular Plants of California. Records of Occurrence for the USGS Azusa, El Monte, Baldwin Park, San Dimas, and Whittier 7.5-minute quadrangle maps. Sacramento, CA: CNPS. <http://www.cnps.org/inventory>.
- Hickman, J.C., Ed. 1993. *The Jepson Manual of Higher Plants of California*. Berkeley, CA: University of California Press.
- Munz, P.A. 1974. *A Flora of Southern California*. Berkeley, CA: University of California Press.

Ms. Cruz  
September 1, 2015  
Page 12

National Weather Service (NWS). 2014. Daily Climate Report (data taken from Bob Hope Airport in Burbank). Silver Spring, MD: NWS, National Oceanic and Atmospheric Administration. <http://www.weather.gov/climate/index.php>.

U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2007 (January 4). Soil Survey Geographic (SSURGO) Database for Antelope Valley Area, California. Fort Worth, TX: USDA, NRCS.