BonTerra PSOMAS

Balancing the Natural and Built Environment

June 30, 2014

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

VIA EMAIL
jcruz@dpw.lacounty.gov

Subject: Results of Biological Inventory Surveys of Reach 102, Violin Canyon (PD 2275), near Castaic, Los Angeles County, California

Dear Ms. Cruz:

This Letter Report presents the findings of plant and wildlife inventory and vegetation mapping surveys conducted at Reach 102, Violin Canyon (PD 2275), in the community of Castaic in unincorporated Los Angeles County (Exhibit 1). Reach 102 is 978 feet in length with an area of 1.79 acres and is located in the Castaic Creek Watershed (Exhibit 2). This soft-bottom channel (SBC) reach is in the process of being added to the Los Angeles County Flood Control District's (LACFCD's) existing California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB) channel maintenance permits. The purpose of these surveys is to provide biological information in support of LACFCD's request for inclusion of SBC Reach 102 with their existing regulatory permits.

METHODS

BonTerra Psomas Senior Biologist Jennifer Pareti and Biologists Jason Mintzer, Allison Rudalevige and Sarah Thomas, and Leatherman BioConsulting Senior Botanist Sandra Leatherman conducted the plant and wildlife inventory and vegetation mapping surveys on May 1, 6, and 27, 2014. Previous survey reports of this SBC reach were reviewed, including the results of biological inventory surveys conducted at this SBC reach in 2007 (BonTerra Consulting 2007).

All plant and wildlife species observed were recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Baldwin et al. (2012). Taxonomy follows Baldwin et al. (2012) and current scientific data (e.g., scientific journals) for scientific and common names. Nomenclature for vegetation types generally follows that of the List of Vegetation Alliances and Associations, Vegetation Classification and Mapping Program (CDFG 2010). The vegetation types identified during the surveys reflected the vegetation shown on the aerial maps and not necessarily the actual vegetation on the channel bottom (invert).

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Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic signs including scat, footprints, scratch-outs, dust bowls, burrows, and trails. Taxonomy and nomenclature for wildlife generally follows Stebbins (2012) for amphibians and reptiles, American Ornithologists' Union (2013) for birds, and Baker et al. (2003) for mammals.

RESULTS

The following discussion is primarily limited to those plant and wildlife species observed during the surveys. For a complete list of plant and wildlife species observed during the surveys see Attachment A.

Vegetation/Plants

The SBC Reach 102 supports five vegetation types (cottonwood-willow riparian forest, alluvial sage scrub, mule fat-tamarisk scrub, cattail marsh, and ruderal) and two other areas (open wash and developed), as illustrated on Exhibit 3 and summarized in Table 1 below. Major vegetation types represented on site, or those with potential to be of high habitat value, are discussed below. Individual plant species are discussed below in conjunction with associated vegetation types. For a complete list of plant species see Attachment A. Representative site photographs are included as Exhibit 4a and 4b.

TABLE 1
VEGETATION TYPES AND OTHER AREAS

Vegetation Type	Acres
Alluvial Sage Scrub	2.12
Ruderal	0.09
Cattail Marsh	0.01
Mule Fat Scrub-Tamarisk Scrub	0.12
Southern Cottonwood Willow Riparian Forest	0.07
Open Wash	0.13
Developed	1.48
TOTAL ACRES	**4.01***

* This total exceeds the total amount described for Reach 102 (1.79 acres) as it includes a buffer area.

Alluvial sage scrub is the dominant vegetation type at SBC Reach 102 and scale-broom (*Lepidospartum squamatum*) is the dominate species of this vegetation type. Other shrubs that occur scattered throughout the alluvial sage scrub include California sagebrush (*Artemisia californica*), purple sage (*Salvia leucophylla*), black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), California brittlebush (*Encelia californica*), coastal deerweed (*Acmispon glaber* var. *brevialatus* [*Lotus scoparius* var. *scoparius*]), coyote brush (*Baccharis pilularis* ssp. *consanguinea*), and mule fat (*Baccharis salicifolia* ssp. *salicifolia*). Common herbaceous species such as annual bur-sage (*Ambrosia acanthicarpa*), California cottonrose (*Logfia filaginoides* [*Filago californica*]), western ragweed (*Ambrosia psilostachya*), and black mustard (*Brassica nigra*) were present during the survey.

The cattail marsh vegetation type consists of a small patch of cattails (*Typha* sp.) located just south of the cottonwood-willow riparian forest vegetation type near the downstream outlet of SBC Reach 102. A small amount of standing water was evident with the cattails.

The southern cottonwood willow riparian forest at this site consists of a few trees that include Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), Goodding's black willow (*Salix gooddingii*), red willow (*Salix laevigata*), and narrow-leaved willow (*Salix exigua*).

Ruderal vegetation type is dominated by non-native ruderal (weedy) species that are generally well adapted to disturbed areas. Ruderal species present at SBC Reach 102 included tocalote (*Centaurea melitensis*), shortpod mustard (*Hirschfeldia incana*), and black mustard.

Open or unvegetated wash are areas that consist of bare sand, silt, or cobble that generally contain no vegetation. These areas have been scoured or otherwise kept clear of vegetation (i.e., clearing activities). Vegetation may colonize these areas in the absence of scouring or clearing activities.

Wildlife

Although the Violin Canyon channel is developed downstream, SBC Reach 102 is contiguous to the west with a large open space area and, as a result, is expected to support relatively high use levels by a variety of wildlife species. The small patch of cattail marsh vegetation at this site indicates that standing water is occasionally available. Overall the habitat value for wildlife is high at SBC Reach 102. For a complete list of wildlife species see Attachment A.

Although no amphibians were detected during the surveys, the Pacific chorus frog (*Pseudacris* regilla) and western toad (*Anaxyrus* [*Bufo*] *boreas*) are expected to occur at SBC Reach 102. One common reptile, the side-blotched lizard (*Uta stansburiana*), was observed during the surveys. Other common reptile species expected to occur at this site include the western fence lizard (*Sceloporus occidentalis*), western whiptail (*Aspidoscelis tigris*), southern alligator lizard (*Elgaria multicarinata*), coachwip (*Masticophis flagellum*), common kingsnake (*Lampropeltis getula*), gopher snake (*Pituophis catenifer*), and western rattlesnake (*Crotalus oreganus*). Birds observed during the surveys included Anna's hummingbird (*Calypte anna*), Calliope hummingbird (*Stellula calliope*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), warbling vireo (*Vireo gilvus*), common raven (*Corvus corax*), bushtit (*Psaltriparus minimus*), yellow warbler (*Setophaga* [*Dendroica*] *petechial*), western tanager (*Piranga ludoviciana*), lazuli bunting (*Passerina amoena*), house finch (*Haemorhous* [*Carpodacus*] *mexicanus*), and lesser goldfinch (*Spinus* [*Carduelis*] *psaltria*). All of these species are expected to breed at this site, except for the Calliope hummingbird, warbling vireo, yellow warbler, and western tanager. The four latter species are common migrant species in the region, except for the Calliope hummingbird which is seldom seen in the lowlands during migration. The warbling vireo and yellow warbler breed in riparian habitats in the region, but SBC Reach 102 does not provide enough suitable habitat for either of these two species to breed at the site. The Calliope hummingbird and western tanager breed in mountain forests of the region. No mammals were observed during the surveys; however, the Virginia opossum (*Didelphis virginiana*), desert cottontail (*Sylvilagus audubonii*), deer mouse (*Peromyscus maniculatus*), coyote (*Canis latrans*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), bobcat (*Lynx rufus*) and mule deer (*Odocoileus hemionus*) are expected to occur.

CONCLUSIONS AND RECOMMENDATIONS

The cottonwood-willow riparian forest habitat at SBC Reach 102 is considered to be of high value in the region, but more so because of the relatively rich diversity of wildlife species it tends to support. At this location, however, it is only a small isolated patch of 0.07 acre and not expected to provide the biological value it would otherwise provide on a larger scale. The 2.12 acres of alluvial sage scrub habitat is also considered to be of high value due its relative scarcity in the region and its connectivity with other open space areas.

Focused surveys for special status plants, including the San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) and slender-horned spineflower (*Dodecahema leptoceras*), were conducted in 2014 at Reach 102 for the Santa Clara River Watershed Feasibility Study and the results were negative. Details on this focused survey will be provided in a subsequent report.

Reach 102 does not provide any potentially suitable habitat for any Threatened and Endangered wildlife species.

Because Reach 102 does not provide potentially suitable habitat for the least Bell's vireo, BonTerra Psomas recommends the following permit language be adopted for this "non-sensitive" reach: construction activities in waters of the U.S. shall be limited to the period outside of the nesting season (March 15-August 31) of any year.

Once the finalized scopes of work for maintenance activities at this SBC reach are developed by the LACFCD, BonTerra Psomas can calculate the acres of impact per vegetation type. A tree inventory survey for this SBC reach is expected to be conducted in Summer 2014.

BonTerra Psomas has appreciated the opportunity to assist on this project. If you have any comments or questions, please call Marc Blain or Brian Daniels at (626) 351-2000.

Sincerely,
BonTerra Psomas

Joan Patronite Kelly, AICP
Corporate Director of Environmental Planning and Resource Management

Marc T. Blain
Senior Project Manager

Enclosures: Exhibit 1 – Regional Location
Exhibit 2 – Local Vicinity
Exhibit 3 – Vegetation Types and Other Areas Map
Exhibit 4a-b – Site Photographs
Attachment A – Plant and Wildlife Compendia

REFERENCES

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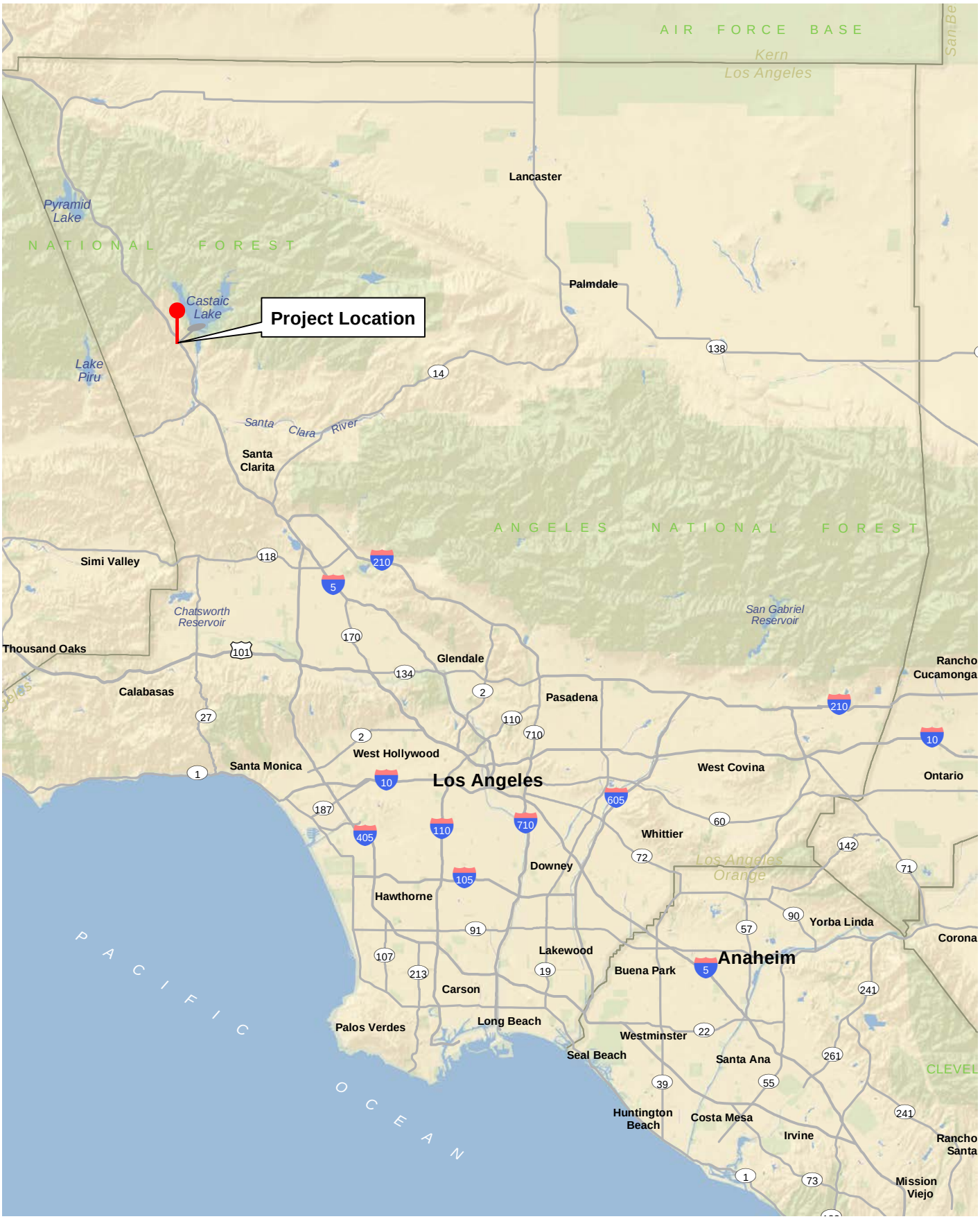

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Regional Location

Exhibit 1

Violin Canyon (PD 2275) - Reach 102

N W E S

10 5 0 10 Miles

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Local Vicinity map

Exhibit 2

Violin Canyon (PD 2275) - Reach 102

N W E S

1,000 500 0 1,000

Feet

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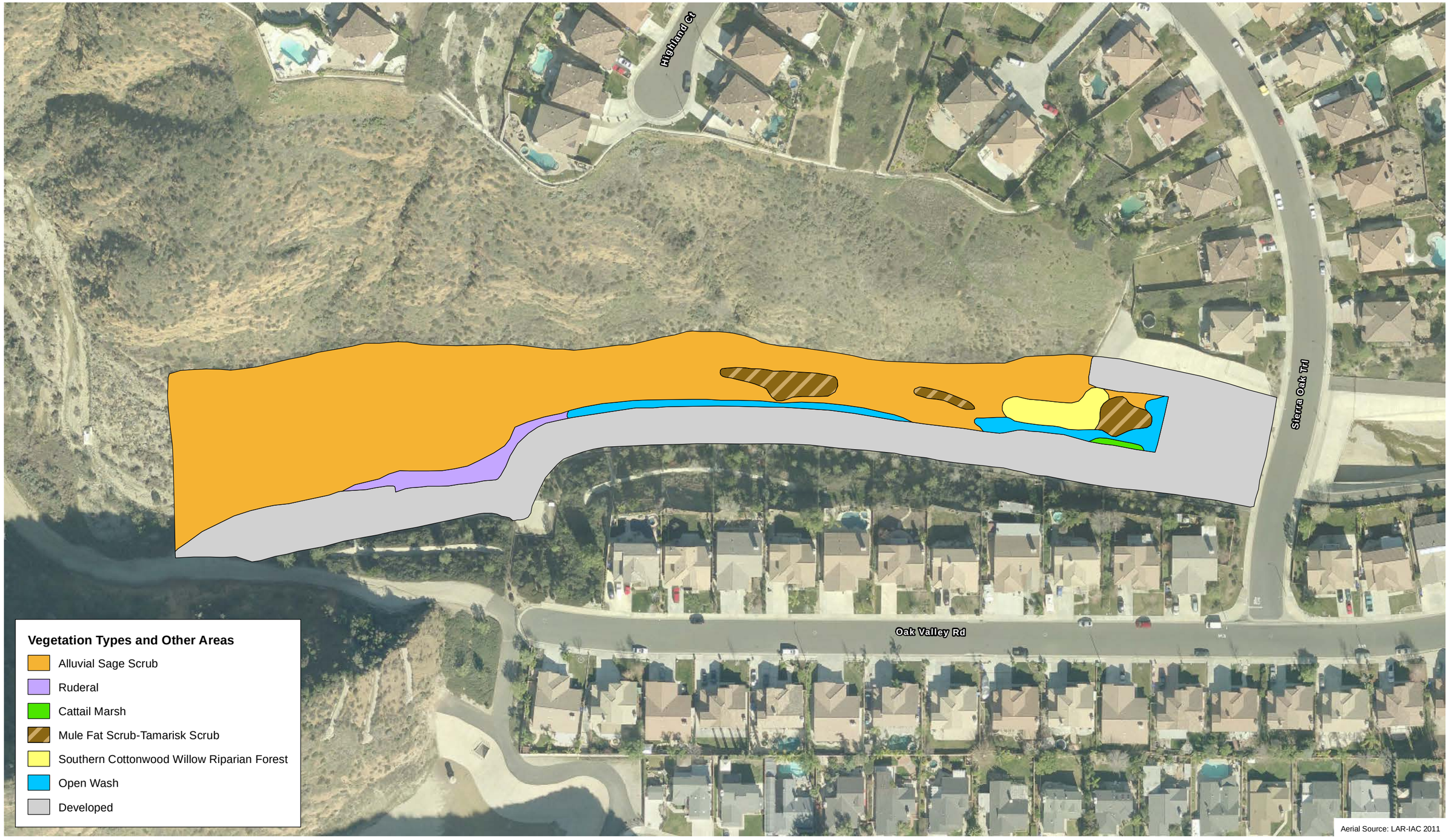

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Vegetation Types and Other Areas

Exhibit 3

Violin Canyon (PD 2275) - Reach 102

N W E S

100 50 0 100

Feet

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May 6, 2014. View downstream, facing eastward.

May 6, 2014. View of alluvial sage scrub at upper end of site.

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Site Photographs

Exhibit 4a

Violin Canyon (PD 2275) - Reach 102

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May 6, 2014. View of central portion of site, facing northeast.

May 6, 2014. View of cottonwood-willow riparian forest at downstream end of site.

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Site Photographs

Exhibit 4b

Violin Canyon (PD 2275) - Reach 102

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ATTACHMENT A

PLANT AND WILDLIFE COMPENDIA

REACH 102 PLANT COMPENDIA

Species	
***ANGIOSPERMAE* – FLOWERING PLANTS**	
EUDICOTS	
ASTERACEAE – SUNFLOWER FAMILY	
Ambrosia acanthicarpa	annual bur-sage
Ambrosia psilostachya	western ragweed
Artemisia californica	California sagebrush
Artemisia douglasiana	mugwort
Baccharis pilularis ssp. *consanguinea* [*B. pilularis*]	coyote brush
Baccharis salicifolia ssp. *salicifolia* [*B. salicifolia*]	mule fat
Brickellia nevinii	Nevin's brickellia
*Centaurea melitensis**	tocalote, Malta star-thistle
*Centaurea solstitialis**	yellow star-thistle
Corethrogyne filaginifolia[*Lessingia f.*]	California-aster
Encelia californica	California brittlebush
Encelia farinosa	desert brittlebush
Erigeron canadensis [*Conyza c.*]	common horseweed
Helianthus annuus	western sunflower
Heterotheca grandiflora	telegraph weed
*Lactuca serriola**	prickly lettuce
Lepidospartum squamatum	scale-broom
Logfia filaginoides [*Filago californica*]	California cottonrose
Malacothrix saxatilis var. *saxatilis*	cliff malacothrix
*Sonchus oleraceus**	common sow thistle
Stephanomeria sp.	wreath plant
BORAGINACEAE – BORAGE FAMILY	
Cryptantha intermedia	common cryptantha
Emmenanthe penduliflora	whispering bells
Eriodictyon crassifolium	thick-leaf yerba santa
Eucrypta chrysanthemifolia	common eucrypta
Heliotropium curassavicum var. *oculatum*	salt heliotrope, alkali heliotrope
Pectocarya sp.	pectocarya
Phacelia cicutaria	caterpillar phacelia
Phacelia viscida	viscid phacelia
BRASSICACEAE – MUSTARD FAMILY	
*Brassica nigra**	black mustard
*Hirschfeldia incana**	shortpod mustard
Lepidium nitidum	peppergrass, shining peppergrass
*Sisymbrium orientale**	hare's ear cabbage
CLEOMACEAE – SPIDERFLOWER FAMILY	
Peritoma arborea [*Isomeris a.*]	bladderpod
CHENOPODIACEAE – GOOSEFOOT FAMILY	
Atriplex lentiformis	big saltbush
Atriplex sp.	saltbush
*Chenopodium album**	lamb's quarters
*Salsola tragus**	Russian thistle

Species	
EUPHORBIACEAE – SPURGE FAMILY	
Croton setigerus [*Eremocarpus s.*]	doveweed, turkey mullein
FABACEAE – LEGUME FAMILY	
Acacia sp.*	acacia
Acmispon glaber var. *glaber* [*Lotus scoparius* var. *scoparius*]	coastal deerweed
Acmispon strigosus [*Lotus s.*]	strigose lotus
Astragalus trichopodus	locoweed
Lupinus hirsutissimus	stinging lupine
Lupinus succulentus	arroyo lupine
*Melilotus indica**	sourclover
*Spartium junceum**	Spanish broom
GERANIACEAE – GERANIUM FAMILY	
*Erodium botrys**	long-beaked filaree
*Erodium cicutarium**	red-stemmed filaree
LAMIACEAE – MINT FAMILY	
Salvia columbariae	chia
Salvia leucophylla	purple sage
Salvia mellifera	black sage
MALVACEAE – MALLOW FAMILY	
Malacothamnus sp.	bushmallow
NYCTAGINACEAE – FOUR-O'CLOCK FAMILY	
Mirabilis laevis var. *crassifolia* [*M. californica*]	wishbone bush, California wishbone bush
ONAGRACEAE – EVENING-PRIMROSE FAMILY	
Eulobus californicus [*Camissonia californica*]	mustard-like evening primrose
PAPAVERACEAE – POPPY FAMILY	
Eschscholzia californica	California poppy
POLEMONIACEAE – PHLOX FAMILY	
Eriastrum densifolium ssp. *austromontanum*	woolly-star
POLYGONACEAE – BUCKWHEAT FAMILY	
Eriogonum fasciculatum	California buckwheat
SALICACEAE – WILLOW FAMILY	
Populus fremontii ssp. *fremontii*	Fremont cottonwood
Salix exigua	narrow-leaved willow
Salix gooddingii	Goodding's black willow
Salix laevigata	red willow
SOLANACEAE – NIGHTSHADE FAMILY	
Datura wrightii	jimson weed
*Nicotiana glauca**	tree tobacco
Solanum xanti	chaparral nightshade
TAMARICACEAE – TAMARISK FAMILY	
*Tamarix ramosissima**	saltcedar
***MONOCOTYLEDONES* – MONOCOTS**	
AGAVACEAE – CENTURY PLANT FAMILY	
Hesperoyucca whipplei [*Yucca w.*]	chaparral yucca
POACEAE – GRASS FAMILY	
*Avena barbata**	slender wild oat
Avena sp.	oat

Species	
*Bromus diandrus**	ripgut grass
Bromus madritensis ssp. *rubens**	red brome
*Bromus tectorum**	cheat grass
*Cynodon dactylon**	bermuda grass
Elymus condensatus [*Leymus c.*]	giant wild rye
Hordeum murinum var. *leporinum**	hare barley
Leptochloa fusca ssp. *uninervia* [*L.u.*]	Mexican sprangletop
*Polypogon monspeliensis**	annual beard grass
Polypogon viridis	water beard grass
Stipa miliacea [*Piptatherum miliacea*]*	smilo grass
THEMIDACEAE – BRODIAEA FAMILY	
Dichelostemma capitatum	blue dicks
TYPHACEAE – CATTAIL FAMILY	
Typha sp.	cattail
* non-native to the region it was found	

REACH 101 WILDLIFE COMPENDIA

Species		Number Sighted
REPTILES		
***LEPIDOSAURIA* – LIZARDS AND SNAKES**		
PHRYNOSOMATIDAE – ZEBRA-TAILED, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS		
Uta stansburiana	side-blotched lizard	1
BIRDS		
***AVES* – BIRDS**		
TROCHILIDAE – HUMMINGBIRDS		
Calypte anna	Anna's hummingbird	2
Selasphorus rufus	rufous hummingbird	1
Stellula calliope	Calliope hummingbird	1
PICIDAE – WOODPECKERS		
Picoides nuttallii	Nuttall's woodpecker	1
TYRANNIDAE – TYRANT FLYCATCHERS		
Sayornis nigricans	black phoebe	1
VIREONIDAE – VIREOS		
Vireo gilvus	warbling vireo	1
CORVIDAE – CROWS AND JAYS		
Corvus corax	common raven	1
AEGITHALIDAE – BUSHTITS		
Psaltriparus minimus	bushtit	2
PARULIDAE – WARBLERS		
Setophaga [*Dendroica*] *petechia*	yellow warbler	1
CARDINALIDAE – CARDINALS AND ALLIES		
Piranga ludoviciana	western tanager	1
Passerina amoena	lazuli bunting	10
FRINGILLIDAE – FINCHES		
Haemorhous [*Carpodacus*] *mexicanus*	house finch	4
Spinus [*Carduelis*] *psaltria*	lesser goldfinch	10