BIOLOGICAL TECHNICAL REPORT FOR SOFT-BOTTOM CHANNEL REACH 118— RUSTIC CANYON CHANNEL MAINTENANCE PROJECT LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

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SECTION 1.0 – INTRODUCTION

This Biological Technical Report has been prepared for the Los Angeles County Flood Control District (LACFCD) to support the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements for the proposed actions relating to the Soft Bottom Reach 118- Rustic Canyon Channel (Reach 118 Rustic) Maintenance Project (Project). Information contained in this document is in accordance with accepted scientific and technical standards consistent with the requirements of United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).

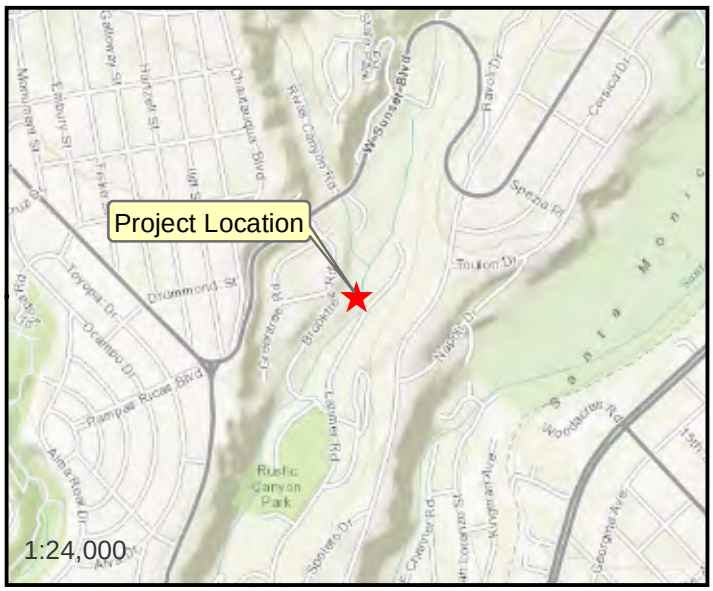
Over time, increased amounts of debris, sediment, and growth of vegetation has accumulated within the Reach 118 Rustic channel. The LACFCD proposes to remove all vegetation from within the proposed channel reach. The vegetation removal will allow LACFCD to assess the integrity of the channel and walls to maintain an acceptable level of flood protection to mitigate the significant risk of flooding of the adjacent residential communities.

Chambers Group, Inc. (Chambers Group) was retained by LACFCD to conduct a literature review and reconnaissance-level survey for the proposed Project. During the survey, biologists identified vegetation communities, determined the potential for the occurrence of sensitive species and habitats that could support sensitive wildlife species on site, and recorded all plants and animals observed or detected within the Project boundary.

1.1 PROJECT LOCATION

The Reach 118 Rustic is located in the County of Los Angeles and runs along a residential area, south of Sunset Boulevard in the City of Pacific Palisades. The Project site begins at the confluence of the Rustic and Rivas Canyon Channels (upstream limit) and ends east of E. Rustic Rd (downstream limit). Reach 118 Rustic flows southwest into the Pacific Ocean at Will Rogers State Beach. It is located in the United States Geological Survey (USGS) *Topanga*, CA 7.5-minute topographic quadrangles. Elevation in the survey area averages 200 feet above mean sea level (amsl).

The Project site is approximately 0.69 river miles total in length. The Project area is located in a suburban area surrounded by private residences. Habitat in the survey area is composed primarily of red willow thickets, escaped ornamental species, and developed vegetation communities (Figure 2 Figure 2).



Legend

Project Location

N

0 375 750 1,500

Feet

Figure 1

Rustic Canyon Reach

Project Location and Vicinity Map

Name: 20744 BTR Rustic Fig 1 Location Map.Mxd
Print Date: 7/21/2014, Author: msimmons

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SECTION 2.0 – METHODS

2.1 LITERATURE REVIEW

Chambers Group biologists conducted a literature review of the survey area prior to performing the reconnaissance survey. The most recent records of the California Natural Diversity Database (CNDDB; managed by CDFW 2014) and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPSEI 2014) were reviewed for the following six quadrangles: *Topanga, Beverly Hills, Van Nuys, Canoga Park, Calabasas, and Malibu Beach*, California, USGS 7.5-minute quadrangles. These databases contain records of reported occurrences of federally or state listed as endangered or threatened species, proposed endangered or threatened species, California Species of Special Concern (SSC), or otherwise sensitive species or habitats that may occur within or in the immediate vicinity of the Project site.

2.2 SOILS

Before the survey was conducted, soil maps for Los Angeles County were reviewed online (USDA 2014) to determine the types of soil found within the Project site. Soils were determined in accordance with categories set forth by the United States Department of Agriculture (USDA) Soil Conservation Service and by referencing the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2014).

2.3 JURISDICTIONAL WATERS

A general assessment of jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), RWQCB, and CDFW was conducted for the proposed Project area. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The assessment was conducted by a desktop survey through the USGS National Hydrography Dataset for hydrological connectivity.

2.4 BIOLOGICAL RECONNAISSANCE-LEVEL FIELD SURVEY

Chambers Group biologists Heather Franklin and Rebecca Alvidrez conducted the general reconnaissance survey to map vegetation communities and identify the potential for occurrence of sensitive plant and wildlife species and habitats that could support sensitive wildlife species on site. All plants and animals observed or detected on site were recorded. Photographs of the Project site were taken to document existing site conditions and are provided in Appendix A.

2.4.1 Vegetation

All plant species observed within the Project site were recorded. Vegetation communities within the Project site were identified, qualitatively described, and mapped onto an aerial photograph. Plant communities were determined in accordance with the categories set forth in Holland (1986), Gray and

Bramlet (1992), or Sawyer et al. (2009). Plant nomenclature follows that of Baldwin et al. (2012). A comprehensive list of the plant species observed during the survey is provided in Appendix B.

2.4.2 Wildlife

All wildlife and wildlife sign observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (undisturbed native habitat, wildlife trails, etc.), and in habitats with the potential to support state and/or federally listed or otherwise sensitive species. Notes were made on the general habitat types, species observed, and the conditions of the Project site. A comprehensive list of the wildlife species observed or detected during the survey is provided in Appendix C.

SECTION 3.0 – RESULTS

Chambers Group biologists conducted the reconnaissance-level field survey on foot throughout the Project site between the hours of 7:00 a.m. and 4:30 p.m. on June 11, 2014. Weather conditions during the survey included temperatures ranging from 69 to 76 degrees Fahrenheit with 50 percent cloud cover and no precipitation.

3.1 SOILS

Review of USDA Soil Conservation Service and referencing the USDA NRCS Web Soil Survey (USDA 2014) determined that the Project site is located within the Los Angeles County Southeastern Area (CA696). Based on the results of the database search, no soil data exists for this area.

3.2 JURISDICTIONAL WATERS

The Reach 118 Rustic channel is located in the Santa Monica Canyon Watershed, and is a blue-line stream containing riparian vegetation and flowing water. Water flows in a westward direction toward the Pacific Ocean, a traditional navigational body of water. Therefore, this section of channel is subject to USACE, RWQCB, and CDFW jurisdiction. Although it may be required, a formal jurisdictional delineation was not prepared for this Project; however, potential impacts to waters of the United States and waters of the State may be calculated if the channel is the only potential water body to be impacted and by assuming the complete channel width and Project length as jurisdictional to USACE, RWQCB, and CDFW for waters.

3.3 VEGETATION COMMUNITIES

Biologists observed 80 plant species within the Project site during the time of the survey (Appendix B). Two vegetation communities, Arroyo Willow Thickets and Disturbed Riparian Species with Escaped Ornamental Species, were observed within the Project site. A map showing the vegetation communities observed within the Project site is provided as Figure 2. Representative site photographs were taken documenting the vegetation communities of the site (Appendix A). A brief description of the vegetation communities is provided in the following subsections.

3.3.1 Arroyo Willow Thickets (*Salix lasiolepis* Shrubland Alliance)

This community is described as having arroyo willow (*Salix lasiolepis*) dominant or a co-dominant in the shrub or tree canopy. Other species found occurring within this community may include mule fat (*Baccharis salicifolia*), western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*) blue elderberry (*Sambucus nigra* subsp. *caerulea*), and other willow species (*Salix* spp.). Plants are typically less than 10 meters (33 feet) in height. The canopy is open to continuous and the herbaceous layer is variable. This community commonly occurs along stream banks and benches, slope seeps, and stringers along drainages.

Arroyo Willow Thickets are found along Reach 118 Rustic where Reach 119 Rivas and Reach 118 Rustic converge and the channels widen in length and in a small patch at the southern end of the Project site. Arroyo Willow Thickets within the Project site are dominated by arroyo willow with red willow (*Salix laevigata*) as an associated species. Several ornamental tree species and herbaceous species also occur in high percentages within this community. English ivy (*Hedera helix*) and crofton weed (*Ageratina*

adenophora) dominate the understory of this community. Approximately 0.9 acre of this community occurs within the Project site.

3.3.2 Disturbed Riparian Species with Escaped Ornamental Species

Disturbed Riparian Species with Escaped Ornamental Species is based on the description for Riparian Herbaceous from Gray and Bramlet (1992) that describes this community as an early successional stage of willow scrub and riparian forest communities. Flooding (or other disturbance factors) often scours woody riparian vegetation away, and the site is then rapidly colonized by pioneer wetland herbaceous plants. Disturbed communities are typically the result of human disturbance and have a high percentage or are dominated by non-native species. Vegetation communities that occur in developed and urban areas often have a high percentage of Ornamental species that encroach within the community.

The majority of the Project site is composed of Disturbed Riparian Species with Escaped Ornamental Species. Crofton weed, English Ivy, umbrella sedge (*Cyperus involucratus*) and water cress (*Nasturium officionale*) are the dominant species within this community found on site. Water cress is a common native riparian herbaceous species that forms at mat-like ground cover. Other native species found within the Project boundary common within this community include willoweed (*Epilobium ciliatum*) and California blackberry (*Rubus ursinus*). Crofton weed and umbrella sedge are weedy non-native riparian species commonly found within urban, disturbed channels and creeks. Other ornamental species growing from the adjacent private properties found within this community include garden nasturtium (*Tropaeolum majus*), bougainvillea (*Bougainvellea* sp.), and greater perwinkle (*Vinca major*). Approximately 2.2 acres of this community are found on the Project site.

Legend

Vegetation Community

- Arroyo Willow Thickets
- Disturbed Riparian Species with Escaped Ornamental Species

Structural Status

- Damage Observed

N

0 75 150 300

Feet

Figure 2

Rustic Creek Reach
Vegetation Communities Map

Name: 20744 BTR Rustic Fig 2 Veg Comm.Mxd
Print Date: 7/21/2014, Author: msimmons

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Legend

Vegetation Community

- Arroyo Willow Thickets
- Disturbed Riparian Species with Escaped Ornamental Species

Structural Status

- Damage Observed

N

0 75 150 300

Feet

Figure 2

Rustic Creek Reach

Vegetation Communities Map

Name: 20744 BTR Rustic Fig 2 Veg Comm.Mxd

Print Date: 7/21/2014, Author: msimmons

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3.4 SENSITIVE SPECIES

The following information is a list of abbreviations used to help determine the significance of biologically sensitive resources potentially occurring within the Project site.

California Rare Plant Rank (CRPR)

List 1A = Plants presumed extinct in California.
List 1B = Plants rare and endangered in California and throughout their range.
List 2 = Plants rare, threatened, or endangered in California but more common elsewhere in their range.
List 3 = Plants about which we need more information; a review list.
List 4 = Plants of limited distribution; a watch list.

CRPR Extensions

0.1 = Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2 = Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3 = Not very endangered in California (less than 20 percent of occurrences threatened).

Federal

FE = Federally listed; Endangered
FT = Federally listed; Threatened
FC = Federal Candidate for listing

State

ST = State listed; Threatened
SE = State listed; Endangered
RARE = State-listed; Rare (Listed "Rare" animals have been redesignated as Threatened, but Rare plants have retained the Rare designation.)
SSC = State Species of Special Concern
WL = CDFW Watch List

The criteria used to evaluate the potential for sensitive species to occur within the Project site are outlined in Table 1, below.

Table 1: Criteria for Evaluating Sensitive Species Potential for Occurrence

PFO*	CRITERIA
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the Project site.
Low:	Habitats or environmental conditions needed to support the species are of poor quality within the Project site.
Moderate:	Either habitat requirements or environmental conditions associated with the species occur within the Project site; or marginal habitat exists within the site and a historical record exists of the species within the Project site or immediate vicinity of the Project site.
High:	Both the habitat requirements and environmental conditions associated with the species occur within the site and a historical record exists of the species within the Project site or its immediate vicinity.
Present:	Species was detected within the site at the time of the survey.

* PFO: Potential for Occurrence

3.4.1 Sensitive Plants

Current database searches (CDFW 2014; CNPSEI 2014) resulted in a list of 30 federal and/or state listed threatened and endangered or rare sensitive plant species documented to occur within the vicinity of the Project site. After the literature review, it was determined that all 30 species are absent from the Project site based on the assessment of the various habitat types in the area of the site and the results of the reconnaissance survey. Factors used to determine the potential for occurrence included the quality of habitat, elevation, and the results of the reconnaissance survey. In addition, the locations of prior database records of occurrence were used as additional data; but since the CNDDB is a positive-sighting database, this data was used only in support of the analysis from the previously identified factors.

The following 30 plant species are considered **Absent** from the Project site due to lack of suitable habitat and/or the species is found outside the elevation range of the Project site:

- Braunton's milk-vetch (*Astragalus brauntonii*) – **FE**, CRPR List 1B.2
- Ventura marsh milk-vetch (*Astragalus pycnostachys* var. *lanosissimus*) – **FE**, **SE**, CRPR 1B.1
- coastal dunes milk-vetch (*Astragalus tener* var. *titi*) – **FE, SE,** CRPR List 1B.1
- slender mariposa lily (*Calochortus clavatus* var. *gracilis*) – CRPR List 1B.2
- Plummer's mariposa lily (*Calochortus plummerae*) – CRPR List 4.2
- Lewis' evening primrose (*Camissoniopsis lewisii*) – CRPR List 3
- southern tarplant (*Centromadia parryi* ssp. *australis*) – CRPR List 1B.1
- Orcutt's pincushion (*Chaenactis glabriscula* var. *orcuttiana*) – CRPR List 1B.1
- coastal goosefoot (*Chenopodium littoreum*) – CRPR List 1B.2
- salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*) – **FE, SE**, CRPR List 1B.1
- San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) – **FC, SE**, CRPR 1B.1
- Santa Susana tarplant (*Deinandra minthornii*) – **SR**, CRPR List 1B.2
- beach spectaclepod (*Dithyrea maritima*) – **ST**, CRPR List 1B.1
- Santa Monica dudleya (*Dudleya cymosa* ssp. *ovatifolia*) – **FT**, CRPR List 1B.1
- many-stemmed dudleya (*Dudleya multicaulis*) – CRPR List 1B.2

- island wallflower (*Erysimum insulare*) – CRPR List 1B.3
- mesa horkelia (*Horkelia cuneata* var. *puberula*) – CRPR List 1B.1
- Coulter's goldfields (*Lasthenia glabrata* subsp. *coulteri*) – CRPR List 1B.1
- white-veined monardella (*Monardella hypoleuca* ssp. *hypoleuca*) – CRPR List 1B.3
- mud nama (*Nama stenocarpum*) – CRPR List 2B.2
- spreading navarretia (*Navarretia fossalis*) – **FT**, CRPR List 1B.1
- prostrate vernal pool navarretia (*Navarretia prostrata*) – CRPR List 1B.1
- California Orcutt grass (*Orcuttia californica*) – **FE, SE,** CRPR List 1B.1
- south coast branching phacelia (*Phacelia ramosissima var. ausrolitoralis*) – CRPR List 3.2
- Brand's star phacelia (*Phacelis stellaris*) – CRPR List 1B.1
- Ballona cinquefoil (*Potentilla multijuga*) – CRPR 1A
- salt-spring checkerbloom (*Sidalcea neomexicana*) – CRPR 2B.2
- estuary seablite (*Suaeda esteroa*) – CRPR List 1B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR List 1B.2
- Sonoran maiden fern (*Thelypteris puberula* var. *sonorensis*) – CRPR List 2B.2

3.4.2 Sensitive Wildlife

A current database search (CDFW 2014) resulted in a list of 24 federally and/or state listed endangered or threatened, SSC, or otherwise sensitive wildlife species that may potentially occur within the Project site. A literature review and the assessment of the various habitat types within the Project site determined that 23 sensitive wildlife species were considered absent from the site, and one species has a moderate potential to occur. Factors used to determine potential for occurrence included the quality of habitat, and results of the reconnaissance-level survey. In addition, the locations of prior database records of occurrence were used as additional data, but since the CNDDB is a positive-sighting database, this data was used only in support of the analysis from the previously identified factors.

The following 23 wildlife species are considered **Absent** from the Project site due to lack of suitable habitat present. In addition, no record shows the existence of these species within five miles of the Project site:

- arroyo chub (*Gila orcuttii*) – SSC
- arroyo toad (*Anaxyrus californicus*) – **FE,** SSC
- bank swallow (*Riparia riparia*) - ST
- burrowing owl (*Athene cunicularia*) – SSC
- California leaf-nosed bat (*Macrotus californicus*) – SSC
- California mountain kingsnake (*Lampropeltis zonata pulchra*) – SSC
- California red-legged frog (*Rana draytonii*) – **FT,** SSC
- coast horned lizard (*Phrynosoma blainvillii*) – SSC
- California gnatcatcher (*Polioptila californica californica*) - **FT**, SSC
- least Bell's vireo (*Vireo bellii pusillus*) – **FE, SE**
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) – SSC
- pallid bat (*Antrozous pallidus*) – SSC
- San Diego desert woodrat (*Neotoma lepida intermedia*) – SSC
- silvery legless lizard (*Anniella pulchra pulchra*) – SSC
- south coast marsh vole (*Microtus californicus stephensi*) – SSC
- southern steelhead - southern California DPS (*Oncorhynchus mykiss irideus*) – **FE,** SSC
- spotted bat (*Euderma maculatum*) – SSC
- Swainson's hawk (*Buteo swainsoni*) – **ST**

- tidewater goby (*Eucyclogobius newberryi*) – **FE,** SSC
- tricolored blackbird (*Agelaius tricolor*) – SSC
- western mastiff bat (*Eumops perotis*) – SSC
- western pond turtle (*Emys marmorata*) – SSC
- western red bat (*Lasiurus blossevillii*) – SSC

The analysis of the CNDDB search and reconnaissance survey resulted in one species with **Moderate** potential to occur within the Project site due to the presence of suitable habitat and known occurrences within three miles of the Project site in habitat similar to conditions at the Project site:

- **two-striped garter snake (*Thamnophis hammondii*) – SSC**

  The two-striped garter snake is a California Species of Special Concern. It is found from Salinas in Monterey County, south along the coast, into the Traverse Ranges in southern California, into Victorville, south to the Peninsular Ranges, and south to Baja California (California Reptiles and Amphibians 2010). The two-striped garter snake is found in or near permanent and intermittent freshwater habitats, including streams, rivers, ponds, and small lakes from sea level to around 8,000 feet. Oak woodlands, brushlands, sparse coniferous forests, and riparian forests may surround its freshwater habitat. It is recognized by its lack of a mid-dorsal stripe, and its coloration is usually olive or brownish above and dull yellow to orange-red or salmon below. Intergrading color morphs are common. This highly aquatic snake is most active at dusk or at night, but it may also forage by day (California Reptiles and Amphibians 2010). Its diet includes tadpoles, toads, frogs, small fish, earthworms, California newt (*Taricha torosa torosa*) larvae, and aquatic eggs. The two-striped garter snake is a live-bearing species that gives birth to up to 36 young at a time. Loss of wetland habitats have contributed to a reduction in the range of this snake.

  This species has been recorded within five miles of the Project site near Westridge-Canyonback Wilderness Park in a sycamore riparian and arroyo willow riparian scrub habitat. Several sections throughout the Project site have a native riparian overstory (e.g., willow, sycamore, alder, and cottonwood) and understory (*typha* spp.) that could provide potential habitat for the two-striped garter snake. Therefore, the two-striped garter snake has a moderate potential to occur within the Project site.

3.5 GENERAL PLANTS

Biologists observed 80 plant species during the reconnaissance-level survey. Plant species observed during the survey were characteristic of the existing site conditions. No sensitive plant species were observed during the survey. A complete list of plants observed was recorded and appears in Appendix B.

3.6 GENERAL WILDLIFE

Biologists observed 23 wildlife species during the survey. Wildlife species observed or detected during the survey were characteristic of the existing site conditions. No sensitive wildlife species were observed during the survey effort. A complete list of wildlife observed or detected was recorded and is presented in Appendix C.

SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS

4.1 SENSITIVE PLANTS

Results of the literature review, the assessment of the various habitat types within the survey site, and the results of the reconnaissance survey determined that all 30 sensitive plants with a potential to occur in the area are considered to be absent from the site. No focused plant surveys are recommended at this time.

4.2 SENSITIVE WILDLIFE

Of the 24 sensitive wildlife species identified in the literature review, it was determined that 23 sensitive wildlife species were considered absent from the survey site, and one had a moderate potential to occur. The two-striped garter snake, a California Species of Special Concern, has a moderate potential to occur within the Project site. To minimize potential impacts to these species, preconstruction surveys and biological monitoring should be conducted. If the above species are identified within the Project site during surveys or monitoring, a monitoring plan may be required by the resource agencies for approval prior to construction.

4.3 RECOMMENDATIONS

LACFCD proposes the removal of vegetation within the channel to maintain an acceptable level of flood protection to mitigate the significant risk of flooding of the adjacent residential communities. The removal of vegetation will allow an assessment of the integrity of the flood channel and walls, and increase flow capacity within the channel. LACFCD proposes approximately 25 to 30 crews using hand tools including weed eaters, hedge trimmers, chain saws, hoes, pitch forks, tarps, loppers, and machetes. No ground disturbing activities are anticipated.

No sensitive plant species are expected to occur with in the Project area; therefore, no impacts to sensitive plant species are anticipated.

Wildlife, including amphibians, reptiles, mammals and birds may be present within the Project area. The majority of the species with the potential to occur within the Project area are not considered sensitive species. To minimize impacts to wildlife species, vegetation removal will be conducted by hand tools. This process is a relatively slow process and will allow species to disperse from the immediate area. In addition, biological monitoring will be conducted to identify and flush wildlife from the immediate area.

4.3.1 Migratory Bird Treaty Act, as Amended (16 USC 703-711)

In order to comply with the Migratory Bird Treaty Act, any vegetation clearing should take place outside the general bird-breeding season (March 15 to August 31), to the maximum extent practical. If this is not possible, prior to Project activities, a qualified biologist should conduct and submit a migratory nesting bird and raptor survey report. The survey should occur no more than three days prior to vegetation removal in the proposed work area, and any occupied passerine and/or raptor nests occurring within or adjacent to the Project area should be delineated. Additional follow-up surveys may be required by the resource agencies. To the maximum extent practicable, a biologist approved exclusionary buffer zone around occupied nests should be maintained during physical ground-disturbing activities. The buffer

zone should be sufficient in size to prevent impacts to the nest. Once nesting has ceased, the buffer may be removed.

4.3.2 Jurisdictional Waters

The Project site is located within the Santa Monica Canyon watershed, a blue-line stream, which contains riparian vegetation and flowing water. This Project site is subject to USACE, RWQCB, and CDFW jurisdiction. No fill or dredging of the channel is proposed. A formal jurisdictional delineation to determine potential impacts to waters of the United States and waters of the State may be required for this Project.

4.3.3 Structural Problems

Several locations along the sidewalls of Reach 118 Rustic have existing or potential structure problems caused by various trees from adjacent private properties. The locations and details can be found in the table below and in Table 2. Approximately 10 native willow trees have damaged the channel walls. These trees will need to be removed in an effort to restore the integrity of the channel and prevent potential flooding of adjacent residential properties. Once vegetation removal is complete, further assessment of the channel walls may provide additional structural problem areas.

Table 2: Potential Sidewall Structure Problems in Reach 118 Rustic

Issue	Easting	Northing	Description
Tree of Heaven (*Ailanthus altissima**)	360566	3768710	Large tree of heaven growing through the fence-like side wall
Willow (*Salix* sp.)	359936	3767246	Large willow tree from adjacent property growing onto side wall
Willow (*Salix* sp.)	359957	3767269	Large willow tree from adjacent property growing onto side wall
Willow (*Salix* sp.)	359968	3767315	Large willow tree from adjacent property growing onto side wall
Willow (*Salix* sp.)	360026	3767507	Large willow tree from adjacent property growing onto side wall
Willow (*Salix* sp.)	360290	3767934	Large willow tree from adjacent property growing horizontally onto side wall
arroyo willow	360030	3767518	Large arroyo willow from adjacent property growing onto side wall
trees	360357	3768091	Several trees causing structural damage to side wall
arroyo willow	360383	3768112	Arroyo willow causing structure damage to side wall
red willow	360324	3768001	Red willow causing structure damage to side wall
arroyo willow	359955	3767283	Arroyo willow growing through side wall causing structure damage
arroyo willow	359977	3767330	Arroyo willow overhanging onto side wall causing structure damage

SECTION 5.0 – REFERENCES

California Department of Fish and Wildlife (CDFW)

2014 California Natural Diversity Database (CNDDB). RareFind Version 5.1.0. Database Query for the *Torrance Topanga, Beverly Hills, Van Nuys, Canoga Park, Calabasas, and Malibu Beach,* California, USGS 7.5-minute quadrangles. Wildlife and Habitat Data Analysis Branch. Accessed on June 2, 2014.

Gray, J. and D. Bramlet

1992 *Habitat Classification System, Natural Resources, Geographic Information System (GIS) Project*. County of Orange Environmental Management Agency, Santa Ana, California.

Two-Striped Garter Snake (*Thamnophis hammondii*)

2010 California Reptiles and Amphibians. CaliforniaHerps.com. http://www.californiaherps.com/turtles/pages/a.m.pallida.html. Accessed June 2014.

United States Department of Agriculture (USDA)

2014 Web Soil Survey. Accessed on June 2, 2014. http://soils.usda.gov/technical/classification/osd/index.htm.

APPENDIX A – SITE PHOTOGRAPHS

APPENDIX A: SITE PHOTOGRAPHS

Photo 1. Upstream limit of Rustic Reach. Photo showing a section of riparian forest within the Project site. This area can provide potential habitat for nesting birds. Photo facing north.

Photo 2. Photo showing a segment of the reach where the east side wall is degrading. Photo facing south.

Photo 3. Proposed staging area at Rustic Creek Lane. Area is flat and comprised of weeds, grasses, and ornamental trees.

Photo 4. Dense non-native vegetation and ornamental vines along the walls, located south of Rustic Creek Lane. Photo facing south.

Photo 5. Photo showing vegetation within the channel and thick non-native vegetation along the sidewalls, located south of Rustic Creek Lane. Photo facing north.

Photo 6. Near the southern end of Rustic Reach. Area is composed of sparse herbaceous vegetation. Large non-native trees outside channel walls provide potential habitat for nesting birds. Photo facing north.

Photo 7.
Downstream limit of the Project site. Wide section of the channel, lined with concrete. Photo facing north.

APPENDIX B – PLANT SPECIES OBSERVED

APPENDIX B:
PLANT SPECIES OBSERVED

Scientific Name	Common Name
FERNS	
EQUISETACEAE	**HORSETAIL FAMILY**
Equisetum arvense	common horsetail
GYMNOSPERMS	
PINACEAE	**PINE FAMILY**
Pinus canariensis†	Canary Island Pine
PODOCARPACEAE	**PODOCARP FAMILY**
Afrocarpus gracilior†	fern pine
MAGNOLIIDS	
LAURACEAE	**LAUREL FAMILY**
Persea americana†	Avocado
ANGIOSPERMS (EUDICOTS)	
ADOXACEAE	**MUSKROOT FAMILY**
Sambucus nigra subsp. *caerulea*	blue elderberry
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**
Toxicodendron diversilobum	poison oak
APIACEAE	**CARROT FAMILY**
*Apium graveolens**	Celery
*Conium maculatum**	poison hemlock
*Foeniculum vulgare**	Fennel
APOCYNACEAE	**DOGBANE FAMILY**
Nerium oleander†	Oleander
Trachelospermum jasminoides†	star jasmine
Vinca major†	greater periwinkle
ARALIACEAE	**GINSENG FAMILY**
Hedera helix†	English ivy
Schefflera sp.†	umbrella tree
ASTERACEAE	**SUNFLOWER FAMILY**
*Ageratina adenophora**	Eupatory
Artemisia douglasiana	Mugwort
Baccharis salicifolia subsp. *salicifolia*	mule fat
*Gnaphalium luteo-album**	white cudweed
Sonchus asper subsp. *asper**	prickly sow thistle
BIGNONIACEAE	**BIGNONIA FAMILY**
Jacaranda mimosifolia†	Jacaranda
Tecomaria capensis†	Cape honeysuckle

BORAGINACEAE	**BORAGE FAMILY**
Phacelia imbricate	imbricate phacelia
BRASSICACEAE	**MUSTARD FAMILY**
Nasturtium officinale	water-cress
*Sisymbrium altissimum**	tumble mustard
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**
Lonicera japonica†	Japanese honeysuckle
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
*Chenopodium album**	lamb's quarters
ELAEAGNACEAE	**OLEASTER FAMILY**
Elaeagnus x ebbingei†	gilt edge
EUPHORBIACEAE	**SPURGE FAMILY**
*Euphorbia peplus**	petty spurge
*Ricinus communis**	castor-bean
FABACEAE	**LEGUME FAMILY**
Erythrina crista-galli†	coral tree
Medicago sp.	Clover
FAGACEAE	**OAK FAMILY**
Quercus agrifolia	coast live oak
ITEACEAE	
Itea ilicifolia†	Hollyleaf sweetspire
LAMIACEAE	**MINT FAMILY**
*Mentha spicata**	Spearmint
Stachys albens	white hedge-nettle
MAGNOLIACEAE	**MAGNOLIA FAMILY**
Magnolia grandiflora†	southern magnolia
MORACEAE	**MULBERRY FAMILY**
Ficus carica†	edible fig
*Ficus sp.**	Fig
MYRSINACEAE	**MYRSINE FAMILY**
*Anagallis arvensis**	scarlet pimpernel
MYRTACEAE	**MYRTLE FAMILY**
Agonis flexuosa†	Australian willow myrtle
*Eucalyptus sp.**	gum tree
NYCTAGINACEAE	**FOUR O'CLOCK FAMILY**
Bougainvillea sp.†	Bougainvillea
OLEACEAE	**OLIVE FAMILY**
Fraxinus uhdei†	shamel ash
Fraxinus velutina	velvet ash

Ligustrum japonicum†	Japanese privet
Ligustrum lucidum†	Glossy privet
Olea europaea†	Olive
ONAGRACEAE	**EVENING PRIMROSE FAMILY**
Epilobium ciliatum	California cottonweed
OXALIDACEAE	**OXALIS FAMILY**
*Oxalis pes-caprae**	Bermuda buttercup
PHRYMACEAE	**LOPSEED FAMILY**
Mimulus cardinalis	scarlet monkey-flower
PITTOSPORACEAE	**TOBIRA FAMILY**
Pittosporum eugenioides†	lemonwood
PLANTAGINACEAE	**PLANTAIN FAMILY**
*Veronica anagallis-aquatica**	water speedwell
PLATANACEAE	**SYCAMORE FAMILY**
Platanus racemosa	western sycamore
POLYGONACEAE	**BUCKWHEAT FAMILY**
Persicaria lapathifolia	willow-weed
RANUNCULACEAE	**BUTTERCUP FAMILY**
Clematis sp.	clematis
ROSACEAE	**ROSE FAMILY**
Eriobotrya japonica†	Loquat
*Prunus cerasifera**	cherry plum
Prunus caroliniana†	Carolina laurel cherry
Rubus ursinus	California blackberry
RUTACEAE	**RUE FAMILY**
*Citrus sp.**	Grapefruit
SALICACEAE	**WILLOW FAMILY**
Populus fremontii subsp. fremontii	Fremont cottonwood
Salix laevigata	red willow
Salix lasiolepis	arroyo willow
SAPINDACEAE	**SOAPBERRY FAMILY**
*Acer sp.**	maple
SIMAROUBACEAE	**QUASSIA FAMILY**
Ailanthus altissima†	tree of heaven
SOLANACEAE	**NIGHTSHADE FAMILY**
Brugmansia sp.†	angel's trumpet
*Nicotiana glauca**	tree tobacco
Solanum douglasii	Douglas' nightshade
Solanum sp.	nightshade

TROPAEOLACEAE	**NASTURTIUM FAMILY**
*Tropaeolum majus**	garden nasturtium
VERBENACEAE	**VERVAIN FAMILY**
Lantana camara†	common lantana
URTICACEAE	**NETTLE FAMILY**
Urtica dioica	stinging nettle
ANGIOSPERMS (MONOCOTS)	
ARACEAE	**PHILODENDRON FAMILY**
Zantedeschia aethiopica†	Calla-lily
ARECACEAE	**PALM FAMILY**
Arecastrum romanzoffianum†	queen palm
Phoenix canariensis†	Canary Island date palm
CYPERACEAE	**SEDGE FAMILY**
*Cyperus involucratus**	umbrella-plant
POACEAE	**GRASS FAMILY**
*Agrostis viridis**	water bentgrass
Bambusa sp.†	Bamboo
Cynodon dactylon†	Bermuda grass
Stipa miliacea var. *miliacea**	smilo grass

*Non-Native Species †Ornamental Species

APPENDIX C – WILDLIFE SPECIES OBSERVED OR DETECTED

APPENDIX C:
WILDLIFE SPECIES OBSERVED

Scientific Name	Common Name
CLASS AMPHIBIA	**AMPHIBIANS**
HYLIDAE	**TREEFROGS**
Pseudacris regilla	Pacific chorus frog
CLASS REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS**
Sceloporus occidentalis	western fence lizard
CLASS AVES	**BIRDS**
ACCIPITRIDAE	**HAWKS, KITES, EAGLES**
Buteo lineatus	red-shouldered hawk
TROCHILIDAE	**HUMMINGBIRDS**
Calypte anna	Anna's hummingbird
Selasphorus sasin	Allen's hummingbird
PICIDAE	**WOODPECKERS**
Picoides nuttallii	Nuttall's woodpecker
TYRANNIDAE	**TYRANT FLYCATCHERS**
Empidonax difficilis	Pacific-slope flycatcher
Sayornis nigricans	black phoebe
CORVIDAE	**JAYS & CROWS**
Corvus brachyrhynchos	American crow
Corvus corax	common raven
AEGITHALIDAE	**BUSHTITS**
Psaltriparus minimus	bushtit
TROGLODYTIDAE	**WRENS**
Thryomanes bewickii	Bewick's wren
TURDIDAE	**THRUSHES**
Catharus ustulatus	Swainson's thrush
MIMIDAE	**MOCKINGBIRDS, THRASHERS**
Mimus polyglottos	northern mockingbird
PARULIDAE	**WOOD WARBLERS**
Geothlypis trichas	common yellowthroat
EMBERIZIDAE	**EMBERIZIDS**
Junco hyemalis	dark-eyed junco
Melospiza melodia	song sparrow
Pipilo maculatus	spotted towhee
CARDINALIDAE	**CARDINALS**
Passerina caerulea	blue grosbeak
FRINGILLIDAE	**FINCHES**
Spinus psaltria	lesser goldfinch
Carpodacus mexicanus	house finch
PSITTACIDAE	**PARROTS**
Amazona viridigenalis	Red-crowned parrot
CLASS MAMMALIA	**MAMMALS**
SCIURIDAE	**SQUIRRELS**
Sciurus niger	eastern fox squirrel