

Draft Initial Study/Mitigated Negative Declaration

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Prepared for	Los Angeles County Public Works on behalf of Los Angeles County Flood Control District 900 South Fremont Avenue Annex Building, Second Floor Alhambra, California 91803
--------------	---

Prepared by	Psomas 5 Hutton Centre Drive, Suite 300 Santa Ana, CA 92707 T: (714) 751-7373
-------------	--

March 2021

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Section 1.0 Introduction	1-1
1.1 Purpose of Initial Study/Mitigated Negative Declaration	1-1
1.2 Project Summary	1-2
1.3 Summary of Environmental Impacts	1-2
1.4 Project Approval	1-9
1.5 Organization of the Initial Study/Mitigated Negative Declaration	1-10
Section 2.0 Environmental Setting and Project Description	2-1
2.1 Project Background	2-1
2.2 Project Overview	2-2
2.3 Relevant Policies and Regulations	2-5
2.4 County-Wide Environmental Setting	2-11
2.5 Permit Conditions of the Maintenance Plan	2-15
2.6 Project Description For Each Reach	2-22
2.7 Conceptual Habitat Mitigation and Monitoring Plan (CHMMP)	2-36
2.8 Environmental Analysis Methodology	2-38
2.9 Agency Approvals and Permits	2-38
Section 3.0 Environmental Checklist Form and Assessment	3-1
3.1 Aesthetics	3-5
3.2 Agriculture and Forest Resources	3-8
3.3 Air Quality	3-10
3.4 Biological Resources	3-20
3.5 Cultural Resources	3-46
3.6 Energy	3-51
3.7 Geology and Soils	3-54
3.8 Greenhouse Gas Emissions	3-58
3.9 Hazards/Hazardous Materials	3-62
3.10 Hydrology and Water Quality	3-69
3.11 Land Use and Planning	3-75
3.12 Mineral Resources	3-77
3.13 Noise	3-79
3.14 Population and Housing	3-84
3.15 Public Services	3-86
3.16 Recreation	3-88

3.17	Transportation.....	3-90
3.18	Tribal Cultural Resources	3-94
3.19	Utilities and Service Systems	3-97
3.20	Wildfire.....	3-100
3.21	Mandatory Findings of Significance.....	3-103
Section 4.0	Document Preparers and Contributors	4-1
Section 5.0	References	5-1

TABLES

<u>Table</u>	<u>Page</u>
1-1	Summary of Mitigation Program..... 1-3
2-1	Listing of Project Areas2-12
2-2	Permit Conditions Incorporated into the Maintenance Plan2-15
2-3	Agency Approvals and Requirements.....2-39
3-1	California and National Ambient Air Quality Standards.....3-11
3-2	Attainment Status of Criteria Pollutants in the South Coast Air Basin.....3-12
3-3	South Coast AQMD Regional Emissions Significance Thresholds (lbs/day)3-14
3-4	Estimated Maximum Daily Emissions Without Mitigation (lbs/day)3-15
3-5	Mitigated Estimated Maximum Daily Emissions (lbs/day).....3-16
3-6	Localized Construction Pollutant Emissions (lbs/day).....3-17
3-7	Summary of Completed Special Status Plant and Wildlife Surveys.....3-31
3-8	Vegetation Impacts3-35
3-9	Summary of Impacts to Jurisdictional Resources3-36
3-10	Fuel Energy Use During Project Activities3-52
3-11	Annual Project-Related Greenhouse Gas Emissions3-60
3-12	Structural Vibration Damage Thresholds3-82
3-13	Human Response to Transient Vibration3-82
3-14	Typical Vibration Levels During Construction Activities3-83

EXHIBITS

<u>Exhibit</u>	<u>Follows Page</u>
2.1 Regional Location	2-11
2.2a Reach 101	2-22
2.2b Reach 102	2-23
2.2c Reach 103	2-24
2.2d Reach 104	2-25
2.2e Reach 105	2-25
2.2f Reach 108	2-26
2.2g Reach 109	2-27
2.2h Reach 110	2-28
2.2i Reach 112	2-29
2.2j Reach 113	2-29
2.2k Reach 114	2-30
2.2l Reach 115	2-31
2.2m Reach 116	2-32
2.2n Reach 117	2-32
2.2o Reach 118	2-33
2.2p Reach 119	2-34
2.2q Reach 120	2-34
2.2r Reach 121	2-35
3.1-1a–18 Project Impacts – Vegetation Types and Other Areas	3-21
3.1-19 Project Impacts – Vegetation Types and Other Areas – Stickleback River Ranch Site	3-21

APPENDICES

Appendix

A	Air Quality and Greenhouse Gas Data
B	Biological Reports
C	Cultural Resources Data
D	Energy Data
E	Hazards Reports

This page is intentionally left blank.

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

The California Environmental Quality Act (CEQA) (Section 21000 et. seq. of the *California Public Resources Code*) and the State CEQA Guidelines (Title 14, Section 15000 et. seq. of the *California Code of Regulations*,) require that local government agencies, prior to taking action on projects requiring discretionary approval, consider the environmental consequences of such projects. In accordance with CEQA, this Initial Study (IS) has been prepared as documentation to support a Mitigated Negative Declaration (MND) for the implementation of the Los Angeles County Flood Control District's (LACFCD's) Master Maintenance Plan—Annual Maintenance of Soft-Bottom Flood Control Channel Reaches 1–121 (Maintenance Plan or Project). It is anticipated that the California Department of Fish and Wildlife (CDFW) may also rely on this document in connection with the issuance of a Fish and Game Code Section 1600 Long-term Streambed Alteration Agreement (Section 1600 Agreement) for the Maintenance Plan.

This IS/MND is the public document designed to provide the public and applicable responsible/trustee agencies, special districts, and local and State governmental agency decision-makers with an analysis of the potential environmental consequences of project implementation to support informed decision-making. Pursuant to Section 15367 of the State CEQA Guidelines, the Lead Agency is the public agency that has the principal responsibility for carrying out or approving a project. The LACFCD is serving as the Lead Agency for the Maintenance Plan and is also responsible for implementing this Project. As the Lead Agency, the LACFCD has the authority for Project approval and adoption of the accompanying environmental documentation. CDFW is the Trustee Agency for the Project, and thus has jurisdiction by law over natural resources affected by the Project.

The Maintenance Plan consists of activities and protocols related to vegetation and sediment removal and maintenance (including minor structural restoration/repairs) at the following LACFCD soft-bottom channel reaches: Reaches 101-105, 108-110, and 112-121. Periodic maintenance activities may have occurred previously at some of the reaches analyzed in this IS/MND. However, the Maintenance Plan sets forth new and specific parameters and requirements that the LACFCD intends to follow to ensure that the maintenance activities within the subject reaches are implemented in an environmentally-responsible manner, consistent with the requirements of the CDFW Section 1600 Agreement and other regulatory permits. The Project does not involve the construction of new reaches or the expansion or alteration of the existing reaches, but rather includes maintenance activities that allow these soft-bottom channels to adequately perform their main function of flood protection. Therefore, in most cases, the activities set forth under the Maintenance Plan have historically been found exempt under CEQA, through a Class 1 (Existing Facilities) Categorical Exemption (CE), pursuant to Section 15301 of the State CEQA Guidelines. The Class 1 CE allows for maintenance of existing structures and facilities involving no expansion of its original use. As part of this Project, a Conceptual Habitat Mitigation and Monitoring Plan (CHMMP) has been prepared to enhance and restore degraded habitat at the Stickleback River Ranch (SRR), specifically for the biological habitat mitigation of the applicable reaches analyzed in this IS/MND. The CHMMP for the SRR has been prepared to mitigate potential impacts to CDFW "Waters of the State" and U.S. Army Corps of Engineers (USACE) "Waters of the U.S." from implementation of the Maintenance Plan. The CDFW and USACE have reviewed and approved the CHMMP. The SRR site encompasses the Santa Clara River, which is the same watershed as the majority of reaches analyzed in this IS/MND. The SRR site has the ecological potential for very similar habitats to what is proposed to be impacted in the reaches. The projected impacts of implementing mitigation measures at the reaches are analyzed within this IS/MND.

The LACFCD is preparing an IS/MND, pursuant to CEQA, for the evaluation of impacts pertaining to the implementation of the Maintenance Plan and CHMMP. It is anticipated that CDFW will also rely on this document in connection with the issuance of the Section 1600 Agreement for this Project. In accordance with Section 15070 of the State CEQA Guidelines, while the Project could have environmental impacts, modifications and/or mitigation measures have been proposed to reduce its adverse impacts; therefore, an MND is the appropriate CEQA document for the Project.

The following discussion presents a brief overview of the Maintenance Plan and anticipated activities associated with the proposed mitigation at the Stickleback River Ranch; a tabular summary of the Project's potential environmental effects during Project implementation; the recommended mitigation program that would reduce potential impacts to less than significant levels; and the organization of the IS/MND. The reader is referred to the full text of this IS/MND, as well as the technical appendices, for a complete description and analysis of the environmental effects of the Project.

1.2 PROJECT SUMMARY

The Project sets forth specific parameters and requirements for activities carried out at the 18 reaches (Reaches 101-105, 108-110, and 112-121), which are located throughout the County of Los Angeles. In the course of one season (September 1 through March 14), each of the reaches would receive one round of routine maintenance, which may include: (1) annual brush clearing, tree trimming, and vegetation mowing; (2) sediment removal; (3) access road maintenance and other appurtenances; (4) storm damage repair and restoration; and/or (5) exotic species eradication or control. As mentioned above, the Maintenance Plan does not involve new construction, expansion, or alteration of any of the reaches, but rather includes annual maintenance activities that protect persons and properties from flooding.

The CHMMP for the SRR has been prepared to mitigate potential impacts to CDFW "Waters of the State" and U.S. Army Corps of Engineers (USACE) "Waters of the U.S." from implementation of the Maintenance Plan. The CDFW and USACE have reviewed and approved the CHMMP. Therefore, in addition to addressing impacts from maintenance activities at the reaches, the Project includes analysis of potential impacts from the CHMMP for the SRR.

1.3 SUMMARY OF ENVIRONMENTAL IMPACTS

The analysis in Section 3.0, Environmental Checklist Form and Assessment, of this IS/MND shows that implementation of the Project would not result in any environmental impacts in the following topical areas:

- Agriculture and Forest Resources,
- Land Use and Planning,
- Mineral Resources,
- Population and Housing,
- Public Services, and
- Recreation.

Additionally, less than significant impacts would occur related to the following topical areas, without mitigation:

- Aesthetics,
- Energy
- Geology and Soils,
- Greenhouse Gas Emissions,
- Hydrology and Water Quality,
- Noise,
- Transportation,
- Wildfire, and
- Utilities and Service Systems.

Table 1-1, Summary of Mitigation Program, identifies the mitigation measures (MMs) that are applicable to air quality, biological resources, cultural resources, hazards and hazardous materials, and tribal cultural resources. It is noted that with implementation of all the MMs, the Project would have less than significant impacts to biological resources. However, potential impacts to biological resources due to Project activities would be considered a significant impact prior to compliance with the conditions of the Section 1600 Agreement and these conditions have been included as an MM.

With incorporation of the mitigation program for the Project, as summarized in Table 1-1, all potential environmental impacts to air quality, biological resources, cultural resources, hazards and hazardous materials, and tribal cultural resources would be reduced to a less than significant level. Therefore, no significant and unavoidable impacts would result due to Project implementation.

**TABLE 1-1
SUMMARY OF MITIGATION PROGRAM**

Mitigation Measures (MMs)	
Air Quality (Section 3.3)	
MM AQ-1	When the Los Angeles County Flood Control District's (LACFCD's) Maintenance Yards and/or the LACFCD's contractors use off-road diesel-powered construction equipment of greater than 50 horsepower, the equipment shall meet or exceed U.S. Environmental Protection Agency (USEPA) Tier 4 Final emission standards. This requirement shall be incorporated into the LACFCD Master Maintenance Plan—Annual Maintenance of Soft-Bottom Flood Control Channel Reaches 1–121 for monitoring compliance.
Biological Resources (Section 3.4)	
MM BIO-1	Pre- and post-maintenance surveys shall be conducted by a qualified biologist annually at each reach where maintenance is scheduled for the current year to identify and document maintenance activities and their consistency with the Maintenance Plan and regulatory permit conditions and other required biological mitigation measures. Sensitive plant and wildlife species observed shall be recorded during these surveys. Photographs shall be taken from identical photo stations prior to maintenance, and after maintenance is completed. Unauthorized vegetation maintenance shall be noted and reported to the Los Angeles County Flood Control District (LACFCD). The surveying qualified biologist shall prepare a report and submit to LACFCD that includes field data sheets, and pre- and post-maintenance photographs for each reach and determinations of compliance or non-compliance. LACFCD shall post the report and make it publicly available before the end of each calendar year as required by regulatory permits.
MM BIO-2	A qualified biological monitor shall conduct pre-maintenance surveys at Reaches 112-116 to determine the limits of coastal salt marsh, freshwater marsh, saltgrass-pickleweed vegetation, and tarplant/pickleweed occurrences. These areas shall be flagged for avoidance prior to maintenance activities. Areas mapped as coastal salt marsh, freshwater marsh, or saltgrass-pickleweed (disturbed or not) and areas with pickleweed or tarplant shall be avoided. A full-time biological monitor shall be present during maintenance activities in these marsh areas to confirm the disturbance limits.

**TABLE 1-1
SUMMARY OF MITIGATION PROGRAM**

Mitigation Measures (MMs)	
MM BIO-3	<p>For Reaches 101, 102, 105, 110, 121 and the Stickleback River Ranch (SRR) site, which are identified as containing potentially suitable foraging, nesting, and/or overwintering habitat and with a moderate potential occurrence for <i>Bombus Crotchii</i> (i.e., Crotch bumble bee), focused pre-construction presence/absence surveys for nesting/foraging shall be conducted by a qualified biologist. If nesting/foraging surveys are positive, a one-half-mile no work buffer shall be placed around the occupied area. If a nest is detected, the nest shall be monitored for activity by a qualified biologist. Once nesting activity has ceased and the colony is no longer active, the buffer shall be removed and maintenance activities may proceed between September 1 – October 1, when temperatures are still high, and the likelihood of overwintering queens is low. If nesting/foraging surveys are negative, the same restriction shall apply, and maintenance activities may proceed between September 1 – October 1. Overwintering detection surveys are not feasible due to the extreme difficulty in locating solitary overwintering bumble bees and due to the possibility for “take” of a Candidate State Endangered species. Survey methodology is as follows:</p> <ol style="list-style-type: none"> a. No handling of the Crotch bumble bee shall occur during surveys. Three photograph-only pre-construction surveys shall be conducted for Crotch bumble bee in Reaches 101, 102, 105, 110, 121, and the SRR site. Surveys shall be conducted by a qualified biologist with experience identifying Crotch bumble bee and during suitable survey conditions (see below). <ul style="list-style-type: none"> • Time of Year – Pre-construction surveys must be conducted during the peak flight period from May through July, for the highest detection probability. • Weather – Preconstruction surveys shall take place when temperatures are above 60°F (15.5°C) and not during wet conditions (e.g., foggy, raining, or drizzling). Wait at least 1 hour after rain subsides before conducting a survey. Sunny days with low wind speeds (less than 8 mph) are optimal. Partially cloudy days or overcast conditions are permissible if a person's shadow is visible. • Time of Day - Surveys shall be conducted at least two hours after sunrise and three hours before sunset. b. Meandering transects shall be walked slowly within the survey area (disturbance area plus 50 feet) to obtain a 100% survey cover. Multiple transects at each site is recommended to adequately cover the highest quality habitat at the site; transect spacing will depend on the habitat. If the survey area is greater than 50 acres per surveyor, divide the survey area and survey separately in increments of 50 acres. c. Flowering plants shall be inspected with binoculars (butterfly binoculars recommended). Photographs of all bumble bees (<i>Bombus</i> spp.) encountered during the survey shall be taken with a digital single-lens reflex (DSLR) or point-and-shoot camera with adequate zoom capabilities and liquid-crystal display (LCD) screen to correctly identify bees in the field. To properly identify a bumble bee, it is best to take photos that clearly show the entire top side of the abdomen, the side of the thorax/abdomen, and the face/head. Several photos of each specimen shall be taken to show these various characteristics. Bumble bees shall be photographed as they forage, with a series of photos of each individual taken to document the bee's characteristics clearly, as described above. A “spacer” photo shall be taken between the series, so individuals can be distinguished when archiving photos and reporting findings. d. Crotch bumble bees make their nests in cavities, usually in abandoned rodent holes. Cavities such as mammal burrows shall be inspected with binoculars for evidence of bumble bee use. If multiple exiting/entering bumble bees are observed at a cavity, further observation shall occur until nesting is confirmed (e.g. multiple individuals entering the cavity). Detailed notes on nesting activity shall be recorded as listed below. e. During each survey, record the following data on Crotch Bumble Bee Survey Field Data Sheets or in a field notebook: <ul style="list-style-type: none"> • Surveyor's name • Project name/location • Date

**TABLE 1-1
SUMMARY OF MITIGATION PROGRAM**

Mitigation Measures (MMs)	
	<ul style="list-style-type: none"> • Temperature (F) • Estimated wind speed (mph) • Estimated cloud cover (%) • Total combined time spent surveying (all surveyors) • Survey start time • Survey end time • Total survey area (acres) • Habitat type(s) • Estimated vegetative cover • Number of native plant species (spp.) in flower (0 spp., 1-4 spp., 5-9 spp., 10-14 spp., 15+ spp.) • Description of observed or likely stressors in survey area • File location of representative survey area photographs and species photographs • For each bumble bee species observed, record: number of females, number of males, number of queens, flowers or species of plant being used, actual (A) or estimated (E) counts, % ID confidence (95-100% confident, 75-94%, 50-74%, 5-49%, <5%) • For each Crotch bumble bee observed, record if it is a female, male, or queen; flower or species of plant being used, Latitude/Longitude, % ID confidence (95-100% confident, 75-94%, 50-74%, 5-49%, <5%) • For each Crotch bumble bee nest observed, the surveyor shall record a description of the location, photographs of the nest opening (if feasible), record how many bumble bees enter/exit the nest per minute, Latitude/Longitude of nest location(s). <p>f. Results of the survey shall be provided to California Department of Fish and Wildlife (CDFW) within 30 days of survey completion.</p>
MM BIO-4	<p>For those reaches identified as potentially occupied by the unarmored threespine stickleback (Reaches 103, 104, 105, 109, and 121), no Project activities and/or heavy equipment shall be allowed in drainages between November 2 and August 31 in any year if surface water is present. Pre-disturbance activity unarmored threespine stickleback surveys shall be conducted by a qualified biologist previously approved by CDFW annually prior to activities (occurring between September 1 and November 1) at each of these reaches. If surveys determine unarmored threespine stickleback is present or potentially present, the County shall not conduct Project activities at that location until the following year. If delaying channel-maintenance activities for one year is not feasible, a 10-foot no-work buffer and a 50-foot hand clearing only buffer from the wetted area shall be employed. All Project activities occurring within a reach occupied or potentially occupied by stickleback shall be monitored by a qualified Biologist. Buffer zones shall be flagged by the Biologist prior to work being conducted. The Biologist shall have the authority to stop and/or modify the Project activities if, in the professional opinion of the biologist, the activity has the potential to adversely affect the stickleback. In order to implement the Habitat Mitigation Monitoring Program (HMMP) for the SRR site, work within 10 feet of occupied stickleback habitat may be required to occur. These methods will be implemented in accordance with CDFW and USACE requirements (i.e., avoidance and minimization measures) to be stipulated in the final Habitat Mitigation and Monitoring Plan (FHMP).</p>
MM BIO-5	<p>A qualified biologist shall conduct focused surveys every two years in those reaches where USFWS designated Critical Habitat for arroyo toad occurs, or that have been identified as potentially suitable habitat for arroyo toad, specifically Reaches 104, 105, 109, and 121. Surveys shall be conducted using USFWS approved survey protocol for arroyo toad. Survey methods include nocturnal and diurnal visits within late spring and summer months to determine presence or absence of the species. If arroyo toad is determined to be present then the regulatory agencies will be notified and no maintenance work shall occur within the occupied reach without approval from regulatory agencies.</p>

**TABLE 1-1
SUMMARY OF MITIGATION PROGRAM**

Mitigation Measures (MMs)	
MM BIO-6	<p>Focused surveys for southwestern willow flycatcher (Reaches 103, 104, 105, 110, and 121, least Bell's vireo (Reaches 103, 104, 105, 109, 110, and 121), and western yellow-billed cuckoo (Reaches 103, 104, 109, 110, and 121) shall be conducted every two years in potentially suitable habitat. These riparian bird species are migratory and are therefore not present during the fall/winter season when Project activities shall occur. If focused surveys determine that any of these species are present, the "seasonally occupied habitat" shall be flagged for avoidance. Project activities shall be monitored by a qualified biologist with the authority to stop and/or modify the activities if, in the professional opinion of the biologist, the activity has the potential to adversely affect the riparian bird species being protected.</p>
MM BIO-7	<p>To avoid and minimize impacts to U.S. Fish and Wildlife Service (USFWS) designated Critical Habitat for the southwestern willow flycatcher in soft-bottom channel Reaches 104 and 109, all Project activities shall be limited to the period outside of the nesting season (March 15 - September 15) of any year.</p>
MM BIO-8	<p>Prior to the initiation of Project activities at Reach 116 involving the disturbance and/or removal of potentially suitable burrowing owl habitat, a habitat assessment shall be conducted. If the habitat assessment concludes that the area lacks potentially suitable burrowing owl burrows, no additional action is required. However, if potentially suitable burrows are located in the assessment area, the burrows shall be flagged and avoided. Project activities near any flagged burrows shall be monitored by a qualified biologist with the authority to stop and/or modify the maintenance activities if the activity has the potential to adversely affect the burrowing owl. Survey methods shall follow California Department of Fish and Wildlife's (CDFW's) 2012 Staff Report on Burrowing Owl Mitigation.</p>
MM BIO-9	<p>Prior to initiation of Project activities, the Los Angeles County Flood Control District (LACFCD) shall obtain all necessary permits for impacts to jurisdictional areas of the following resource agencies: U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Coastal Commission (CCC), and California Department of Fish and Wildlife (CDFW). The LACFCD shall comply with all mitigation measures specified in the regulatory agency permits and/or agreements. Pursuant to the permit requirements, the LACFCD shall develop a Storm Water Pollution Prevention Plan (SWPPP) that incorporates Best Management Practices (BMPs) for reducing or eliminating maintenance-related pollutants in the site runoff.</p> <p>Mitigation for the loss of jurisdictional resources shall consist of enhancement and restoration of degraded jurisdictional resources at an appropriate mitigation site to replace impacted jurisdictional resources at a ratio of no less than 1:1 in biological value, determined through consultation with the above-listed resource agencies. Prior to the initiation of any maintenance-related activities in the soft-bottom channels, the LACFCD shall prepare and submit a Habitat Mitigation and Monitoring Program (HMMP) for USACE and CDFW approval. The HMMP shall contain the following items:</p> <ol style="list-style-type: none"> Responsibilities and qualifications of the personnel to implement and supervise the plan. The responsibilities of the Landowner, Specialists, and Maintenance Personnel that would supervise and implement the plan shall be specified. Site selection. The mitigation site shall be determined in coordination with the USACE and CDFW. The site shall either be located in a dedicated open space area on County land, USFS land, or off-site land shall be purchased, within the same watershed as the majority of the impacted reaches of this Project. Seed source. The seeds (or plantings) used shall be from local sources (within ten miles of the Project area) to ensure genetic integrity. Site preparation and planting implementation. Site preparation shall include (1) protection of existing native species; (2) trash, debris, and weed removal; (3) native species salvage and reuse (i.e., duff); (4) soil treatments (i.e., imprinting, decompacting); (5) temporary irrigation installation; (6) erosion-control measures (i.e., rice or willow wattles); (7) seed mix application; and (8) container species planting. Schedule. A schedule shall be developed which includes planting in late fall and early winter, between October 1 and January 30. Maintenance plan/guidelines. The maintenance plan shall include (1) weed control; (2) herbivory control; (3) trash and debris removal; (4) irrigation system maintenance; (5) maintenance training; and (6) replacement planting.

**TABLE 1-1
SUMMARY OF MITIGATION PROGRAM**

Mitigation Measures (MMs)	
	<p>g. Performance standards. Site performance shall meet or exceed written standards related to such items as 1) vegetation cover, 2) plant species diversity, and/or 3) sensitive wildlife usage. A contingency plan shall be included that outlines actions required if standards are not met.</p> <p>h. Monitoring plan. The monitoring plan shall include (1) qualitative monitoring (i.e., pre- and post-maintenance photographs and general observations); (2) quantitative monitoring (i.e., randomly placed transects); (3) performance criteria, as approved by the above-listed resource agencies; (4) monthly reports for the first year and reports quarterly thereafter; and (5) annual reports, which shall be submitted to the above-mentioned resource agencies, if required, on an annual basis. The site shall be monitored and maintained for seven years, reduced to five years if performance measures are met, to ensure successful establishment of riparian habitat within the restored areas.</p> <p>i. Long-term preservation. Long-term preservation of the site shall also be outlined in the HMMP to ensure the mitigation site is not impacted by future development.</p>
MM BIO-10	<p>A Turtle Mitigation Plan has been developed for Reach 115 at the request of California Department of Fish and Wildlife (CDFW). Avoidance and minimization measures for the green sea turtle and western pond turtle are as follows:</p> <ul style="list-style-type: none"> • Environmental Education Training – To increase understanding and recognition of the green turtle and western pond turtle, environmental education training shall be provided. This training shall take place during initial construction activities (i.e., during the first tailboard session) and periodically thereafter as needed. The training will focus upon detection, avoidance, and ecology of each of the two species of turtles. A brochure providing applicable information as well as representative photos of the two turtle species will be provided and should be kept on-site by construction personnel for reference. • Clearance Surveys – Prior to construction activities a daily clearance survey of the active work areas and their immediate surroundings shall be conducted to determine presence/absence of both species of turtles. This clearance survey shall be conducted by a qualified individual familiar with green turtle and western pond turtle, their eggs, and hatchlings. • Green Turtle Observations – Upon observation of a green turtle within or adjacent to active maintenance activities, all activities shall cease until the individual has moved away from the area a minimum distance of 50 feet. This determination shall be made by the qualified biological monitor present on-site. Green turtles shall not be approached, captured or relocated. • Western Pond Turtle Observations – If a western pond turtle is observed within or adjacent to active maintenance areas, the biological monitor shall determine whether the individual will be impacted by maintenance activities. If the biological monitor determines that the turtle is not likely to be impacted, they shall monitor the individual until it has left the area or maintenance activities are completed. If the biological monitor determines that the turtle may be impacted by maintenance activities, the monitor shall relocate the individual within suitable habitat downstream and outside of the immediate work area as determined by the biological monitor on site. • Turtle Observation Notification – Should a green turtle or western pond turtle be observed the appropriate individuals representing State and federal resources agencies shall be notified at the end of the maintenance season. • Biological Monitoring – A biological monitor shall be present on-site during construction activities that occur within or adjacent to occupied habitat. Green sea turtles have been observed within Reach 115 and can move freely. Therefore, they are always presumed to be present and the habitat occupied. While on-site, a monitor with the necessary permits shall be responsible for relocating western pond turtles, conducting surveys for all sensitive species, and communicating with the crews. The biological monitor shall have the authority to stop work should the situation warrant it. The monitor will provide a daily summary email describing the day's activities and any details of pertinent observations. Special status species will be reported to the California Natural Diversity Database (CNDDB). • Turtle Relocation Reporting – Once Reach 115 maintenance activities have been completed a final report shall be prepared and submitted to the CDFW. This report will detail the number of turtles collected, relative size classes, sex ratio and the duration of time turtles were held and where they were released (including GPS points).

**TABLE 1-1
SUMMARY OF MITIGATION PROGRAM**

Mitigation Measures (MMs)	
	<ul style="list-style-type: none"> • Best Management Practices – The following best management practices (BMP's), as applicable to turtles, have been required under the SAA and are summarized as follows: <ul style="list-style-type: none"> a. The Permittee shall only use an herbicide approved for use in an aquatic environment. Contact shall be avoided with native vegetation and be applied on calm days (wind less than 5 miles per hour) to prevent airborne transfer of herbicides. b. Mechanical equipment shall not be operated in the streambed except as subsequently approved by the CDFW. c. Install sediment and erosion control measures and maintain sediment control(s) in good operating condition throughout the construction period and the following rainy season. d. Should the sediment barrier fail to retain sediment, Permittee shall employ corrective measures and notify the CDFW immediately. e. Materials used in the sediment barriers shall not pose an entanglement risk to fish/wildlife. f. Remove siltation curtain and any supportive material once work is completed. g. Upon CDFW determination that turbidity/siltation levels resulting from project-related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation shall be halted until effective CDFW-approved control devices are installed, or abatement procedures are initiated. h. All activities performed in or near a stream shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. If a spill occurs the Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. CDFW shall also be notified by the Permittee and consulted regarding clean-up procedures. <p>Soft-Bottom Channel Reach 115 (Lower San Gabriel River) Maintenance – Turtle Mitigation Plan Los Angeles County Flood Control District Facilities and Projects, Los Angeles County, California, provided in Appendix B-42 of this IS/MND (Psomas 2018c) outlines additional avoidance and minimization measures required by CDFW. All activities included in the plan shall be performed during the appropriate phase of maintenance activities.</p>
Cultural Resources (Section 3.5)	
MM CUL-1	<p>Should potential archaeological resources be found during ground-disturbing activities for the Project, ground-disturbing activity shall be temporarily halted and a qualified Archaeologist shall be retained to first determine whether the resource is a "Cultural Resource" pursuant to Section 21074 of the California Public Resources Code, a "unique archaeological resource" pursuant to Section 21083.2(g) of the California Public Resources Code, or a buried "historical resource" pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. If the potential resource is determined not to be significant by the Archeologist pursuant to the above-referenced section, work at the reaches would resume. If the archaeological resource is determined to be a "Cultural Resource", "unique archaeological resource", or a "historical resource", the Archaeologist shall formulate a mitigation plan in consultation with the Los Angeles County Flood Control District that satisfies the requirements of the above-referenced sections. Upon approval of the mitigation plan by the County, the Project shall be implemented in compliance with the mitigation plan. If the Archaeologist determines that the archaeological resource is not a "Cultural Resource", "unique archaeological resource", or "historical resource", for those resources that are 45 years old or more, s/he may record the site and submit the recordation form to the California Historic Resources Information System at the South Central Coastal Information Center at California State University, Fullerton.</p>
Hazards and Hazardous Materials (Section 3.9)	
MM HAZ-1	<p>Prior to ground disturbance or demolition activities at the Stickleback River Ranch (SRR) site, the County shall ensure that remediation and/or removal of the contaminated soils (i.e., contamination including, but not limited to, arsenic, antimony, copper, and lead) shall be completed at the SRR site. Remediation and/or disposal shall be conducted with the oversight of applicable regulatory agencies such as the Los Angeles County Fire Department [operating as the CUPA], the South Coast Air Quality Management District (South Coast AQMD), the California Department of Toxic Substances Control (DTSC), and/or the U.S. Environmental Protection Agency in compliance with established maximum contaminant levels (MCLs).</p>

**TABLE 1-1
SUMMARY OF MITIGATION PROGRAM**

Mitigation Measures (MMs)	
Tribal Cultural Resources (Section 3.18)	
MM TCR-1	Prior to Project activities within each reach or the SRR site the Los Angeles County Flood Control District (LACFCD) shall determine whether any of the activities have the potential to disturb native soils (i.e., soils that are in-situ that have not previously been disturbed by grading and are not composed of sediment washed down from upstream areas). If Tribal Cultural Resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall assess the find. The Lead Agency or Project manager shall contact the Fernandeano Tataviam Band of Mission Indians (FTBMI) to consult if any such find occurs within the areas culturally and traditionally affiliated with the FTBMI.
MM TCR-2	The Lead Agency and/or applicant shall, in good faith, consult with the Fernandeano Tataviam Band of Mission Indians on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

1.4 PROJECT APPROVAL

Pursuant to Section 15072 of the State CEQA Guidelines, a Notice of Intent (NOI) to adopt an MND for the Project has been sent to the public, applicable responsible and trustee agencies, and the Los Angeles County Clerk. The NOI has been filed with the State Clearinghouse and mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing. The NOI and associated public review period has also been published in the following newspapers on Thursday, April 1, 2021 and Thursday, April 15, 2021: Los Angeles Times, La Opinión, Antelope Valley Press, Santa Clarita Valley Signal, and Torrance Daily Breeze. Accordingly, the public review period for this IS/MND has been set from Thursday, April 1, 2021 through Friday, April 30, 2021. Due to the coronavirus pandemic (COVID-19), at the time of circulation of this document, all County facilities, including the LACFCD and Los Angeles County Public Libraries, are closed to the public. Consequently, hardcopies are not available for review at these locations. Therefore, electronic files of the IS/MND and associated technical reports are available for public review at <https://pw.lacounty.gov/swm/SBC-MaintPlan-MND/>.

There will be a 30-day public review period for the IS/MND in accordance with Section 15073 of the State CEQA Guidelines. In reviewing the IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential environmental impacts of the Project on the environment and ways in which the potentially significant effects of the Project could be reduced or avoided through the mitigation program for the Project. Comments to the IS/MND should be in writing and may be sent via letter, e-mail, or fax to:

Ms. Nandini T. Moran
Fax: 626-458-4150
E-mail: ntmoran@dpw.lacounty.gov
Civil Engineer
Los Angeles County Flood Control District
900 South Fremont Avenue
Annex Building, 2nd Floor
Alhambra, CA 91803-1331

The deadline to provide comments is Friday, April 30, 2021. Following receipt of comments from agencies, organizations, and/or individuals during the public review period, the County of Los

Angeles Board of Supervisors (Board of Supervisors) will determine whether any substantial new environmental issues have been raised that necessitate changes to the IS/MND in accordance with CEQA requirements. In accordance with Section 15074 of the State CEQA Guidelines, prior to approving the Project, the Board of Supervisors will consider the proposed IS/MND together with any comments received during the public review process. The Board of Supervisors will adopt the proposed IS/MND only if it finds that there is not substantial evidence that the Project will have a significant effect on the environment.

1.5 ORGANIZATION OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

This IS/MND is organized into the following sections:

Section 1.0 – Introduction. This section describes the purpose of the IS/MND; provides a summary of the Project description, potential impacts that could result from Project implementation, and Mitigation Measures that would reduce potential environmental impacts; and provides an introduction to the IS/MND process.

Section 2.0 – Environmental Setting and Project Description. This section provides a description of the Project, an overview and the applicable policies and regulations, and the County-wide setting; a description of the existing setting and the Project's physical and operational characteristics for each reach and off-site mitigation area addressed in this IS/MND; the analysis methodology; and a summary of required agency approvals.

Section 3.0 – Environmental Checklist Form and Assessment. The completed CEQA checklist form provides an overview of the potential impacts that could result from the Project's implementation. A brief discussion of the environmental setting for each environmental issue follows the checklist. This section then contains a response to each checklist question accompanied by an explanation to support each response. The responses serve as an analysis of the environmental impacts of the Project activities. This section also identifies regulatory requirements that would eliminate potential significant effects or reduce them to a level that is less than significant. The environmental checklist form also includes the "Mandatory Findings of Significance" required by CEQA.

Section 4.0 – Report Preparers and Contributors. This section identifies the individuals responsible for preparing and contributing to the IS/MND.

Section 5.0 – References. This section identifies the references used in preparation of the IS/MND.

SECTION 2.0 ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

For centuries, storm waters have periodically swept out of the San Gabriel Mountains into the Los Angeles River and San Gabriel River basins. Large rain events have historically resulted in extensive property damage and loss of life in Los Angeles County (County) due to flooding. Such a flood occurred after heavy rains in 1914, causing over \$10 million in property damage. As a result, the State legislature created the Los Angeles Flood Control District (LACFCD) in 1915 to reduce flood hazards in the County.

After historic flood events in the 1930s in the Los Angeles basin, the U.S. Congress approved the Flood Control Act of 1941, which authorized the U.S. Army Corps of Engineers (USACE) to address the hazards associated with the County's natural hydrology through the channelization of rivers and drainages and the construction of dams and debris basins.

To effectively control flood waters from the mountainous watersheds surrounding the Los Angeles basin, the USACE and the County constructed concrete-bottom and soft-bottom (also known as "earth-bottom") channels downstream of dams and debris basins located along the frontal slopes of the San Gabriel, Santa Monica, Verdugo, and Santa Susanna Mountains. These channels, referred to primarily as "reaches", provide flood protection for Los Angeles County.

For over 70 years, channel maintenance, restoration/repairs, and inspection activities have been performed regularly within the LACFCD facilities. Originally constructed by the USACE, most of the channel facilities were later transferred to the LACFCD for cyclic maintenance. The USACE's maintenance guidelines require that "debris, objectionable growth, shoals, and waste materials must not encroach on the invert. Excess materials that will not move readily with low flows must be removed. Measures must be taken to control objectionable growth by approved chemical or mechanical means" (LA ACOE 1999).

Disturbance to jurisdictional surface waters (e.g., wetlands, channels, ponds, or marine waters) requires a Federal Clean Water Act Section 404 permit from the USACE and a Federal Clean Water Act Section 401 Water Quality Certification and, for some reaches and the SRR Site, a National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB)/State Water Resources Control Board (SWRCB), a Section 1600 Agreement pursuant to the California Fish and Game Code from the California Department of Fish and Wildlife (CDFW), and, for some reaches, a Coastal Development Permit from the California Coastal Commission or the City of Long Beach.

The LACFCD is responsible for the maintenance of various storm drainage facilities, including the ongoing maintenance of soft-bottom channels, throughout Los Angeles County. The LACFCD currently performs routine maintenance (including minor restoration/repairs) and periodic vegetation and sediment removal within various LACFCD-managed channels in order to maintain the functionality and flow capacity of these facilities to provide flood protection; reduce fire hazards; and implement vector-control requirements. The primary purpose of the soft-bottom channels is to convey storm flows from the dams, debris basins, open space and urban areas within their tributary watersheds to provide flood protection for persons and property in Los Angeles County.

Long-term maintenance permits/agreements issued by the USACE, RWQCB, and CDFW have governed the general maintenance activities conducted by the LACFCD within Reaches 1 through 100. An IS/MND for Reaches 1 through 100 was adopted in August 1999 to support the issuance

of the long-term maintenance permits/agreements for those reaches (State Clearinghouse No. 1999081114). However, the LACFCD has subsequently acquired management responsibility for 18 additional reaches, which also required coverage under long-term maintenance permits/agreements. Of these 18 reaches, Reaches 101-105, 108-110, and 112-119 were added in 2010, and Reaches 120 and 121 were added in 2018. This IS/MND evaluates the environmental impacts of the proposed Maintenance Plan for Reaches 101-105, 108-110, and 112-121 and the Conceptual Habitat Mitigation and Monitoring Plan (CHMMP) for the SRR site.

2.2 PROJECT OVERVIEW

This IS/MND analyzes the environmental impacts of maintenance activities described in the Maintenance Plan for the 18 additional reaches. Conditions derived from past regulatory permits issued for the Maintenance Plan are detailed in Section 2.6, Required Conditions of the Maintenance Plan.

This IS/MND provides an analysis of the initial maintenance and annual maintenance required thereafter for these LACFCD-managed soft-bottomed channel reaches: Reaches 101-105, 108-110, and 112-121, and also provides an analysis of the mitigation-related activities as outlined in the CHMMP. It should be noted that this IS/MND only analyzes the LACFCD's routine maintenance activities and is not applicable to emergency maintenance or other emergency maintenance activities that may be necessary for operation of the LACFCD's reaches. Any emergency activities would be addressed by separate CEQA documentation.

The maintenance activities in each reach right-of-way are expected to include, but not be limited to trimming and removal of native and non-native vegetation, clearing of debris and trash, and sediment re-contouring and removal. Trimming and removal of vegetation is anticipated to include, but not be limited to, mechanical or hand removal of all woody vegetation and debris within 15 feet of the toe of the slope along the banks and in entrainment channels that lead flows from outlets, in order to maintain the structural integrity of the levee and allow for visual inspection.

Periodic maintenance activities may have occurred previously at some of the Reaches 101-105, 108-110, and 112-121. However, the proposed Maintenance Plan sets forth new and specific parameters and requirements consistent with the anticipated requirements of the CDFW Section 1600 Agreement and its other permits. Since consistent yearly maintenance has not occurred at all of the reaches analyzed in this IS/MND, Year 1 (i.e., the first season of activity between September 1 through March 14) activities are expected to be the most environmentally impactful due to the accumulation of vegetation, sediment, and other indication of a lack of regular maintenance over the years. Therefore, unless otherwise noted, the IS/MND analyzes a reasonable worst-case scenario of maintenance activities, which is assumed to involve Year 1 activities at each of the respective reaches.

The anticipated impacts of mitigation activities have been assessed for the Maintenance Plan activities. These mitigation activities are considered and analyzed as impacts within this IS/MND. These activities, which are part of the CHMMP, consist of habitat mitigation for reaches within the Santa Clara River at the Stickleback River Ranch (SRR) site. The SRR site spans a segment of the Santa Clara River and the 100-year flood plain in Soledad Canyon. The activities in the CHMMP would remove most infrastructure associated with an abandoned recreational vehicle park (RV park) to allow the river to follow its historic flood regime. After the SRR site is brought back to conditions conducive to native habitats, native habitat would be installed in formerly degraded areas. The CHMMP would be implemented over ten tasks, as described further in Section 2.7.1, CHMMP Tasks.

Project Definitions

The following definitions and descriptions of activities are related to the Project:

Access ramp. A ramp that leads from an access road to a channel bottom.

Adjacent. Within 500 feet.

Hand-clearing. All clearing activities that would be performed by hand, using tools such as chainsaws, weed whackers, pruners, shovels, axes, rakes, digging bars, pitchforks, or hoes.

Heavy equipment. Mechanical equipment, which may include, but is not limited to, all-terrain vehicle (ATV), tractor, tractor mower, D6 or D8 dozer, excavator, gradall with mower attachment, rubber or track loader, 6+6 (4,000 gallon) water truck, off-road dump truck, dump truck, bobcat with mower attachment, backhoe, and/or street sweeper.

Herbaceous. Any species of plants that have no woody vegetation. These are typically of smaller stature and can often have an annual lifecycle.

Left bank. The bank on the left side of a channel from the perspective of standing in the channel looking downstream.

Levee. A man-made wall, usually made of soil or concrete, which borders flood plains and controls the direction of flow.

Lollipopping. To trim side branches off tree trunks from the ground to a specified height, commonly six feet.

Mechanical removal. Mechanical removal would be utilized for woody vegetation that would need to be pulled out by the roots. All work would be performed using heavy equipment, which is defined above.

Mowing. Removal of aboveground portions of plants with various types of mowing equipment, which may include hand tools or heavy equipment. The ground would remain undisturbed and all roots are untouched.

Native vegetation. This includes both woody and herbaceous plants recognized by CDFW as naturally occurring and reproducing in Los Angeles County, and maintained on the Statewide List of Plants.

Non-native vegetation. This includes both woody and herbaceous plants. Non-native vegetation consists of species that are not native to the region but have been introduced through human activities. It can occur across a variety of environmental settings and is often further categorized by type including ornamental, invasive, noxious, and/or nuisance plant species. The amount of non-native vegetation observed as part of relative cover will vary depending on whether observed vegetation is a woodland, shrubland, or grassland.

Non-sensitive reach. Any reach that has no listed species occurrence or no habitat that is potentially suitable for a listed species. This term has been applied to specific designated reaches by the USFWS and USACE through the permitting process.

Open wash. Land within a channel that is scoured regularly by flood water and has less than five percent cover of vegetation.

Reach (see “soft-bottom channel”). Land that includes access roads, levees, and channel bottoms.

Right bank. The bank on the right side of a channel from the perspective of standing in the channel looking downstream.

Right-of-way. All property maintained by LACFCD that typically includes the soft-bottom channel (reach) and access roads.

Riprap. Rock boulders of various sizes that are placed on levee slopes to stabilize the slope and reduce erosion.

Sediment re-grading. The re-grading of sediment on a reach bottom. This typically involves the use of water trucks/water-pull, D6 or D8 dozer, excavator, gradall, ATV and track or rubber tire loader, back-hoe, and/or street sweeper.

Sediment removal. The removal of sediment from the bottom of a reach. This typically involves the use of water truck/water-pull, off-road dump truck, excavator, gradall, track-loader, rubber tire loader, dump truck, back-hoe and ATV, D6 or D8 dozer, and/or street sweeper.

Sensitive reach. Any reach with a listed species occurrence or with habitat that is potentially suitable for a listed species. This term has been applied to specific designated reaches by the USFWS and USACE through the permitting process.

Sensitive species. Sensitive species are species identified by resources agencies, conservation groups, or other entities as requiring some level of attention due to conservation concerns. Some of these species receive formal protection under federal and/or State laws such as candidate species or species listed as threatened or endangered under the California Endangered Species Act (CESA; Fish & Game Code Section 2050 et seq.) and/or Endangered Species Act (ESA; 16 U.S.C. Section 1531 et seq.); or a species identified by CDFW as a Species of Special Concern.

Soft-bottom channel (reach). As used in this IS/MND, a soft-bottom channel (also known as a reach) is a section of bed, bank, and/or channel of a stream that has an earthen bottom (i.e., not concrete).

Toe of the slope. The area where the bottom of the side slope (or levee) meets the outer edge of the channel bottom (or invert).

Trimming. Hand-removal of branches from trees or shrubs.

Woodland. A vegetation type that is dominated by one or more tree species.

Woody vegetation. An aboveground stem consisting of hardened, thickened, secondary tissue characteristic of subshrubs, shrubs, or trees. The stem(s) typically become larger with each growing season and become woody after one year of growth, or when their main stem becomes greater than 0.5 inch in diameter at breast height (dbh).

2.3 RELEVANT POLICIES AND REGULATIONS

2.3.1 FEDERAL

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects plants and animals that the government has listed as “Endangered” or “Threatened”. The FESA is implemented by enforcing Sections 7 and 9 of the Act. A federally listed species is protected from unauthorized “take” pursuant to Section 9 of the FESA. “Take”, as defined by the FESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt to engage in any such conduct. All persons are presently prohibited from taking a federally listed species unless and until (1) the appropriate Section 10(a) permit has been issued by the USFWS or (2) an Incidental Take Permit is obtained as a result of formal consultation between a federal agency and the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the FESA and the implementing regulations that pertain to it (50 *Code of Federal Regulations* [CFR] Section 402). “Person” is defined in the FESA as an individual, corporation, partnership, trust, association, or any private entity; any officer, employee, agent, department or instrument of the federal government; any State, municipality, or political subdivision of the State; or any other entity subject to the jurisdiction of the U.S. The Project Applicant is a “person” for purposes of the FESA.

Section 404 and 401 of the Clean Water Act of 1972

Section 404 of the Clean Water Act (CWA, 33 USC 1251 et. seq.) regulates the discharge of dredged or filled material into “Waters of the U.S.”, including wetlands. “Waters of the U.S.” include certain inland waters, lakes, rivers, streams, and their tributaries under certain circumstances. The USACE is the designated regulatory agency responsible for administering the 404-permit program and for making jurisdictional determinations. This permitting authority applies to all “Waters of the U.S.” where the material has the effect of (1) replacing any portion of “Waters of the U.S.” with dry land or (2) changing the bottom elevation of any portion of “Waters of the U.S.”. These fill materials would include sand, rock, clay, construction debris, wood chips, and materials used to create any structure or infrastructure in the “Waters of the U.S.”. Dredge and fill activities are typically associated with development projects; water-resource related projects; infrastructure development and wetland conversion to farming; forestry; and urban development.

Under Section 401 of the CWA, an activity requiring a USACE Section 404 permit must obtain a State Water Quality Certification (or waiver thereof) to ensure that the activity will not violate established State water quality standards. The U.S. Environmental Protection Agency (USEPA) is the federal regulatory agency responsible for implementing the CWA. However, the SWRCB, in conjunction with the nine RWQCBs, has been delegated the responsibility for administering the Section 401 water quality certification program.

The RWQCB is the primary agency responsible for protecting water quality in California through the regulation of discharges to surface waters under the CWA and the California Porter-Cologne Water Quality Control Act, discussed further below. The RWQCB’s CWA jurisdiction extends to all “Waters of the U.S.”. Section 401 requires the RWQCB to provide “certification that there is reasonable assurance that an activity which may result in the discharge to ‘waters of the U.S.’ will not violate water quality standards”. Water Quality Certification must be based on a finding that the proposed discharge will comply with water quality standards, which contain numeric and narrative objectives that can be found in each of the nine RWQCB’s Water Quality Control Plans.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) of 1918 may have originally been intended to reduce hunting of migratory birds but has been interpreted more broadly by some resource agencies in recent years. The broader interpretation is that bird nests containing eggs or young are protected under the MBTA from any disturbance that may directly or indirectly affect the success of the nesting attempt regardless of the intent of the activity that caused the disturbance. The USFWS has periodically used this broader interpretation of the MBTA in enforcement actions, which have been met with mixed success in federal courts. For the most part, State and local agencies have accepted this broader interpretation of the MBTA and require avoidance measures as part of project approval permits.

2.3.2 STATE

California Endangered Species Act

Pursuant to the CESA and Section 2081 of the *California Fish and Game Code*, an Incidental Take Permit from the CDFG is required for projects that could result in the take of a State-listed Threatened or Endangered species. Under the CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include “harm” or “harass”, as the federal act does. As a result, the threshold for a take under the CESA is higher than that under the FESA. A CDFG-authorized Incidental Take Permit under Section 2081(b) is required when a project could result in the take of a State-listed Threatened or Endangered Species. The application for an Incidental Take Permit under Section 2081(b) has a number of requirements, including the preparation of a conservation plan, generally referred to as a Habitat Conservation Plan.

California Fish and Game Code

Section 1602

State law confers upon the CDFW the trustee responsibility and authority for the public trust resource of wildlife in California. The CDFW may play various roles under the CEQA process. By State law, the CDFW has jurisdiction over the conservation, protection, and management of the wildlife, native plants, and habitat necessary to maintain biologically sustainable populations. The CDFW shall consult with lead and responsible agencies and shall provide the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities.

As a trustee agency pursuant to CEQA, the CDFW has jurisdiction over certain resources held in trust for the people of California. Trustee agencies are generally required to be notified of CEQA documents relevant to their jurisdiction, whether these agencies have actual permitting authority or approval power over aspects of the underlying project (14 CCR Section 15386). The CDFW must be notified of CEQA documents regarding projects involving fish and wildlife of the State as well as Rare and Endangered native plants, wildlife areas, and ecological reserves. Although the CDFW cannot approve or disapprove a project since it is a trustee agency, lead and responsible agencies are required to consult with them. The CDFW, as the trustee agency for fish and wildlife resources, shall provide the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities and shall make recommendations regarding those resources held in trust for the people of California.

Sections 1600–1616

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that support aquatic resources and/or riparian vegetation are subject to CDFW regulations, pursuant to Section 1600 through Section 1603 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream, or lake designated by CDFW as waters within their jurisdiction, nor can a person use any material from streambeds without first notifying the CDFW of such activity. For a project that may affect stream channels and/or riparian vegetation regulated under Sections 1600 through 1603, CDFW authorization is required in the form of a Streambed Alteration Agreement.

The CDFW Agreements relevant to this IS/MND include:

- Streambed Alteration Agreement #5-076-99, Memorandum of Understanding Regarding Routine Maintenance Activities in Earthen-Bottom Improved Channels (September 1999)
- Amendment of Lake or Streambed Alteration Agreement Notification No. 1600-1999-0076-R5 Addition of Soft Bottom Channels 118 and 119 (Rustic and Rivas) to the Long-Term MOU: Routine Maintenance of Earth Bottom Channels (October 2014)
- Amendment of Lake or Streambed Alteration Agreement Notification No. 1600-1999-0076-R5 Addition of Soft Bottom Channel 108 (Pico Canyon (PD 2528)) to the Long-Term MOU: Routine Maintenance of Earth Bottom Channels (December 2014)
- Amendment of Lake or Streambed Alteration Agreement Notification No. 1600-1999-0076-R5 Annual Maintenance Activities for 100 Soft-bottom Channel Reaches (March 2015)
- Extension of Lake or Streambed Alteration Agreement Notification No. 1600-1999-0076-R5 Soft-Bottom Channels Routine Maintenance Activities (August 2015)
- Verification Request Letter for the Los Angeles County Flood Control Division's Reach 105 - San Francisquito Canyon Channel (PD 2456) Soft-Bottom Channel Maintenance Project (September 2015)
- Amendment 9 of Lake or Streambed Alteration Agreement Notification No. 1600-1999-0076-R5, Addition of Soft Bottom Channel 112 to the Long-Term MOU: Routine Vegetation Maintenance of Earth-Bottom Channels (October 2015)
- Amendment of Lake or Streambed Alteration Agreement Notification No. 1600-1999-0076-R5 Addition of Soft Bottom Channel 114 to the Long-Term MOU: Routine Maintenance of Earthen Bottom Channels (October 2015)
- Amendment of Lake or Streambed Alteration Agreement Notification No. 1600-1999-0076-R5 Addition of Soft Bottom Channel 115 to the Long-Term MOU: Routine Maintenance of Earth Bottom Channels (October 2015)

California Porter-Cologne Water Quality Control Act

Pursuant to the California Porter-Cologne Water Quality Control Act, the SWRCB and the nine RWQCBs may require permits (known as waste discharge requirements or WDRs) for the fill or alteration of “waters of the State”. The term “waters of the State” is defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Section 13050[e] of the California Water Code,). The SWRCB and RWQCBs have interpreted their authority to require WDRs to extend to any proposal to fill or alter “waters of the State”, even if those same waters

are not under USACE jurisdiction. Pursuant to this authority, the SWRCB and RWQCBs may require the submission of a “report of waste discharge” under Section 13260, which is treated as an application for WDRs.

Oak Woodland Conservation Act (2001) and California Public Resources Code (Section 21083.4)

The Oak Woodland Conservation Act (*California Fish and Game Code* §§1360 et. seq.), passed by the California Legislature in 2001, established an Oak Woodland Conservation Fund administered by the Wildlife Conservation Board (WCB) to help and encourage local governments, park and open space districts, resource conservation districts, nonprofit organizations, and private property owners to protect and enhance oak woodlands. The Oak Woodland Conservation Act “offers landowners, conservation organizations, and cities and counties an opportunity to obtain funding for projects designed to conserve and restore California’s oak woodlands. It authorizes the WCB to purchase oak woodland conservation easements and provide grants for land improvements and oak restoration efforts (McCreary 2004). The Oak Woodland Conservation Act defines oak woodlands as “an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover” (*California Fish and Game Code* §1361[h]).

Section 21083.4 of the *California Public Resources Code* (PRC) (Senate Bill [SB] 1334), which references the Oak Woodland Conservation Act, provides an additional layer of protection for oak woodlands. Section 21083.4 requires counties to determine if a project may result in a conversion of oak woodlands that would have a significant impact on the environment. If it is determined that it would have a significant impact, the county must require one or more of the following to mitigate the significant effect of the conversion of oak woodlands:

1. Conservation of oak woodlands through the use of conservation easements;
 - a. Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees,
 - b. The requirement to maintain trees pursuant to this paragraph terminates seven years after trees are planted,
 - c. Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirement for the project,
 - d. The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands;
2. Contribute funds to the Oak Woodlands Conservation Fund...A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project;
3. Other mitigation measures developed by the county.

California Coastal Act

California voters adopted the Coastal Zone Conservation Act (Proposition 20) in 1972. It required that development within designated distances inland from California's mean high tide to obtain a permit from a regional or State coastal commission. It created a temporary California Coastal Zone Conservation Commission and six regional commissions to develop a statewide plan for coastal protection. The California Coastal Plan was submitted to the Legislature in 1975 and led to the passage of the California Coastal Act in 1976. The California Coastal Act established a State agency, the California Coastal Commission (Coastal Commission), whose mandate is to protect and enhance the resources of the Coastal Zone mapped by the Legislature.

The California Coastal Act of 1976 (California Public Resources Code §§30000 et seq.) establishes policies guiding development and conservation along the California coast. The intent of the California Coastal Act is to protect, maintain and, where feasible, enhance and restore the overall quality of the Coastal Zone environment and its natural and artificial resources. Through the review of development plans, the Coastal Commission strives to assure orderly, balanced utilization and conservation of Coastal Zone resources taking into account the social and economic needs of the people of the state. One goal is to maximize public access to and along the coast and maximize public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners.

2.3.3 COUNTY OF LOS ANGELES

County of Los Angeles Oak Tree Ordinance

In unincorporated areas of Los Angeles County, the County of Los Angeles Oak Tree Ordinance (No. 88-0157) protects any tree of the oak genus (*Quercus* sp.) which is 25 inches or more in circumference (8 inches in diameter) as measured 4.5 feet above mean natural grade; in the case of oaks with more than 1 trunk, the ordinance protects those trees with a combined circumference of any 2 trunks of at least 38 inches (12 inches in diameter), as measured 4.5 feet above mean natural grade. All potential impacts to oak trees regulated by this ordinance must be preceded by an application to the County that includes a detailed Oak Tree Report. Mitigation for impacts to oak trees is usually required as a condition of an Oak Tree Permit.

LACFCD projects are exempt from this ordinance.

County of Los Angeles General Plan: Significant Ecological Area (SEA) Program

The *County of Los Angeles General Plan* of 1976 originally characterized Significant Ecological Areas (SEAs) as areas that contain unique, dwindling, or other rare plant and animal resources that need to be more specifically studied for the purpose of public education, research, and other non-disruptive outdoor uses (England and Nelson Environmental Consultants 1976). The SEA boundary maps are general in nature and broadly outline the biological resources included in each area.

In 2015, the County Department of Regional Planning adopted updates to the SEA Program that retains a number of existing SEAs, but also incorporates many smaller, existing SEAs into several larger SEAs.

LACFCD projects are exempt from this ordinance.

Los Angeles Regional Water Quality Control Plan

There are nine RWQCBs in California. The reaches and SRR site for this Project are located in Region 4, the Los Angeles Region. The SWRCB and the Los Angeles RWQCB have adopted a Water Quality Control Plan (or “Basin Plan”) for the Los Angeles Region. The Basin Plan contains goals and policies, descriptions of conditions, and proposed solutions to surface and groundwater issues. The Basin Plan also establishes water quality standards for surface and groundwater resources and includes beneficial uses and levels of water quality that must be met and maintained to protect these uses. These water quality standards are implemented through various regulatory permits pursuant to CWA Section 401 for Water Quality Certifications and Section 402 for Report of Waste Discharge permits.

Los Angeles County Oak Woodlands Conservation Management Plan

The final *County of Los Angeles Oak Woodlands Conservation Management Plan* (OWCMP) is dated May 2011. The primary purpose of the OWCMP is to develop a consistent policy for oak woodland management that can be incorporated into the County’s General Plan and other relevant planning documents. A secondary purpose of the OWCMP is to meet eligibility requirements for funding under the Oak Woodland Conservation Act. The OWCMP is divided into two parts. Part I contains a voluntary oak woodland conservation strategy that could be adopted by resolution by the Board of Supervisors to make the County eligible for Oak Woodland Conservation Fund grants. Part II contains planning and implementation recommendations designed to assist the County in formulating policies for eventual incorporation into County codes. Several recommendations contained in OWCMP Part II are relevant to CEQA analysis, including, but not limited to, Section V.2 (addressing CEQA evaluation of oak woodland conversion and providing recommendations regarding thresholds of significance and impact magnitude evaluation); Section V.3 (providing recommendations regarding cumulative impact evaluation); Section V.7 (providing recommendations for restoration mitigation); and Section V.8 (providing recommendations for successful mitigation monitoring strategies).

2.3.4 CITIES

Local Coastal Program

The State Legislature found that “to achieve maximum responsiveness to local conditions, accountability, and public accessibility, it is necessary to rely heavily on local government and local land use planning procedures and enforcement” (Section 30004(a) of the California Coastal Act). Therefore, implementation of California Coastal Act policies is accomplished primarily through requiring local governments to prepare a Local Coastal Program (LCP) for areas within their jurisdictions that lie within the Coastal Zone boundary, which will then establish the policies governing the issuance of permits by the local governments for development within the Coastal Zone. An LCP is defined by Section 30108.6 of the Coastal Act as follows:

Local coastal program means a local government’s (a) land use plans, (b) zoning ordinances, (c) zoning district maps, and (d) within sensitive coastal resources areas, other implementing actions, which, when taken together, meet the requirements of, and implement the provisions and policies of, this division at the local level.

An LCP typically consists of a coastal Land Use Plan (LUP) and an Implementing Actions Plan. The LUP indicates the kinds, location, and intensity of land uses; the applicable resource protection and development policies; and, where necessary, a listing of implementing actions. The Implementing Actions Plan consists of the zoning ordinances, zoning district maps, and other legal instruments necessary to implement the land use plan. Once prepared by a local government, the LCP is submitted to the Coastal Commission for certification that the LCP conforms to the requirements of the Coastal Act. Amendments to a certified LCP also require review and approval by the Coastal Commission prior to becoming effective.

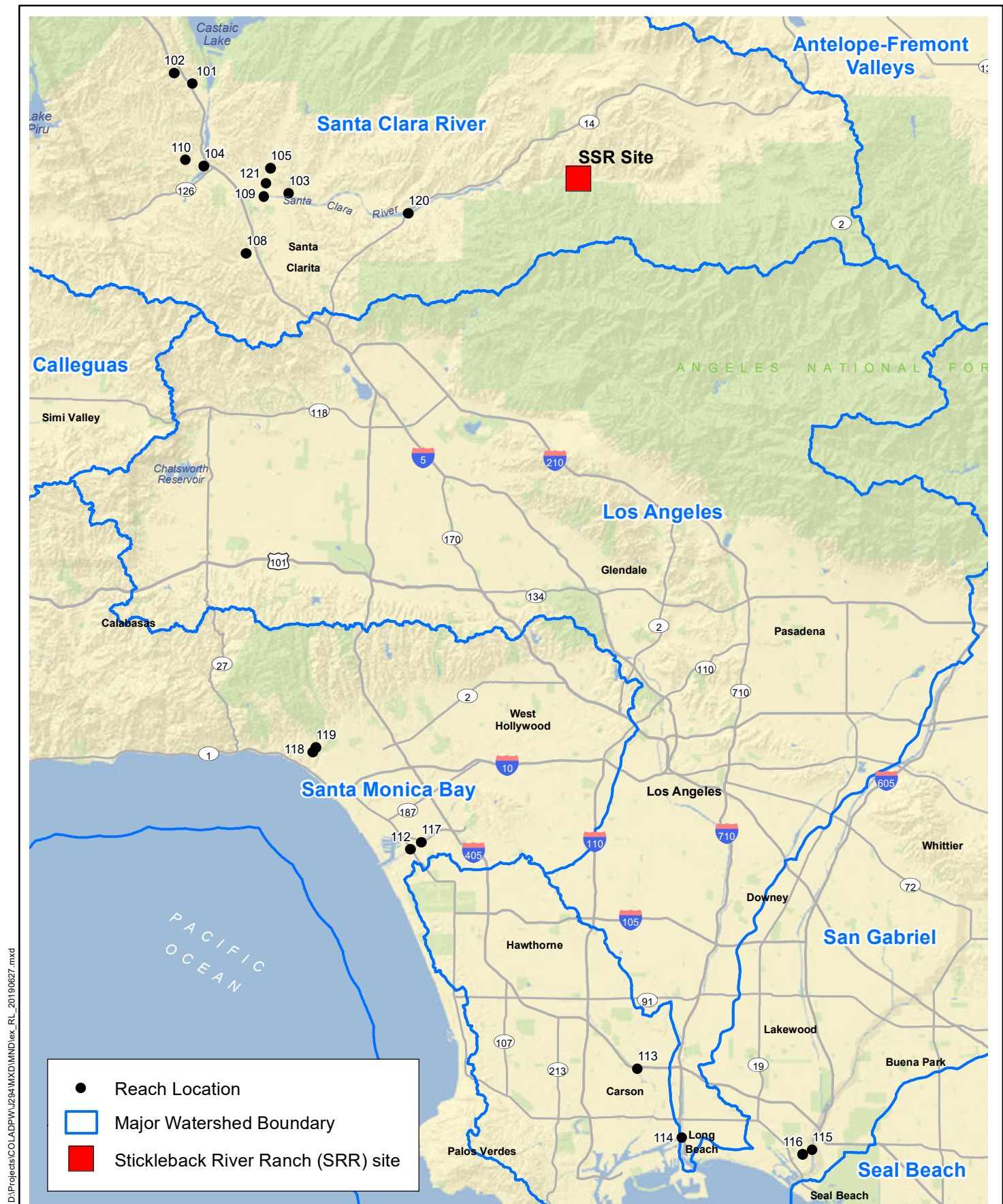
After certification of an LCP, Coastal Development Permit (CDP) authority is delegated to the local government. The Coastal Commission retains original permit jurisdiction over certain specified lands (e.g., submerged lands, tidelands, and public trust lands) and has appellate authority over development approved by the local government in specified geographic areas; for major public works projects; and for major energy facilities. In issuing CDPs, the local government must make the finding that the development conforms to the certified LCP.

For the purposes of this Project, the City of Long Beach has an LCP that applies to Reach 115, San Gabriel River. This permit was acquired in January 2016. Conditions within this permit mirror the conditions within the permit from the California Coastal Commission. No other reaches overlap with any other LCPs.

2.4 COUNTY-WIDE ENVIRONMENTAL SETTING

Locations

Reaches 101-105, 108-110, and 112-121 and the SRR site are located within various cities as well as within unincorporated areas of Los Angeles County. The locations of these reaches and SRR site, within the respective regional watersheds, are shown on Exhibit 2.1, Regional Location. Table 2-1, Listing of Project Areas, provides a list of the 18 soft-bottom channels and the SRR site with the respective acreages, lengths, local waterways, major watersheds, and exhibit numbers within this IS/MND.



Regional Location



**TABLE 2-1
LISTING OF PROJECT AREAS**

Reach No.	Common Name	Acres*	Length (feet)	Local Waterway	Major Watershed	Exhibit Number
101	Violin Canyon (PD 2312)	6.1	1,705	Violin Canyon	Santa Clara River Watershed	2.2a
102	Violin Canyon (PD 2275)	3.2	1,206	Violin Canyon	Santa Clara River Watershed	2.2b
103	Bouquet Canyon Channel (PD 2225)	10.8	1,417	Bouquet Canyon Channel	Santa Clara River Watershed	2.2c
104	Castaic Creek (PD 2441 Unit 2)	6.1	2,086	Castaic Creek	Santa Clara River Watershed	2.2d
105	San Francisquito Canyon Channel (PD 2456)	1.1	813	San Francisquito Canyon Channel	Santa Clara River Watershed	2.2e
108	Pico Canyon (PD 2528)	5.0	3,271	Pico Canyon	Santa Clara River Watershed	2.2f
109	Santa Clara River - South Bank West of McBean Parkway (MTD1510)	0.6	348	Santa Clara River	Santa Clara River Watershed	2.2g
110	Hasley Canyon Channel (PD 2262)	10.4	3,724	Hasley Canyon Channel	Santa Clara River Watershed	2.2h
112	Ballona Creek	98.0	13,589	Ballona Creek	Santa Monica Bay Watershed	2.2i
113	Dominguez Channel	212.3	43,686	Dominguez Channel	Santa Monica Bay Watershed	2.2j
114	Los Angeles River	126.2	9,520	Los Angeles River	Los Angeles River Watershed	2.2k
115	San Gabriel River	165.4	20,725	San Gabriel River	San Gabriel River Watershed	2.2l
116	Los Cerritos Channel	42.7	10,300	Los Cerritos Channel	San Gabriel River Watershed	2.2m
117	Centinela Creek Channel	1.5	190	Centinela Creek	Santa Monica Bay Watershed	2.2n
118	Rustic Canyon Channel	1.1	3,172	Rustic Canyon	Santa Monica Bay Watershed	2.2o
119	Rivas Canyon Channel	0.8	1,151	Rivas Canyon	Santa Monica Bay Watershed	2.2p
120	Jake's Way	1.3	1,204	Santa Clara River	Santa Clara River Watershed	2.2q
121	San Francisquito Creek	6.2	1,146	San Francisquito Creek	Santa Clara River Watershed	2.2r
SRR Site	Stickleback River Ranch (SRR) Site	41.1	NA	Santa Clara River	Santa Clara River Watershed	3.1-19
*The reach acreage includes the areas of the bottom of the inverts and all the levees.						

Topography and Geology

The County of Los Angeles spans 4,083 square miles and measures approximately 73 miles in the north-south direction and 66 miles in the east-west direction. Terrain within the County can be broadly classified as being approximately 61 percent hills, valleys, and deserts; 25 percent mountainous; and 14 percent coastal plain. Elevation ranges from sea level along the coastal areas on the County's southwestern border, to a maximum elevation of 10,000 feet above mean sea level (msl) on the mountains (Public Works 2018). Mountain ranges are arranged in a general east-west direction, with the main range being the San Gabriel Mountains. Topography in the mountainous area is mostly rugged with deep, V-shaped canyons parted by sharp ridges. Steep walled canyons with side slopes of 70 percent or more are common throughout the County. Most of the mountain ridges lie below an elevation of 5,000 feet above mean sea level (Public Works 2018).

Igneous, metamorphic, and sedimentary rock groups all exist within the County. The San Gabriel Mountains and Verdugo Hills are composed mainly of highly fractured igneous rock with large areas of visible granitic rock formations. Deep weathering and faulting have produced porous zones in the rock formations; however, rock masses have shaped a relatively shallow soil mantle due to the steepness of slopes, which accelerates the erosion of the fine material. Other mountains and hills are composed mainly of faulted and folded sedimentary rocks, including conglomerate shale and sandstone. Residual soils in these areas are shallow and normally less pervious than those seen in the San Gabriel Mountains (Public Works 2018).

Within the County, there are over 50 active and potentially active fault segments, an undetermined number of buried faults, and at least 4 blind thrust faults capable of producing damaging earthquakes. Since 1800, over 90 significant earthquakes have affected the Los Angeles region (LACDRP 2016).

Hydrology and Drainage

The seasonal standard rainfall in the County fluctuates between 27.5 inches in the San Gabriel Mountains to 7.8 inches in the desert. The average annual rainfall for the County is 15.7 inches. Storm water runoff can be affected by snowmelt from mountains in the upper elevations when warm spring rains fall on a snowpack (Public Works 2018).

In mountainous areas, the steep canyon slopes create rapid concentrations of storm water runoff. The amount of moisture present in the soil during a storm has a pronounced effect on the amount of sediment in storm water runoff. Soil is driest prior to the beginning of a rainy season due to the lack of rainfall and the evapotranspiration process during the dry summer months. Precipitation onto dry soils is nearly entirely absorbed (except for periods of extremely intense rainfall) and significant storm water runoff generally does not occur until soils are wetted to capacity. Due to the porosity of mountain soils and high infiltration rates, runoff occurs primarily as interflow or subsurface flow in addition to direct runoff. Spring or base flow is essentially limited to areas within the San Gabriel Mountain range. Thus, most streams in the County are intermittent (Public Works 2018).

Storm water runoff from a recently burned watershed can result in greatly increased flows and higher quantities of sediment and debris in the flows due to burned and dislodged vegetation and lowered infiltration rates. Within Los Angeles County, debris production from a major storm event has amounted to as much as 223,000 cubic yards (cy) per square mile of watershed. Boulders up to eight feet in diameter have been deposited in valley areas a considerable distance from their

source. Debris quantities that are equivalent in volume to the storm water runoff (i.e., 100 percent bulking) have been documented in major storms (Public Works 2018).

In hilly areas, storm water runoff and debris production rates are normally smaller than those from mountainous areas of the same size. In hilly areas that have been developed for urban use, storm water concentration times become considerably decreased due to drainage improvements (e.g., curbs/gutters, storm drains), which expedite the movement of storm water flows. Additionally, runoff volumes and rates have increased due to increased impervious surfaces (e.g., buildings, parking areas, driveways, and roadway pavement), which do not allow for the infiltration of storm water flows into the soils. However, erosion is controlled and debris is minimized in urban areas due to reduced contact between storm water flows and native soils (Public Works 2018).

Air Quality

Los Angeles County lies in two different air districts and two different air basins. All of the Project's reaches are located within the South Coast Air Basin (SoCAB), which includes the urbanized portions of Los Angeles, Riverside and San Bernardino Counties and all of Orange County. Air quality in the SoCAB is regulated by the South Coast Air Quality Management District (South Coast AQMD) and the California Air Resources Board. The SoCAB has an arid climate with virtually no rainfall and abundant sunshine during the summer months. It has light winds and poor vertical mixing compared to the other large urban areas in the U.S. The combination of poor dispersion and abundant sunshine provides conditions especially favorable to the formation of photochemical smog. The SoCAB is bound on the north and east by mountains with elevations exceeding 10,000 feet above msl. The unfavorable combination of meteorology, topography, and emissions from the nation's second largest urban area results in the air basin having the worst air quality in the U.S.

Based on monitored air pollutant concentrations, the USEPA and the California Air Resources Board (CARB) designate an area's status in attaining the National and State ambient air quality standards. Currently, on a national level, the SoCAB is designated as a nonattainment area for the 8-hour O₃ standard. In 2010, the Los Angeles County portion of the SoCAB was designated as a national nonattainment area for lead. The SoCAB was also redesignated for PM₁₀ from nonattainment to attainment-maintenance effective July 26, 2013, and PM_{2.5} is designated as nonattainment in the SoCAB (South Coast AQMD 2016).

Biological Resources

The County's topography ranges from coastal areas to mountains, which supports a diversity of distinct habitats and vegetation communities. Native trees on mountain slopes generally consist of oak with alder, cottonwood, willow, and sycamore found along streambeds at lower elevations. Pine, cedar, and juniper are found in ravines at higher elevations and along high mountain summits. The principal vegetative cover of upper mountain areas consists of various species of brush and shrubs known as "chaparral". The chaparral is extremely flammable, and widespread burns of the mountain vegetation regularly occur during dry, low-humidity weather combined with high winds. Chaparral has the capacity to sprout and grow quickly to re-establish the watershed cover within a period of five to ten years after a fire (Public Works 2018). Grasses are the principal natural vegetation in hilly areas. Many hillsides and valley areas south of the San Gabriel Mountains have been developed with urban and suburban land uses. Development of the Santa Clarita Valley and the desert areas to the north of the San Gabriel Mountains is less densely urban at present but is developing rapidly (Public Works 2018).

2.5 PERMIT CONDITIONS OF THE MAINTENANCE PLAN

As shown in Table 2-2, the permits of USACE, CDFW, RWQCB, and CCC include certain conditions that are detailed within the Maintenance Plan. The requirements of specific agencies are delineated in parentheses at the end of each Condition.

**TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN**

Condition Title	Condition Details															
1. Dates & Nesting Bird Surveys	<p>To avoid impacts to nesting birds, maintenance will not occur from March 15 to September 1. At avian-sensitive reaches (Reaches 7, 12, 14, 27, 28, 39, 40b, 43a, 43b, 71, 75, 79, 80, 82, 86, 87, 97, 103, 104, 105, 109, 110, and 121), vegetation maintenance may not occur from March 15 to September 15.</p> <p>a. If low impact maintenance activities (e.g. herbicide application or no mechanized equipment) in non-avian sensitive reaches are required during the nesting bird season (March 15 – August 31), a nesting bird sweep will be conducted and documented by trained County field staff within 72 hours prior to initiating work. Activities will be modified to avoid impacts to nesting birds if detected, including an appropriate buffer, if needed.</p> <p>b. If maintenance activities are higher in potential impacts (e.g. non-chemical vegetation removal or usage of mechanized equipment) and are not included in the Annual Workplan (e.g. West Nile virus emergency) in all reaches, notify and coordinate with the USACE and CDFW. A nesting bird survey will be conducted by a qualified biologist with 72 hours prior to initiation of activities. Activities will be modified to avoid impacts to nesting birds if detected. (USACE, CDFW)</p>															
2. Minor Structural Repairs	<p>Minor structural repairs are permitted by CDFW and RWQCB without prior notification. USACE requires the repairs to be included in the Annual Workplan. If they are not included, then emergency permits are required.</p> <p style="text-align: center;">Example Non-Emergency Repair Activities</p> <table><tr><td>Re-grading inverts to repair minor erosion and to remove ponded water</td><td>Invert and slope repairs</td><td>Storm drain outfall maintenance</td></tr><tr><td>Repair of minor storm damage</td><td>Erosion control structures</td><td>Vegetation removal</td></tr><tr><td>In-kind structural repairs</td><td>Bank stabilization (bioengineering/recontouring)</td><td>Streambed/invert repair</td></tr><tr><td>Minor in-kind riprap replacement</td><td>Bank stabilization (riprap/retaining wall/gabion)</td><td>Repair of invert access ramps, roads, and other appurtenances</td></tr><tr><td>Flap gate repair and/or replacement</td><td>Levee repairs</td><td></td></tr></table>	Re-grading inverts to repair minor erosion and to remove ponded water	Invert and slope repairs	Storm drain outfall maintenance	Repair of minor storm damage	Erosion control structures	Vegetation removal	In-kind structural repairs	Bank stabilization (bioengineering/recontouring)	Streambed/invert repair	Minor in-kind riprap replacement	Bank stabilization (riprap/retaining wall/gabion)	Repair of invert access ramps, roads, and other appurtenances	Flap gate repair and/or replacement	Levee repairs	
Re-grading inverts to repair minor erosion and to remove ponded water	Invert and slope repairs	Storm drain outfall maintenance														
Repair of minor storm damage	Erosion control structures	Vegetation removal														
In-kind structural repairs	Bank stabilization (bioengineering/recontouring)	Streambed/invert repair														
Minor in-kind riprap replacement	Bank stabilization (riprap/retaining wall/gabion)	Repair of invert access ramps, roads, and other appurtenances														
Flap gate repair and/or replacement	Levee repairs															
3. Herbicide	<p>Refer to the Aquatic Pesticide Application Plan – Weed Control (Attachment G) for agency-approved methods of herbicide application. This condition is required in all soft-bottom channels, regardless of presence of water. (RWQCB, CDFW)</p> <p>a. <i>Nesting bird season.</i> During nesting bird season, trained staff will conduct nesting bird sweeps prior to the application of herbicide in “non-avian sensitive” soft-bottom channel reaches. For all avian “sensitive” soft-bottom channel reaches, a qualified biologist will conduct a nesting bird survey prior to the application of herbicides. (RWQCB, CDFW)</p>															

TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN

Condition Title	Condition Details
4. Pre-Maintenance Biological Survey	A qualified biologist will review any grading plans, perform pre-clearing biological resource surveys (Attachment F), and complete photo-documentation. (USACE, CDFW, RWQCB)
5. Pre-Maintenance Reporting	By August 1, submit to all agencies the Annual Workplan that includes a schedule of the upcoming reaches proposed for maintenance clearing and repairs and the MMP, updated with any changes to the proposed activities. (USACE, CDFW, RWQCB) The CDFW requires proposed minor structural repairs to be summarized separately and submitted to them by July 1. (CDFW) See all permits for details.
6. During-Maintenance Biological Work	Maintenance of <u>some</u> sensitive reaches will be monitored by a qualified biologist with expertise in riparian assessments. See reach-specific permit conditions in Section 3.0 for which reaches require monitoring by a qualified biologist. The biologist will oversee all aspects of maintenance monitoring that pertain to biological resource protection, ensure compliance with the avoidance and minimization measures, and implement and monitor the program. A biological monitoring form will be used to record all information. This biologist will ensure that all protected areas are marked properly and will ensure that no vegetation outside the specified areas is removed. The biologist will have the authority to stop work, as necessary, if instructions are not followed. The biologist will be available for consultation to all agencies within 24 hours of a request for consultation. (USACE, CDFW, RWQCB)
7. Post-Maintenance Reporting	By May 1, submit to all agencies the Annual Maintenance and Monitoring Report that includes a final schedule, all mitigation monitoring forms, photo-documentation, water quality test results, and copies of applicable permits. (USACE, CDFW, RWQCB) See all permits for details.
8. Invasive Species	<p>a. <i>Pre-Maintenance Invasive Species Education Program.</i> Prior to the commencement of any project activities, conduct an Invasive Species Education Training for all persons that will conduct maintenance activities. The training will consist of a presentation designed a qualified biologist that includes a discussion of the invasive species currently present within the project site as well as those that may pose a threat or have the potential to invade the project site. (CDFW, USACE)</p> <p>b. <i>Invasive Species Spread Prevention.</i> Conduct project activities in a manner that prevents the introduction, transfer, and spread of invasive species, including plants, animals, and microbes (e.g., algae, fungi, parasites, bacteria), from one project site and/or watershed to another. (CDFW)</p> <p>c. <i>Inspection of Project Equipment.</i> Inspect for invasive species on all vehicles, tools, waders and boots, and other project-related equipment. Remove all visible soil/mud, plant materials, and animal remnants prior to entering and exiting the project site and/or between each use in different watersheds. (CDFW)</p> <p>d. <i>Decontamination of Vehicles and Equipment.</i> If decontamination for aquatic invasive animal species is applicable, decontaminate vehicles and other project-related equipment too large to immerse in a hot water bath by pressure washing with hot water a minimum of 140°F at the point of contact or 155°F at the nozzle. Additionally, flush watercraft engines and all areas that could contain standing water (e.g. storage compartments) for a minimum of 10 minutes. Following the hot water wash, dry all vehicles, watercraft, and other large equipment as thoroughly as possible. (CDFW)</p> <p>e. <i>Decontamination Sites.</i> If decontamination for aquatic invasive animal species is applicable, perform decontamination of vehicles, watercraft, and other project gear and equipment in a designated location where runoff can be contained and not allowed to pass into CDFW jurisdictional areas and other sensitive habitat areas. (CDFW)</p> <p>f. <i>Notification of Invasive Species.</i> Notify CDFW immediately if an invasive species not previously known to occur within the project site is discovered during project activities by submitting a completed Suspect Invasive Species Report (available</p>

TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN

Condition Title	Condition Details
	<p>online at: http://www.dfg.ca.gov/invasives/inv_reporting/sightingReport.html) and photos to the Invasive Species Program by email at: invasives@wildlife.ca.gov. Notification may also be provided by calling (866) 440-9530. Upon receiving notification, CDFW will provide guidance for further action as appropriate to the species. (CDFW)</p>
<p>9. Bat Roost Avoidance and Impact Minimization.</p>	<p>To avoid the direct loss of bats that could result from removal of trees and/or structures that may provide day or night roost habitat (e.g., in cavities or under loose bark), implement the following measures for all maintenance (CDFW):</p> <ol style="list-style-type: none"> a. To the extent feasible, schedule tree/structure removal between October 1 and February 28, outside of the maternity roosting season for bats. b. If trees and/or structures are infeasible to remove outside the maternity season (March 1 to September 30), a qualified bat specialist approved by CDFW will conduct a follow up focused bat survey no less than 7 days before scheduled tree/structure removals. Each tree and/or structure identified as potentially supporting an active maternity roost or day roost should be closely inspected by the bat specialist to more precisely determine the presence or absence of roosting bats. c. Maternity season lasts from March 1 to September 30. Trees and/or structures determined to be maternity roosts should be left in place until the end of the maternity season. Trees that are known to be bat roosts will not be sawn up or mulched immediately. Provide a period of at least 24 hours, and preferably 48 hours, to elapse prior to such operations to allow bats to escape. d. To minimize disturbance to night roosts do not conduct tree removal activities within 100 feet of bridges between 10:00 PM and sunrise at any time of year work is conducted. <ol style="list-style-type: none"> i. Bird exclusion netting will not be used on underside of bridges, unless subsequently agreed to by CDFW. ii. Lights will not be used under bridges. iii. Combustion equipment, such as generators, pumps, and vehicles, will not be parked or operated under bridges. iv. Personnel will not be present under bridges from 1/2 hour before sunset to 1/2 hour after sunrise e. No less than 15 days before scheduled tree/structure removal, a qualified bat specialist approved by CDFW will conduct a pre-construction reconnaissance survey to identify those trees and/or structures proposed for disturbance that could provide hibernacula, roosting, or nursery colony habitat for bats. f. If bats are not detected, but the bat specialist determines that roosting bats may be present at any time of year, it is preferable to slowly push any tree/structure down under operator's control using heavy machinery rather than felling it with a chainsaw. To ensure the optimum warning for any roosting bats that may still be present, the tree should be pushed lightly two to three times, with a pause of approximately 30 seconds between each nudge to allow bats to become active. The tree should then be pushed to the ground slowly and should remain in place until it has been inspected by a bat specialist. Trees that are observed to have bats during this process should not be sawn up or mulched immediately. A period of at least 24 hours will elapse prior to such operations to allow bats to escape. Bats should be allowed to escape prior to demolition of structures. This may be accomplished by placing one-way exclusionary devices into areas where bats are entering a building that allow bats to exit but not enter the structure.

**TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN**

Condition Title	Condition Details
	g. The qualified bat biologist will document all demolition monitoring activities, and prepare a summary report to CDFW upon completion of tree disturbance and/or building demolition activities.
10. Rootball Cavities within Streambed	At the completion of tree removals and their rootballs in each active work zone, areas with rootball cavities will be filled to ensure that no pits or depressions are left where fish entrapment may occur. (CDFW)
11. Siltation Curtain	Mechanical equipment will not be operated in the streambed except as subsequently approved by CDFW. Install a siltation curtain to prevent siltation of open water beyond the immediate working area. The siltation curtain and any supportive material will be relocated to follow active work areas, and it will be removed when the work is completed. An example of the work that will require a siltation curtain includes removing root balls from levee slopes. (CDFW)
12. Sediment and Erosion Control	<p>Install sediment and erosion control measures and maintain the sediment control(s) in good operating condition. Maintenance includes, but is not limited to, removal of accumulated silt and/or replacement of damaged silt fencing, silt curtain, coir logs, coir rolls, and/or straw bale dikes. (CDFW)</p> <p>a. <i>Monitoring of Silt Curtain.</i> Monitor silt curtain for wildlife entrapment. Employ corrective measures if wildlife is trapped between shore and silt curtain.</p> <p>b. If the sediment barrier fails to retain sediment, employ corrective measures, and notify the CDFW, immediately. Ensure materials used in the sediment barriers will not pose an entanglement risk to fish/wildlife. If CDFW determines that turbidity/siltation levels resulting from project-related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation, will be halted until CDFW-approved control devices are installed, or abatement procedures are initiated.</p>
13. Emergency Response Plan	<p>In 2015, LACFCD submitted an Emergency Response Plan to CDFW. CDFW approved of it. Keep this Emergency Response Plan available onsite during work activities. The plan identifies the actions that should be taken in the event of a spill of petroleum products, or other material harmful to aquatic or plant life, and the identification and uses of emergency response materials. (CDFW)</p> <p>a. <i>Spill Containment.</i> All activities performed in or near a stream will have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. If a spill occurs, the Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. Notify and consult with CDFW regarding clean-up procedures. (CDFW)</p>
14. Access and Staging	<p>All access routes, vehicle maintenance, equipment staging, trash/debris/waste storage, and dispensing of fuel will be located within existing parking areas, access roads, and access ramps. Trash/debris/waste will be relocated to a legal point of disposal. (USACE, CDFW, RWQCB)</p> <p>a. No equipment maintenance will be done within or near any stream channel or lake margin as petroleum products or other pollutants from the equipment may enter these areas (CDFW).</p>
15. Soil Erosion and Sediment Controls	During maintenance, appropriate soil erosion and sediment controls will be used and maintained in effective operating condition. Permanently stabilize all exposed soil, other fills, above and below the ordinary high-water mark or high tide line at the earliest practicable date. If rain is predicted within 12 hours after maintenance operations begin, activities will cease temporarily, and protective measures to prevent siltation/erosion will be implemented and maintained. Dust disturbance will be minimized so there will be no downstream runoff. (USACE, CDFW, RWQCB)

TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN

Condition Title	Condition Details
16. Sediment	<p>The need for removal of accumulated sediment or regrading of scoured areas in dry non-vegetated areas will be assessed by LACFCD on an annual basis to return the affected areas to design capacity elevations.</p> <ul style="list-style-type: none"> a. <i>Removal of accumulated sediment.</i> Small quantities of dry accumulated sediment ("temporary fills") will be removed in its entirety and not relocated or stockpiled in any way. It will be placed directly into a sediment transportation vehicle. (USACE) b. <i>Grading of scoured areas.</i> Sediment may be graded (i.e. discharge of fill) to return the channel to its original condition, for example, due to scouring at the toe of a levee, drop structure or anywhere in the reach. If a small, dry, unvegetated area has been scoured, small quantities of adjacent accumulated sediment (adjacent, if available, or from other parts of the channel) may be graded to fill the scoured area. (CDFW) c. A small quantity of sediment is defined as 200 cubic yards unless otherwise specified in the reach-specific conditions in Section 3.0. If accumulated sediment is more than 200 cy or if affected areas are wet or vegetated, this will be considered a separate project and separate permits will be acquired (USACE, CDFW, RWQCB) d. Hand tools may be used in the channel, and all heavy equipment will be parked on the access roads and not in the channel. (USACE) No biological surveys or monitoring will be necessary in dry non-vegetated reaches during sediment removal. (CDFW) Impacts to remaining vegetation will be minimized as much as possible. Before and after pictures will be taken as documentation of the work and included in post-maintenance documentation. (CDFW)
17. Water Quality	<p>If there is a continuous flow of water that will continue beyond the reach's downstream limit, water quality monitoring will be using the Water Quality form (Attachment H). Maintenance activities will not (RWQCB):</p> <ul style="list-style-type: none"> a. degrade surface water communities and populations including vertebrate, invertebrate, and plant species beyond the permitted vegetation removal; b. promote the breeding of mosquitoes, gnats, black flies, midges, or other pests; c. alter the color, create visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters; d. cause formation of sludge deposits; or e. adversely affect any designated beneficial uses. See permit for details.
18. Stream Gauge Maintenance	<p>In order to obtain accurate flow readings from all monitoring equipment mounted on bridges and/or other structures, vegetation within monitored channels will be cleared to bank-full capacity (unless otherwise specified in the Annual Workplan) upstream and downstream of the gauges, conduits, pumps, sensors, and probes or bridge to obtain accurate readings and prevent equipment damage. In addition, maintenance may include performing repair and replacement in kind of existing monitoring equipment if inspection results require such activities. Stream gauge maintenance will occur between September 1 and March 1. If maintenance activities on this monitoring equipment is necessary during the nesting season, appropriate nesting bird surveys will be conducted prior to starting work. Routine maintenance, inspection and calibration, including clearance of accumulated sediment and/or vegetation within three feet of the water quality monitoring equipment may need to be conducted during dry weather to ensure proper operation. (RWQCB)</p>
19. Water Diversion Plan	<p>All surface water will be diverted away from areas undergoing maintenance, following the approved Water Diversion Plan (Attachment I of the Maintenance Plan). (CDFW, RWQCB)</p>

TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN

Condition Title	Condition Details
20. USACE Levee Guidelines	Follow the USACE ETL 1110-2-583 "Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures," adopted by USACE on April 30, 2014, which generally requires that there is no vegetation within 15 feet of a levee structure. (RWQCB)
21. Best Management Practices	Follow the "BMP Manual for Soft Bottom Clearing" developed by LACFCD in 2003 and all other necessary BMPs. (USACE, CDFW, RWQCB)
22. Permits Onsite	Copies of the MMP and all regulatory approvals (permits) for this project should be available on site at all times during maintenance activities. (USACE, CDFW, RWQCB)
23. Non-Compliance	LACFCD or their agents will report any noncompliance with a regulatory approval within 24 hours. See permit for details. (RWQCB)
24. Archeology	In the event of any discoveries during maintenance of historical artifacts, notify the USACE Archeology Staff within 24 hours. (USACE)
25. Mitigation	Compensatory mitigation is necessary for all new impacts within the channels. See permits for details. (USACE, CDFW, RWQCB)
26. Natural Rivers Management Plan	All Santa Clara River reaches will follow the provisions of the Natural Rivers Management Plan. (RWQCB)
27. Hazard Analysis and Critical Control Point (Reaches 26, 27, 28, 29, 32, 33, 36, 37, 38)	Condition 27 is not applicable to the reaches detailed in this IS/MND (i.e., Reaches 101-105, 108-110, and 112-121).
28. Dates (Reaches 7, 12, 14, 27, 28, 39, 40b, 43a, 43b, 71, 75, 79, 80, 82, 86, 103, 104, 105, 109, 110, and 121)	Maintenance will not occur at avian-sensitive reaches from March 15 to September 15. If necessary to conduct maintenance within these dates, notify and coordinate with USACE and CDFW. A qualified biologist will conduct a nesting bird survey within 72 hours of the anticipated start date. (USACE)
29. Dates (All Other Reaches)	Maintenance may take place between September 1 and March 14. a. If low impact maintenance activities (e.g. herbicide application or no mechanized equipment) are required during the nesting bird season (March 15 – August 31), a nesting bird sweep will be conducted and documented by trained County field staff prior to initiating work. Activities will be modified to avoid impacts to nesting birds if detected. b. If maintenance activities are higher in potential impacts (e.g. non-chemical vegetation removal or usage of mechanized equipment) and are not included in the annual workplan (e.g. West Nile virus emergency), notify and coordinate with the USACE and CDFW. A nesting bird survey will be conducted by a qualified biologist with 72 hours prior to initiation of activities. Activities will be modified to avoid impacts to nesting birds if detected. (USACE, CDFW)
30. Rain (Reaches 112, 113, 114, 115, 116, 118, 119)	Do not conduct any operations within the reach in the water during a rainfall event. Maintain a five-day (5-day) clear weather forecast before conducting any operations within the water. (RWQCB)
31. Rain (All other reaches)	Do not conduct any operations within the reach in the water during a rainfall event. Maintain a one-day (1-day) clear weather forecast before conducting any operations within the water. If rain is predicted within 12 hours after operations have begun, activities shall cease temporarily, and protective measures to prevent siltation/erosion shall be implemented and maintained. (RWQCB)

**TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN**

Condition Title	Condition Details
32. Least Bell's Vireo (LBV) and Southwestern Willow Flycatcher (SWWF) (Reaches 7, 12, 14, 27, 28, 39, 40b, 43a, 43b, 71, 75, 79, 80, 82, 86, 87, 97, 103, 104, 105, 109, 110, and 121)	A qualified avian biologist will conduct monitoring via focused surveys for the LBV and SWWF to determine presence or absence. (USACE) c. If results of focused surveys are positive and to avoid and minimize impacts to the LBV and SWWF, the permittee shall have a qualified avian biologist on site to identify and flag seasonally occupied habitat immediately prior to conducting activities in waters of the United States. The qualified avian biologist shall monitor all clearing activities within those reaches and shall have the authority to stop and/or modify the activities if the activity has the potential to affect a listed species. If surveys document the presence of LBV or SWWF at other reaches during pre-construction surveys, this measure will also apply to those reaches. (USACE)
33. Southwestern Willow Flycatcher (SWWF) (Reaches 87 and 97)	Condition 33 is not applicable to the reaches detailed in this IS/MND (i.e., Reaches 101-105, 108-110, and 112-121).
34. Western Yellow-Billed Cuckoo (YBC) (Reaches 14, 27, 40b, 43a, 43b, 71, 79, 80, 82, 87, 97, 103, 104, and 109)	Conduct protocol surveys for YBC during the next breeding season to provide additional information on the status of the species in the project area. If the YBC is detected, the applicant should contact the Ventura Fish and Wildlife Office (VFWO) or Carlsbad Fish and Wildlife Office (CFWO) and the Corps to determine if further consultation is required. (USACE)
35. Arroyo Toad (ARTO) (Reaches 71, 75, 79, 80, 82, 86, 87, and 97)	Condition 35 is not applicable to the reaches detailed in this IS/MND (i.e., Reaches 101-105, 108-110, and 112-121).
36. Santa Ana Sucker (SAS) (Reaches 12 and 39)	Condition 36 is not applicable to the reaches detailed in this IS/MND (i.e., Reaches 101-105, 108-110, and 112-121).
37. Unarmored Threespine Stickleback (UTS) (Reaches 47, 51, 54-56, 58, 60, 61, 63, 64, 66, 67, 69, 70, 71, 79, 80, 82, 86, 87, 97, 103, 104, 105, 109, 120, and 121)	To avoid any effect to the UTS, discharges of fill material and/or heavy equipment is not authorized in waters of the United States between November 2 and August 31 where flowing or pooled water is present. For the shorter part of the year (September 1 to November 1) presence/absence surveys shall be conducted prior to channel-clearing activities in the above reaches. If the UTS is present, the permittee will not conduct channel-clearing in that reach until the surveys are negative. If delaying channel clearing activities is needed to avoid UTS, but delay for 1 year is not feasible, the permittee would leave a 10-foot buffer of vegetation adjacent to the active channel and vegetation outside of the 10-foot buffer would be cleared by hand. Clearing will be monitored by a qualified biologist who has the authority to stop and/or modify the clearing activities if, in the professional opinion of the biologist, the activity has the potential to adversely affect the UTS. Potential modifications to the clearing activities include prohibiting the use of heavy equipment and conducting only hand clearing in those areas. (USACE)
38. Unarmored Threespine Stickleback (UTS) (Reaches 47, 51, 54-56, 58, 60, 61, 63, 64, 66, 67, 69, 70, 71, 79, 80, 82, 86, 87, 97, 103-105, 109, 120, and 121)	a. Reaches with potential for UTS will have work restricted to September 1 through November 1, unless no surface water is present. (CDFW) b. Limited to the dry portions of the Reaches. (CDFW) c. Where there is flowing water in the stream no work will occur in flowing water, and it will not be diverted around the work area. (CDFW) d. Visual pre-clearing surveys will be conducted prior to maintenance activities at all reaches with potential to support UTS. Visual pre-clearing surveys will be conducted by a biological monitor from the approved list (see Condition 26 of CDFW permit) prior to maintenance activities at all reaches identified in this Condition. If water is present, then the Permittee will not conduct maintenance in the wetted areas until subsequent visual pre-clearing surveys are conducted and the results verify the absence of water in areas subject to maintenance. (CDFW) e. If delaying maintenance activities in wetted areas for one year is not feasible, then Permittee will leave a modified-work buffer of 10 linear-feet measured from the outermost edge of the active wetted channel where modified maintenance may

TABLE 2-2
PERMIT CONDITIONS INCORPORATED INTO THE MAINTENANCE PLAN

Condition Title	Condition Details
	<p>occur to the associated vegetation growing on visually wetted soils. The Permittee may remove vegetation outside of the 10 linear-foot buffer using any method approved as part of this Agreement. The Permittee may remove vegetation within the 10 linear-foot buffer using hand tools only. At no time will mechanized equipment enter the wetted portions of the stream. (CDFW)</p> <p>f. All maintenance activities conducted in reaches with potential UTS will be monitored by a Permittee's qualified biologist previously approved by CDFW (see Condition 26 of CDFW permit) who will have the authority to stop and/or modify the clearing activities if, in the professional opinion of the biologist, the activity has the potential to adversely affect the UTS. Modifications to the maintenance activities may include restricting the use of heavy equipment in areas of less compacted soils and allowing hand clearing only in these areas. (CDFW)</p>
<p>Note: No maintenance activities are proposed for Reach 117, and therefore, no mitigation is required.</p> <p>Source: Los Angeles County Flood Control District's Master Maintenance Plan - Annual Maintenance of Soft-Bottom Flood Control Channel Reaches 1–121.</p> <p>* Conditions may refer to reaches not analyzed in this IS/MND (i.e., Reaches 1 through 100). However, these reaches are mentioned within the Conditions for informational purposes.</p>	

2.6 PROJECT DESCRIPTION FOR EACH REACH

2.6.1 REACH 101: VIOLIN CANYON (PD 2312)

Existing Setting

Reach 101 (Violin Canyon PD 2312) is located in the unincorporated community of Castaic in the Santa Clara River Watershed, as shown in Exhibit 2.2a. The total acreage of Reach 101 is 6.1 acres, and the channel is approximately 1,705 feet long. The slopes lining Reach 101 are concrete, and the majority of the reach is surrounded by chain link fencing. Reach 101 contains relatively sparse vegetation consisting of low-growing native shrubs. In the upper portions of the reach, some larger shrubs and trees are scattered along the right bank. Reach 101 is a non-sensitive reach, as described further in Section 3.4, Biological Resources, of this IS/MND. Although Reach 101 is a non-sensitive reach, it has been identified as potential habitat for the State and federally listed Endangered slender-horned spineflower (*Dodecahema leptoceras*), and State Endangered San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*).

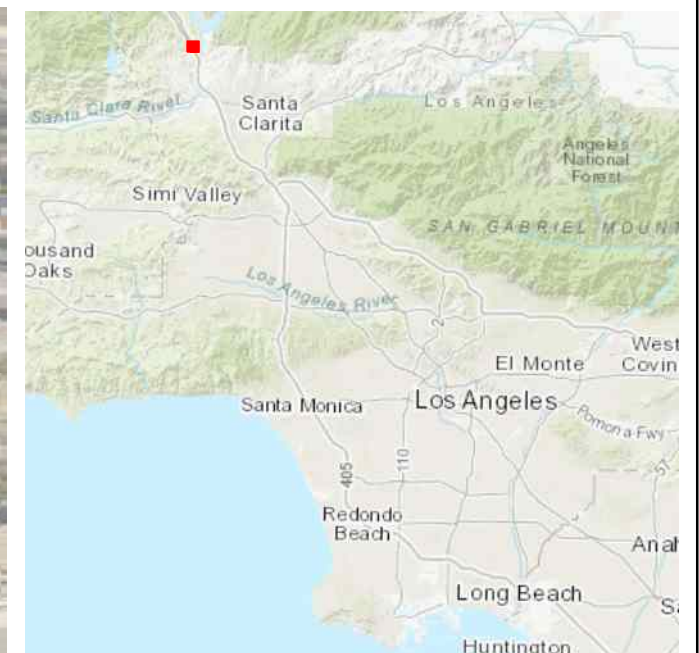
The land uses surrounding Reach 101 include residential and commercial uses. The nearest air quality sensitive receptors to the site are residential uses along Emerald Lane, a park located along Cinnabar Lane, and a retirement home located along Castaic Road.

Vehicular access to Reach 101 would occur through gates located on Lake Hughes Road, directly south of the reach. There is a gate located on the northwestern portion of the reach, as shown on Exhibit 2.2a. Access ramps at the reach would be located at the northeastern-most side of the reach, and at the northwestern portion of the site. Access roads to the site are adjacent to both sides of the reach.

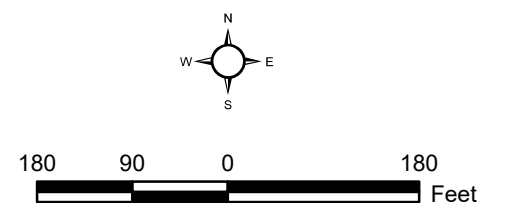
Project Activities

Maintenance activities in this reach would only occur within the LACFCD's easement, which includes only a small portion of the watercourse immediately adjacent to the levees. Initial activities for Reach 101 include the following: (1) mechanically clear vegetation in a 15-foot-wide

D:\Projects\COLADPW\2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- Access Road
- Access Ramp
- ➡ Reach Centerline and Flow Direction
- ▭ Reach Study Area



Aerial Source: LAR-IAC 2014

Reach 101 **Exhibit 2.2a**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphical\MND\

path along the toe of both levee slopes; (2) mechanically clear and grade a 10-foot-wide entrainment channel from all outlets, extending to the centerline of the channel at a 45-degree angle; (3) allow native vegetation to establish in the remainder of the channel; and (4) clear trash, debris, and non-native vegetation by hand within easement boundaries.

Subsequent year maintenance activities would not differ from initial clearing activities.

2.6.2 REACH 102: VIOLIN CANYON (PD 2275)

Existing Setting

Reach 102 (Violin Canyon PD 2275) is located in the unincorporated community of Castaic and in the Santa Clara River Watershed. It is approximately 3.2 acres and 1,206 feet long. The southern slope of the reach is concrete, and the northern slope is natural open space. This reach contains sparse growth of low-growing native shrubs. A small patch of cottonwood trees is present near the downstream terminus of the reach, on the eastern portion of the site. Reach 102 is a non-sensitive reach, as described further in Section 3.4, Biological Resources. The majority of Reach 102 is surrounded by chain link fencing. There is an access road south of the Reach, which separates residential uses from the channel. Reach 102 is not a sensitive reach, but it has been identified as potential habitat for the State Endangered San Fernando Valley spineflower and the federally listed Endangered Braunton's milkvetch (*Astragalus brauntonii*).

The surrounding land uses to Reach 102 include residential uses and open space. For air quality purposes, the nearest air quality sensitive receptors are residences located south of Reach 102, adjacent to Oak Valley Road.

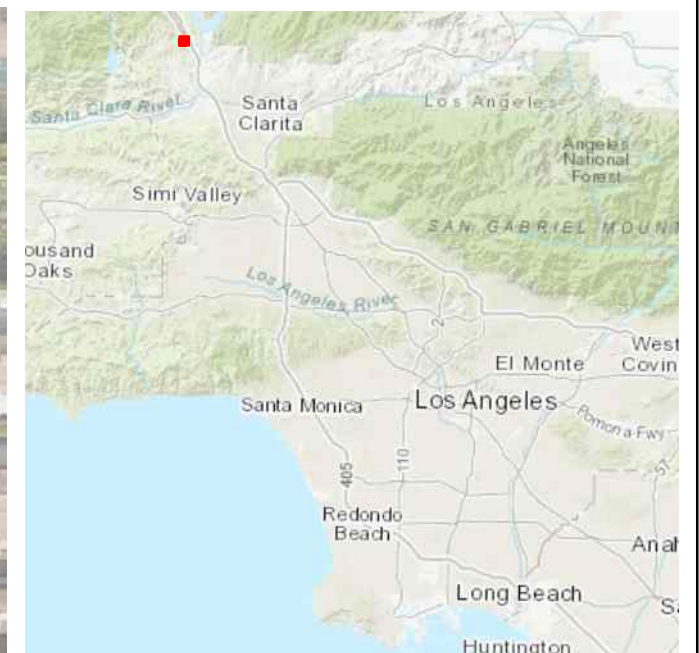
The site may be accessed through gates on Sierra Oak Trail and at the westernmost end of Oak Valley Road. There is an access road adjacent to the southern side of the reach. An access ramp is located at the western end of the access road, as shown on Exhibit 2.2b.

Project Activities

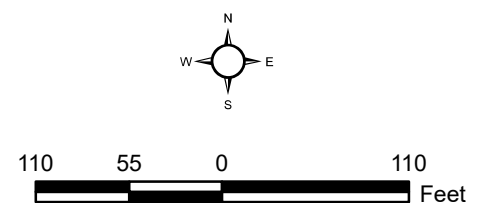
Maintenance activities in this reach would only occur within the LACFCD's easement, which includes only the right bank levee and a small portion of the watercourse immediately adjacent to the levee. Initial activities for Reach 102 would include the following: (1) mechanically remove all vegetation within 15 feet of the toe of the right levee; (2) mechanically clear and grade 10-foot-wide entrainment channels from all outlets, extending to the centerline of the channel at a 45-degree angle; (3) lollipop (instead of clearing) mature trees in the entrainment channel at the downstream outlet; (4) mechanically remove vegetation, bank to bank, over the three drop structures, which are currently hidden from view by sediment; and (5) remove approximately 750 cy of accumulated sediment from the three drop structures in order to expose the drop structures and provide flow velocity control.

Annual maintenance activities include clearing vegetation within a 15-foot-wide path along the toe of the slope. Re-grading of approximately 200 cy of sediment would only occur during subsequent years over the same footprint as the initial removal. Native vegetation would be allowed to establish in the remainder of the channel within the LACFCD right-of-way. LACFCD would clear trash and debris by hand outside of the impact areas but within easement boundaries.

D:\Projects\COLADPW\2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- Access Road
- Access Ramp
- ➔ Reach Centerline and Flow Direction
- ▭ Reach Study Area



Aerial Source: LAR-IAC 2014

Reach 102

Exhibit 2.2b

Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

2.6.3 REACH 103: BOUQUET CANYON CHANNEL (PD 2225)

Existing Setting

Reach 103 (Bouquet Canyon Channel PD 2225) is located in the Valencia neighborhood in the City of Santa Clarita and in the Santa Clara River Watershed. It is approximately 10.8 acres and 1,417 feet long. Reach 103 is a sensitive reach that has been identified as a potential habitat for the State and federally-listed Endangered unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), southwestern willow flycatcher (*Empidonax traillii extimus*), and least Bell's vireo (*Vireo bellii pusillus*). Surveys have detected the unarmored threespine stickleback and least Bell's vireo within the reach (see Section 3.4, Biological Resources, for further information). Dense native woodland is present along the right bank of this reach. The left bank portion of this reach contains a relatively sparse growth of shrubs and small trees. The northern and southern sides of Reach 103 are lined with chainlink fencing and the slopes of the reach are concrete.

Reach 103 is surrounded by residential uses north of the site and commercial uses south of the site. The nearest air quality sensitive receptors to the site are residential uses surrounding the reach, a park located west of the reach, a childcare center northeast of the reach, and a school located west of the reach.

Access roads at the site are on the top of both sides of the channel, and these roads may be accessed through gates on the south side of Newhall Ranch Road, as shown on Exhibit 2.2c.

Project Activities

Maintenance activities in this reach would only occur within the LACFCD's easement, which includes only a small portion of the watercourse immediately adjacent to the levees and over existing riprap. Initial activities for Reach 103 would require the mechanical clearing of vegetation on a 15-foot-wide path along the toe of both levee slopes. All vegetation would be cleared over the grouted riprap (Newhall Ranch Road bridge to 300 feet downstream). Trash, non-native vegetation, and debris removal would occur by hand outside of the impact areas, but within the easement boundaries. Initial activities would also include removal of approximately 3,000 cy of sediment over the riprap, and grading and clearing of a 10-foot-wide training channel that would extend for 50 feet at a 20-degree angle and involve removal of roughly 56 cy of sediment.

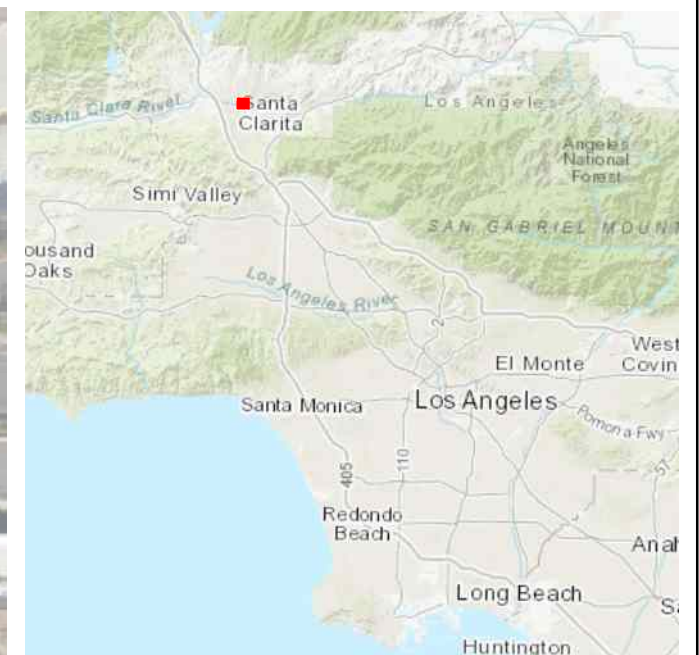
Subsequent year maintenance activities would include the removal of accumulated sediment from grouted rip-rap, and grading of the entrainment channel from the outlet, with up to 100 cubic yards of sediment removal occurring at Reach 103 per year. Removal of trash, non-native vegetation, and debris would occur by hand.

2.6.4 REACH 104: CASTAIC CREEK (PD 2441 UNIT 2)

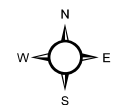
Existing Setting

Reach 104 (Castaic Creek PD 2441 Unit 2) is located in the unincorporated community of Castaic in the Santa Clara River Watershed. The total acreage of Reach 104 is 6.1 acres, and the reach is approximately 2,086 feet long. The reach consists of the left or eastern bank of the channel. This bank is composed of concrete or covered with riprap. The western part of the LACFCD easement is open and extends into Castaic Creek. Reach 104 is a sensitive reach that has been identified as having potential habitat for the State- and federally listed Endangered unarmored threespine stickleback, southwestern willow flycatcher, least Bell's vireo, and the federally-listed Endangered arroyo toad (*Anaxyrus californicus*). See Section 3.4, Biological Resources, for

D:\Projects\COLADPW\2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- - - Access Road
- Access Ramp
- ➔ Reach Centerline and Flow Direction
- ▭ Reach Study Area



160 80 0 160 Feet

Aerial Source: LAR-IAC 2014

Reach 103 **Exhibit 2.2c**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW\029401\Graphics\MND\

further information. This reach contains a mix of native shrubs, trees, and open wash along the toe of the levee that forms the left bank of the channel. Many of these shrubs and trees are either dead or in poor health due to recent drought conditions. This reach is located within the County of Los Angeles SEA 20, Santa Clara River.

Reach 104 is surrounded by Castaic Creek (outside LACFCD easement) west of the channel and commercial uses east of the channel. For air quality purposes, the nearest sensitive receptors are residential uses northwest of Reach 104.

Gate access to Reach 104 is on the northern end of the reach, on Hancock Parkway. There is an adjacent road parallel to the channel that would provide vehicular access during maintenance activities on the eastern side of the reach, as depicted on Exhibit 2.2d. A chainlink fence lines the eastern edge of the channel, but the rest of the reach is not fenced.

Project Activities

Maintenance activities in this reach would only occur within the LACFCD's easement, which includes only the left bank levee and a small portion of the watercourse immediately adjacent to the levee. Initial activities for Reach 104 include the hand clearing of all woody vegetation, including large trees, within a 15-foot-wide path along the toe of the left bank's slope lining. Initial activities would also include mechanically clearing and grading a 10-foot-wide entrainment channel from all outlets, up to 30 feet from the toe of the levee at a 45-degree angle. Trees with a diameter-at-breast-height over four inches would be avoided. Light equipment such as a Caterpillar D-6 or equivalent may be used and would avoid ponded water. Native vegetation would be allowed to establish in the remainder of the channel within LACFCD right-of-way. Trash, debris, and non-native vegetation would be cleared by hand outside of the impact areas, but within the easement boundaries.

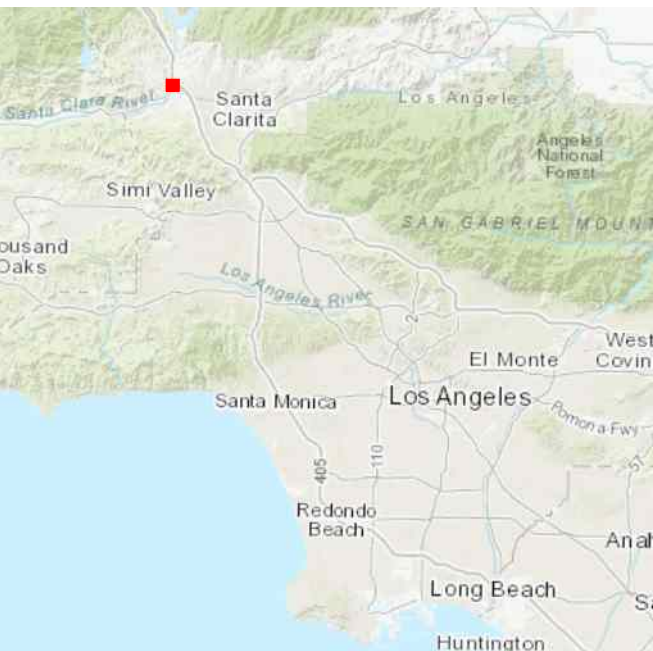
Subsequent year maintenance activities would not differ from initial clearing activities.

2.6.5 REACH 105: SAN FRANCISQUITO CANYON CHANNEL (PD 2456)

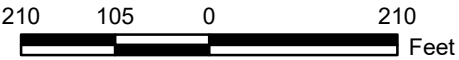
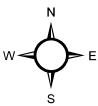
Existing Setting

Reach 105 (San Francisquito Canyon Channel PD 2456) is located in the City of Santa Clarita and in the Santa Clara River Watershed, as shown in Exhibit 2.2e. The total acreage of Reach 105 is 1.1 acres and the reach is 813 feet long. This reach contains a mix of native shrubs, trees, and open wash along the toes of the levee that forms the left bank of this channel. Reach 105 is a sensitive reach as it has potential habitat for the State and federally listed Endangered unarmored threespine stickleback, southwestern willow flycatcher, least Bell's vireo, and the federally-listed Endangered arroyo toad. See Section 3.4, Biological Resources, for further information. The bank of this reach is lined with concrete. An access road on the left bank is open to the public as a bicycle path, but the reach itself is not open to the public. A fence borders the bicycle path at the top of the bank slope. This reach is located within the County of Los Angeles SEA 20, Santa Clara River. A portion of Reach 105 was cleared in 2015 following requirements outlined in the Natural Rivers Management Plan (NRMP). This work was permitted through the NRMP by CDFW, USACE, and approved by RWQCB.

The land uses surrounding Reach 105 are residential uses. For air quality purposes, the nearest air quality sensitive receptors to the site are residential uses located east of Reach 105 and a school located west of the reach, along Decoro Drive.



- Access Point/Gate
- Access Road
- Access Ramp
- Reach Centerline and Flow Direction
- Reach Study Area



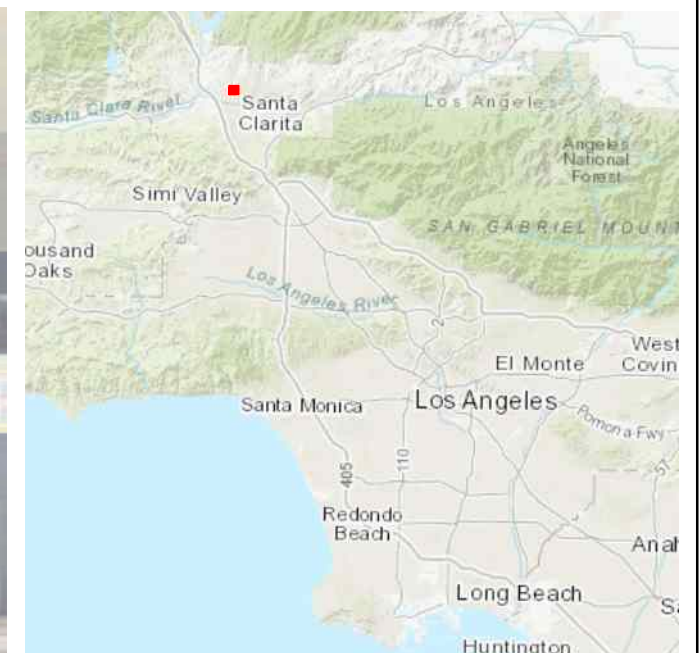
Aerial Source: LAR-IAC 2014

Reach 104

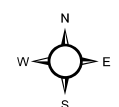
Exhibit 2.2d

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

The logo for PSOMAS (Professional Streambed and Sediment Management Associates) is a blue square with the letters 'PSOMAS' in white.



- Access Point/Gate
- Access Road
- ➡ Reach Centerline and Flow Direction
- ▭ Reach Study Area



90 45 0 90
Feet

Aerial Source: LAR-IAC 2014

Reach 105 **Exhibit 2.2e**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



Reach 105 is accessible through gates on both sides of Decoro Drive, at the intersection of the Decoro Drive and an access road parallel to the channel. Additionally, access could be made north of Decoro Drive, as shown on Exhibit 2.2e.

Project Activities

Maintenance activities in this reach would only occur within the LACFCD's easement, which includes only the left bank levee and a small portion of the watercourse immediately adjacent to the levee. Activities for Reach 105 would require hand clearing of all woody vegetation, including large trees, within a 15-foot-wide path along the toe of the left bank's slope lining. Activities for Reach 105 would also include mechanically clearing and grading a 10-foot wide entrainment channel from the outlet at Station 7+34, extending up to 60 feet from the toe of the levee at a 45-degree angle. Trees with a diameter-at-breast-height over four inches would be avoided. Light equipment such as a Caterpillar D-6 or equivalent may be used and would avoid ponded water. Native vegetation would be allowed to establish in the remainder of the channel within LACFCD right-of-way. Trash, debris, and non-native vegetation would be cleared by hand outside of the impact areas, but within the easement boundaries.

2.6.6 REACH 108: PICO CANYON (PD 2528)

Existing Setting

The Pico Canyon Channel Reach 108 PD 2528 (Reach 108) is located in the community of Stevenson Ranch in the City of Santa Clarita and within the Santa Clara River Watershed. Reach 108 is 5.0 acres and 3,271 feet long. The existing plant resources found at Reach 108 include riparian forest and cattail (*Typha* sp.) communities, as described further in Section 3.4, Biological Resources. Reach 108 is a non-sensitive reach. Open water dominates some areas of this Reach. Reach 108 was cleared in 2015 following permit requirements from CDFW, USACE, and RWQCB.

As shown in Exhibit 2.2f, Reach 108 begins at Stevenson Ranch Dam and Debris Basin and runs along adjacent to residential uses north of the site and residential and school uses south of the site, adjacent to Pico Canyon Road. Reach 108 ends at The Old Road. For air quality purposes, the nearest sensitive receptors to the reach are a park located south of the reach, a school located south of the reach, residential uses located northwest of the reach, a retirement home located south of the reach, and a healthcare facility located southwest of the reach.

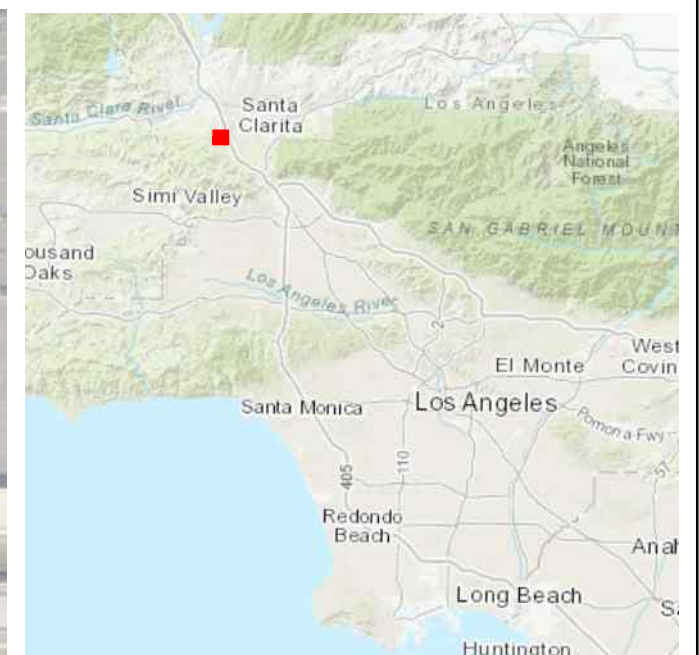
Reach 108 is accessible through gates located on the intersection of Reach 108 and the Old Road. There are also gates located at the westernmost end of the Reach. Access roads on both sides of Reach 108 are adjacent and parallel throughout most of the reach. A chain link fence surrounds a majority of the reach and the reach is closed off to the public.

Project Activities

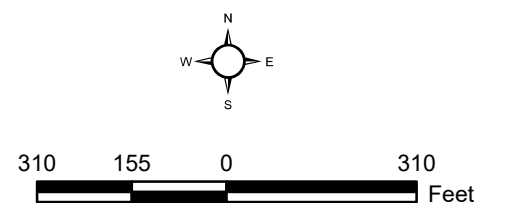
Initial activities for Reach 108 have already occurred, as explained above.

Subsequent year activities for Reach 108 would require mechanical removal of accumulated sediment, debris, and all woody vegetation from the channel to ensure proper functioning of the flood control infrastructure. Weeds and grasses would be controlled by mowing and/or hand labor. Trash, debris, and non-native vegetation would be cleared by hand outside of the impact areas, but within the easement boundaries.

D:\Projects\COLADPW\U2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- Access Road
- Access Ramp
- ➔ Reach Centerline and Flow Direction
- ▭ Reach Study Area



Aerial Source: LAR-IAC 2014

Reach 108 **Exhibit 2.2f**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphical\MND\

2.6.7 REACH 109: SANTA CLARA RIVER – SOUTH BANK WEST OF MCBEAN PARKWAY (MTD 1510)

Existing Setting

The Santa Clara River – South Bank West of McBean Parkway (MTD 1510) (Reach 109) is located in the City of Santa Clarita and within the Santa Clara River Watershed. Reach 109 is 0.6 acres 348 feet long. The existing plant resources found at Reach 109 include non-native grassland and cottonwood riparian corridor, as described further in Section 3.4, Biological Resources. Reach 109 is a sensitive reach. There is potential for unarmored threespine stickleback, least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo, and arroyo toad. See Section 3.4, Biological Resources, for further information. The cottonwood riparian vegetation subsists on nuisance flow from the surrounding commercial landscaped areas. The remainder of the reach is open sandy wash.

As shown in Exhibit 2.2g, Reach 109 runs along adjacent to the South Fork Trail, with a parking lot to its immediate south and the Santa Clara Watershed to its north. Reach 109 ends at the McBean Parkway bridge. For air quality purposes, the nearest sensitive receptors to the reach include the South Fork Trail users and the residents located southwest of the reach.

An access road on the south side of Reach 109 is adjacent and parallel throughout the reach. This access road also serves as a public bicycle path. It is accessible from an adjacent parking lot. The reach itself is not open to the public.

Project Activities

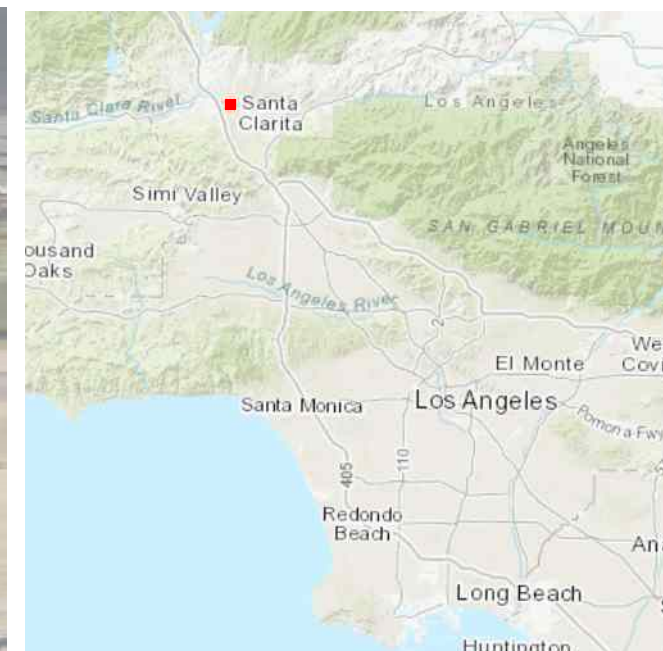
Maintenance activities in this reach would only occur within the LACFCD's easement, which includes only the right bank levee and a small portion of the watercourse immediately adjacent to the levee. Project work at Reach 109 includes the following: (1) mechanical removal of all woody vegetation within a 15-foot-wide path along the toe of the left levee for the entire reach; (2) grade and clear a 10-foot-wide entrainment channel at a 45-degree angle from the outlet up to 30 feet from the toe of the levee; (3) native vegetation would be allowed to establish in the remainder of the channel within LACFCD right-of-way; (4) trees within the entrainment channel at the downstream outlet would be lollipopped instead of cleared; and (5) trash, debris, and non-native vegetation would be cleared by hand within the easement boundaries.

2.6.8 REACH 110: HASLEY CANYON CHANNEL (PD 2262)

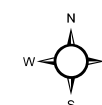
Existing Setting

Reach 110 (Hasley Canyon Channel PD 2262) is located in the City of Santa Clarita and in the Santa Clara River Watershed. It is approximately 10.4 acres and 3,724 feet long. A dense growth of native trees and shrubs dominates the lower portions of this reach. There is less vegetation upstream on the reach. Reach 110 is listed as a sensitive reach because it has potential habitat for southwestern willow flycatcher and least Bell's vireo. See Section 3.4, Biological Resources, for further information. The slopes of the reach are lined in concrete, and a chain link fence surrounds a majority of the reach. Eleven drop structures are present throughout the reach and are partially to completely submerged in accumulated sediment.

As of June 2016, LACFCD acquired permits to clear 6-foot-wide entrainment channels at 6 of the 11 outlets due to vector control issues from ponded water. Surrounding land uses to Reach 110



- Access Point/Gate
- Access Road
- Access Ramp
- Reach Centerline and Flow Direction
- Reach Study Area



100 50 0 100 Feet

Aerial Source: LAR-IAC 2014

Reach 109 **Exhibit 2.2g**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



include office buildings and warehouses. For air quality purposes, the nearest sensitive receptors are residential uses located northeast of Reach 110 and a school is located northeast of the reach.

Reach 110 can be accessed by traffic at the intersection of Hasley Canyon Road and Industry Drive, approximately ½-mile from the northwestern-most edge of the reach. There are gates located near the intersection of the reach and Commerce Center Drive, as shown on Exhibit 2.2h. Access roads on both sides of Reach 110 are adjacent and parallel throughout the entirety of the reach.

Project Activities

Maintenance activities in this reach would only occur within the LACFCD's easement, which includes a small portion of the watercourse immediately adjacent to the levees. Activities for Reach 110 would consist of the following: (1) mechanically removing all vegetation; (2) mechanically clearing and grading a 10-foot wide entrainment channels from all outlets, extending up to 30 feet from the toe of the levee at a 45-degree angle; and (3) clearing trash, debris, and non-native vegetation by hand within easement boundaries.

2.6.9 REACH 112: BALLONA CREEK

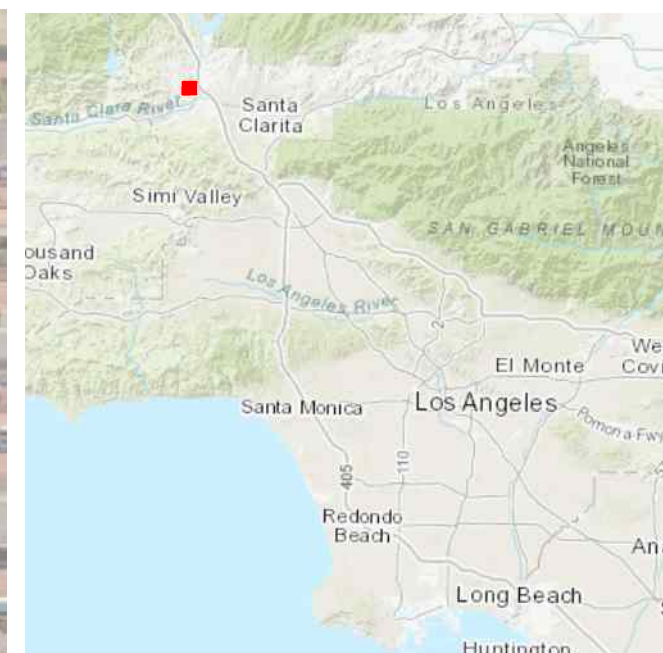
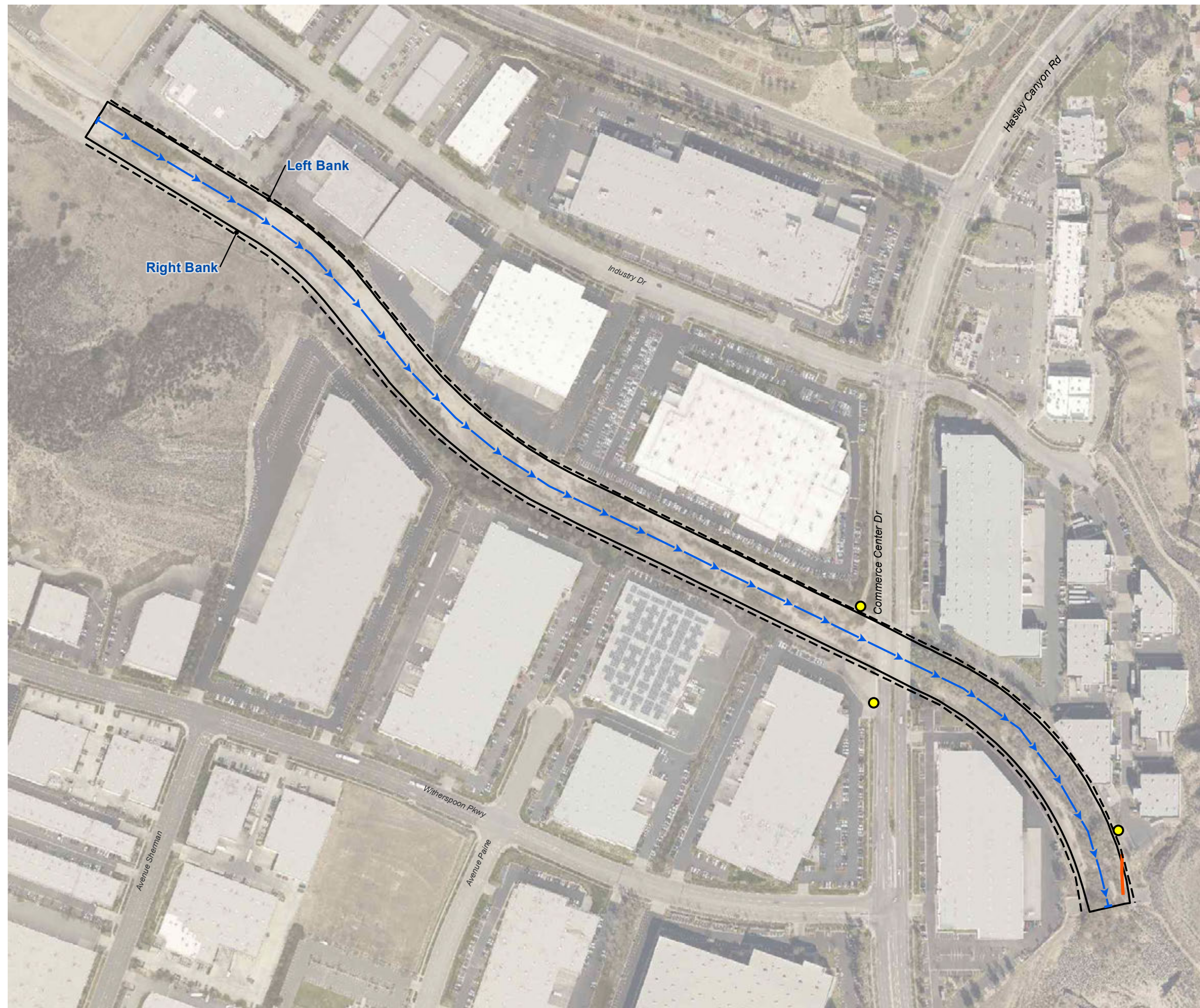
Existing Setting

Reach 112 (Ballona Creek) is located in the City of Los Angeles and within the Santa Monica Bay Watershed. It is approximately 98.0 acres and 13,589 feet long. This reach is dominated by water. Vegetation that is present is a mixture of native and non-native tree, shrub, and herbaceous species that are limited to growing as scattered individuals among the riprap. Reach 112 is a non-sensitive reach, as discussed further in Section 3.4, Biological Resources; however, there is potential for the southern tarplant (*Centromadia parryi* ssp. *australis*), the State- and federally-listed Endangered California least tern (*Sternula antillarum browni*), and the State Endangered Belding's savannah sparrow (*Passerculus sandwichensis beldingi*). Belding's savannah sparrow has been observed during surveys of this reach.

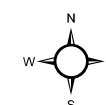
Reach 112 has two distinct segments referred to as the upper and lower channel sections. The upper channel section of Ballona Creek is located between Centinela Avenue and the State Route 90 (SR-90), adjacent to the Ballona Creek Bike Path and running parallel to West Jefferson Boulevard. The lower channel section of Ballona Creek is located south of SR-90 to Pacific Avenue, adjacent to the Ballona Creek Bike Path. Banks of the upper section are lined with concrete and the lower section banks are covered with riprap. An access road on the right bank is open to the public as the Ballona Creek Bike Path, but the reach itself is not open to the public. A chain link fence lies on the outside of the left bank access road.

Surrounding land uses to Reach 112 include open space, industrial uses, and residential uses. The nearest air quality sensitive receptors are an athletic field located north of the reach, residential uses located east of the reach, a school located south of the reach, and a park located south of the reach.

Reach 112 is accessible through gates located at the intersections of the Reach 112 and the following streets: Centinela Avenue, Lincoln Boulevard, and Pacific Avenue. Access roads on both sides of Reach 112 are adjacent and parallel to the reach. The right bank access road is also used as bicycle and pedestrian paths throughout the length of the reach. There are no access ramps within Reach 112. All work for this reach is done from the access road.



- Access Point/Gate
- Access Road
- Access Ramp
- ➔ Reach Centerline and Flow Direction
- ▭ Reach Study Area



280 140 0 280 Feet

Aerial Source: LAR-IAC 2014

Reach 110 **Exhibit 2.2h**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



Clearing of non-native invasive plants has already occurred in the upper channel in 2015, according to permits from USACE, CDFW, and RWQCB. The native cattails and bulrush were left untouched.

Project Activities

Initial activities for Reach 112 would depend upon the location along the Ballona Creek (upper or lower channel sections, as described above). Maintenance activities in the lower channel section of Reach 112 (as shown in Exhibit 2.2i) would include: (1) removal of non-native woody vegetation on the riverside levee slope via mechanical equipment (as necessary) above the Ordinary High Water Mark (OHWM) and only by hand or with hand-held mechanical equipment when below the OHWM or in the native marshes; (2) mowing or hand removal of non-native weeds and grasses; and (3) hand removal of trash, debris, or non-native vegetation. Native vegetation would not be cleared. No heavy equipment would be placed in the bottom of the invert.

Large populations of bulrush and cattails are located in the upper channel. Maintenance activities for the upper channel includes trimming of the bulrush and cattails down to six inches above the height of the grouted riprap annually, following conditions in the CDFW permit. The bulrush and cattails would not be allowed to expand past their July 2015 boundaries. The roots that have expanded past the July 2015 boundaries would be removed annually following conditions in the CDFW permit. Trash, debris, and non-native vegetation would be cleared by hand within LACFCD easement boundaries. Only hand and/or hand-held mechanical equipment would be used to maintain the upper portion of this reach.

Annual clearing of all woody vegetation would occur along the entire reach on both banks below the access roads.

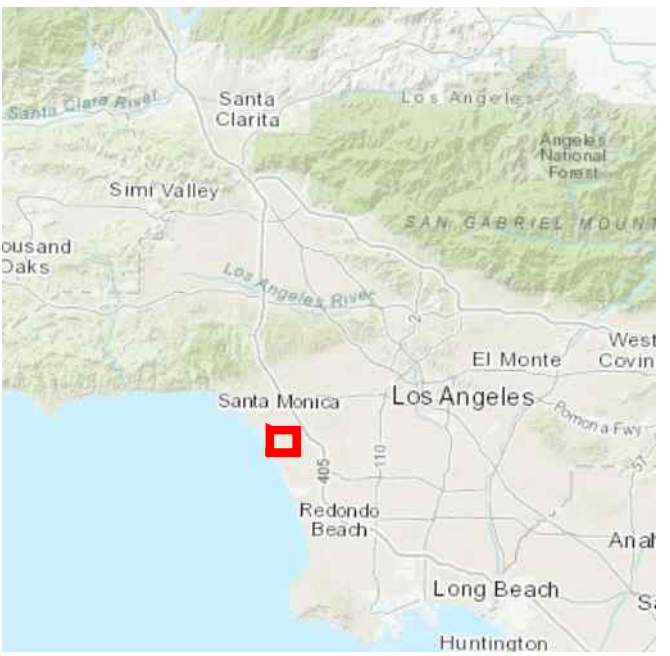
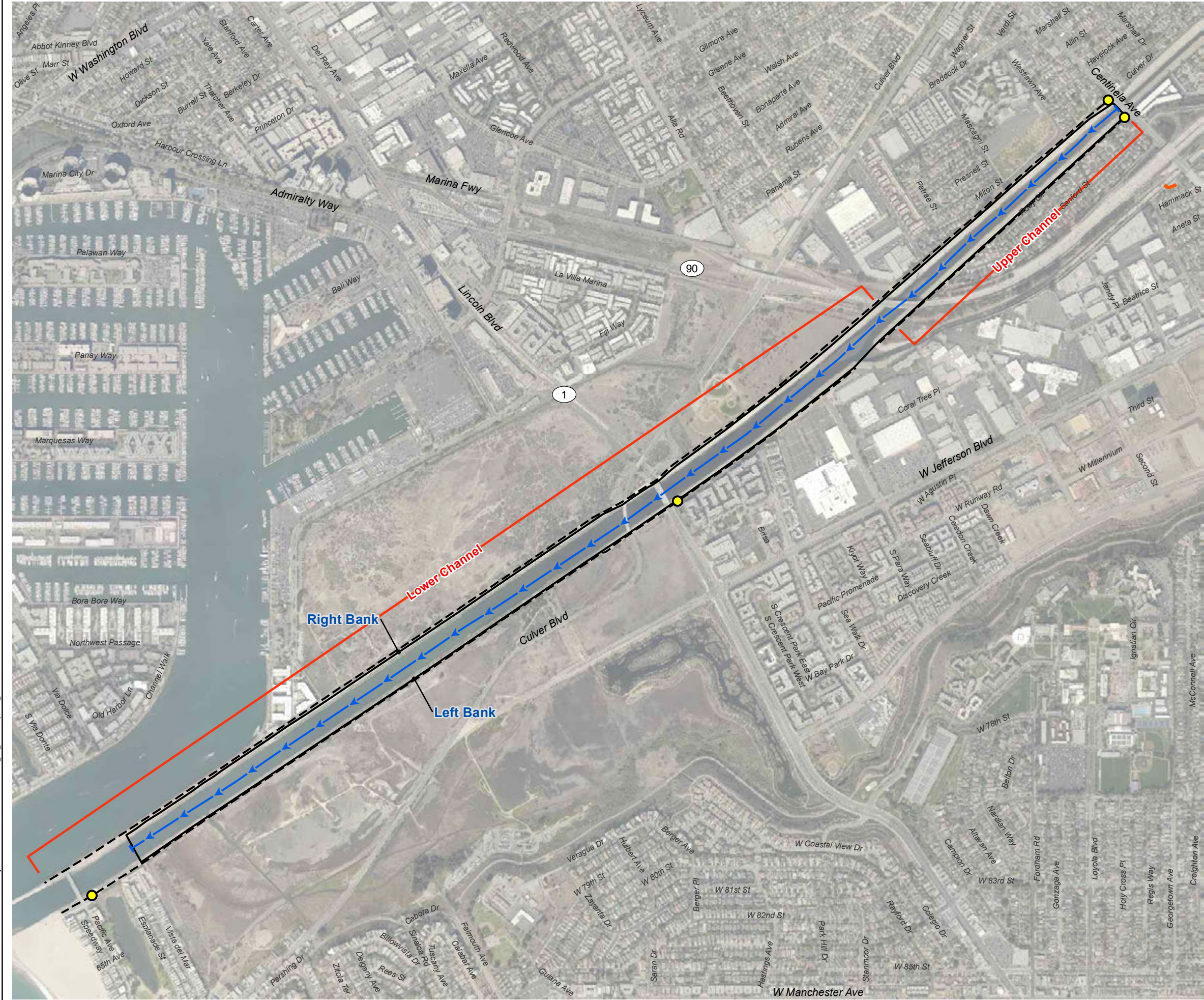
2.6.10 REACH 113: DOMINGUEZ CHANNEL

Existing Setting

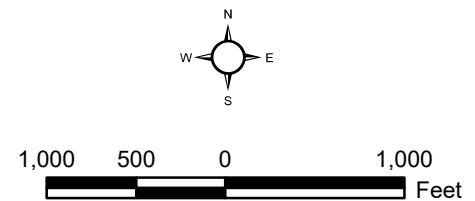
Reach 113 (Dominguez Channel) is located in the City of Carson and in the Santa Monica Bay Watershed (as shown on Exhibit 2.2j). The reach is approximately 212.3 acres and 43,686 feet long. This reach is dominated by water. Vegetation that is present is a mix of native and non-native shrub and herbaceous species that are limited to growing as scattered individuals on the riprap of this reach (Chambers Group 2014a). Reach 113 is a non-sensitive reach, as discussed further in Section 3.4, Biological Resources. However, special status plant species, including the southern tarplant and eelgrass (*Zostera maritima*), have been observed in this reach. The banks of this reach are mostly covered with riprap, but portions of the reach are lined with concrete. A chain link fence surrounds most of the reach and the reach is closed off to the public.

Surrounding land uses to Reach 113 include residential, commercial, industrial, and office uses. For air quality purposes, the nearest sensitive receptors are residential uses located northeast of Reach 113, a health center east of the reach, a retirement home located west of the reach, a school located west of the reach, and a park located east of the reach.

Reach 113 is accessible through gates located on most bridges over the reach, and at the intersection of Vermont and the northernmost section of Reach 113, as shown on Exhibit 2.2j. Access roads on both sides of Reach 113 are adjacent and parallel throughout the entirety of the reach. None of the reach is open to the public.



- Access Point/Gate
- - - Access Road
- Access Ramp
- ➡ Reach Centerline and Flow Direction
- Reach Study Area



Reach 112

Exhibit 2.2i

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

D:\Projects\COLORADO\DPW\2941\XDM\IND\AerialMapbook 20180606.mxd

Project Activities

Annual clearing of all woody vegetation would occur along the entire reach on both banks of Reach 113. The work to be performed at Reach 113 would include: (1) removing non-native woody vegetation on the riverside levee slope down to the roots; (2) clearing vegetation and brush growing on the reach right-of-way and in the riprap; and (3) removing trash, debris, and non-native vegetation by hand within LACFCD's easement boundaries. No heavy equipment would be used in areas with species that are commonly found in coastal salt marshes. These areas would be avoided and not impacted in order to prevent impacts to native species and potentially sensitive species.

2.6.11 REACH 114: LOS ANGELES RIVER

Existing Setting

Reach 114 (Los Angeles River) is located in the City of Long Beach and in the Los Angeles River Watershed, as shown in Exhibit 2.2k. Reach 114 is approximately 126.2 acres and 9,520 feet long. Reach 114 is located along the Los Angeles River, beginning at the Pacific Coast Highway to 600 feet south of Ocean Boulevard. This reach is dominated by water. Vegetation that is present is a mix of native and non-native tree, shrub, and weedy species that are limited to growing as scattered individuals on the riprap of this reach, as discussed further in Section 3.4, Biological Resources. However, there is potential habitat for the State and federally listed Endangered California least tern and special status plant species such as the southern tarplant. Reach 114 is a non-sensitive reach. See Section 3.4, Biological Resources, for further information. The slopes of this reach are mostly covered with riprap, but some sections are composed of grouted riprap. A chain link fence surrounds the majority of this reach.

Clearing of vast stretches of giant reed (*Arundo donax*) was permitted by USACE, CDFW, and RWQCB and cleared in 2014. Clearing of all woody vegetation was permitted by USACE, CDFW, and RWQCB and cleared in 2015.

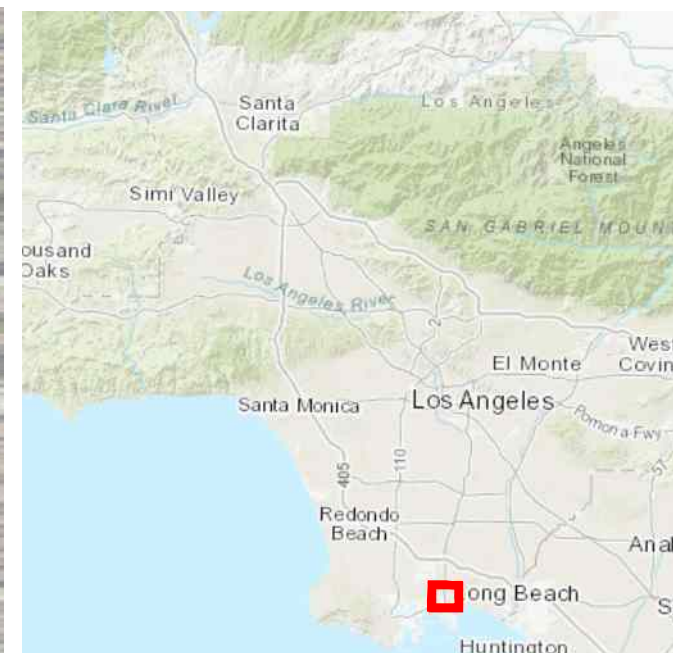
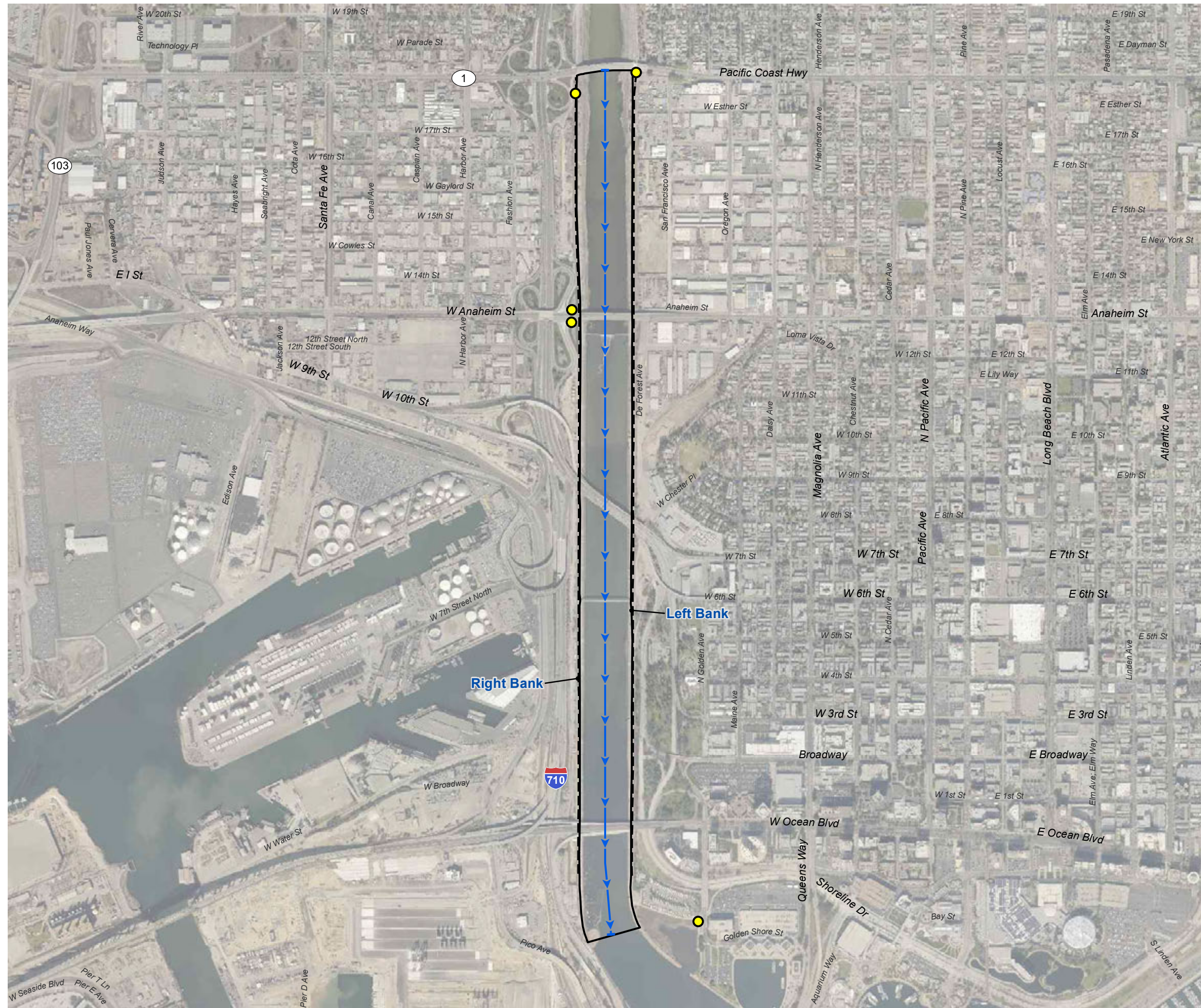
Surrounding land uses to Reach 114 include commercial, industrial, and residential uses. For air quality purposes, the nearest sensitive receptors are a park, school, residential uses, and a rehabilitation center, all located east of the reach.

Access to the upstream sediment benches would be at an existing concrete invert access ramp, located on the east side of the concrete-lined channel section at the intersection of 34th Street and Deforest Avenue, which would be used as the main access point to the reach. To access the east side of the reach, trucks, equipment, and vehicles would enter the main access point, travel south through the concrete-lined channel then along an established dry dirt road, located just upstream of Reach 114 and used regularly during annual maintenance, to reach the east side of the reach. To access the west side of the reach, trucks, equipment, and vehicles would enter the main access point, travel downstream to just before the transition area (transition between soft bottom channel to concrete-lined channel) located below Willow Street, cross the invert channel heading west, then travel downstream along the toe of the levee through the typically-dry section of Reach 25 to reach the west side of the reach.

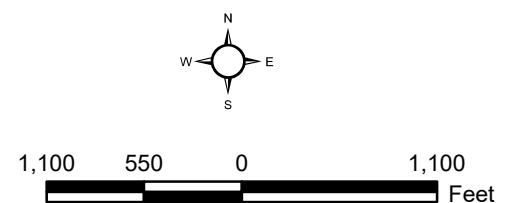
Project Activities

Initial activities for Reach 114 would involve removing all woody vegetation with roots greater than ½-inch. Vegetation would be removed using mechanical and manual methods on both banks of the channel. Woody vegetation in the riprap banks would be cleared from the access roads. Only

D:\Projects\COLADPW\U294\INXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- Access Road
- Reach Centerline and Flow Direction
- Reach Study Area



Aerial Source: LAR-IAC 2014

Reach 114 **Exhibit 2.2k**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphical\MND\

the mowing of the upstream sediment benches would require equipment to be placed in the dry invert. Weeds and grasses may be controlled by mowing or hand labor. The majority of the initial removals would occur between Pacific Coast Highway (PCH) and West Anaheim Street.

Annual vegetation maintenance for Reach 114 would include the following activities: (1) non-native woody vegetation on the riverside levee slopes would be removed down to the roots; (2) weeds and grasses may be controlled by mowing or hand labor; (3) areas mapped as Coastal Salt Marsh (disturbed or not; generally, areas with pickleweed) would be avoided; (4) freshwater wetlands in the upstream portion between Pacific Coast Highway and Anaheim Street would be maintained annually through mowing and trash removal; (5) a debris fence and sandbags would be installed at the base of the slope along the river; and (6) trash, debris, and non-native vegetation would be removed by hand with the LACFCD's easement boundaries. The sediment benches would not be removed, and no herbicide would be applied to native vegetation. A qualified biologist would identify locations with a New Zealand mudsnail population before work begins.

2.6.12 REACH 115: SAN GABRIEL RIVER

Existing Setting

Reach 115 (San Gabriel River) is located in the City of Long Beach and the San Gabriel River Watershed. It begins north of Interstate 405 (I-405) approximately 1,750 feet upstream at confluence of Coyote Creek and continues downstream to end of the channel. The end of Reach 115 is just north of the Pacific Ocean at Marina Drive (shown on Exhibit 2.2I). The acreage for Reach 115 is 181.0 acres and the length of the reach is 18,354 feet. The entirety of the reach is lined with riprap slopes. This reach is dominated by water. Vegetation at reach 115 a mix of native and non-native tree, shrub, and weedy species that are limited, except for upstream of the San Diego Freeway, to growing as scattered individuals on the riprap. Reach 115 is listed as a sensitive reach. There is potential for southern tarplant (*Centromadia parryi* ssp. *australis*), eelgrass, and California least tern. Green sea turtles are known to occur on-site. Sediment has accrued on the riprap upstream of I-405 and supports a dense growth of primarily non-native trees with an understory of native and non-native herbaceous species. Native reed (cattail) beds are also part of this understory vegetation. A chain link fence surrounds most of the reach, which closes the reach off to the public on the right bank.

Surrounding land uses to Reach 115 include industrial, commercial, and residential uses. For air quality purposes, the nearest sensitive receptors are residential uses located east of the reach, a park and an athletic field located west of the reach.

Reach 115 is accessible through gates located at the intersection of Reach 115 and the following roads: East Atherton Road, East 7th Street, Westminster Boulevard, Pacific Coast Highway, and Marine Drive. Access roads on both sides of Reach 115 line the entirety of the reach. The access road on the left bank is known as the San Gabriel River Trail and is open to the public for bicyclists and pedestrians.

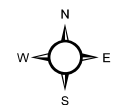
Project Activities

Annual vegetation maintenance for Reach 115 would occur along the entire reach on both banks below the access roads by hand and using mechanical equipment placed on the access road. The work to be performed would include: (1) removing weeds and grasses by hand or by mowing; (2) clearing vegetation, debris, and brush growing on the reach right-of-way and in the riprap; and (3) trimming and removing of trees and shrubs to reduce the impact on flow in the reach as future

D:\Projects\COLADPW\2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- ➡ Reach Centerline and Flow Direction
- ▭ Reach Study Area



2,100 1,050 0 2,100
Feet

Aerial Source: LAR-IAC 2014

Reach 115 Exhibit 2.21

Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphical\MND\

growth occurs. No heavy equipment would be used in areas with species that are commonly found in coastal salt marshes. These areas would be avoided to prevent impacts to native species and potentially sensitive species.

2.6.13 REACH 116: LOS CERRITOS CHANNEL

Existing Setting

Reach 116 (Los Cerritos Channel) is located in the City of Long Beach and in the San Gabriel River Watershed, as shown in Exhibit 2.2m. The acreage of Reach 116 is 42.7 acres and the total length is 10,300 feet. This reach is dominated by water. Vegetation that is present is a mix of native and non-native shrubs and herbaceous species that are limited to growing as scattered individuals on the riprap. Reach 116 is a non-sensitive reach; however, the reach does provide potential habitat for the southern tarplant, estuary sea-blight (*Suaeda esteroa*), Sanford's arrowhead (*Sagittaria sanfordii*) and eelgrass, California least tern, and Belding's savannah sparrow. See Section 3.4, Biological Resources, for further information. The banks of this reach are covered with riprap. A chain link fence surrounds the majority of the reach and none of it is open to the public.

Surrounding land uses to Reach 116 include residential and industrial uses. For air quality purposes, the nearest air quality sensitive receptors are residential uses located east of the reach, and a school and park located west of the reach.

Reach 116 is accessible through gates located at the intersection of the reach and the following roads: East Atherton Street, East Anaheim Road, East 7th Street, Loynes Drive, and Marina Drive. Access roads on both sides of the road line the entirety of the Reach. Access roads line both sides of the Reach.

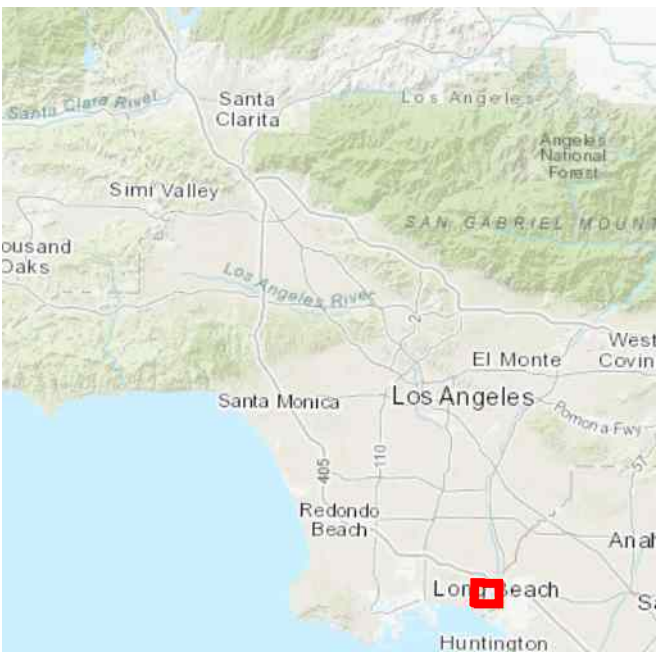
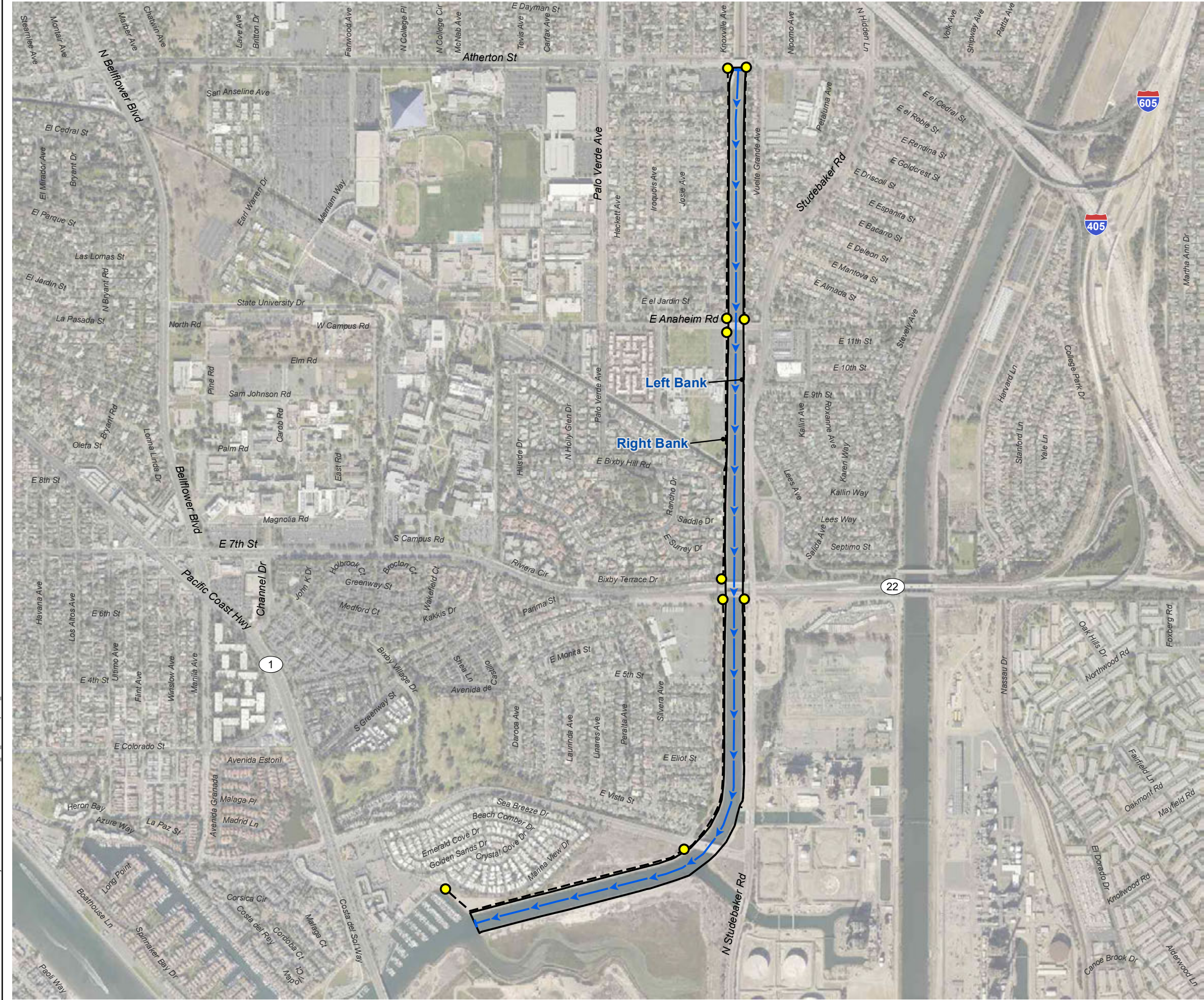
Project Activities

Annual project activities at Reach 116 would require the clearing of all woody vegetation occurring along the entirety of the reach on both banks below the access roads. The mechanical equipment would be placed on the access road. The work to be performed includes: (1) clearing vegetation, debris, and brush growing on the reach right-of-way and in the riprap; and (2) trimming and removal of trees and shrubs to reduce the impact on flow within the reach as future growth occurs. No heavy equipment would be used in areas with species that are commonly found in coastal salt marshes. A portion of the reach within the Los Cerritos Wetlands boundaries would be accessed using a designated road through Synergy Oil, LLC property. However, this road requires major improvement before usage, so access by barge is also an option.

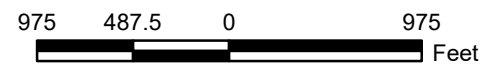
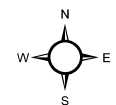
2.6.14 REACH 117: CENTINELA CREEK CHANNEL

Existing Setting

Reach 117 (Centinela Creek Channel) is located in the City of Los Angeles and the Santa Monica Bay Watershed, as shown in Exhibit 2.2n. The total reach's acreage is 1.5 acres and the total length is 190 feet. This reach is dominated by water. Sediment has accrued in the middle of the channel at the downstream end of this reach, forming a sediment island. This island is covered by a non-native perennial grass species, seashore paspalum (*Paspalum vaginatum*), that is widely used as a turfgrass on golf courses.



- Access Point/Gate
- Access Road
- ➡ Reach Centerline and Flow Direction
- ▭ Reach Study Area



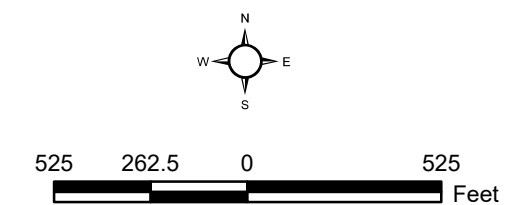
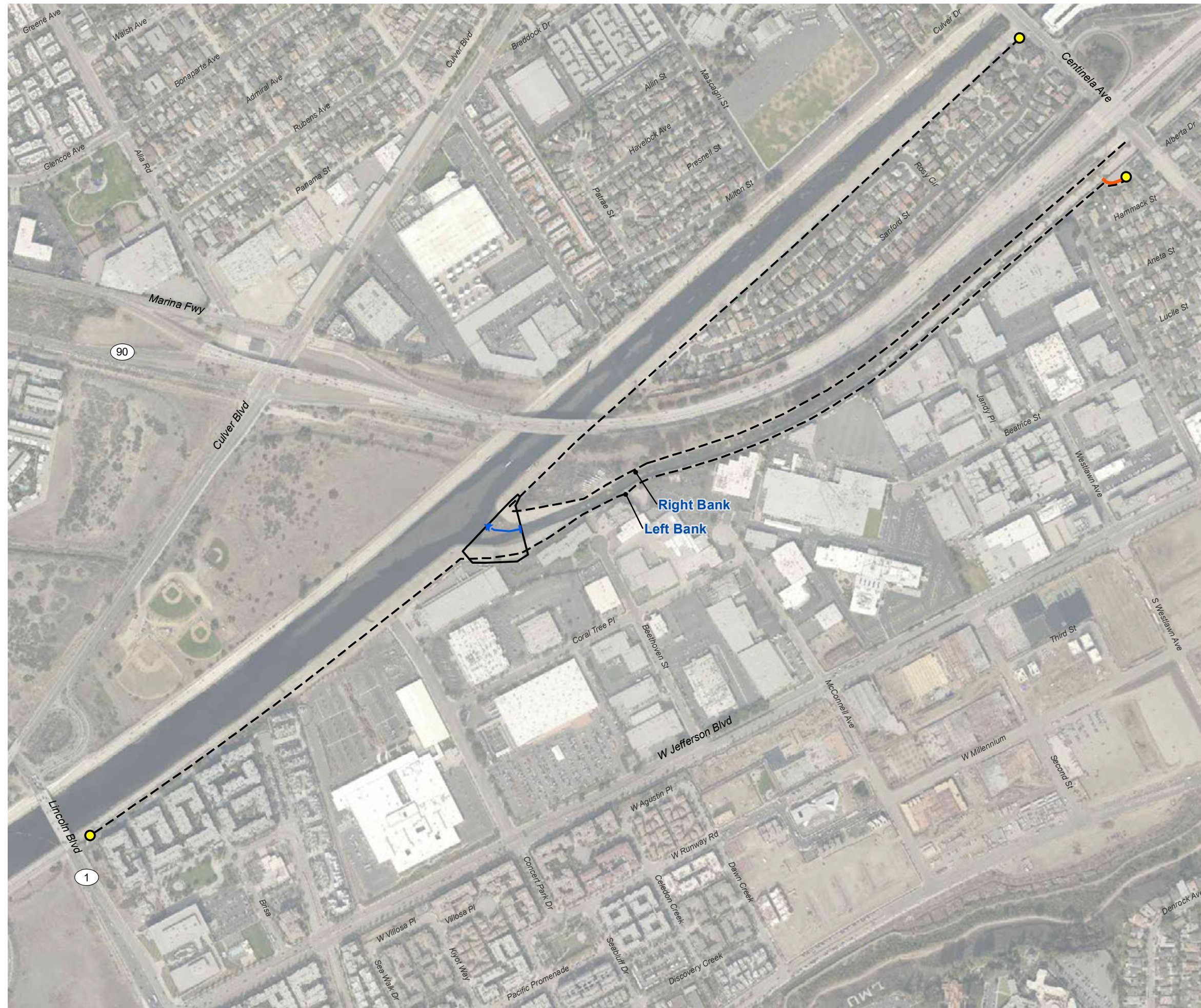
Aerial Source: LAR-IAC 2014

Reach 116

Exhibit 2.2m

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

D:\Projects\COLADPW\U2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd




Aerial Source: LAR-IAC 2014

Reach 117

Exhibit 2.2n

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphical\MND\

Reach 117 is a non-sensitive reach; however, there is potential for California least tern to occur (see Section 3.4, Biological Resources, for more information). The reach is lined with a concrete slope and has chain link fencing surrounding the reach.

Surrounding land uses include open space, residential uses, and commercial uses. For air quality purposes, the nearest sensitive receptors are residential uses located northwest of Reach 117 and a school located south of Reach 117.

There is an access road adjacent to portions of the Reach, as shown on Exhibit 2.2n. The reach can be accessed from Centinela Avenue, upstream of the channel, or downstream of the reach, at the left bank of Reach 112.

Project Activities

No maintenance activities are proposed for this reach.

2.6.15 REACH 118: RUSTIC CANYON CHANNEL

Existing Setting

Reach 118 (Rustic Canyon Channel) is located in the Pacific Palisades neighborhood of the City of Los Angeles and in the Santa Monica Bay Watershed, as shown in Exhibit 2.2o. It is approximately 1.1 acres and 3,172 feet long. Reach 118 is a non-sensitive reach. No sensitive plant species are expected to occur within Reach 118. This narrow reach passes through a suburban area heavily planted with ornamental vegetation. As a result, a mix of native and non-native trees dominates vegetation in the reach. The slopes of the reach are lined with wood planks and are vegetated. There are no fences surrounding the reach.

Clearing of vegetation occurred with hand mowing in 2015 and was permitted by CDFW and RWQCB. The vegetation was only mowed by hand to avoid soil disturbance.

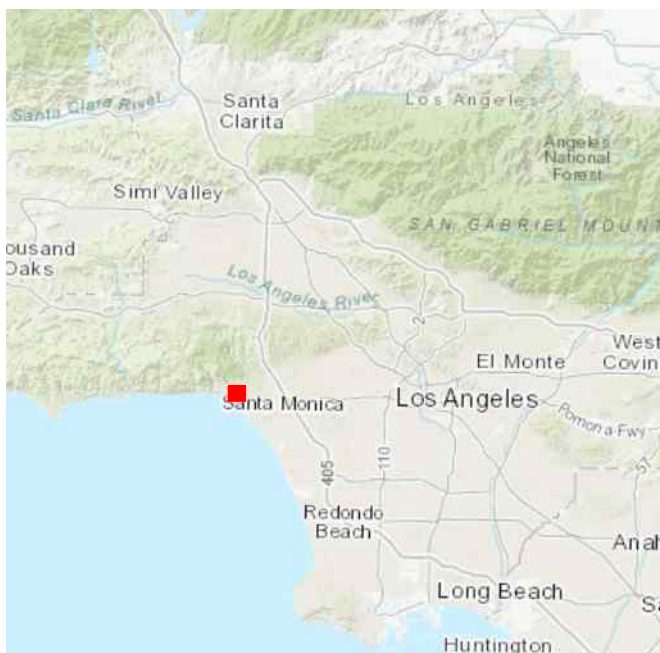
Surrounding land uses are residential uses and private property. For air quality purposes, the nearest sensitive receptors are residential uses and an athletic field located east of Reach 118.

Reach 118 would be accessed through private property located at 14470 Rustic Creek Lane, Pacific Palisades. This private property would also be the staging area location. There are no access roads surrounding the reach. Reach 118 is surrounded by residential uses on all sides.

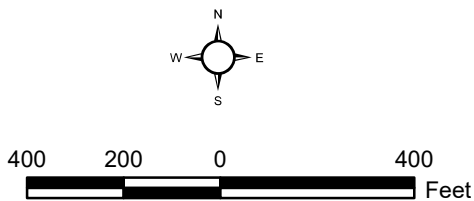
Project Activities

All vegetation at Reach 118 would be removed using hand tools in order to minimize impacts to wildlife species. Minor repair work to the wooden wall structures would be conducted as necessary. Structural repairs for the wooden wall structures may include, but not be limited to, filling voids with onsite material, repairing small portions of the walls, and replacing support structures for the walls. A rubber-tracked skidsteer loader may be used to haul vegetation off the site. To move the skidsteer loader from one section of the channel to the next, temporary earthen ramps would be constructed at the drop structures with available onsite soils. The earthen ramps would be removed after vegetation is removed and the earthen material used to make the ramp would be redistributed evenly through the site where it was initially removed from. Trash, debris, and non-native vegetation would be removed by hand within easement boundaries. No machinery would be allowed in the mapped wetlands at the reach.

D:\Projects\COLADPW\U2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- Access Road
- Access Ramp
- ➔ Reach Centerline and Flow Direction
- ▭ Reach Study Area



Aerial Source: LAR-IAC 2014

Reach 118 **Exhibit 2.2o**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

2.6.16 REACH 119: RIVAS CANYON CHANNEL

Existing Setting

Reach 119 (Rivas Canyon Channel) is located in the Pacific Palisades neighborhood of the City of Los Angeles and in the Santa Monica Bay Watershed, as shown in Exhibit 2.2p. It is approximately 0.8 acres and 1,151 feet long. No sensitive plant species are expected to occur within Reach 119. This narrow reach passes through a suburban area heavily planted with ornamental vegetation. As a result, a mix of native and non-native trees dominates vegetation in the reach, and it is a non-sensitive reach. The slopes of the reach are lined with wood planks and vegetated. There are no fences surrounding the reach.

Clearing of vegetation occurred with hand mowing in 2015 and was permitted by CDFW and RWQCB. The vegetation was only mowed by hand to avoid soil disturbance.

Surrounding land uses to Reach 119 are residential uses. For air quality purposes, the nearest sensitive receptors are residential uses located west of Reach 119 and a park located northeast of Reach 119.

Reach 119 would be accessed through private property located at 14470 Rustic Creek Lane, Pacific Palisades. This private property would also be the staging area location. Although the reach ends at West Sunset Boulevard, there are no access roads surrounding the reach.

Project Activities

All vegetation at Reach 119 would be removed with hand tools in order to minimize impacts to wildlife species. Minor repair work to the wooden wall structures would be conducted as necessary. Structural repairs for the wooden wall structures may include, but not be limited to, filling voids with onsite material, repairing small portions of the walls, and replacing support structures for the walls. A rubber-tracked skidsteer loader may be used to haul vegetation off the site. In order to move the skidsteer loader from one section of the channel to the next, temporary earthen ramps would be constructed at the drop structures with available onsite soils. The earthen ramps would be removed after vegetation is removed and the earthen material used to make the ramp would be redistributed evenly through the site where it was initially removed from. Trash, debris, and non-native vegetation would be removed by hand within easement boundaries. No machinery will be allowed in the mapped wetlands at the site.

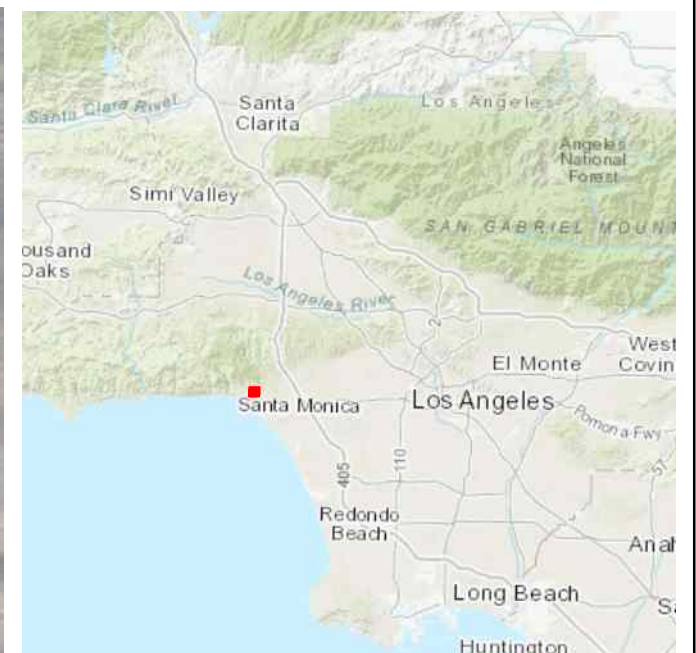
2.6.17 REACH 120: JAKES WAY (PD 2496)

Existing Setting

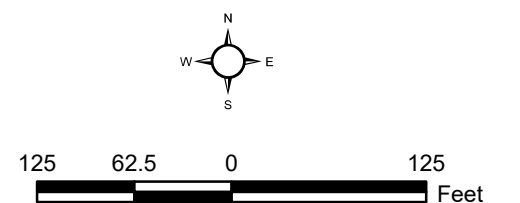
Reach 120 (Jakes Way) is located in the City of Canyon Country and in the Santa Clara River Watershed, as shown in Exhibit 2.2q. It is approximately 1.3 acres and 1,204 feet long. Reach 120 is a sensitive reach and provides potential habitat for the slender-horned spineflower (*Dodecahema leptoceras*), white rabbit-tobacco (*Pseudognaphalium leucocephalum*), and unarmored threespine stickleback. The vegetation consists of non-native grassland and some mulefat growing in the riprap. Jakes Way road is located south of the reach, with State Route 14 to the west, Santa Clara Waterway to the north and east. Residences are located approximately 115 feet from the reach's southern boundary.

Reach 120 can be accessed through access gates on Jakes Way across the street from Eleanor Circle. An access road runs parallel to the reach's southern boundary.

D:\Projects\COLADPW\U2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- Access Road
- Access Ramp
- Reach Centerline and Flow Direction
- Reach Study Area



Aerial Source: LAR-IAC 2014

Reach 119 **Exhibit 2.2p**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*

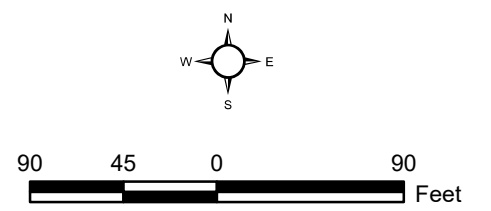


(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphical\MND\

D:\Projects\COLADPW\2941\MXD\MND\Ex_LV_AerialMapbook_20180606.mxd



- Access Point/Gate
- Access Road
- Access Ramp
- Reach Centerline and Flow Direction
- Reach Study Area




Aerial Source: LAR-IAC 2014

Reach 120

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 2.2q



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphical\MND\

Project Activities

Initial activities would include the mechanized removal of all vegetation within 15 feet of the toe of the slope along the bank protection structure lining along the entirety of the reach, by hand and mechanical methods. All vegetation within the rock riprap including the outfall structure and turnaround areas and concrete-lined side slope would be removed.

Annual activities include those mentioned above and the following activities. The accumulated sediment, debris, and vegetation within the vicinity of the outfall structure would be removed on a periodic basis. Ponded water would be removed on a periodic basis in order to avoid odor problems. When necessary, the outfall structure, riprap, side slopes, access road, invert ramp, turnaround area, and other onsite structures would be repaired. Trash, debris, and non-native vegetation would be cleared by hand within the reach's easement boundaries.

2.6.18 REACH 121: SAN FRANCISQUITO CREEK (PD 2271)

Existing Setting

Reach 121 (San Francisquito Creek PD 2271) is located in the City of Santa Clarita and in the Santa Clara River Watershed, as shown in Exhibit 2.2r. It is approximately 6.2 acres and 1,146 feet long. Reach 121 is a sensitive reach and provides potential habitat for the slender-horned spinyflower (*Dodecahema leptoceras*), white rabbit-tobacco (*Pseudognaphalium leucocephalum*), the State- and federally-listed endangered unarmored threespine stickleback, southwestern willow flycatcher, least Bell's vireo, and the federally-listed endangered arroyo toad. See Section 3.4, Biological Resources, for further information. Vegetation consists of a variety of cottonwood riparian areas, several stands of multiple willow species, open wash where bridge Newhall Ranch Road was widened, and many invasive species.

Reach 121 can be accessed through an access road located off Newhall Ranch Road. A chain-link fence lines the sides of Reach 121.

Surrounding land uses at Reach 121 include bike trails (the San Francisquito Creek Trail) to the east and west, residential uses to the north and east.

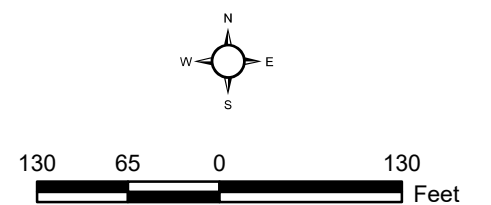
Project Activities

Initial activities would include the mechanized removal of all vegetation within 15 feet of the toe of slope along the bank protection structure lining throughout the entire reach. Grade to drain a 10-foot wide training channel from the outlet structure to the easement line and grade and clear a 10-foot wide path from the MTD's invert ramp to the toe of the PD's lining.

Annual clearing for vegetation would involve hand and mechanical equipment to reduce the impact on flow in the channel and to maintain the structural integrity of the levee. The rock rip rap for the outfall structure for storm drain MTD 1598 Unit 2, located adjacent to PD 2271's concrete lining, and the concrete lined side slope will also be maintained in a vegetation-free state. The storm drain requires periodic maintenance to remove any accumulated sediment, debris and vegetation in the vicinity of the outfall structure and entrainment channel to allow water to drain. Ponded water would be removed on a periodic basis in order to avoid odor problems. When necessary, the outfall structure, riprap, side slopes, access road, invert ramp, turnaround area, and other onsite structures would be repaired.



- Access Point/Gate
- Access Road
- Access Ramp
- ➡ Reach Centerline and Flow Direction
- ▭ Reach Study Area



Aerial Source: LAR-IAC 2014

Reach 121 **Exhibit 2.2r**
*Long-term Streambed Alteration
Agreement for the Soft-Bottom Channel
Maintenance Plan for Select Reaches*



2.7 CONCEPTUAL HABITAT MITIGATION AND MONITORING PLAN (CHMMP)

The SRR site is located in the County of Los Angeles in the Santa Clara River Watershed, as shown in Exhibit 3.1-19. The SRR site is split into three separate areas by Soledad Canyon Road and a railroad track. The Project areas within the SRR site are split into the following parts: the northernmost portion of the SRR site is located north of the Southern Pacific Railroad tracks; the majority of the SRR site is located south of the railroad tracks and north of Soledad Canyon Road; and the southernmost portion of the site is located south of Soledad Canyon Road. The northernmost and southernmost portions of the SRR site are small adjacent upland areas that are included in the CHMMP but do not contain active restoration. Therefore, the initial removals and habitat restoration activities would occur within the “middle” portion of the SRR site, as shown in Exhibit 3.1-19. Currently, the SRR site contains the following: a compacted driveway and parking lot; concrete pads, several concrete-block structures, water wells, a concrete pool, a cobble and mortar amphitheater, a former vehicle junkyard, septic tanks, ornamental trees, numerous piles of natural and manmade debris, and an approximately 4-foot-high and 1,300-foot-long dirt berm located along the north bank of the low flow channel. Most of the SRR site was burned in the 2016 Sand Fire. Specifically, over 95 percent of the vegetation at SRR was burned in July of 2016. Vegetation that was burned consisted of riparian woodland and upland scrub. The native trees and shrubs (e.g., willows, sycamores) have re-sprouted extensively from surviving root/crown tissues, creating a dense thicket. The SRR site’s surrounding land uses include some single-family homes and vacant, open land.

For the purposes of this IS/MND, all activities of the CHMMP are analyzed. Mountains and Rivers Conservation Authority (MRCA) purchased the SRR property on July 15, 2017. MRCA holds agreements with LACFCD and Metropolitan, allowing them to use the SRR site to achieve their mitigation requirements.

The CHMMP is comprised of ten tasks, described below.

2.7.1 CHMMP TASKS

Tasks 1 through 4 consist of activities in preparation for mitigation work, including purchase of the property and the determination that SRR is an appropriate site according to regulatory mitigation requirements (Task 1), preliminary assessments and tree safety (Task 2); the development of a detailed final HMMP (Task 3); and the establishment of a Conservation Easement and endowment to be given to National Fish and Wildlife Foundation (NFWF) to allow MRCA to maintain the site in perpetuity, which may include biological resource surveys, monthly patrolling for property integrity, office maintenance, perimeter signage, and fencing maintenance (Task 4). For the purposes of describing activities pertinent to CEQA, Tasks 5 through 9 are outlined below. After the SRR site has achieved performance criteria and received final approval by the CDFW and USACE, MRCA would maintain the SRR site in perpetuity, through an endowment to NFWF. Task 10 would occur four times a year. The SRR site and the existing vegetation, removals, and proposed habitat restoration activities can be found on Exhibit 3.1-19, Project Impacts—Vegetation Types and Other Areas—Stickleback River Ranch Site.

Task 5: Initial Removals

Invasive plants would be removed from the SRR site, including *Arundo* and smaller herbaceous species. An African clawed frog eradication program that includes one initial removal and subsequent trapping regimen would be implemented. The trapping regimen will continue until the on-site pool is demolished. All exotic trees would be girdled and trimmed to snags. This task would take approximately 12 days.

Task 6: Infrastructure Removal and Earthworks

All permanent and below-ground infrastructure would be demolished and removed, including cinder block structures, a swimming pool, amphitheater, kitchen, concrete pads, and underground utility lines. The well will remain to provide a water source for the subsequent plant installation. Septic systems would remain onsite if they are determined to be of natural inert material (e.g. gravel). All remedial measures recommended for hazardous materials would be implemented, and hazardous materials would be removed safely. All loose man-made debris will be removed from the site. All natural debris piles found to be non-hazardous would be graded flat, while all hazardous debris piles would be removed from the site. The soil that composes the roads and driveways onsite would be de-compacted to provide suitable conditions for growth of native plant roots. A one-foot deep and three-foot wide low flow channel would be graded extending from the westernmost railroad culvert down to the main riverbed. The sediment berm that extends along the low flow channel for 1,300 feet would be removed to return surface flows to this portion of the channel, resulting in the re-establishment of aquatic resource. This task would occur for approximately 40 workdays.

Task 7: Plant Installation

The SRR site would be prepared for native plant installation through the installation of erosion control measures, an irrigation system, and, if needed, an on-site nursery area that would remain for the duration of SRR site restoration activities. Native plants of local origin would be installed in the form of containers, cuttings, and seed mixes. It is expected that portions of the site totaling approximately one acre would remain unrestored for access/utility/slope stabilization purposes. For instance, an existing water well would remain in use on site, and straw wattles may be temporarily laid out over existing slopes to prevent erosion. This task would occur for three days.

Task 8: UTS Habitat Enhancement

After completion of plant installation throughout the SRR site, the vegetation surrounding the access road (the margins of the road) would be allowed to grow into the road, leaving a corridor gap of approximately 7.5 feet for a public equestrian trail. Therefore, only passive restoration would occur into the road, negating the need for design and alignment determinations of the public equestrian trail. This task would occur over two days.

Task 9: Maintenance by Permittee – Five Years

A five-year maintenance and monitoring program would be implemented to facilitate successful site establishment and achievement of required performance criteria for the CHMMP after completion of Tasks 1-8. Invasive vegetation control will begin as soon as possible and continue for the duration of the program. Cover of invasive vegetation and natural, post-fire regrowth would be monitored for compliance with maximum non-native vegetation cover requirements established in the HMMP. This task of the Project will be considered complete when final; five-year non-native vegetation success criteria have been met. Maintenance, after Tasks 1-8 are completed, would occur for two days every other week for nine months, and two days quarterly for four years, for a total of 68 days over five years. The CHMMP would be considered complete after all final, five-year success criteria are met, to be determined by the CDFW and USACE. If the success criteria are not met after five years, alternative mitigation options will be explored.

2.8 ENVIRONMENTAL ANALYSIS METHODOLOGY

As discussed above, the reach-related activities are generally expected to be more intense during Year 1 (i.e., the first season of activity between September 1 through March 14), with reduced levels of environmental impacts in subsequent years. For the purposes of this IS/MND, consideration of activities in Year 1 is anticipated to provide the most conservative approach to assessing the environmental impacts because Year 1 would require the most earthmoving and vegetation removal.

As such, a conservative schedule for maintenance activities for Year 1 has been assumed that involves all reaches, with an overlapping occurrence of maintenance activities between Reaches 101 through 110 and Reaches 112 through 121. The maintenance schedule details for Year 1 activities can be found in Section 3.3, Air Quality. Year 1 activities at Reaches 101 through 110 would occur successively, (i.e., Reach 101 first, Reach 102 second), beginning on September 1, 2020 through March 14, 2021. Year 1 activities for Reaches 112 through 116, and 118 through 121 would also occur successively from September 1, 2020 through March 14, 2021; however, initial “Year 1” activities that would not be finished within the first season would be completed the following year, from September 1, 2021, through March 14, 2022. Implementation of Tasks 1 through 10 of the CHMMP are anticipated to begin in Fall of 2020 and occur sequentially. The activities of the CHMMP are assumed to occur prior to and concurrent with the maintenance activities at the reaches.

2.9 AGENCY APPROVALS AND PERMITS

2.9.1 REQUIRED APPROVALS AND PERMITS

This IS/MND is intended to serve as the primary environmental document pursuant to CEQA for actions associated with the Maintenance Plan and CHMMP, including discretionary approvals requested or required to implement the Project. In addition, this is the primary reference document for the formulation and implementation of a mitigation monitoring program for the Project. Prior to approval of the Project, the LACFCD will consider the proposed IS/MND together with any comments received during the public review process.

The LACFCD may approve the IS/MND if it finds, on the basis of the whole record before it, that there is no substantial evidence the proposed Project would have a significant effect on the environment. Table 2-3, Agency Approvals and Requirements, lists all agencies with permit or approval authority over the Maintenance Plan and CHMMP.

**TABLE 2-3
AGENCY APPROVALS AND REQUIREMENTS**

Agency	Approval Required	Purpose	Project Components
Los Angeles County Flood Control District (LACFCD) (Lead Agency)	Mitigated Negative Declaration	Approval pursuant to CEQA	101-105, 108-110, 112-121, SRR site
California Department of Fish and Wildlife (CDFW) (Trustee Agency)	Section 1600 Long-term Streambed Alteration Agreement	To authorize impacts to biological resources under State jurisdiction	101-105, 108-110, 112-121, SRR site
United States Army Corps of Engineers (USACE)	Federal Clean Water Act Section 404 permit	To authorize impacts to surface waters resources under Federal jurisdiction	101-105, 108-110, 112-121, SRR site
Regional Water Quality Control Board (RWQCB)	Federal Clean Water Act Section 401 Water Quality Certification	To authorize impacts to jurisdictional surface waters	112-121
	Waste Discharge Requirements	To authorize impacts to jurisdictional surface waters	101-105, 108-110,
State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System Permit (NPDES) General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities	To authorize storm water discharges to jurisdictional surface waters	112-116
California Coastal Commission (CCC)	Coastal Development Permit	To authorize impacts to jurisdictional surface waters	112, 115, 118
City of Long Beach	Local Coastal Development Permit	To authorize impacts to jurisdictional surface waters	115

This page intentionally left blank

SECTION 3.0 ENVIRONMENTAL CHECKLIST FORM AND ASSESSMENT

This section includes the completed CEQA environmental checklist form, as provided in Appendix G of the State CEQA Guidelines, as well as substantiation and clarification for each checklist response. The checklist form is used to assist in evaluating the potential environmental impacts of the Maintenance Plan and Conceptual Habitat Mitigation and Monitoring Program (CHMMP) and identifies whether the project is expected to have potential significant impacts.

1. Project title: Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches
2. Lead agency name and address: Los Angeles County Flood Control District
900 South Fremont Avenue
Annex Building, 2nd Floor
Alhambra, CA 91803-1331
3. Contact person and phone number: Nandini Moran
Civil Engineer
900 South Fremont Avenue
Annex Building, 2nd Floor
Alhambra, CA 91803-1331
(626) 458-7810
4. Project location: Various locations throughout the County of Los Angeles, California, as shown on Exhibit 2.1, Regional Location
5. Project sponsor's name and address: Los Angeles County Flood Control District
900 South Fremont Avenue
Annex Building, 2nd Floor
Alhambra, CA 91803-1331
6. General plan designation: Various. However, all facilities are within Los Angeles County easements for flood control.
7. Zoning: Various. However, all facilities are within Los Angeles County easements for flood control.
8. Description of project: The Project includes routine maintenance for 18 reaches throughout the County of Los Angeles (County), including Reaches 101-105, 108-110, and 112-121, and habitat restoration mitigation activities at Stickleback River Ranch (SRR) within the County. Routine maintenance refers primarily to vegetation mowing and periodic removal of accumulated sediment. These activities would be conducted on an annual basis to maintain adequate soft-bottom channel capacity and functionality; meet vector control requirements; and provide flood protection for the residents and businesses in the surrounding areas. The Maintenance Plan does not propose a construction project, but rather includes maintenance activities that have been conducted for many years on other LACFCD-maintained reaches (Reaches 1-100). The maintenance activities are required to allow all County reaches to perform their primary functions of protecting downstream residences, businesses, and infrastructure from potential adverse effects caused by floodwaters, erosion, and debris flows. Environmental review, pursuant to CEQA, is necessary for the issuance of a Section 1600

Long-term Agreement by the CDFW. The habitat mitigation activities, which would be conducted under the CHMMP, would consist of habitat restoration activities for mitigation of the above-mentioned reach activities.

9. Surrounding land uses and setting: The reaches and SRR site analyzed in this IS/MND are located within the Santa Clarita Valley and in coastal regions in the County. Soft-bottom channel reaches are generally located near developed areas that would otherwise be inundated with uncontrolled sediment and water flows during rain events. Residential and commercial land uses and open spaces dominate the areas around the reaches, although some reaches are located near major urban centers and freeways.
10. Other public agencies whose approval is required: California Department of Fish and Wildlife; United States Army Corps of Engineers; Regional Water Quality Control Board; State Water Resources Control Board; California Coastal Commission; City of Long Beach.
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? Yes, one tribe has requested government-to-government consultation and consultation has begun and been concluded.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated on the following pages.

- | | |
|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Biological Resources |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions |
| <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology and Water Quality |
| <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

DETERMINATION:

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Signature of Lead Agency Representative

Nandini Moran
Printed Name

3/31/21
Date

Los Angeles County Flood Control District
Agency

This page is intentionally left blank.

3.1 <u>AESTHETICS</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.1.1 EXISTING CONDITIONS

The soft-bottom channel reaches and the SRR site are generally surrounded by open space, commercial uses, and/or residential development. Ten of the reaches (Reaches 101-105, 108-110, 120-121) and the SRR site are located within the Santa Clarita Valley area, and the other eight reaches (Reaches 112-119) are located within coastal areas, as shown in Exhibit 2.1, Regional Location.

The *County of Los Angeles General Plan's* Conservation and Natural Resources Element states that scenic resources consist of "designated scenic highways and corridors (or routes), and hillsides and ridgelines" (LACDRP 2015).

In Los Angeles County, there are three officially designated State scenic highways: the Angeles Crest Highway (Route 2), Mulholland Highway (two sections), and Malibu Canyon—Las Virgenes Highway (LACDRP 2015). The scenic highways that are included in the California Scenic Highway Mapping System to be "officially designated State scenic highways" or "eligible State scenic highways", include portions of State Route (SR) 126, Interstate (I) 5, I-210 in the Santa Clarita Area; SR-2 and SR-39 in the San Gabriel Mountains; portions of SR-118 and I-101 near Ventura County; SR-27 near the Malibu area; SR-1 and SR-23 along the coastline west of the City of Santa Monica; and a portion of SR-57 south of SR-60 (Caltrans 2018).

3.1.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The soft-bottom channel reaches have been constructed for flood control purposes and are not designated scenic resources in the County's General Plan. The reaches are below grade and are only readily visible at short distances from the surrounding areas, mainly from abutting residential or commercial properties and recreation facilities and crossing streets adjacent to the reaches. However, because they are generally undeveloped and vegetated drainages within urban areas, some observers may consider the reaches as a part of scenic vistas. The SRR site was an existing campground, which may have been considered a scenic vista by some observers.

Annual maintenance activities for the reaches, which would involve short-term earthmoving and vegetation clearing activity, and would include views of construction crews and equipment within the Los Angeles County easement area of each reach, would not significantly impact public area views of scenic vistas, such as the San Gabriel and Santa Monica Mountains. Similarly, the habitat restoration activities for the SRR site would involve short-term earthmoving, vegetation clearing, and planting. The visual quality of the reaches themselves would not significantly change, as the Project would involve trimming or mowing vegetation, and sediment removal and/or removal of exotic and invasive plants. The visual quality of the SRR site would likely improve due to removal of abandoned structures and replacement of these structures with native vegetation. Overall, the maintenance activities at the reaches and restoration activities at the SRR site would not require the development of permanent structures or obstructions that would permanently alter views, topography, or existing structures. Thus, the Project would not adversely affect scenic vistas and impacts would be less than significant, and no mitigation is required.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact. There may be reaches located in proximity to an officially-designated or eligible scenic highway, including Reaches 115 and 116, which are within the views of an eligible State scenic highway (not officially designated) portion of the SR-1 freeway in the City of Seal Beach; however, no new structures or facilities would be constructed that could block views of scenic vistas or otherwise permanently impact scenic resources within view of a State scenic highway. The SRR site is not within the proximity of an officially designated or eligible scenic highway. All Project activities would be short-term and would have a minimal impact on scenic resources, as discussed under Threshold 3.1(a). Therefore, impacts to scenic resources within view of a State scenic highway associated with the Project would result in less than significant impacts, and no mitigation is required.

c) Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. Based on site reconnaissance and review of aerial photographs, the reaches and SRR site would be visible primarily by the public (i.e., motorists and pedestrians) along adjacent roadways and from private property and recreation features near the reaches and SRR site. The Maintenance Plan operations involve the annual removal of vegetation and trash/debris within the reaches, and the timing of channel maintenance activities would vary from

reach to reach, depending on factors such as the amount of vegetation and debris, and whether wildfires had affected upstream watersheds. The CHMMP operations involve the removal of existing structures and vegetation, and habitat restoration. The annual vegetation and sediment removals, demolition activities, and habitat restoration at the SRR site could be perceived by some as a negative impact to the visual character or quality of the reaches. However, short-term views of landscape equipment/hand tools, earth-moving equipment, trucks, and personnel at each reach would be temporary and periodic. The soft-bottom channels are constructed flood-control facilities and must be maintained for the health, safety, and welfare of downstream and nearby property owners. Views of maintenance and restoration activities are generally limited to adjacent land uses in the immediate area because of the low profile of the channels and the fact that many channels are within valley areas and are hidden by intervening topography and mature vegetation. Also, the Project would not require the development of permanent structures or obstructions. Therefore, visual changes associated with the activities of the Project would not permanently alter the character or visual quality of the Project areas or their surroundings and impacts would be less than significant, and no mitigation is required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The Project would not introduce new permanent or temporary sources of light or glare. All maintenance activities at the reaches and restoration activities at the SRR site would be performed during the daytime hours and would not require supplemental lighting. Operation of the reaches under the current conditions, and future operation of the SRR site, would not include security or other lighting. Therefore, there would be no impacts related to light and glare.

3.1.3 MITIGATION MEASURES

There would be no significant impacts to aesthetics; therefore, no mitigation measures are required.

3.2	<u>AGRICULTURE AND FOREST RESOURCES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 EXISTING CONDITIONS

There are no agricultural activities or forest lands within any reach or on the SRR site, whether LACFCD-managed or accessed via an easement that has been granted to the LACFCD. This includes forest lands as defined under *California Public Resources Code* Section 4526, Timberland; *California Public Resources Code* Section 12220(g), which defines “forest land”; and *California Government Code* Section 51104(g), which defines a “timberland production zone”. No Project areas are within federal National Forest boundaries. Therefore, no approvals from the U.S. Forest Service would be necessary.

3.2.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**
- b) **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

- c) **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code, Section 12220[g]), timberland (as defined by Public Resources Code, Section 4526), or timberland zoned Timberland Production (as defined by Government Code, Section 51104[g])?**
- d) **Would the project result in the loss of forest land or conversion of forest land to non-forest use?**
- e) **Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No Impact. There are no agricultural activities or forest lands within any reach or within the SRR site. Because the Maintenance Plan does not involve the construction of new reaches or the expansion of existing reaches, the implementation of the Maintenance Plan would not convert lands to new uses or have any impacts on agriculture or forest lands. The CHMMP would convert the existing campground and RV park to a habitat restoration site. The SRR site is zoned by the County as "A-2-2, Heavy Agricultural". However, the habitat restoration activities would not conflict with existing zoning. The reaches and SRR site are not under a Williamson Act contract. Thus, the Project would not convert lands designated as Farmland to non-agricultural uses or forest to non-forest uses. There would be no impact to agriculture and forest lands.

3.2.3 MITIGATION MEASURES

There would be no significant impacts to agriculture and forest resources; therefore, no mitigation measures are required.

3.3 <u>AIR QUALITY</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 EXISTING CONDITIONS

The Project areas analyzed in this IS/MND are located within the South Coast Air Basin (SoCAB). The SoCAB is characterized as having a “Mediterranean” climate (i.e., a semi-arid environment with mild winters, warm summers, and moderate rainfall). The SoCAB is a 6,600-square-mile area bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SoCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area of Riverside County.

Both the State of California (State) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. These pollutants include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), coarse particulate matter with a diameter of 10 microns or less (PM₁₀), fine particulate matter less than 2.5 microns in diameter (PM_{2.5}), and lead. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. The AAQS described above are shown in Table 3-1, California and National Ambient Air Quality Standards.

**TABLE 3-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary ^a	Secondary ^b
O ₃	1 Hour	0.09 ppm (180 µg/m ³)	–	–
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	20 µg/m ³	–	Same as Primary
PM _{2.5}	24 Hour	–	35 µg/m ³	Same as Primary
	AAM	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	–
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	–	–
NO ₂	AAM	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)	–
SO ₂	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas) ^c	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	–
Lead	30-day Avg.	1.5 µg/m ³	–	–
	Calendar Quarter	–	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m ³	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		

O₃: ozone; µg/m³: micrograms per cubic meter; PM₁₀: large particulate matter; AAM: Annual Arithmetic Mean; PM_{2.5}: fine particulate matter; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; ppm: parts per million; km: kilometer; –: No Standard.

^a *National Primary Standards*: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

^b *National Secondary Standards*: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^c On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).

Source: CARB 2016.

Regional air quality is defined by whether the area has attained State and federal air quality standards, as determined by air quality data from various monitoring stations. Areas that are considered in “nonattainment” are required to prepare plans and implement measures that will bring the region into “attainment”. When an area has been reclassified from nonattainment to attainment for a federal standard, the status is identified as “maintenance”, and there must be a plan and measures established that will keep the region in attainment for the next ten years.

For the California Air Resources Board (CARB), an “unclassified” designation indicates that the air quality data for the area are incomplete and there are no standards to support a designation of attainment or nonattainment. Table 3-2, Attainment Status of Criteria Pollutants in the South Coast Air Basin, summarizes the attainment status of the SoCAB for the criteria pollutants.

**TABLE 3-2
ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN
THE SOUTH COAST AIR BASIN**

Pollutant	State	Federal
O ₃ (1-hour)	Nonattainment	Nonattainment
O ₃ (8-hour)		
PM ₁₀	Nonattainment	Attainment/Maintenance
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Attainment	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment*
All others	Attainment/Unclassified	No Standards
O ₃ : ozone; PM ₁₀ : respirable particulate matter with a diameter of 10 microns or less; PM _{2.5} : fine particulate matter with a diameter of 2.5 microns or less; CO: carbon monoxide; NO ₂ : nitrogen dioxide; SO ₂ : sulfur dioxide. * Los Angeles County is classified nonattainment for lead; the remainder of the SoCAB is in attainment of the State and federal standards. Sources: South Coast AQMD 2016, USEPA 2019.		

3.3.2 IMPACT ANALYSIS

Regulatory Requirements

RR AQ-1 All Project activities will be conducted in compliance with all applicable South Coast Air Quality Management District (South Coast AQMD) rules and permitting requirements, including but not limited to:

- South Coast AQMD Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Compliance with this rule will reduce short-term particulate pollutant emissions.
- South Coast AQMD Rule 402, Nuisance, which states that a Project will not “discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property”.

Impact Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant with Mitigation. The South Coast AQMD Air Quality Management Plan (AQMP) is the air quality plan applicable to the reaches and SRR site in the SoCAB. The South Coast AQMD's current air quality planning document is the 2016 AQMP. The 2016 AQMP is a regional and multi-agency effort among the South Coast AQMD, CARB, the Southern California Association of Governments (SCAG), and the United States Environmental Protection Agency (USEPA). The 2016 AQMP includes an analysis of emissions, meteorology, atmospheric chemistry, regional growth projects, and the impact of existing control measures. The purpose of the 2016 AQMP is to set forth a comprehensive program that would promote reductions in criteria pollutants, greenhouse gases, and toxic risk and efficiencies in energy use, transportation, and the goods movement (South Coast AQMD 2017a). The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methods for various source categories; and SCAG's latest growth forecasts (South Coast AQMD 2017b). The 2016 AQMP includes strategies and measures necessary to meet these National Ambient Air Quality Standards (NAAQS):

- 8-hour O₃ (75 parts per billion [ppb]) by 2031¹,
- Annual PM_{2.5} (12 micrograms per cubic meter [µg/m³]) by 2025,
- 8-hour O₃ (80 ppb) by 2023,
- 1-hour O₃ (120 ppb) by 2022, and
- 24-hour PM_{2.5} (35 µg/m³) by 2019.

The main purpose of an AQMP is to bring an area into compliance with the federal and State ambient air quality standards. For a project to be consistent with the AQMP, the pollutants emitted from the project should not (1) exceed the South Coast AQMD CEQA air quality significance thresholds or (2) conflict with or exceed the assumptions in the AQMP. These two criteria are discussed below.

AQMP Consistency Criteria 1

The South Coast AQMD establishes significance thresholds to assess the regional impact of project-related air pollutant emissions in the South Coast AQMD. As stated above, the first criteria for consistency with the AQMP requires that the Project not exceed the South Coast AQMD CEQA air quality significance thresholds. Table 3-3, South Coast AQMD Regional Emissions Significance Thresholds (lbs/day), summarizes the South Coast AQMD's mass emissions thresholds for both short-term construction and long-term operational emissions. A project with emissions below these thresholds is considered to have a less than significant effect on air quality.

¹ On October 1, 2015, the USEPA lowered the 8-hour O₃ standard to 0.070 ppm (70 ppb). The SIP (or AQMP) for the 70-ppb standard will be due 4 years after the attainment/nonattainment designations are issued by the USEPA, which is expected in 2017. Thus, meeting the 70-ppb standard will be addressed in a 2021 AQMP.

**TABLE 3-3
SOUTH COAST AQMD REGIONAL EMISSIONS
SIGNIFICANCE THRESHOLDS (LBS/DAY)**

Criteria Pollutant	Construction	Operation
Volatile Organic Compounds (VOC)	75	55
Oxides of Nitrogen (NOx)	100	55
Carbon Monoxide (CO)	550	550
Oxides of Sulfur (SOx)	150	150
Particulate Matter (PM10)	150	150
Particulate Matter (PM2.5)	55	55
lbs/day: pounds per day		
Source: South Coast AQMD 2019.		

Project Impacts – Regional Air Quality

The South Coast AQMD has established methods to quantify air emissions associated with construction activities such as air pollutant emissions generated by operation of on-site construction equipment; fugitive dust emissions related to trenching and earthwork activities; and mobile (tailpipe) emissions from construction worker vehicle and haul/delivery truck trips. Although this Project is not a construction project, for the purposes of air quality thresholds, the construction threshold is used. Emissions would vary from day to day, depending on the level of activity; the specific type of construction activity occurring; and, for fugitive dust, prevailing weather conditions at each reach at the time maintenance activities are implemented.

A construction-period regional emissions inventory was compiled based on an estimate of construction equipment as well as scheduling and Project phasing assumptions. Specifically, the regional emissions analysis considers the following:

- Combustion emissions from operating on-site handheld power tools and mobile construction equipment;
- Fugitive dust emissions from site preparation and grading phases; and
- Mobile-source combustion emissions and fugitive dust from worker commute and truck travel.

For the purposes of estimating emissions associated with reach activities, the analysis for the reach activities considered the anticipated worst-case activities within Year 1 (a six-month timeframe of the Project from September 1 to March 14 of the following year). Year 1 activities at the reaches would involve more extensive use of equipment due to the buildup of vegetation and sediment. Subsequent years would involve less equipment for maintenance activities. Year 1 activities at Reaches 101 through 110 would occur successively, (i.e., Reach 101, followed by Reach 102, followed by Reach 103), from September 1 through March 14.² Year 1 activities for Reaches 112 through 116 and 118 through 121 would also occur successively from September 1,

² The air quality CalEEMod input assumed that Year 1 for the Reach activities was from September 1, 2018 through March 1, 2019 with the most intensive activities occurring simultaneously at different reaches, and that SRR site activities were to occur in 2019 and 2022. The Year 1 activities for the Project would occur from September 1, 2020 through March 14, 2021. For air quality purposes, the difference schedule for Project activities (i.e., the proposed Project schedule pushed back one to two years) is more conservative due to cleaner and more efficient fleet mix of vehicles and construction equipment in future years.

2020, through March 14, 2021; however, initial “Year 1” activities that would not be finished within the first season and would be completed the following year.

The modeling assumed overlapping phases of Reaches 101 through 110 and Reaches 112 through 121. The highest emitting reaches from Reaches 101 through 110 (Reach 103) and from Reaches 112 through 121 (Reach 113) were assumed to have overlapping schedules of maintenance activities in order to provide a worst-case scenario for maximum daily emissions. Additionally, habitat restoration activities at the SRR site would occur concurrently with maintenance activities at the reaches. The reaches maintenance and SRR habitat restoration activities were modeled to occur concurrently during the first two years of Project implementation. For purposes of providing a conservative air quality analysis, activities at the SRR site were consolidated and modeled to occur within the two-year time frame of the reach and SRR habitat restoration activities.

Emissions were calculated using the California Emissions Estimator Model (CalEEMod version 2016.3.2). CalEEMod is a computer program accepted by the South Coast AQMD to estimate anticipated emissions associated with land development projects in California. The CalEEMod modeling assumes dust control by watering, consistent with the requirements of South Coast AQMD Rule 403 (RR AQ-1). For the purposes of estimating emissions in CalEEMod, the Project features were input as construction data. The CalEEMod output data may be found in Appendix A of this IS/MND. Construction thresholds are used in this analysis due to the nature of the maintenance activities as a short-term, intermittent activity using construction equipment.

The South Coast AQMD regional emissions thresholds (see Table 3-3) are based on the rate of emissions (i.e., pounds of pollutants emitted per day). Therefore, the quantity, duration, and the intensity of maintenance activities are important in assuring analysis of worst case (i.e., maximum daily and total emissions) scenarios. Table 3-4, Estimated Maximum Daily Emissions without Mitigation (lbs/day), summarizes the worst-case daily regional emissions prior to mitigation in Year 1. As shown, without mitigation, NOx emissions would exceed thresholds, and all other pollutants would be below thresholds.

**TABLE 3-4
ESTIMATED MAXIMUM DAILY EMISSIONS WITHOUT MITIGATION
(LBS/DAY)**

	VOC	NOx	CO	SOx	PM10	PM2.5
Maximum Daily Emissions*	14	141	105	<1	28	18
South Coast AQMD Daily Construction Thresholds	75	100	550	150	150	55
Exceeds South Coast AQMD Thresholds?	No	Yes	No	No	No	No
lbs/day: pounds per day; VOC: volatile organic compound(s); NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: inhalable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; South Coast AQMD: South Coast Air Quality Management District. Note: Winter output data was used for this analysis. *Project emissions from Year 1 activities were the maximum daily emissions. Source (thresholds): South Coast AQMD 2019. CalEEMod output data is in Appendix A.						

To reduce NOx without reducing the quantity or operating hours of construction equipment, which would extend the duration of the Project activities, mitigation is required that mandates the use of equipment with newer, low-emission engines. Therefore, MM AQ-1 requires the use of construction equipment with Tier 4 Final diesel engines. Project emissions generated with the use

of Tier 4 Final construction equipment (MM AQ-1) are shown in Table 3-5, Mitigated Estimated Maximum Daily Emissions (lbs/day), for the most intensive activities, to occur in the first year of Project implementation. As shown, all Project-related emissions would be below the regional significance thresholds with the implementation of MM AQ-1. As such, impacts associated with regional emissions would be less than significant with mitigation.

**TABLE 3-5
MITIGATED ESTIMATED MAXIMUM DAILY EMISSIONS
(LBS/DAY)**

Year	VOC	NOx	CO	SOx	PM10	PM2.5
Mitigated Maximum Daily Emissions*	9	95	111	<1	14	9
South Coast AQMD Daily Construction Thresholds	75	100	550	150	150	55
Exceeds South Coast AQMD Thresholds?	No	No	No	No	No	No
lbs/day: pounds per day; VOC: volatile organic compound(s); NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: inhalable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; South Coast AQMD: South Coast Air Quality Management District. Note: Winter output data was used for this analysis. *Project emissions from Year 1 Project activities were the maximum daily emissions. Source (thresholds): South Coast AQMD 2019. CalEEMod output data are in Appendix A.						

Project Impacts – Localized Air Quality

The localized effects from daily construction emissions were evaluated at sensitive receptor locations according to the South Coast AQMD's localized significance threshold (LST) method, which utilizes on-site mass emissions rate look up tables and Project-specific modeling, where appropriate. LSTs are applicable to the following criteria pollutants: nitrogen dioxide (NO₂), carbon monoxide (CO), PM10, and PM2.5.³ LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. For PM10 and PM2.5, LSTs were derived based on requirements in South Coast AQMD Rule 403, Fugitive Dust (RR AQ-1). The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The South Coast AQMD provides LST mass rate look-up tables for projects that are less than or equal to five acres.

Consistent with the South Coast AQMD's LST method guidelines, only emissions that occur on-site are considered and emissions related to off-site delivery/haul truck activity and worker trips are not considered in the evaluation of localized impacts. The five highest emitting reaches and the highest emitting SRR restoration activities (Task 10) are shown in Table 3-6, Localized Construction Pollutant Emissions (lbs/day). As shown in Table 3-6, all pollutants emitted would be less than the respective thresholds. Other sensitive receptors located farther from the Project site be exposed to even less air pollutant concentrations and would likewise result in less than significant localized air quality impacts.

³ NO₂ impacts are addressed by evaluating nitrogen oxide (NOx) emissions.

**TABLE 3-6
LOCALIZED CONSTRUCTION POLLUTANT EMISSIONS
(LBS/DAY)**

Maximum Project Emissions	NOx	CO	PM10	PM2.5
Reach 113	56	60	4	4
<i>South Coast AQMD LST Thresholds¹</i>	74	1,459	37	14
Exceeds Thresholds?	No	No	No	No
Reach 114	7	49	5	3
<i>South Coast AQMD LST Thresholds¹</i>	74	1,459	37	14
Exceeds Thresholds?	No	No	No	No
Reach 103	4	23	3	2
<i>South Coast AQMD LST Thresholds³</i>	114	590	4	3
Exceeds Thresholds?	No	No	No	No
Reach 104	3	12	5	3
<i>South Coast AQMD LST Thresholds²</i>	115	879	12	4
Exceeds Thresholds?	No	No	No	No
Reach 110	2	16	<1	<1
<i>South Coast AQMD LST Thresholds³</i>	114	590	4	3
Exceeds Thresholds?	No	No	No	No
SRR Site—Task 10	10	23	3	2
<i>South Coast AQMD LST Thresholds³</i>	114	590	4	3
Exceeds Thresholds?	No	No	No	No
lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; South Coast AQMD: South Coast Air Quality Management District; LST: Localized Significance Threshold. ¹ Thresholds for Source Receptor Area 4, Long Beach, 1-acre site, 125-meter receptor distance were used ² Thresholds for Source Receptor Area 13, Santa Clarita Valley, 1-acre site, 50-meter receptor distance were used ³ Thresholds for Source Receptor Area 13, Santa Clarita Valley, 1-acre site, 25-meter receptor distance were used Source: South Coast AQMD 2009a (thresholds).				

Toxic Air Contaminants Impacts

The greatest potential for toxic air contaminant (TAC) emissions during Project activities would be related to diesel particulate emissions associated with heavy equipment operations. The South Coast AQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the temporary nature of construction activities. Maintenance activities associated with the Project would be temporary (approximately six months a year to complete maintenance on all reaches). The assessment of cancer risk is typically based on a 70-year exposure period. Because exposure to diesel exhaust would be on the order of days to weeks at specific locations along each reach and at the SRR site, maintenance and restoration activities from the Project would not result in an elevated cancer risk to exposed persons. As such, Project-related toxic emission impacts during Project activities would be less than significant and no mitigation is required.

AQMP Consistency Criteria 2

As shown above, pollutant emissions from the Project would be less than the South Coast AQMD thresholds for all criteria pollutants except for nitrogen oxides (NOx), but with implementation of MM AQ-1, impacts would be less than significant. Further, the Project, being the maintenance of existing soft-bottom channel reaches and restoration of the SRR site, would not result in

permanent development or population growth that may not have been anticipated in the AQMP. No conflict with the 2016 AQMP would occur with the Project.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. The SoCAB is a federal or State nonattainment area for PM₁₀, PM_{2.5}, and ozone (O₃). The South Coast AQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As discussed in Threshold 3.3(a), the Project would be consistent with the 2016 AQMP, which is intended to bring the SoCAB into attainment for all criteria pollutants. In addition, the regional emissions of PM₁₀, PM_{2.5}, and O₃ precursors VOCs and NO_x calculated for the Project would be less than the applicable South Coast AQMD regional emissions significance thresholds (with mitigation) that are designed to assist the region in attaining the applicable State and national ambient air quality standards. The South Coast AQMD does not consider any individual project with emissions that are below the South Coast AQMD significance thresholds to be cumulatively considerable and consequently would not result in a significant impact to cumulative regional emissions.

With regard to cumulative local impacts due to possibility of concurrent maintenance activities with other projects, there is no set schedule on the order of maintenance of these reaches, and therefore, it cannot be determined when/if maintenance activities would occur concurrent with other nearby public and/or private development projects, and it would be speculative to try and determine a schedule of maintenance. However, because the emissions associated were found to be below the South Coast AQMD's LSTs, air pollutants tend to disperse readily with distance, and the brevity of air pollutant exposure at specific receptor locations along each reach and at the SRR site, it is anticipated that localized cumulative impacts would be less than significant, and no mitigation is required.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. As described in Threshold 3.3(a), the Project would not result in any substantial TAC air pollution emissions, and construction criteria pollutant emissions would be less than the LSTs. Therefore, the Project's activities would not expose any nearby sensitive receptors to substantial pollutant concentrations. As such, the Project would have a less than significant impact no mitigation is required.

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. If a project increases average delay at signalized intersections operating at level of service (LOS) E or F or causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project, there is a potential for a CO hotspot. The Project would not appreciably increase daily traffic at the reaches undergoing maintenance activities or during restoration activities at the SRR site, as further discussed in Section 3.17, Transportation. Therefore, the Project would not increase congestion at major signalized intersections. There would be less than significant impacts related to the formation of Project-related CO hotspots.

d) **Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

Less than Significant Impact. The Project would not result in other emissions that would affect a substantial number of people. The Maintenance Plan and CHMMP activities do not treat sewage, generate chemical emissions, or involve other processes that would result in other emissions, or produce objectionable odors, nor does the Project put a substantial number of persons in an area of objectionable odors. According to the South Coast AQMD's CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (South Coast AQMD 1993). Potential odors from Project activities would be limited to short-term diesel exhaust emissions, which would be comparable to odors emitted by typical landscaping or construction activities. There may be situations where maintenance or restoration activity odors would be noticeable by persons nearby, but these odors would not be of a magnitude to constitute a public nuisance because any odors would be temporary and would dissipate rapidly from the source with an increase in distance and would not be expected to be objectionable to a substantial number of people. Furthermore, the maintenance and restoration activities are also regulated from nuisance odors or other objectionable emissions by South Coast AQMD Rule 402, as described in RR AQ-1. Rule 402 prohibits the discharge from any source of air contaminants or other material, which would cause injury, detriment, nuisance, or annoyance to people or the public. Therefore, the impacts would be less than significant, and no mitigation is required.

3.3.3 MITIGATION MEASURES

MM AQ-1 When the Los Angeles County Flood Control District's (LACFCD's) Maintenance Yards and/or the LACFCD'S contractors use off-road diesel-powered construction equipment of greater than 50 horsepower, the equipment shall meet or exceed U.S. Environmental Protection Agency (USEPA) Tier 4 Final emission standards. This requirement shall be incorporated into the LACFCD Master Maintenance Plan—Annual Maintenance of Soft-Bottom Flood Control Channel Reaches 1–121 for monitoring compliance.

3.4 <u>BIOLOGICAL RESOURCES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.4.1 EXISTING CONDITIONS

Biological surveys conducted at each of the proposed Project's 18 reaches (see Table 2-1) have included vegetation mapping, general plant and wildlife surveys, habitat assessments for special status plant and wildlife species, tree surveys, and jurisdictional delineations. Biological surveys conducted at the SRR site (see Table 2-1) have included vegetation mapping and jurisdictional delineations. Focused surveys were conducted at those reaches where potentially suitable habitat for Threatened/Endangered species was identified, as shown in Table 3-7, Summary of Completed Special Status Plant and Wildlife Surveys. Results of these surveys are summarized below, and recent individual reports for focused surveys are provided in Appendix B-1 through B-54 of this IS/MND. Formal habitat assessments and focused surveys for special status plant and wildlife species at the SRR site are not considered necessary due to lack of potential and complete seasonal avoidance of potentially occurring wildlife species.

Table 2-1 provides the name, dimensions, and other information for each of the Project's 18 reaches and the SRR site. Reaches 101–105, 108–110, and 120–121 and the SRR site are in the Santa Clara River Watershed in the vicinity of Santa Clarita (see Exhibit 2.1); Reaches 112–119 are on the coast of Los Angeles County from Long Beach to Pacific Palisades (Exhibit 2.1). The Project's 18 reaches are existing flood control channels that were built many decades ago (112–119) or within the last decade or two (101–105, 108–110, and 120–121); as such, the Project's

potential impacts on biological resources are associated with the proposed maintenance of existing flood control structures and restoration activities associated with the SRR site. Since these impacts to jurisdictional features are expected to be largely temporal (i.e., most impact areas will remain earthen-bottom waterways), the overall effect at each of the reaches is minimized. These impacts are discussed in more detail below.

Vegetation

Twenty-seven vegetation types and other areas (i.e., unvegetated areas) were identified for the Project's reaches and are depicted on Exhibits 3.1-1 through 3.1-19, Project Impacts – Vegetation Types and Other Areas. Generally, vegetation types identified during the surveys reflect the vegetation shown on the aerial maps used to depict reach boundaries; however, in some instances, some vegetation types overlap other types of mapping units (e.g., a tree canopy over water or roads) and, as a result, the area of overlap was mapped according to the uppermost canopy of vegetation. Nomenclature for vegetation types generally follows that of *Manual of California Vegetation* (Sawyer, Keeler-Wolf and Evens 2009).

Reaches 101–105, 108–110, 120, 121

These ten reaches in the Santa Clarita area are located in a region characterized by dry hills covered in scrub and chaparral. In this area, riparian vegetation is often dominated by clumps of cottonwoods surrounded by stands of mule fat or alluvial sage scrub vegetation. These drainages are generally dry except for storm-flows during the rainy season; however, these reaches were built in developed areas and, as a result, typically contain a mix of dry scrub with isolated wet areas (i.e. outlets) that support more lush riparian vegetation such as cottonwoods, willows, and cattails. These wet areas are the result of perennial nuisance water (i.e. run-off from development).

Reaches 112–119

These eight reaches in coastal Los Angeles County include six (Reaches 112-117) that are dominated by water subject to tidal fluctuations. The banks are covered by riprap, so vegetation is generally present in limited amounts in most sections of the reaches. Non-native Mexican fan palms (*Washingtonia robusta*) and native southern bulrush (*Schoenoplectus californicus*) are some of the common species observed. Some sections contain low-growing coastal saltmarsh or freshwater marsh in accumulated sediment among the riprap. Reaches 118 and 119 lack the marine influence like the other six reaches and are surrounded by residential homes in the neighborhood of Pacific Palisades. Vegetation is abundant, but largely ornamental. Native riparian growth (i.e. willows) are limited to two small clumps along the invert of these two narrow reaches.

SRR Site

At the SRR site, the riverbed consists of riparian woodland surrounded by upland scrub. The native trees and shrubs (e.g., willows, sycamores) have re-sprouted extensively since the Sand Fire in 2016 from surviving root/crown tissues, creating a dense thicket. Substantial ash and debris flows entered the Project site from burned upstream areas in the 2016-2017 rainy season, burying and uprooting some of the vegetation regrowth and drastically altering the geomorphology of the low flow channel. The upland campground consists largely of remnant ornamental landscaping, such as mulberry (*Morus alba*) trees and overgrown lawns. The site consists of sandy alluvial soil, characteristic of the Santa Clara River.

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



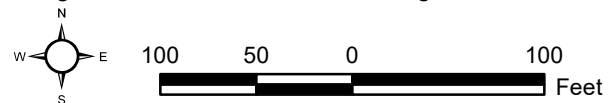
- Outlet
- Annual Clearing Impact Area (1.2 acres)
- Access Road (1.85 acres)
- Access Ramp (0.03 acres)
- Vegetation Types and Other**
- Disturbed Scale-broom – Buckwheat Alluvial Shrubland (0.5 acres)
- Ephemeral Scoured Streambed (0.41 acres)
- Mulefat Shrubland (0.02 acres)
- Mulefat – Tamarisk Shrubland (0.27 acres)
- Scale-broom – Buckwheat Alluvial Shrubland (3.89 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 101 – Violin Canyon (PD 2312)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1-1a



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



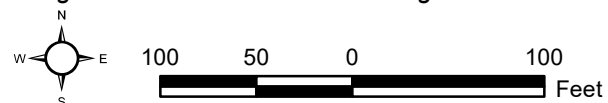
- Outlet
- Annual Clearing Impact Area (1.2 acres)
- Access Road (1.85 acres)
- Vegetation Types and Other**
- Ephemeral Scoured Streambed (0.41 acres)
- Mulefat – Tamarisk Shrubland (0.27 acres)
- Scale-broom – Buckwheat Alluvial Shrubland (3.89 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 101 – Violin Canyon (PD 2312)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–1b



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



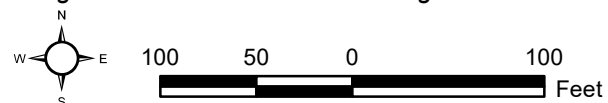
- Outlet
- Annual Clearing Impact Area (0.39 acres)
- Lollipop Trees (0.01 acres)
- Access Road (0.53 acres)
- Access Ramp (0.16 acres)
- Impacts**
 - Stabilizer Clearing
 - Stabilizer Location
- Vegetation Types and Other**
 - Cattail Marsh (0.01 acres)
 - Cottonwood Forest (0.07 acres)
 - Ephemeral Scoured Streambed (0.13 acres)
 - Mulefat – Tamarisk Shrubland (0.12 acres)
 - Scale-broom – Buckwheat Alluvial Shrubland (1.66 acres)
 - Upland Mustards (0.09 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 102 – Violin Canyon (PD 2275)

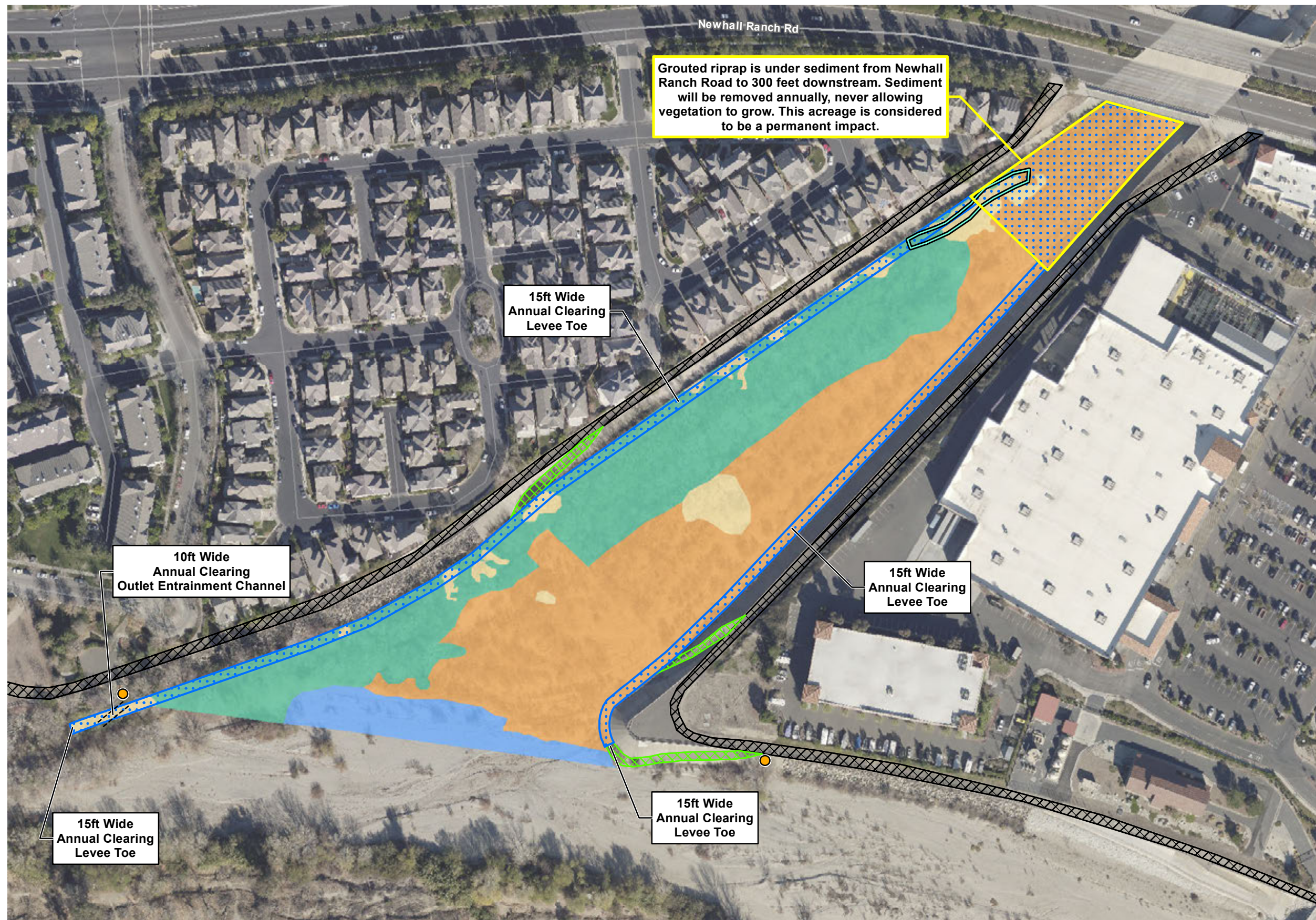
Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1-2



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



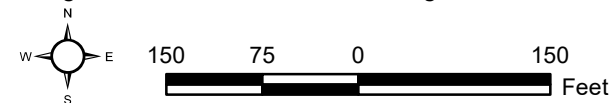
- Outlet
 - Annual Clearing Impact Area (1.67 acres)
 - Access Road (1.4 acres)
 - Access Ramp (0.15 acres)
 - USACE Wetland "Waters of the U.S."
- Vegetation Types and Other Areas**
- Cottonwood Forest (3.1 acres)
 - Ephemeral Scoured Streambed (0.56 acres)
 - Giant Reed Stand (0.51 acres)
 - Mulefat Shrubland (4.34 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 103 – Bouquet Canyon Channel (PD 2225)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–3



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd

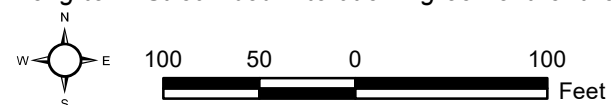


Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 104 – Castaic Creek (PD 2441 Unit 2)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–4a



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



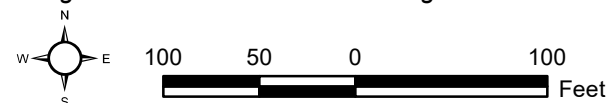
- Outlet
 - Annual Clearing Impact Area (0.73 acres)
 - Access Road (0.82 acres)
 - Access Ramp (0.08 acres)
 - Entrainment Channel (30ft x 10ft; 0.01 acres each)
- Vegetation Types and Other Areas**
- Cottonwood Forest (0.1 acres)
 - Cottonwood – Tamarisk Woodland (0.53 acres)
 - Cottonwood – Willow – Mulefat Woodland (0.81 acres)
 - Ephemeral Scoured Streambed (1.17 acres)
 - Mulefat Shrubland (0.37 acres)
 - Mulefat – Tamarisk Shrubland (1.15 acres)
 - Tamarisk Shrubland (0.46 acres)
 - Ungrouted Riprap (0.14 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 104 – Castaic Creek (PD 2441 Unit 2)

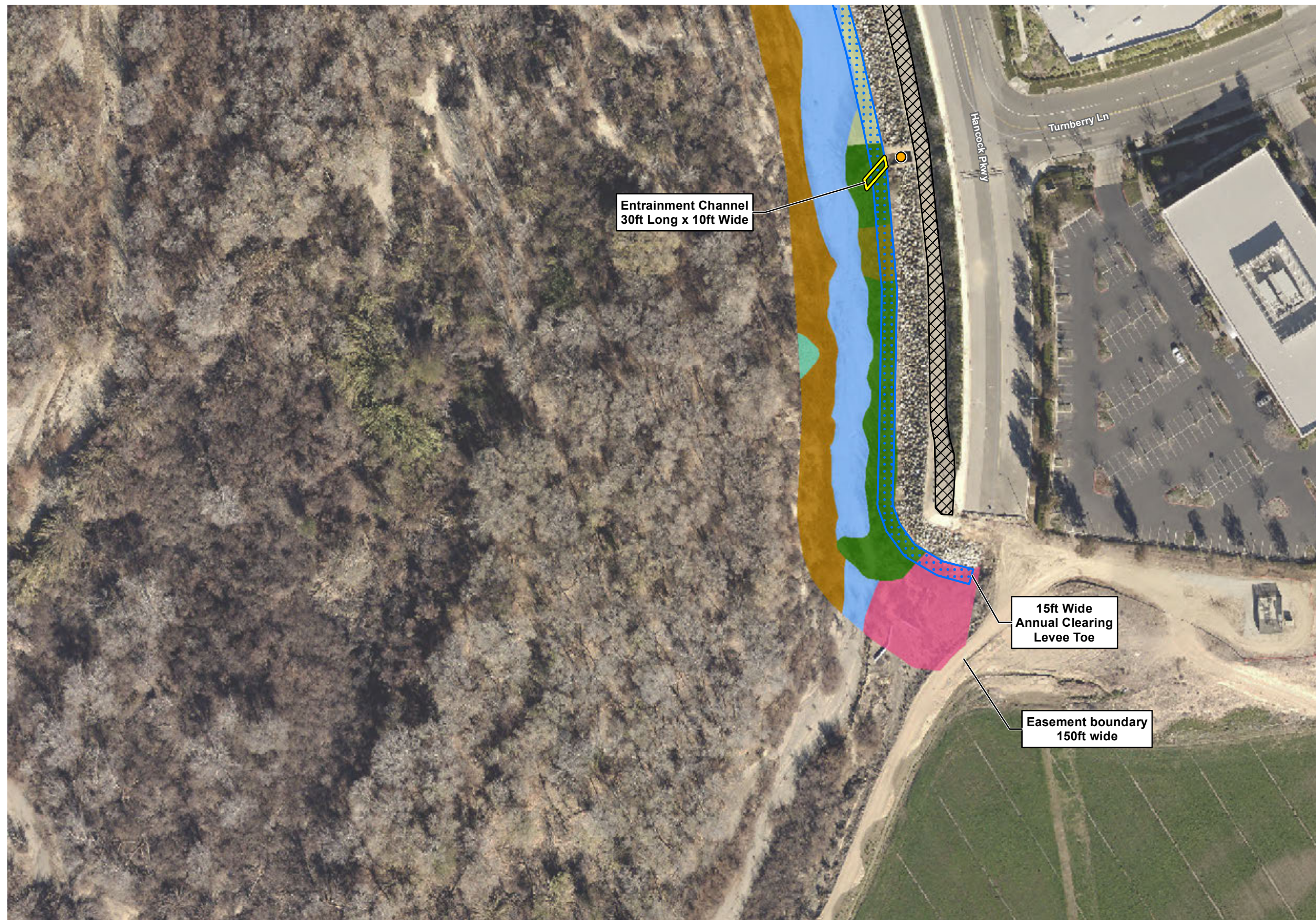
Exhibit 3.1–4b

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



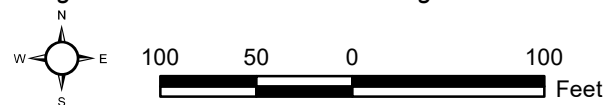
- Outlet
 - Annual Clearing Impact Area (0.73 acres)
 - Access Road (0.82 acres)
 - Entrainment Channel (30ft x 10ft; 0.01 acres each)
- Vegetation Types and Other Areas**
- Cottonwood Forest (0.1 acres)
 - Cottonwood – Tamarisk Woodland (0.53 acres)
 - Cottonwood – Willow – Mulefat Woodland (0.81 acres)
 - Disturbed Sagebrush – Buckwheat Shrubland (0.21 acres)
 - Ephemeral Scoured Streambed (1.17 acres)
 - Mulefat – Tamarisk Shrubland (1.15 acres)
 - Tamarisk Shrubland (0.46 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 104 – Castaic Creek (PD 2441 Unit 2)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1-4c



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_110\Ex_101-110_Impacts_20190701_v2.mxd



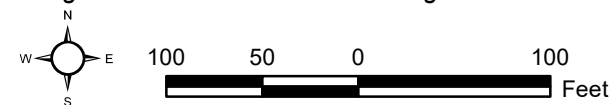
- Outlet
- ▨ Annual Clearing Impact Area (separate permit) (0.08 acres)
- ▤ Expanded Non-NRMP Impact Area (permitted normally) (0.2 acres)
- ▩ Access Road (0.56 acres)
- Vegetation Types and Other**
- Cottonwood Forest (0.18 acres)
- Disturbed Mulefat Shrubland (0 acres)
- Ephemeral Scoured Streambed (0.23 acres)
- Mulefat Shrubland (0.35 acres)
- UngROUTed Riprap (0 acres)
- Upland Mustards (0.2 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 105 – San Francisquito Canyon Channel (PD 2456)

Exhibit 3.1–5






Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



-  Outlet
-  Annual Clearing Impact Area (1.39 acres)
-  Access Road (2.21 acres)
-  Access Ramp (0.03 acres)
-  USACE Wetland "Waters of the U.S."
- Vegetation Types and Other Areas**
-  Cattail Marsh (0.29 acres)
-  Red Willow – Arroyo Willow Shrubland (1.38 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 108 – Pico Canyon (PD 2528)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

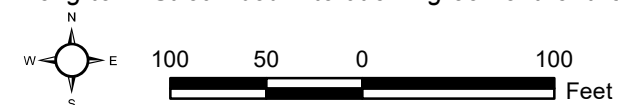








Exhibit 3.1–6a



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\J247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



-  Outlet
-  Annual Clearing Impact Area (1.39 acres)
-  Access Road (2.21 acres)
-  USACE Wetland "Waters of the U.S."
- Vegetation Types and Other Areas**
-  Cattail Marsh (0.29 acres)
-  Red Willow – Arroyo Willow Shrubland (1.38 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 108 – Pico Canyon (PD 2528)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

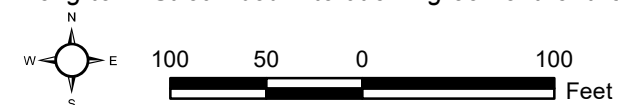



Exhibit 3.1–6b



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_110\Ex_101-110_Impacts_20190701_v2.mxd



-  Outlet
-  Annual Clearing Impact Area (1.39 acres)
-  Access Road (2.21 acres)
-  Access Ramp (0.04 acres)
-  USACE Wetland "Waters of the U.S."
- Vegetation Types and Other Areas**
-  Cattail Marsh (0.29 acres)
-  Red Willow – Arroyo Willow Shrubland (1.38 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 108 – Pico Canyon (PD 2528)

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

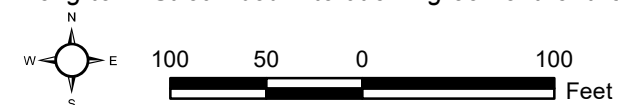


Exhibit 3.1-6c



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_101-110_Impacts_20190701_v2.mxd



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 109 – Santa Clara River

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

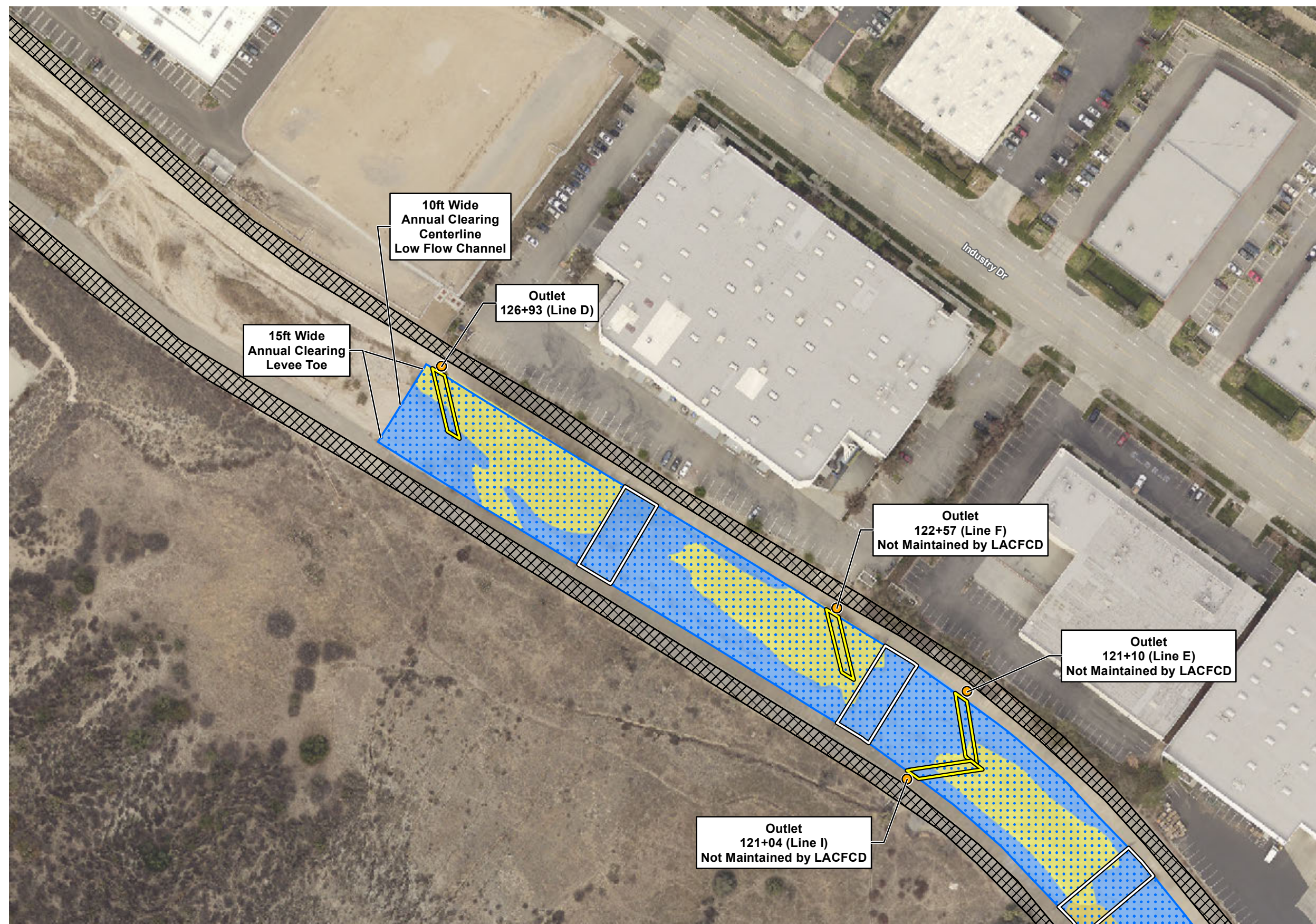


Exhibit 3.1–7



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_110\Ex_101-110_Impacts_20190701_v2.mxd



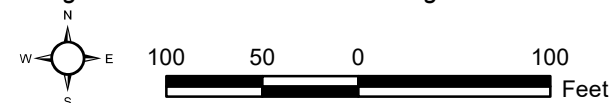
- Outlet
- Annual Clearing Impact Area (7.69 acres)
- Access Road (3.31 acres)
- Drop Structure (11ct; 90ftx47ft; 0.08 acres each)
- Entrainment Channel (20ct; 65ft x 10ft; 0.01 acres each)
- Vegetation Types and Other Areas**
 - Ephemeral Scoured Streambed (2.49 acres)
 - Gooding's Willow – Red Willow Woodland (2.51 acres)
 - Scale-broom – Buckwheat Alluvial Shrubland (0.29 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 110 – Hasley Canyon Channel (PD 2262)

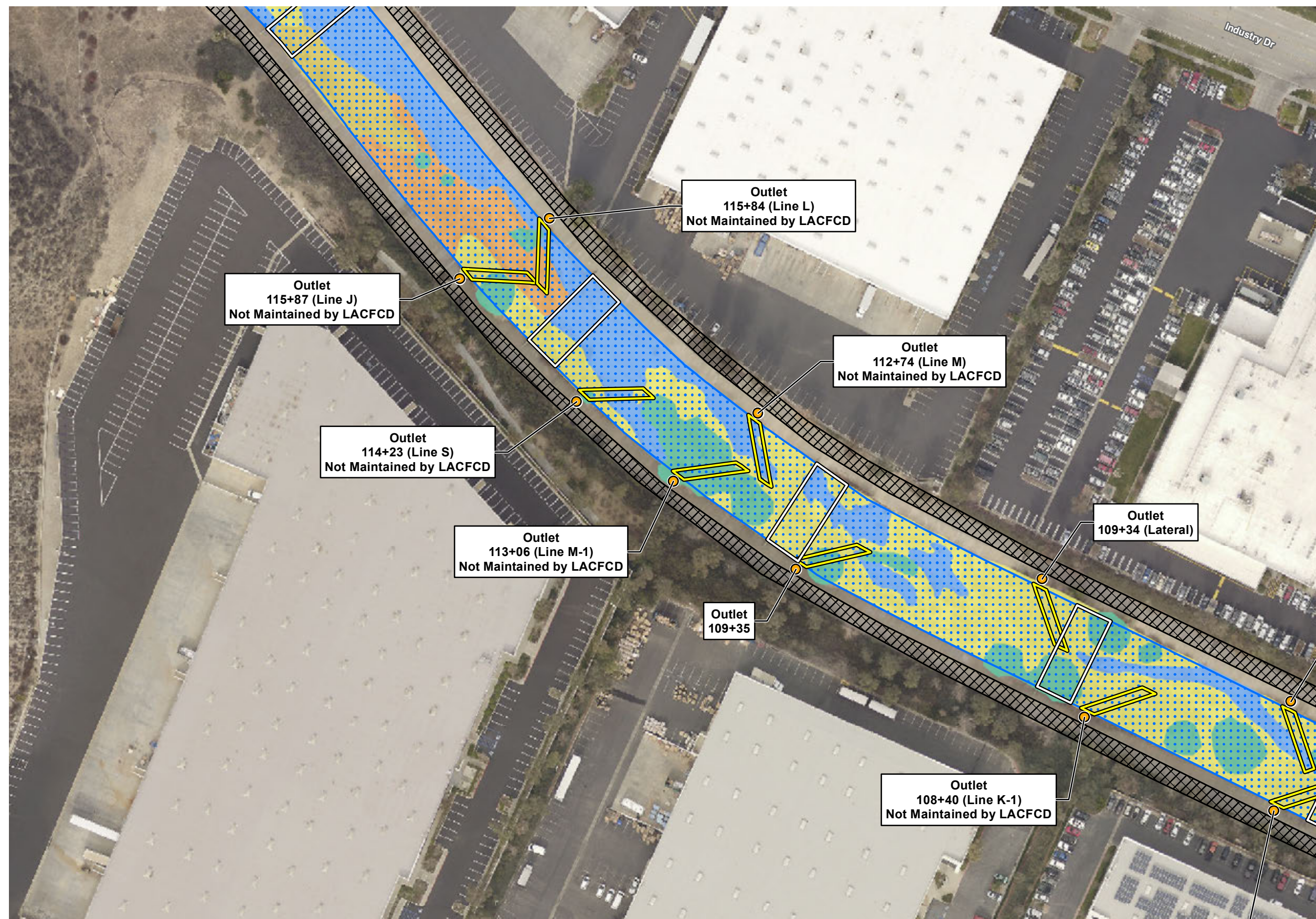
Exhibit 3.1–8a

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_110\Ex_101-110_Impacts_20190701_v2.mxd



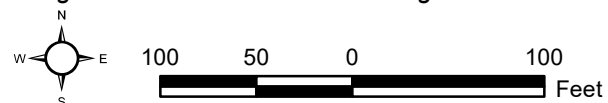
- Outlet
- Annual Clearing Impact Area (7.69 acres)
- Access Road (3.31 acres)
- Drop Structure (11ct; 90ftx47ft; 0.08 acres each)
- Entrainment Channel (20ct; 65ft x 10ft; 0.01 acres each)
- Vegetation Types and Other**
 - Cottonwood Forest (0.48 acres)
 - Ephemeral Scoured Streambed (2.49 acres)
 - Gooding's Willow – Red Willow Woodland (2.51 acres)
 - Mulefat Shrubland (0.58 acres)
 - Scale-broom – Buckwheat Alluvial Shrubland (0.29 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 110 – Hasley Canyon Channel (PD 2262)

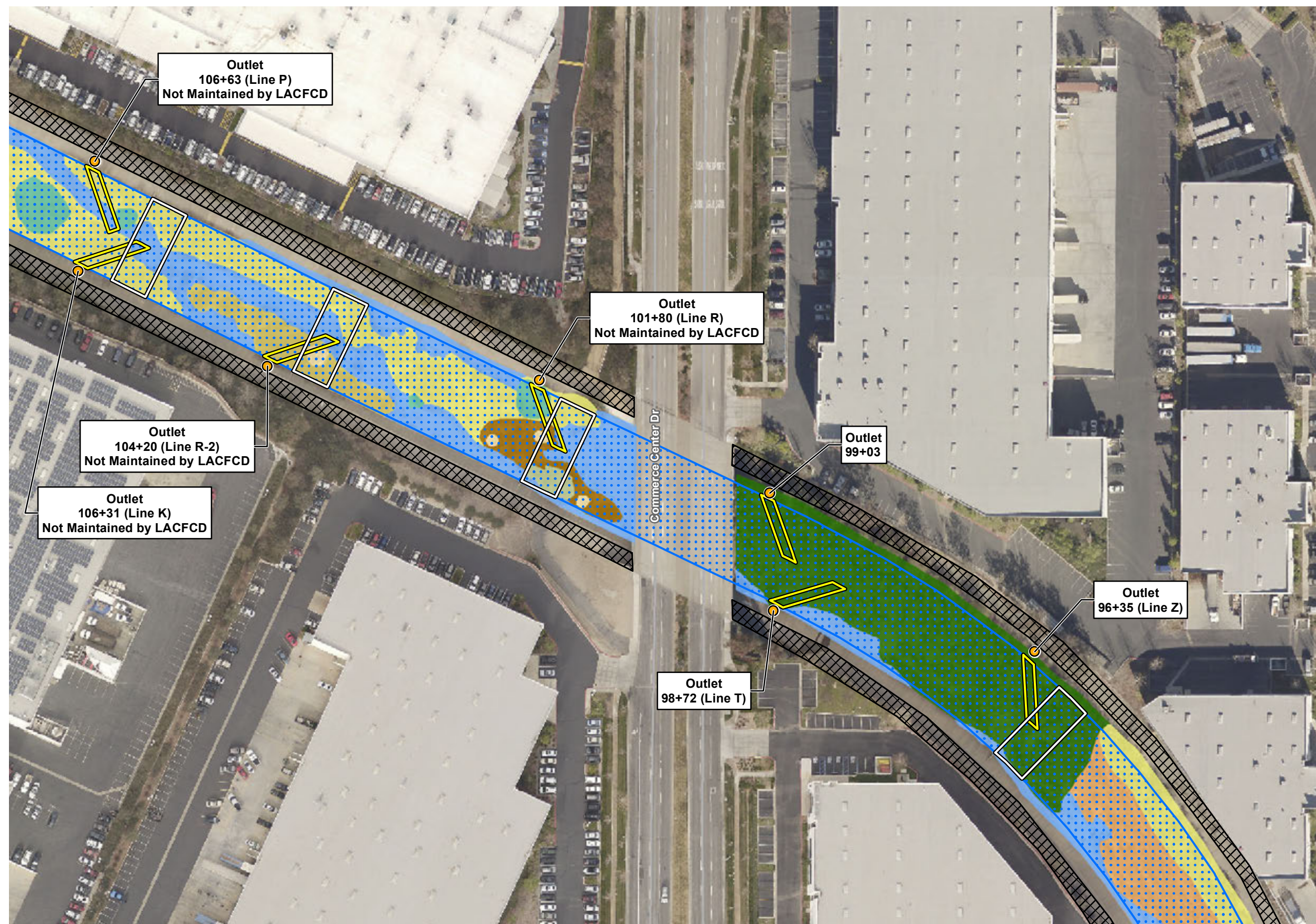
Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–8b



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_110\Ex_101-110_Impacts_20190701_v2.mxd



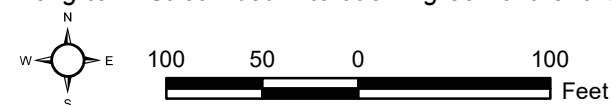
- Outlet
 - Annual Clearing Impact Area (7.69 acres)
 - Access Road (3.31 acres)
 - Drop Structure (11ct; 90ftx47ft; 0.08 acres each)
 - Entrainment Channel (20ct; 65ft x 10ft; 0.01 acres each)
- Vegetation Types and Other**
- Cottonwood Forest (0.48 acres)
 - Cottonwood – Willow – Mulefat Woodland (1.16 acres)
 - Ephemeral Scoured Streambed (2.49 acres)
 - Giant Reed Stand (0.02 acres)
 - Gooding's Willow – Red Willow Woodland (2.51 acres)
 - Mulefat Shrubland (0.58 acres)
 - Mulefat – Tamarisk Shrubland (0.09 acres)
 - Scale-broom – Buckwheat Alluvial Shrubland (0.29 acres)
 - Tamarisk Shrubland (0.02 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 110 – Hasley Canyon Channel (PD 2262)

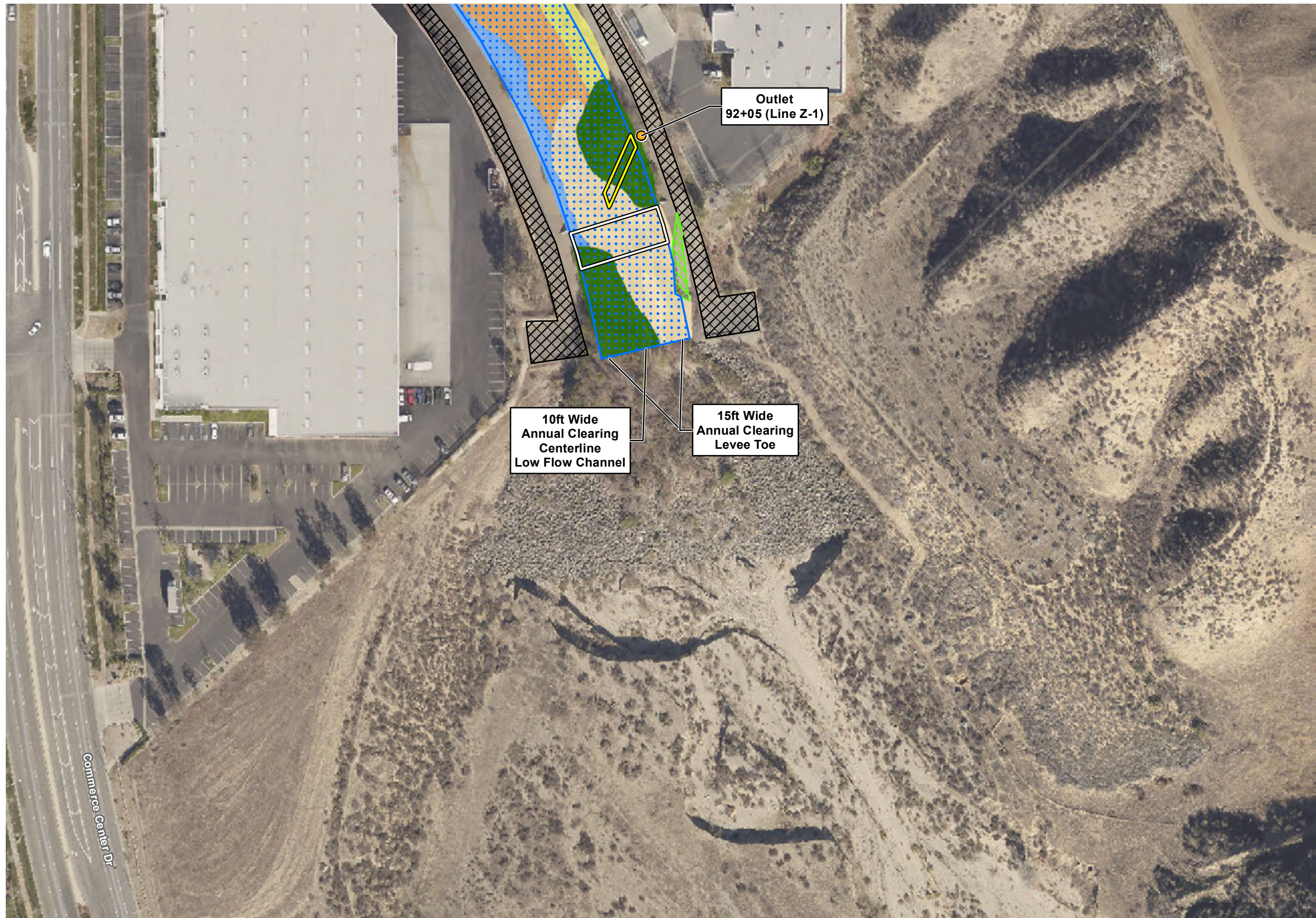
Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–8c



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_110\Ex_101-110_Impacts_20190701_v2.mxd



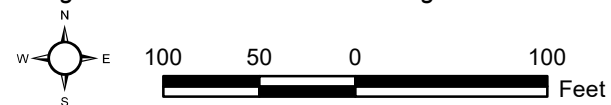
- Outlet
- Annual Clearing Impact Area (7.69 acres)
- Access Road (3.31 acres)
- Access Ramp (0.02 acres)
- Drop Structure (11ct; 90ftx47ft; 0.08 acres each)
- Entrainment Channel (20ct; 65ft x 10ft; 0.01 acres each)
- Vegetation Types and Other**
 - Cottonwood – Willow – Mulefat Woodland (1.16 acres)
 - Ephemeral Scoured Streambed (2.49 acres)
 - Gooding's Willow – Red Willow Woodland (2.51 acres)
 - Mulefat Shrubland (0.58 acres)
 - Sandbar Willow Shrubland (0.28 acres)

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 110 – Hasley Canyon Channel (PD 2262)

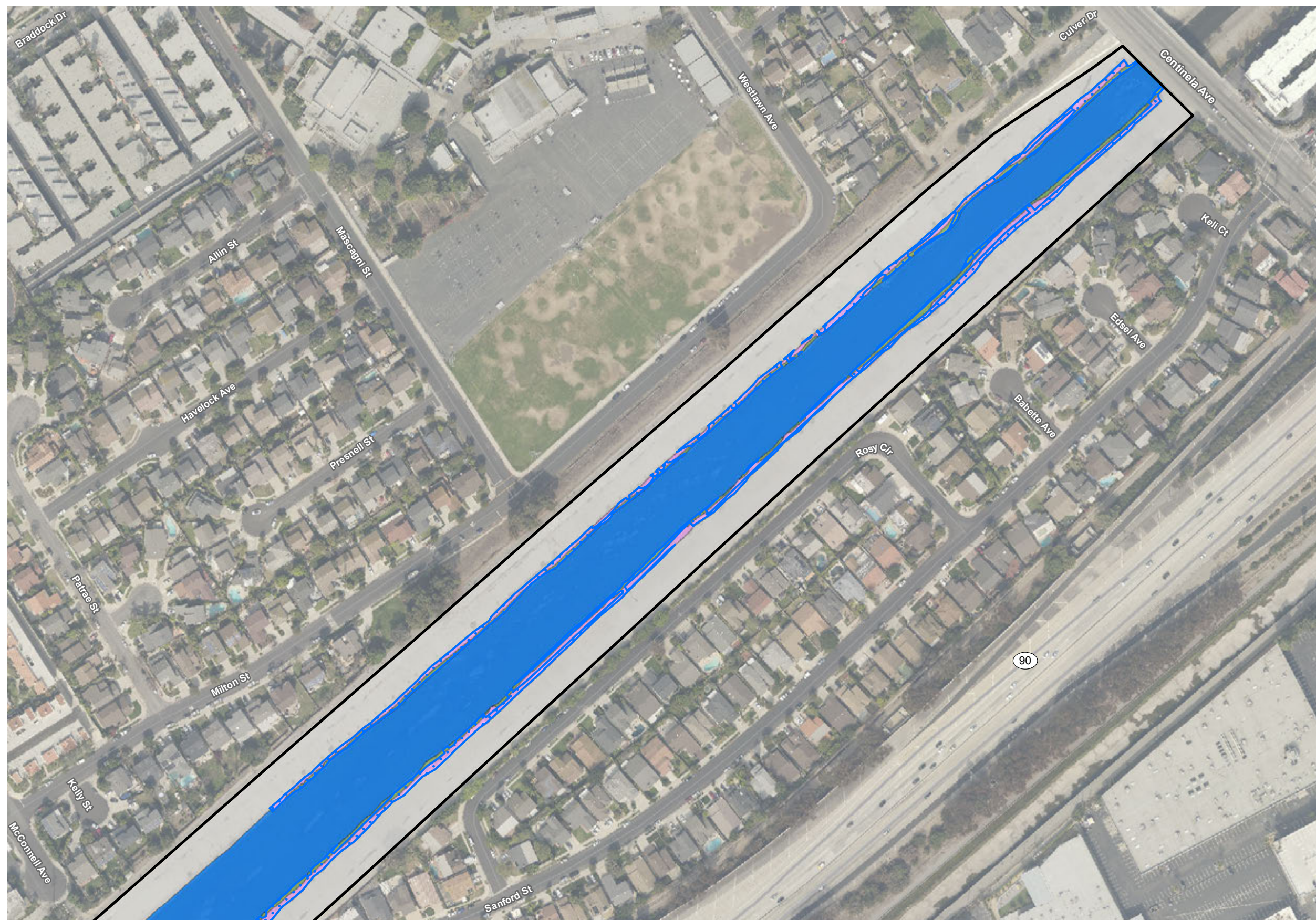
Exhibit 3.1–8d

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches



(Rev: 07-01-2019 CJS) R:\Projects\IPAS\ColADPW (DPW)\J294\Graphics\MND\Ex_101-110_Impacts.pdf

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_111_119_Impacts_20190701.mxd



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 112 – Ballona Creek

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

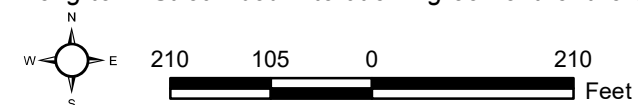
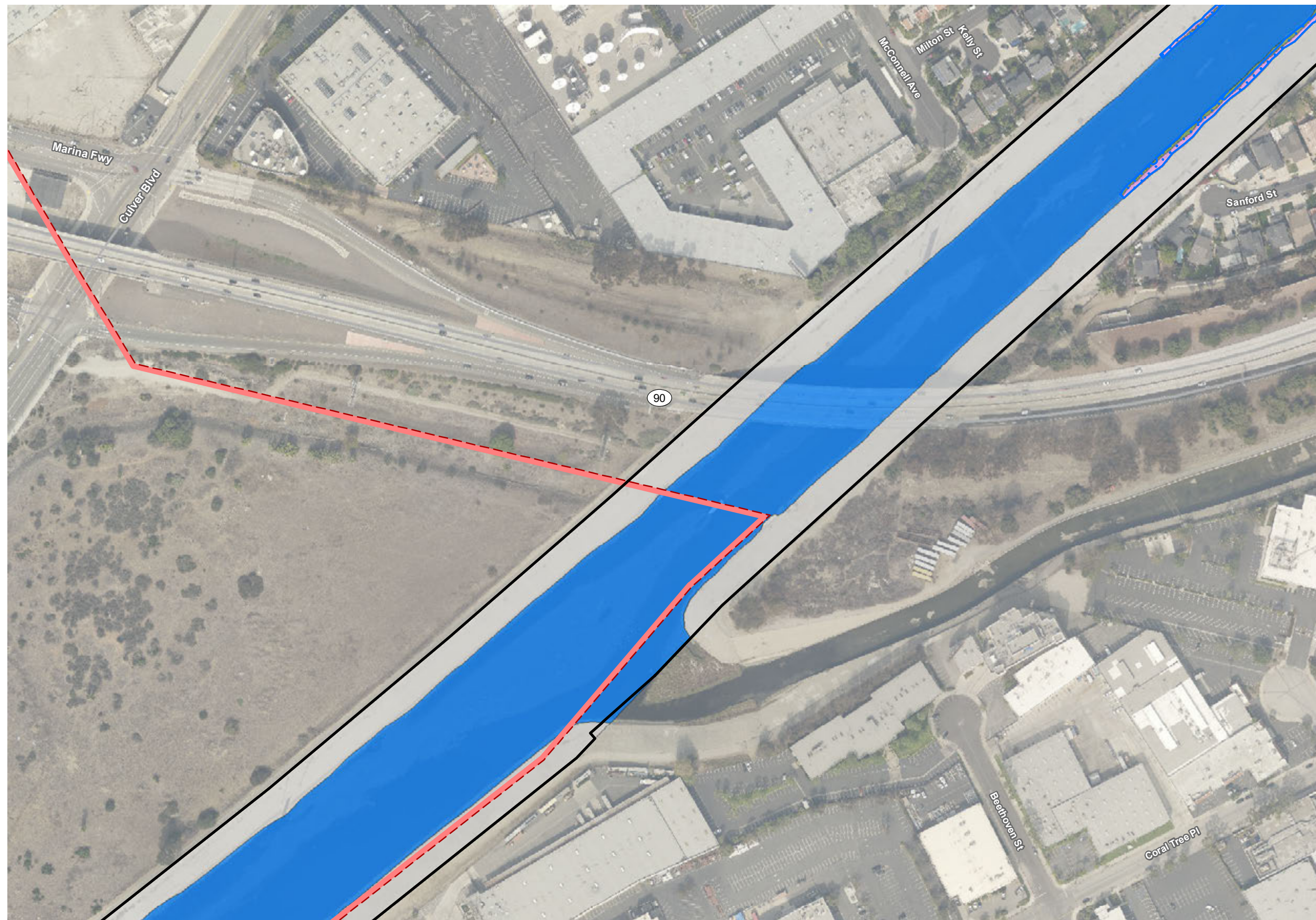


Exhibit 3.1–9a



(Rev: 07-01-2019 RMB) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_111_119_Impacts_20190701.mxd



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 112 – Ballona Creek

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–9b



(Rev: 07-01-2019 RMB) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_111_119_Impacts_20190701.mxd



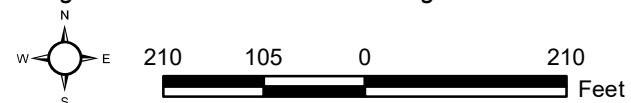
- LACFCD Easement Boundary
- Coastal Zone Boundary
- Annual Clearing Impact Area (6.96 acres)
- Saltwater Marsh
- Open Water
- Ruderal
- Developed

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 112 – Ballona Creek

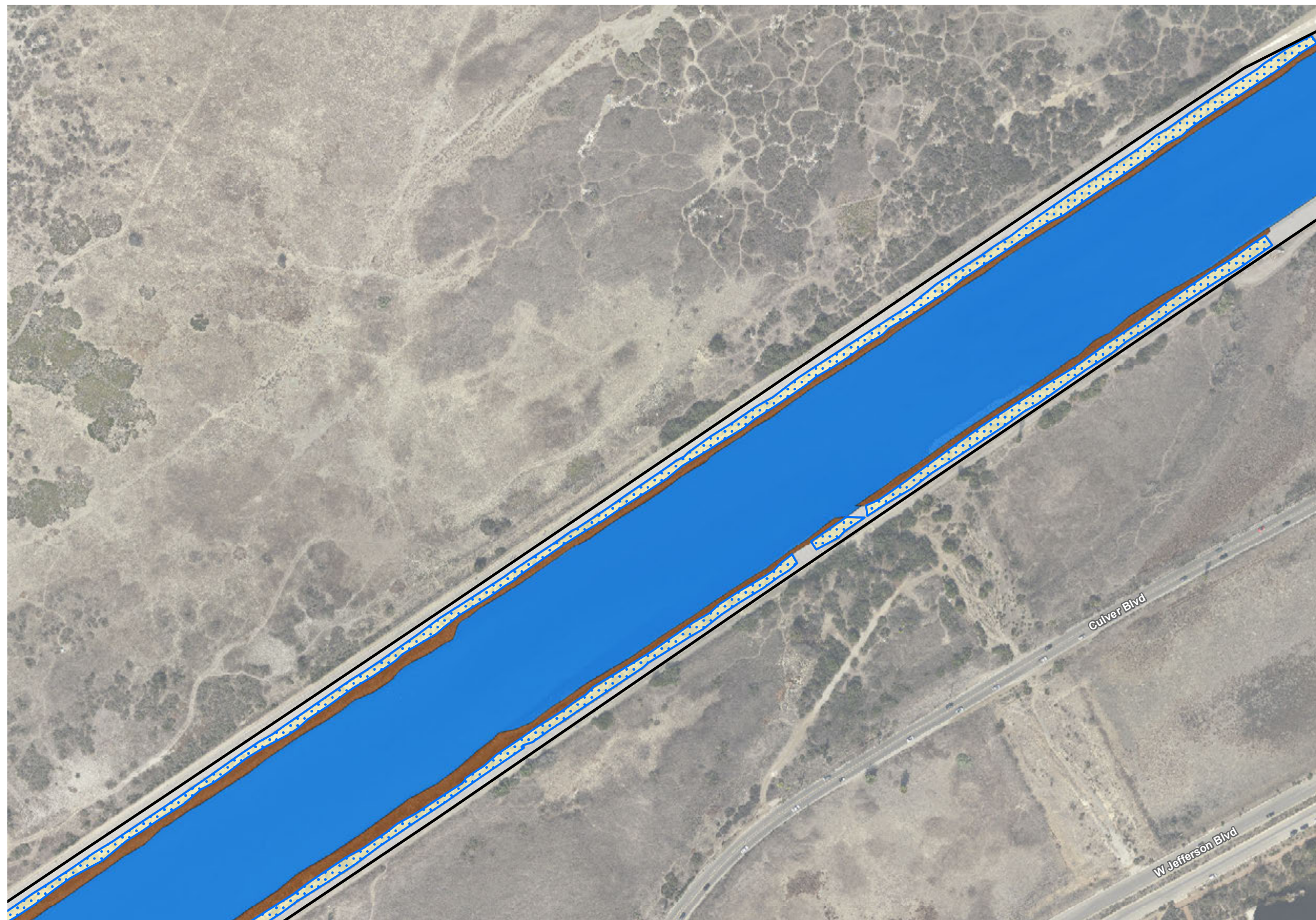
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–9c



(Rev: 07-01-2019 RMB) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_111_119_Impacts_20190701.mxd



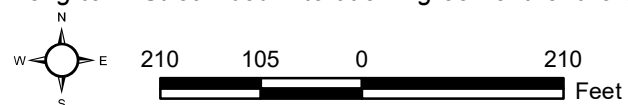
- LACFCD Easement Boundary
- Annual Clearing Impact Area (6.96 acres)
- Saltwater Marsh
- Open Water
- Ruderal
- Developed

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 112 – Ballona Creek

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–9d



(Rev: 07-01-2019 RMB) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_111_119_Impacts_20190701.mxd



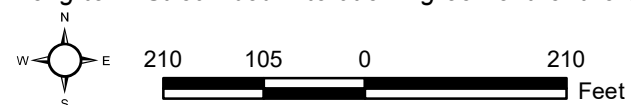
- LACFCD Easement Boundary
- Annual Clearing Impact Area (6.96 acres)
- Saltwater Marsh
- Open Water
- Ruderal
- Developed

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 112 – Ballona Creek

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–9e



(Rev: 07-01-2019 RMB) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_119\Ex_111_119_Impacts_20190701.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (6.96 acres)
- Saltwater Marsh
- Open Water
- Ruderal
- Developed

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 112 – Ballona Creek

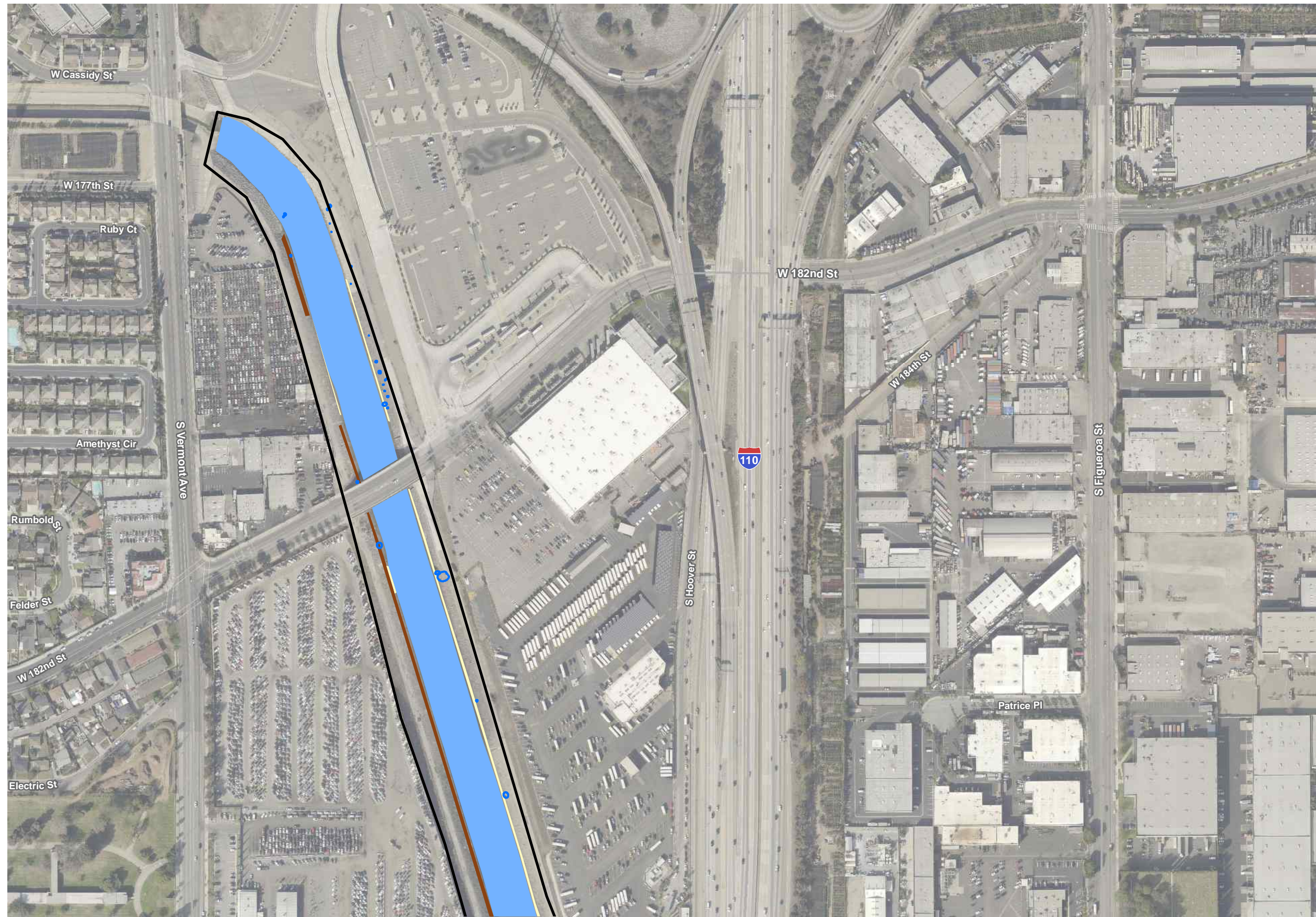
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–9f



(Rev: 07-01-2019 RMB) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



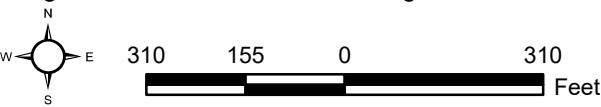
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

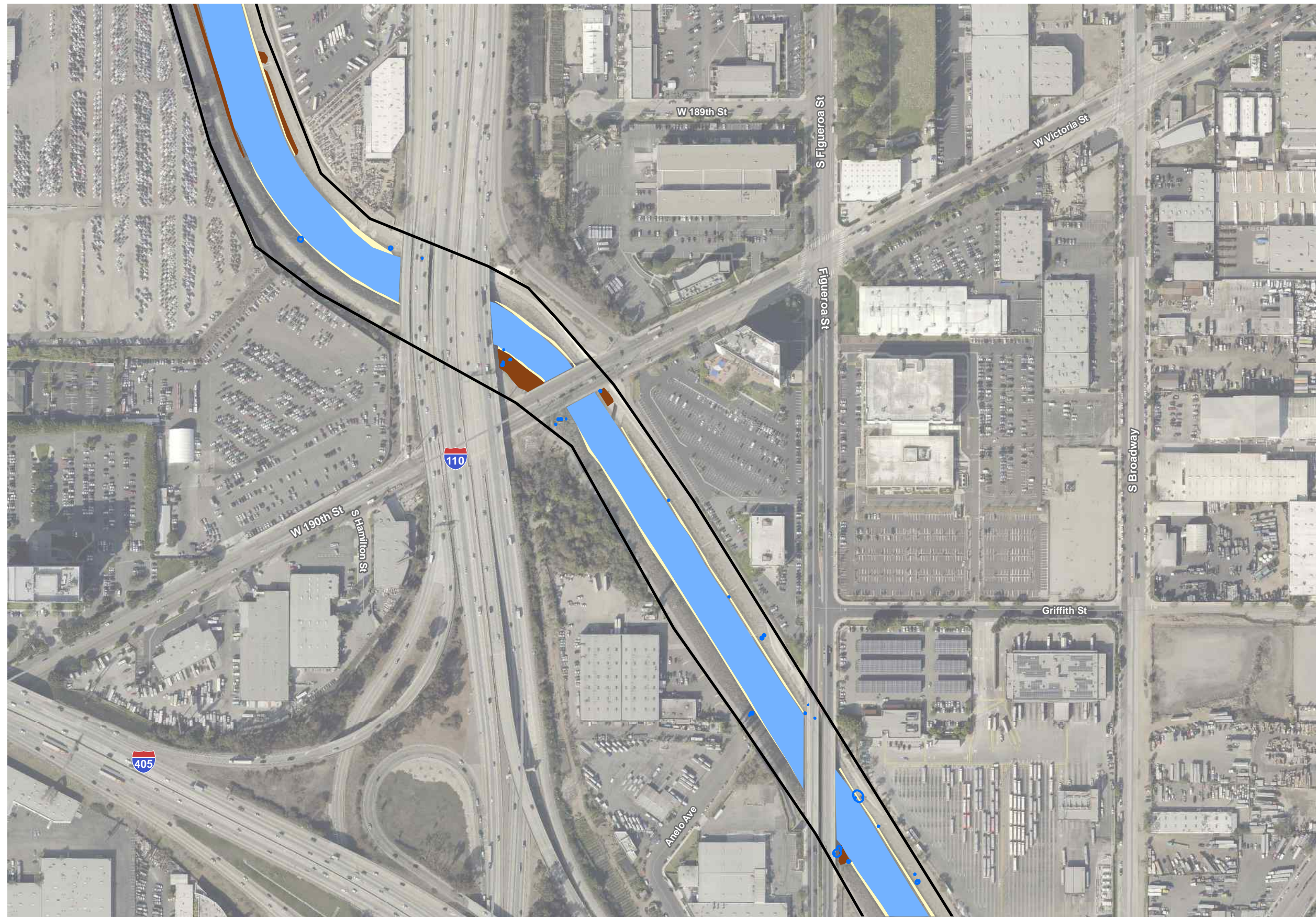
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1 – 10a



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

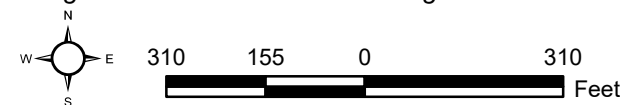


Exhibit 3.1–10b



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd

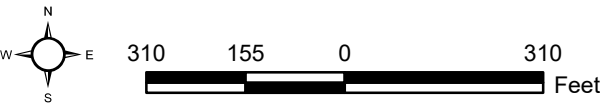


- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

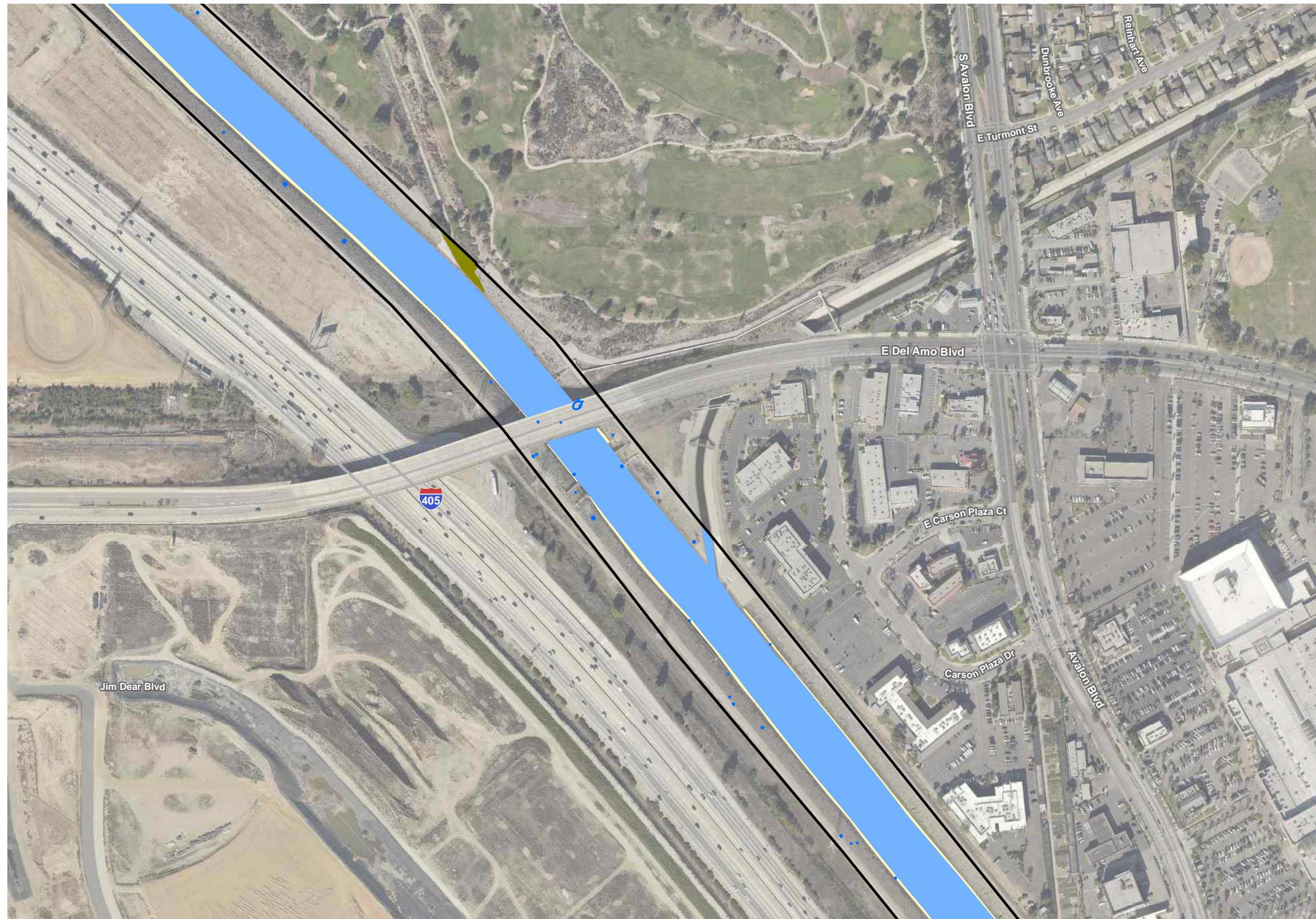
Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–10c



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - California Sagebrush – California Buckwheat Shrubland
 - Saltgrass – Pickleweed Marsh
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

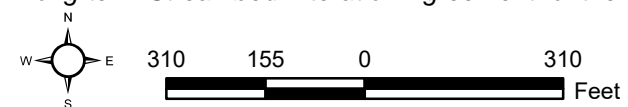
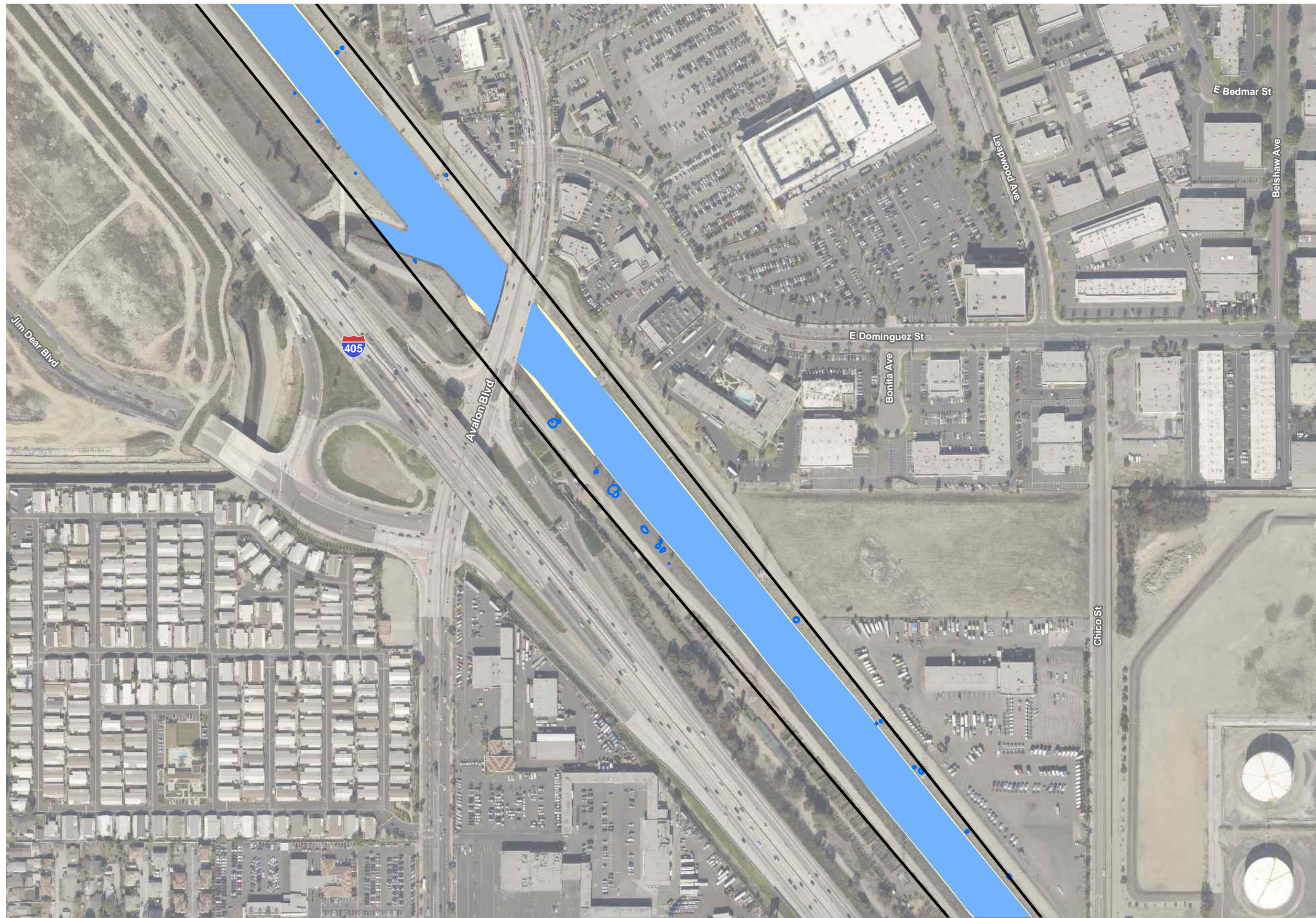


Exhibit 3.1–10d



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



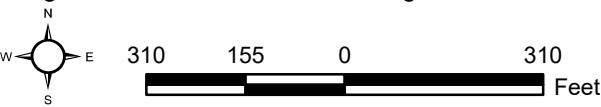
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

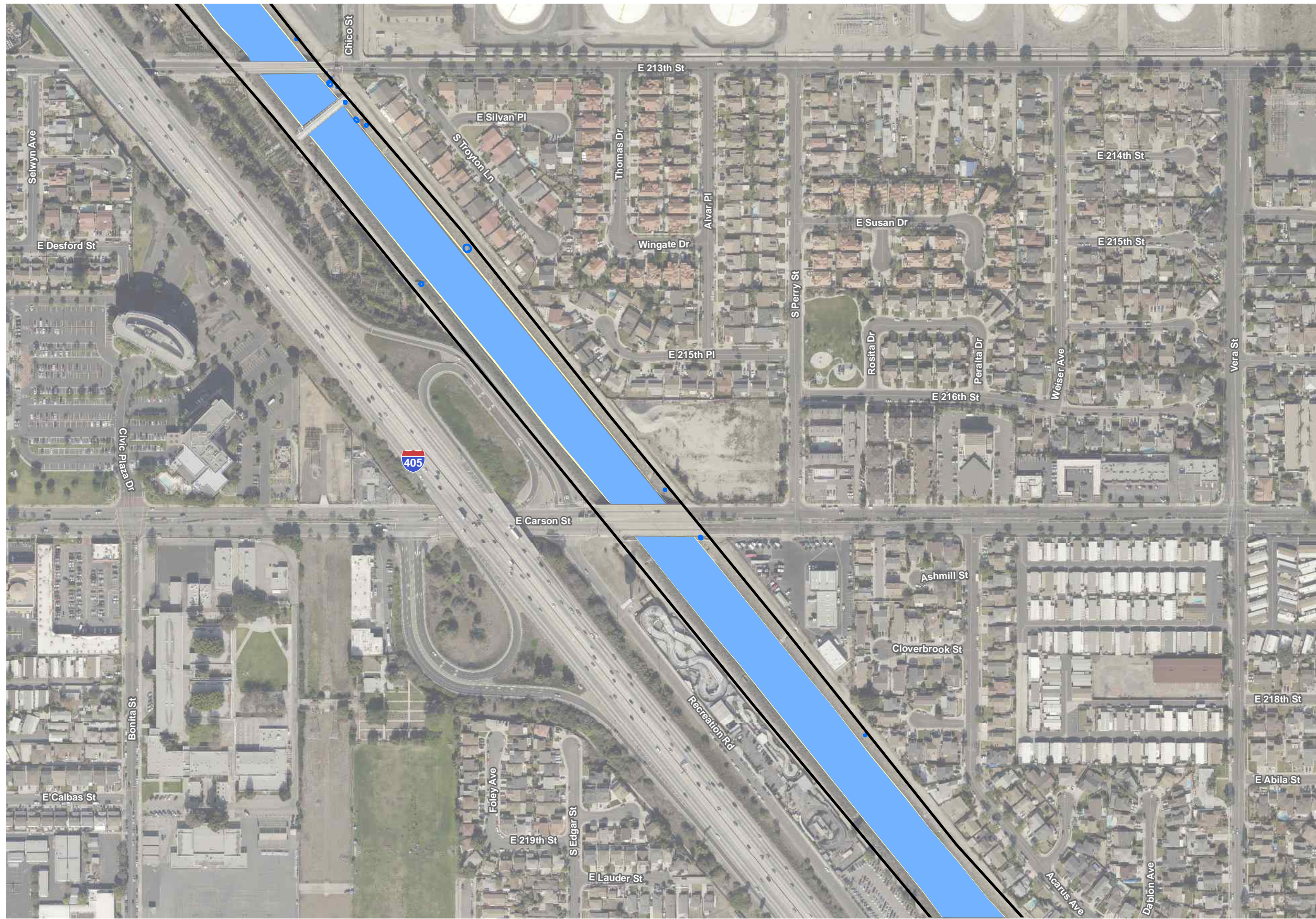
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1 – 10e



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



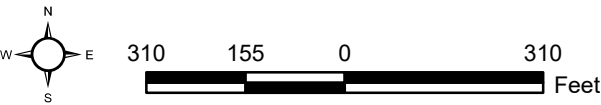
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

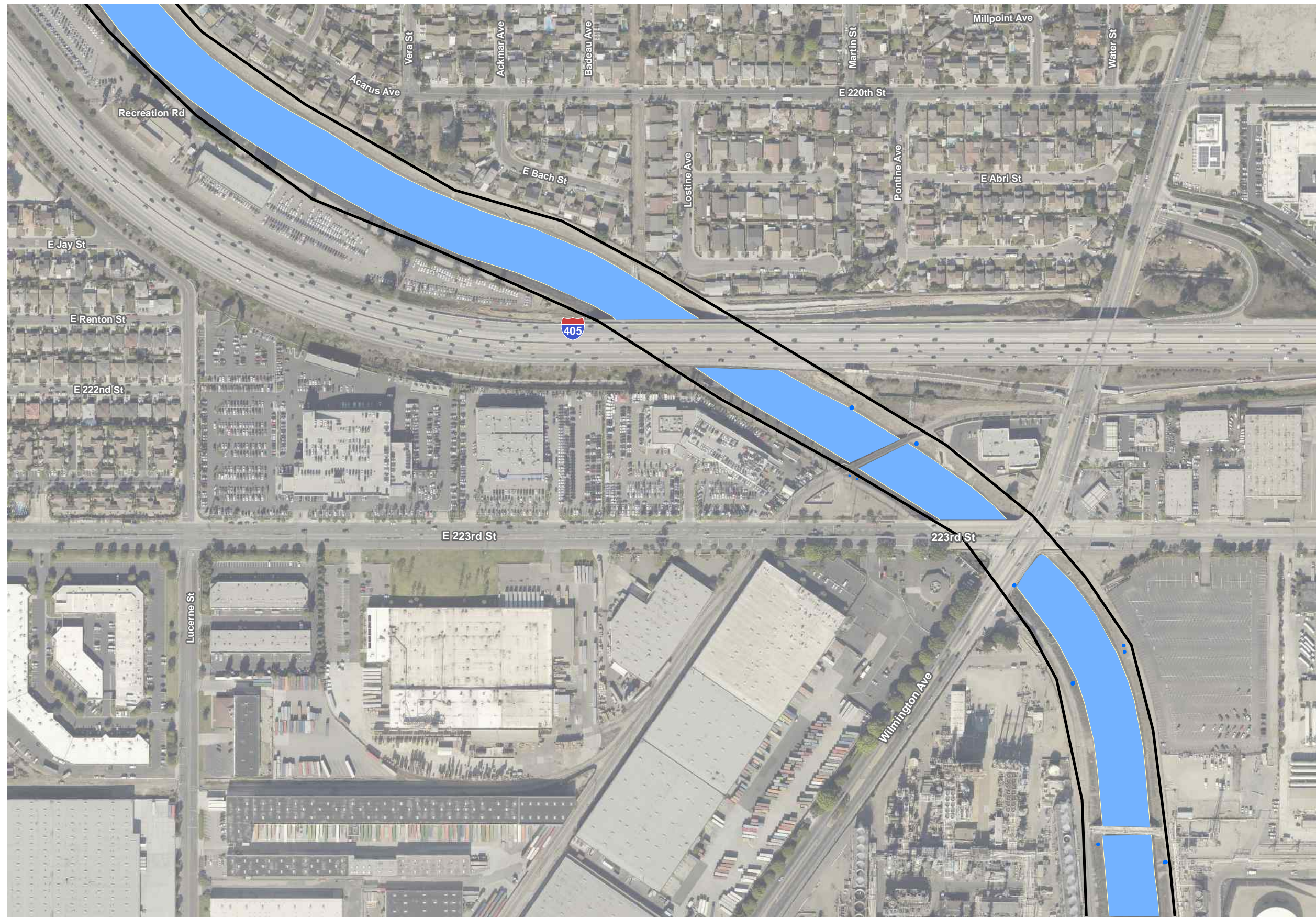
Exhibit 3.1–10f

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



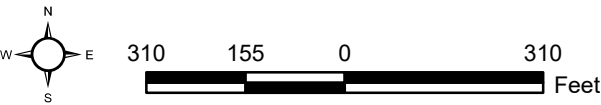
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

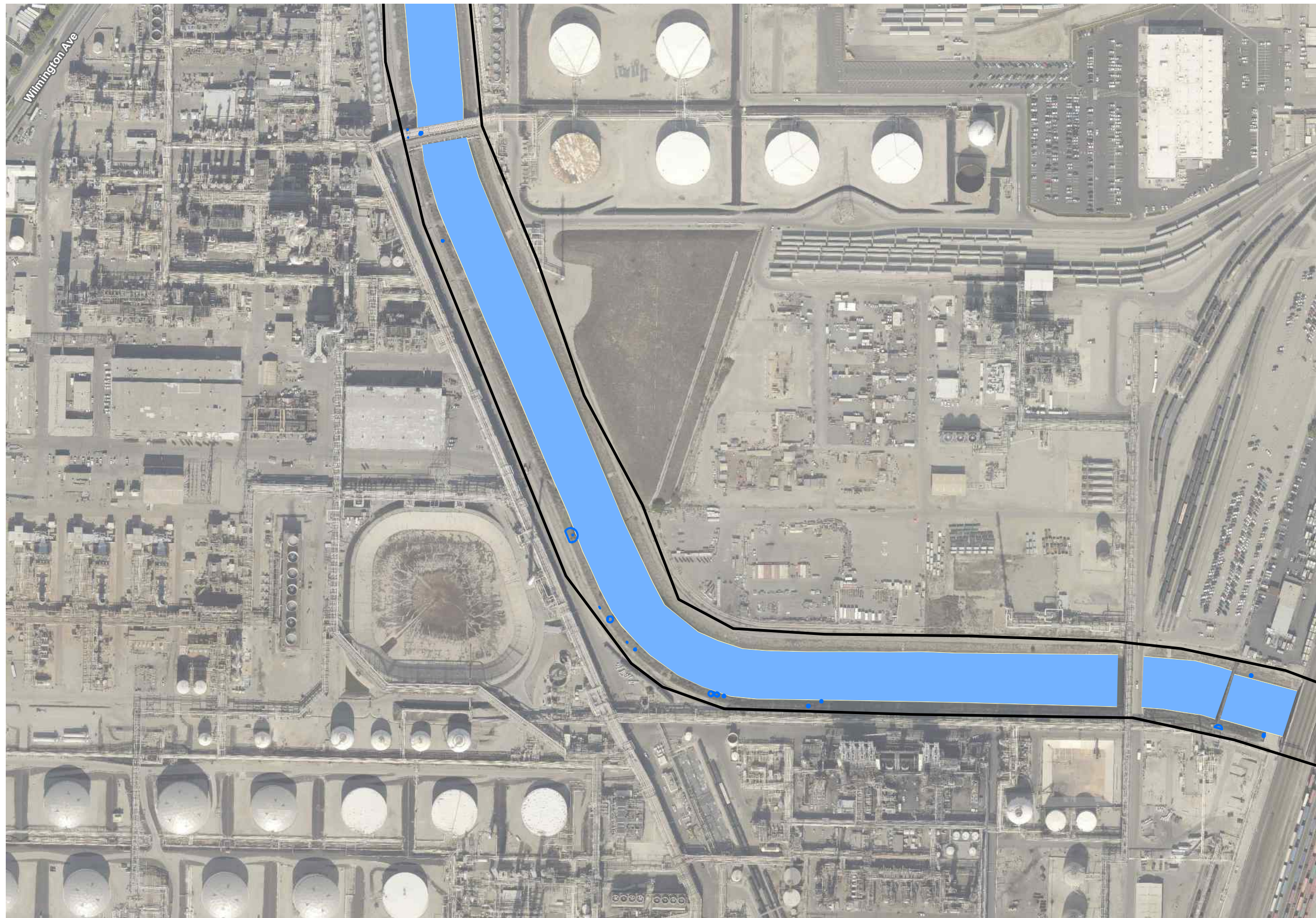
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–10g



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

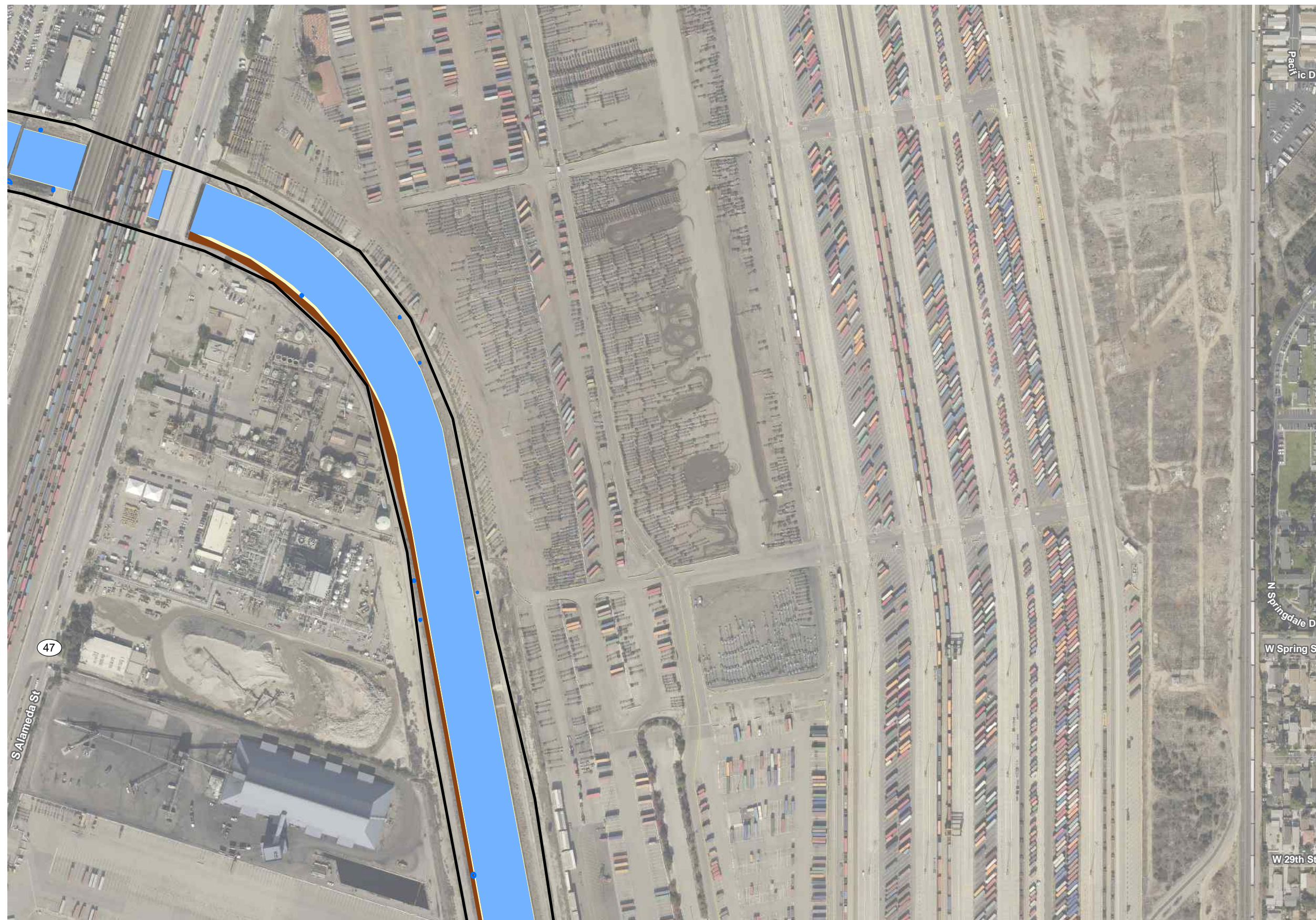
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–10h



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



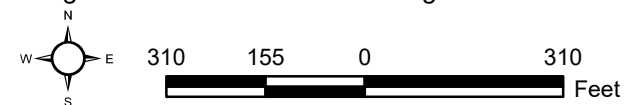
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

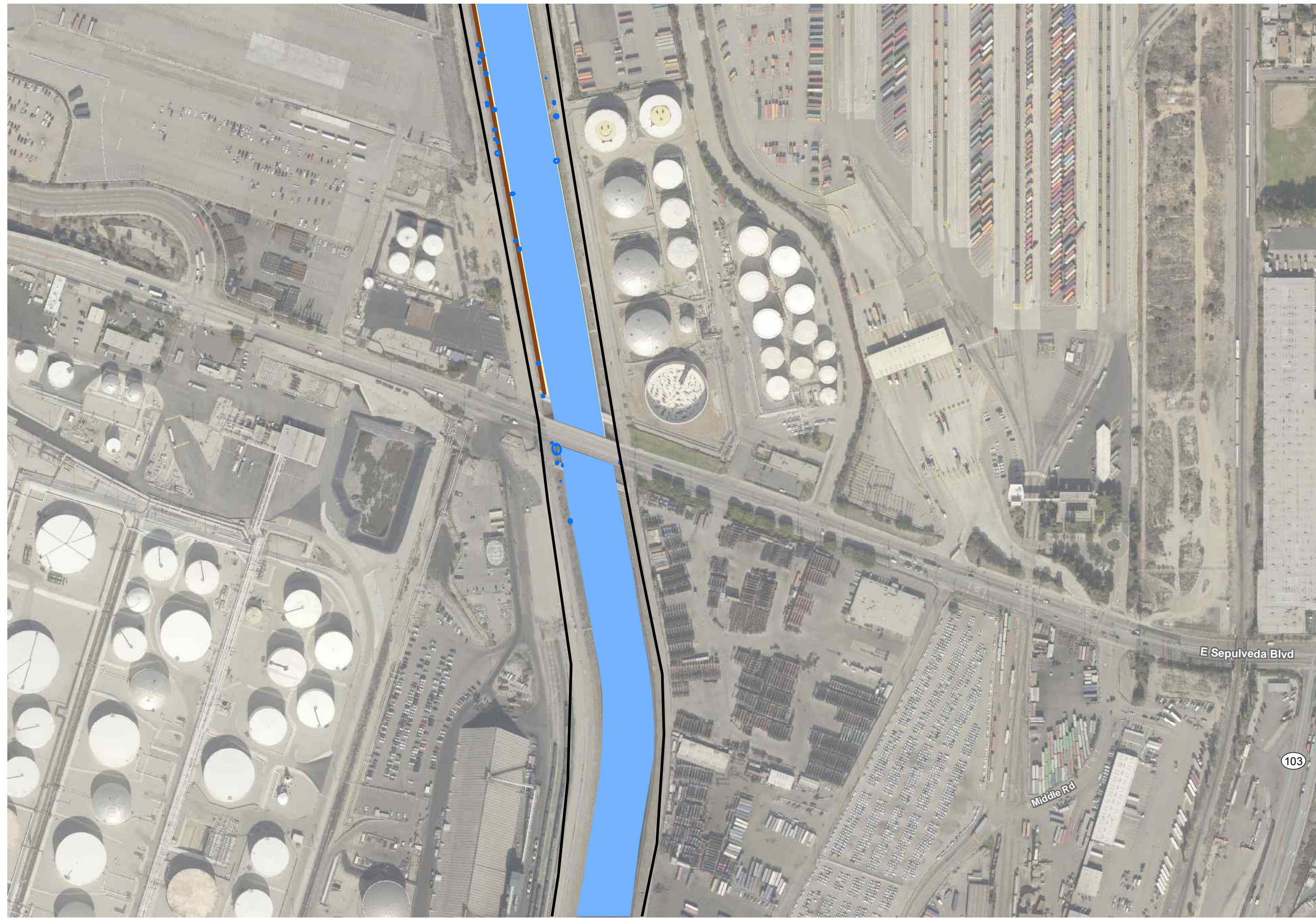
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–10i



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

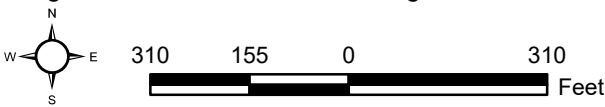
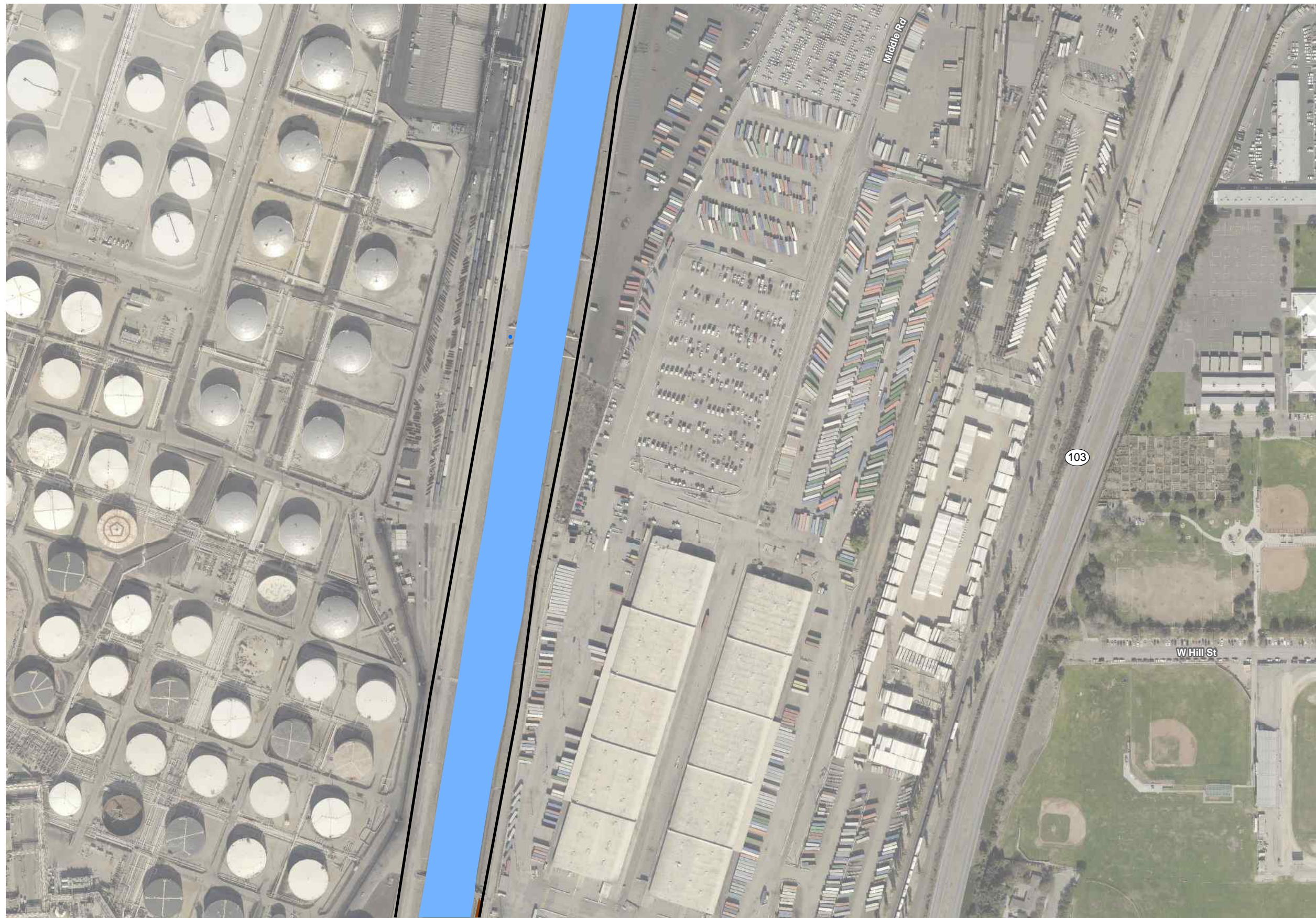






Exhibit 3.1–10j



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



-  LACFCD Easement Boundary
-  Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 -  Tidal River
 -  Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

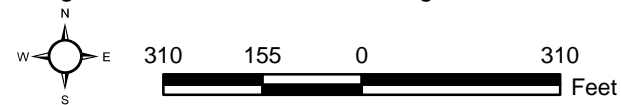


Exhibit 3.1 – 10k



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

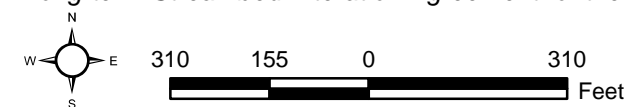
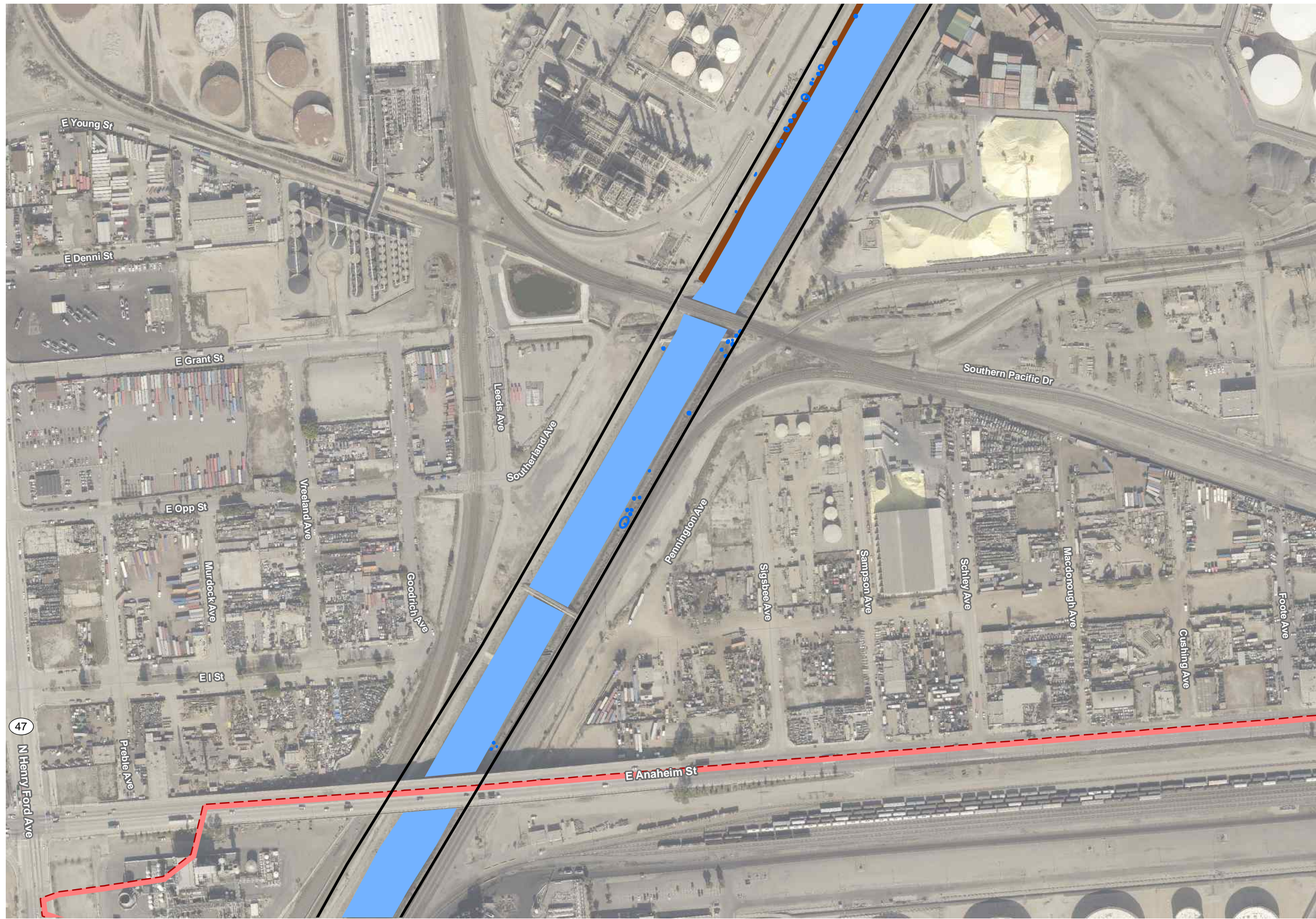


Exhibit 3.1–101



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



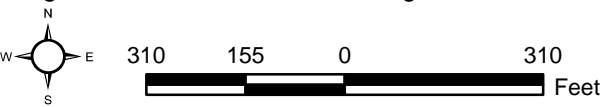
- LACFCD Easement Boundary
- Coastal Zone Boundary
- Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

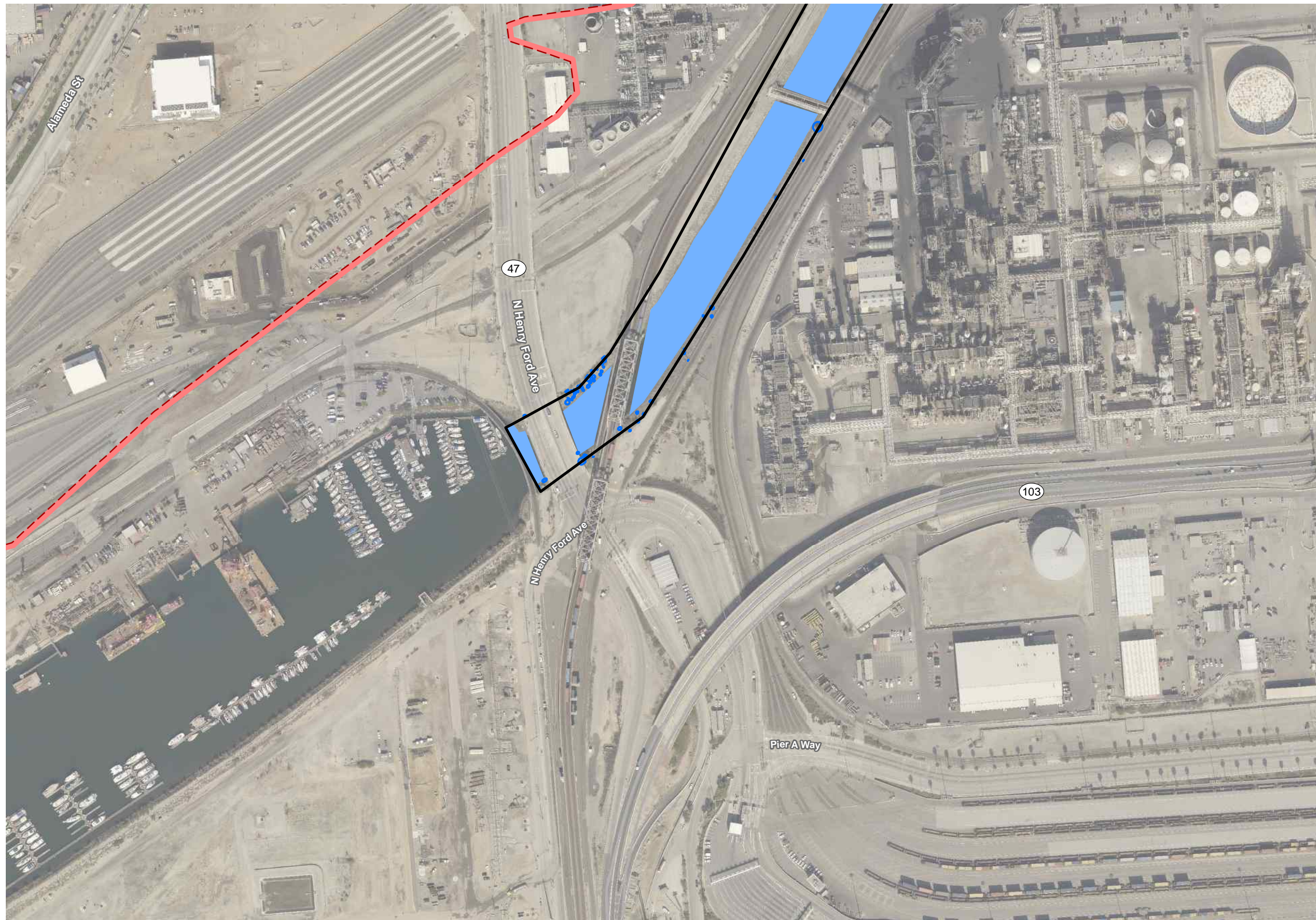
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches





Exhibit 3.1 – 10m



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



-  LACFCD Easement Boundary
-  Coastal Zone Boundary
-  Annual Clearing Impact Area (0.44 acres)
- Vegetation Types and Other Areas**
-  Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 113 – Dominguez Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

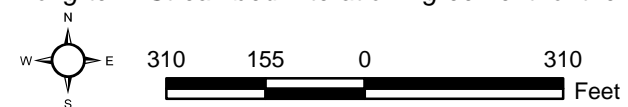
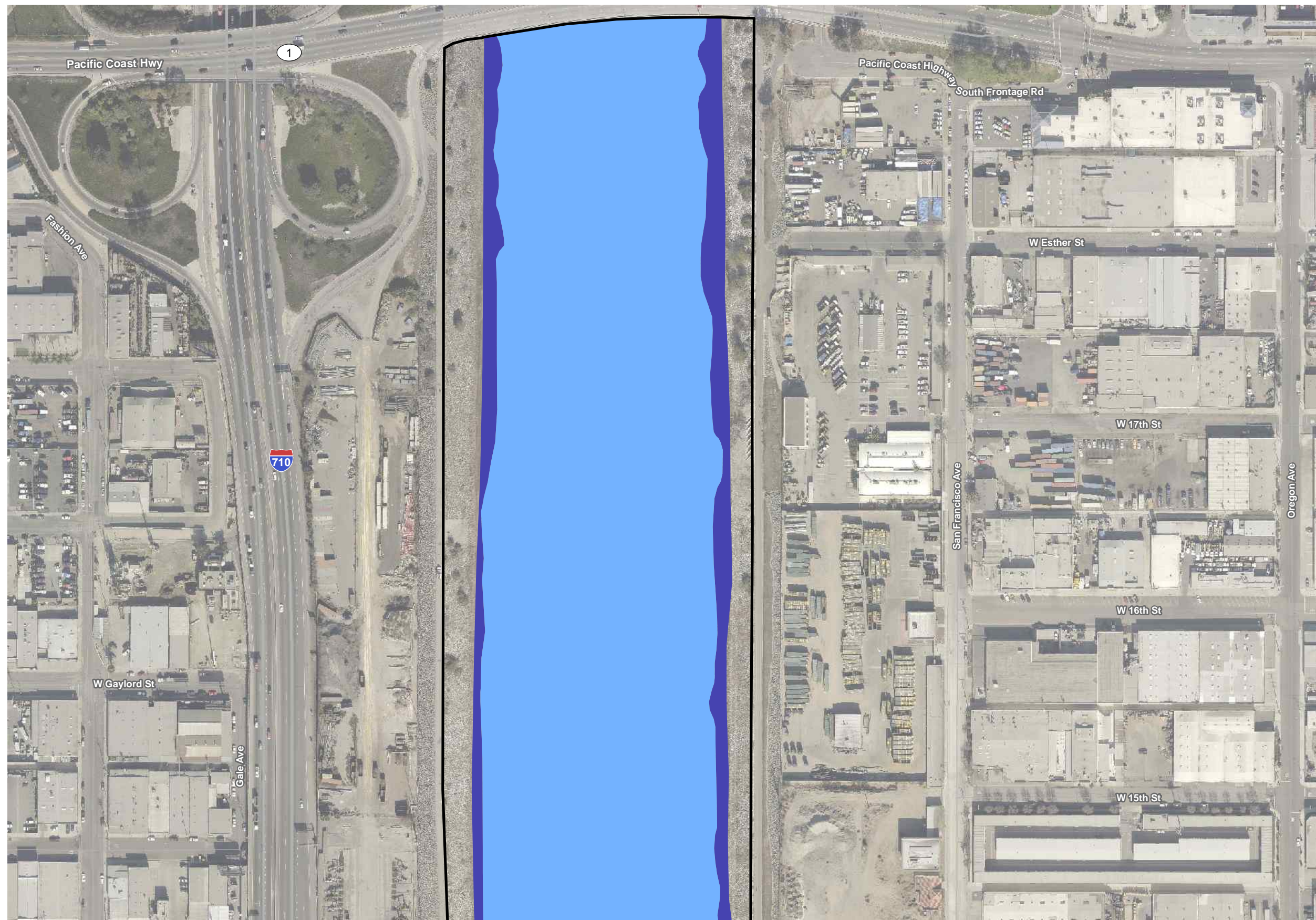


Exhibit 3.1–10n



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



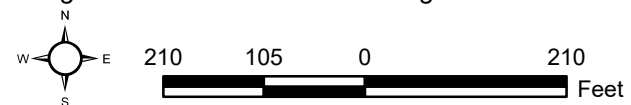
- LACFCD Easement Boundary
- Vegetation Types and Other Areas**
- Bulrush – Cattail Marsh
- Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 114 – Los Angeles River

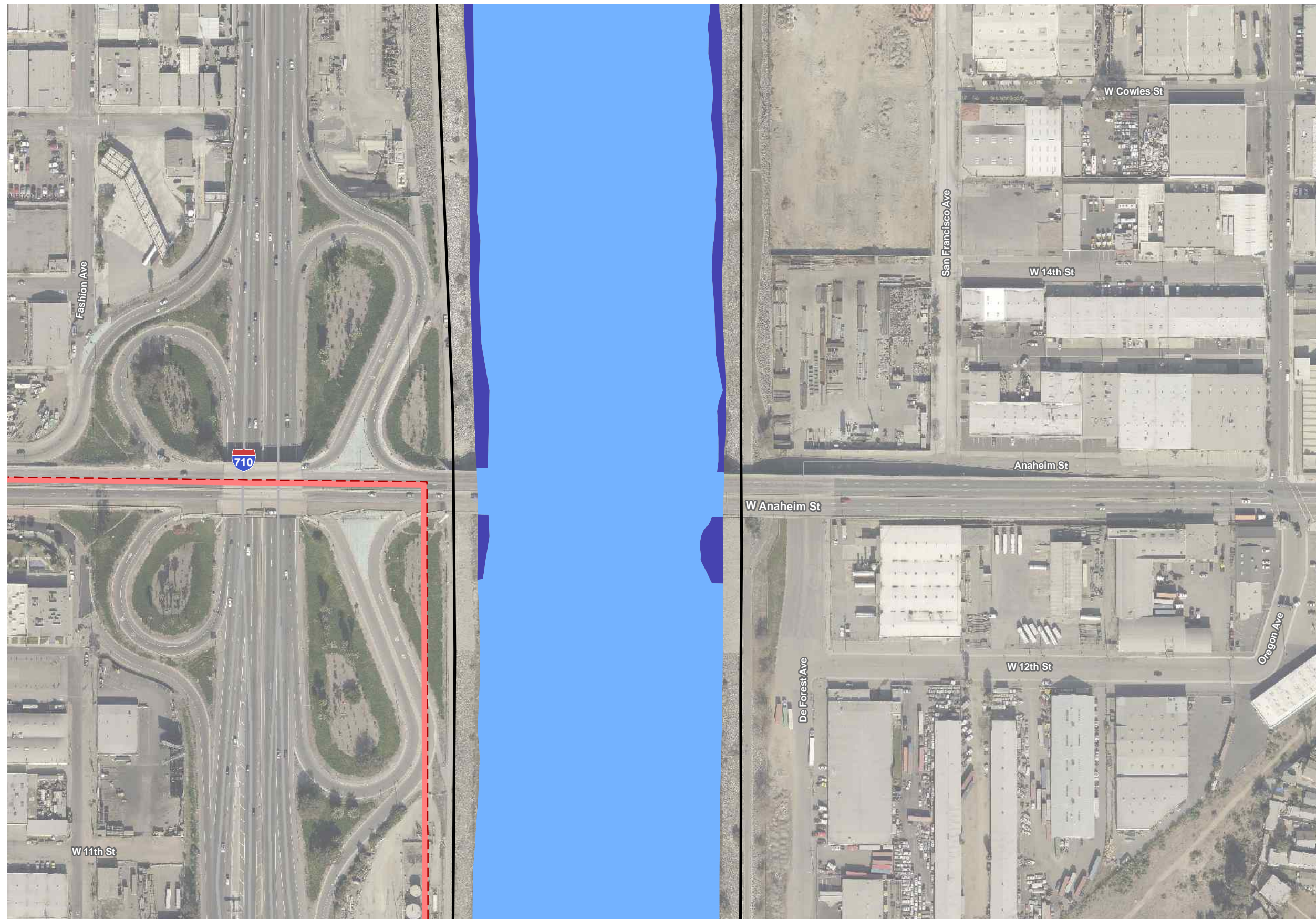
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–11a



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 114 – Los Angeles River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

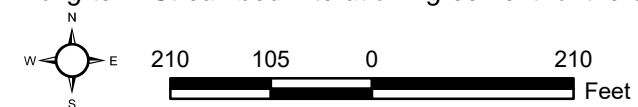


Exhibit 3.1–11b



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADP\W247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



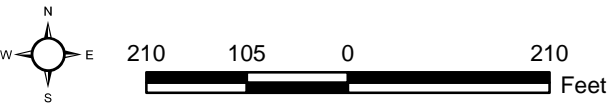
- LACFCD Easement Boundary
- Coastal Zone Boundary
- Vegetation Types and Other Areas**
- Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 114 – Los Angeles River

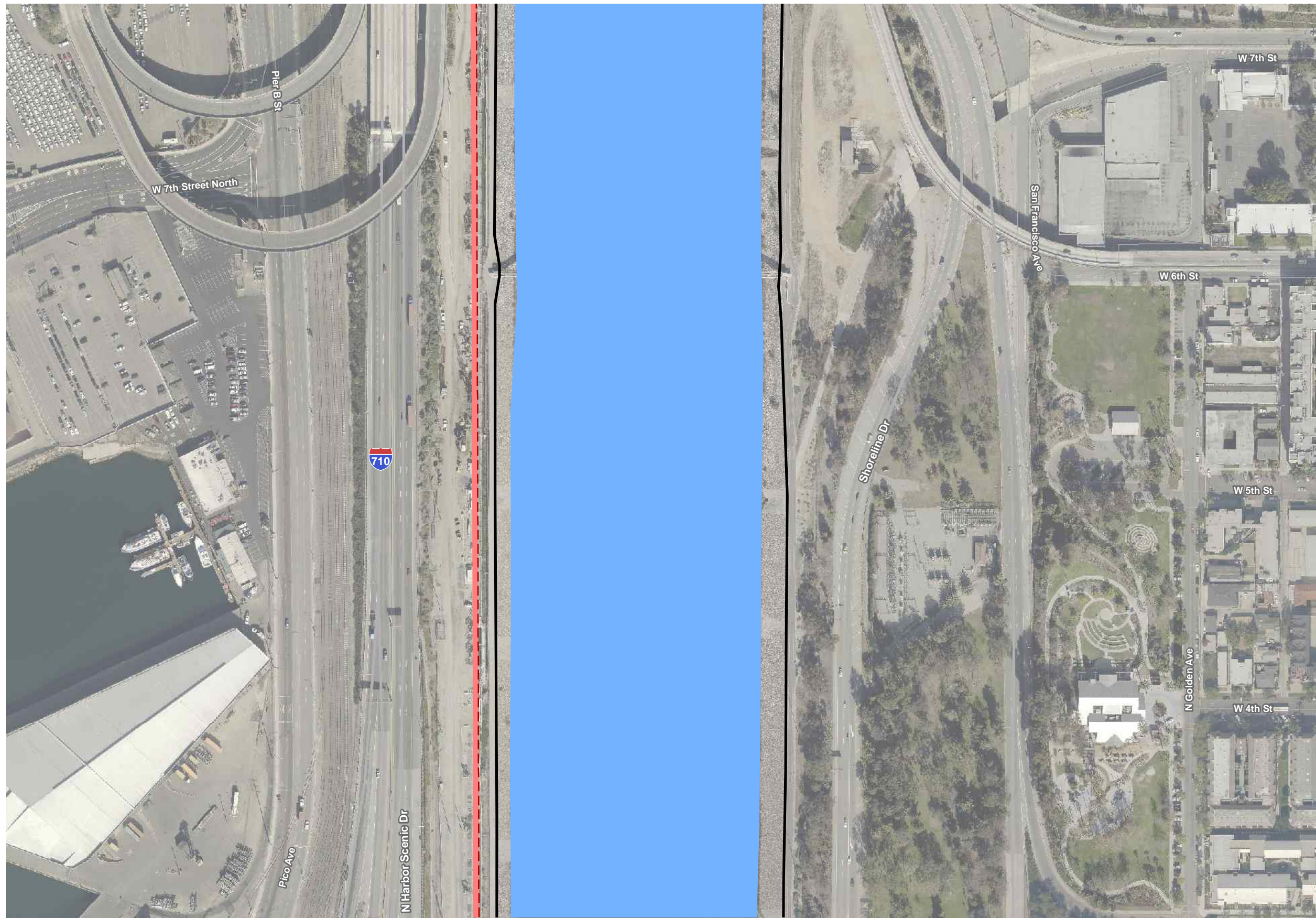
Exhibit 3.1–11c

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 114 – Los Angeles River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

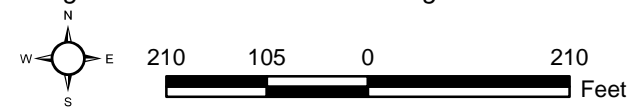
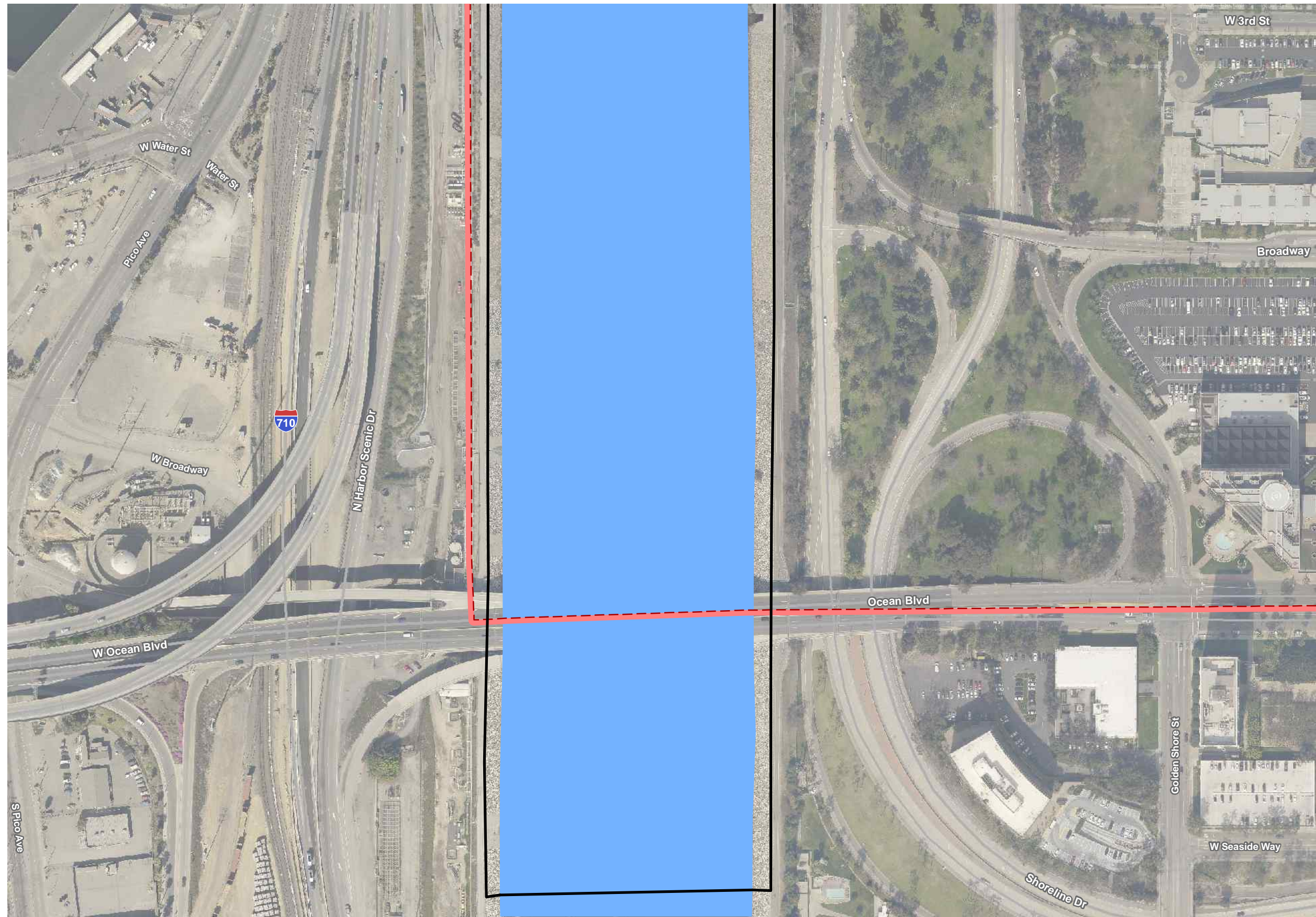


Exhibit 3.1–11d



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 114 – Los Angeles River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

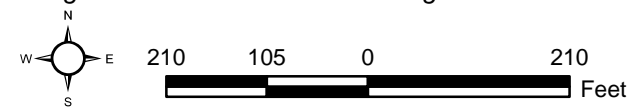


Exhibit 3.1–11 e



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



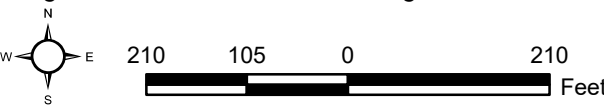
- LACFCD Easement Boundary
- Annual Clearing Impact Area (11.2 acres)
- Vegetation Types and Other Areas**
 - Bulrush – Cattail Marsh
 - Giant Reed Stand
 - Peppertree Woodland
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

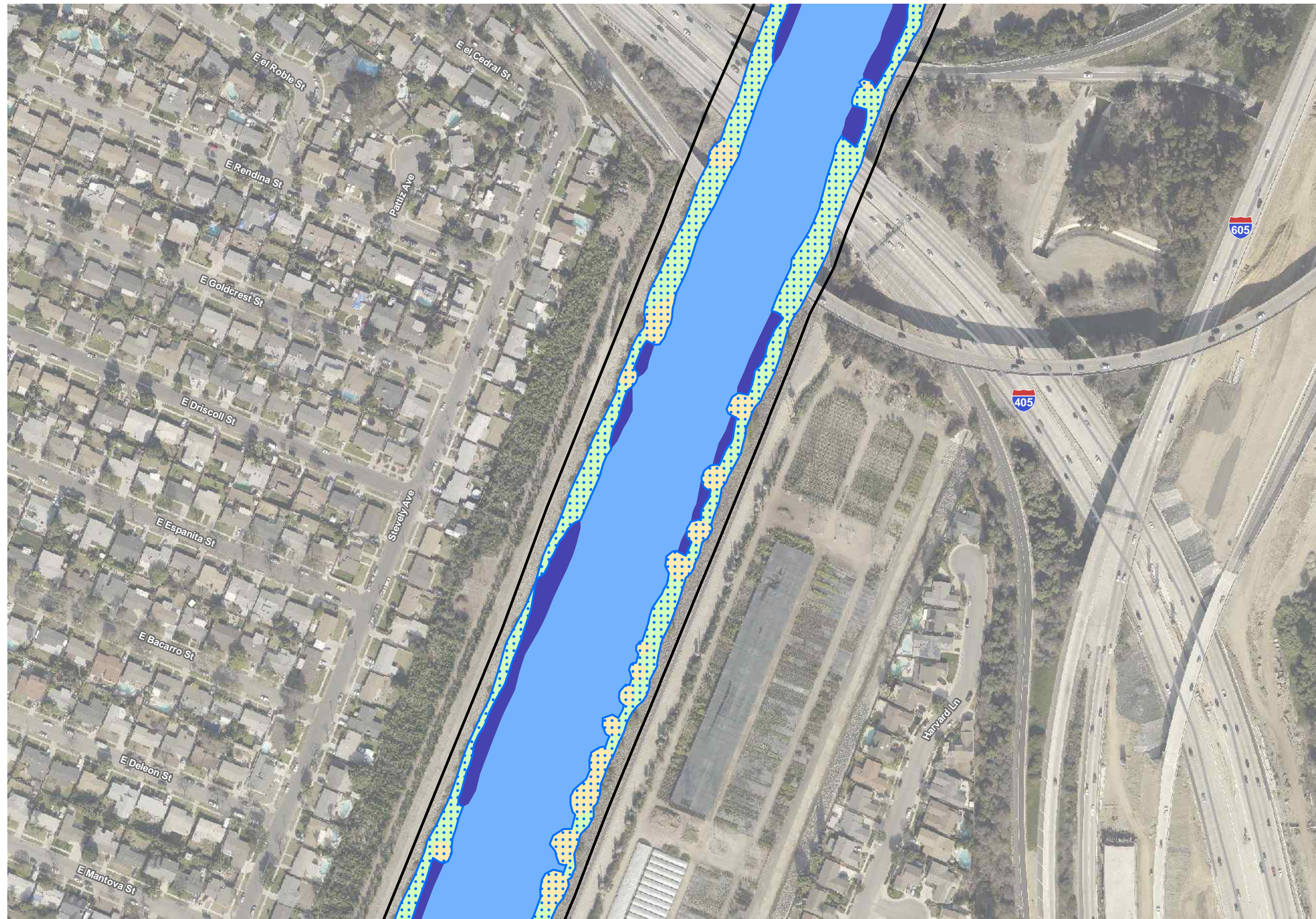
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1 – 12a



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



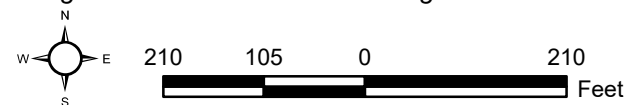
- LACFCD Easement Boundary
- Annual Clearing Impact Area (11.2 acres)
- Vegetation Types and Other Areas**
 - Bulrush - Cattail Marsh
 - Giant Reed Stand
 - Peppertree Woodland
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

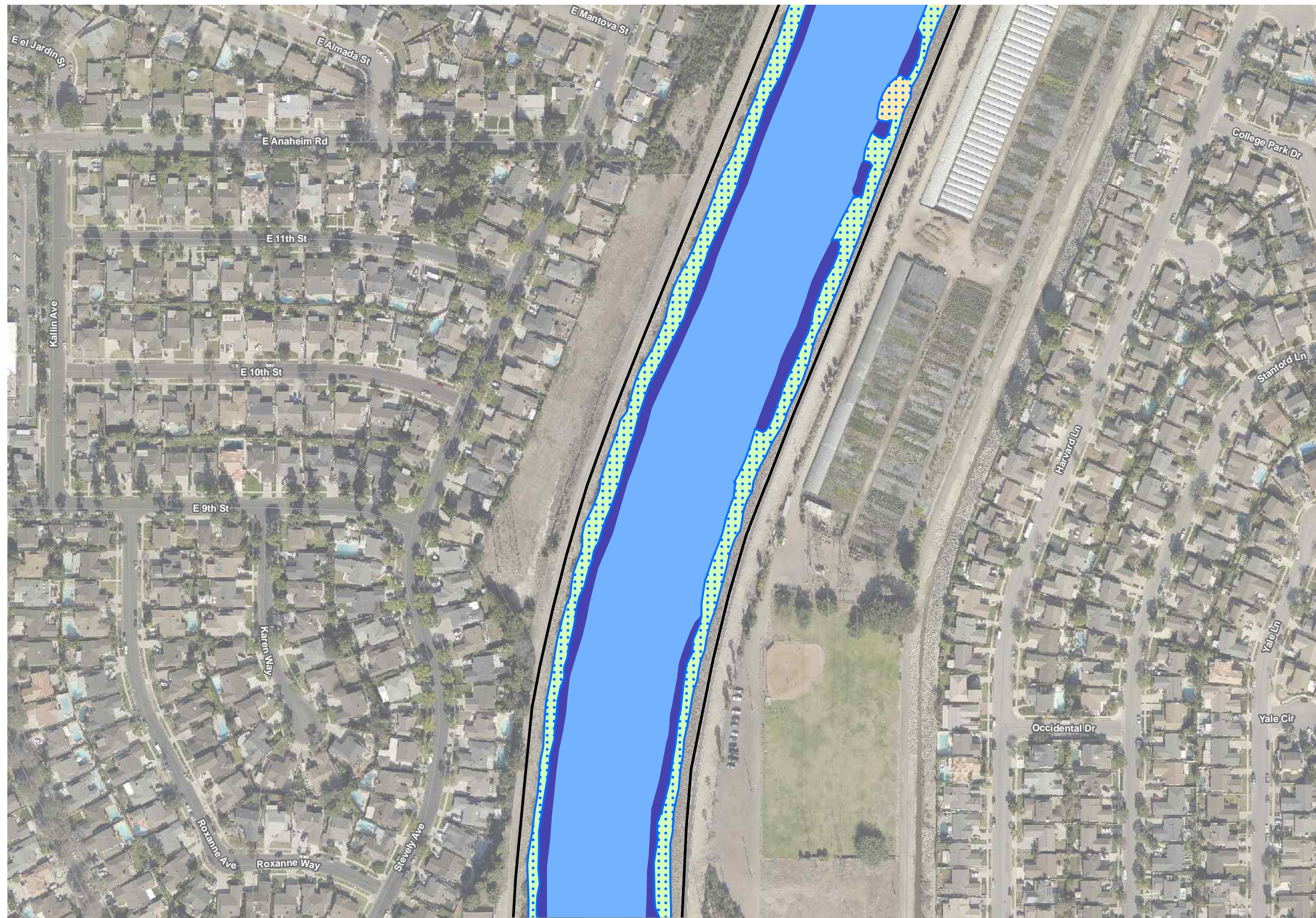
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–12b



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



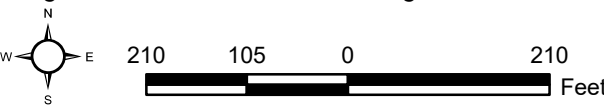
- LACFCD Easement Boundary
- Annual Clearing Impact Area (11.2 acres)
- Vegetation Types and Other Areas**
 - Bulrush – Cattail Marsh
 - Giant Reed Stand
 - Peppertree Woodland
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

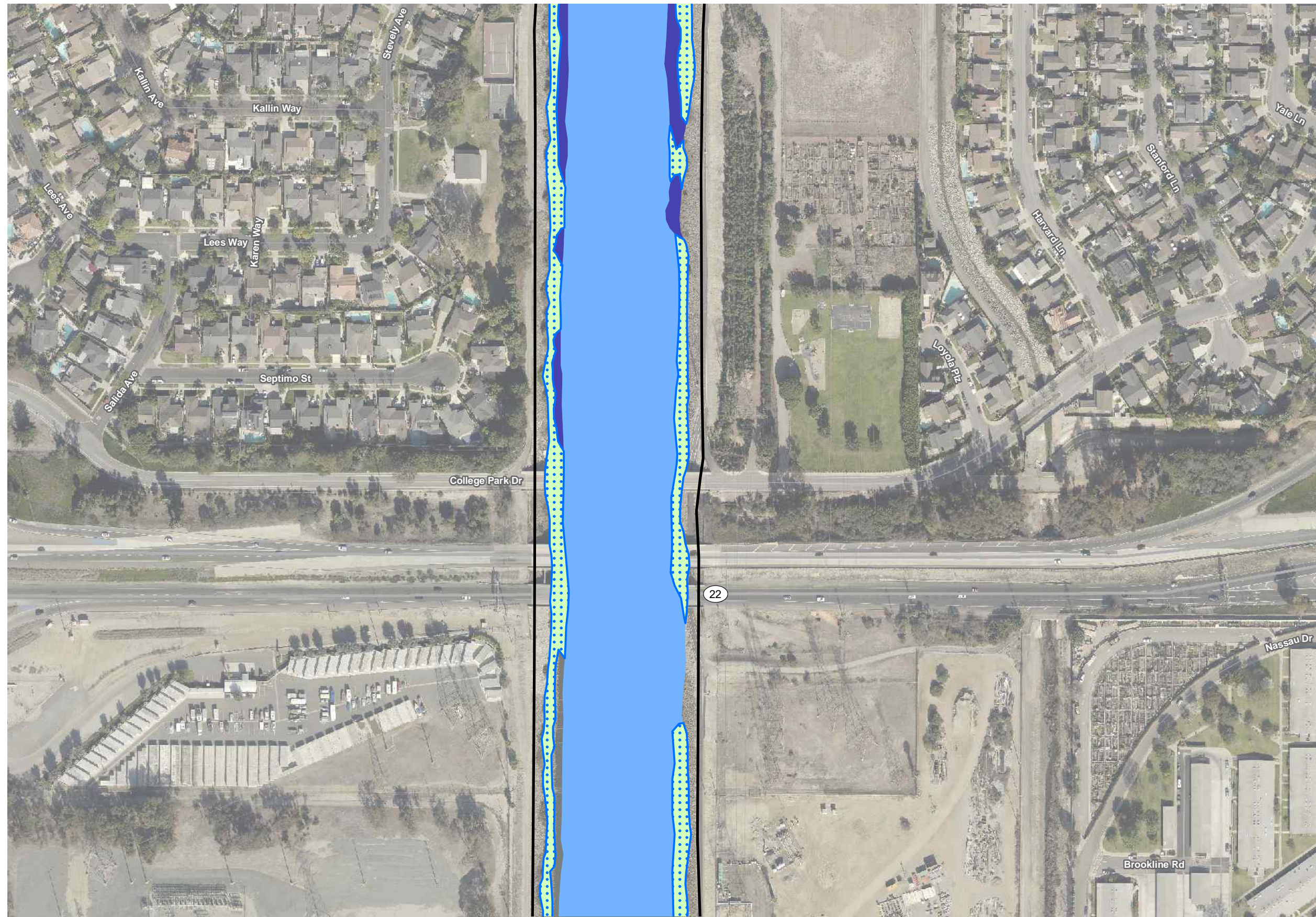
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–12c



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (11.2 acres)
- Vegetation Types and Other Areas**
 - Bulrush – Cattail Marsh
 - Peppertree Woodland
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

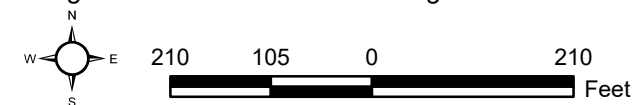
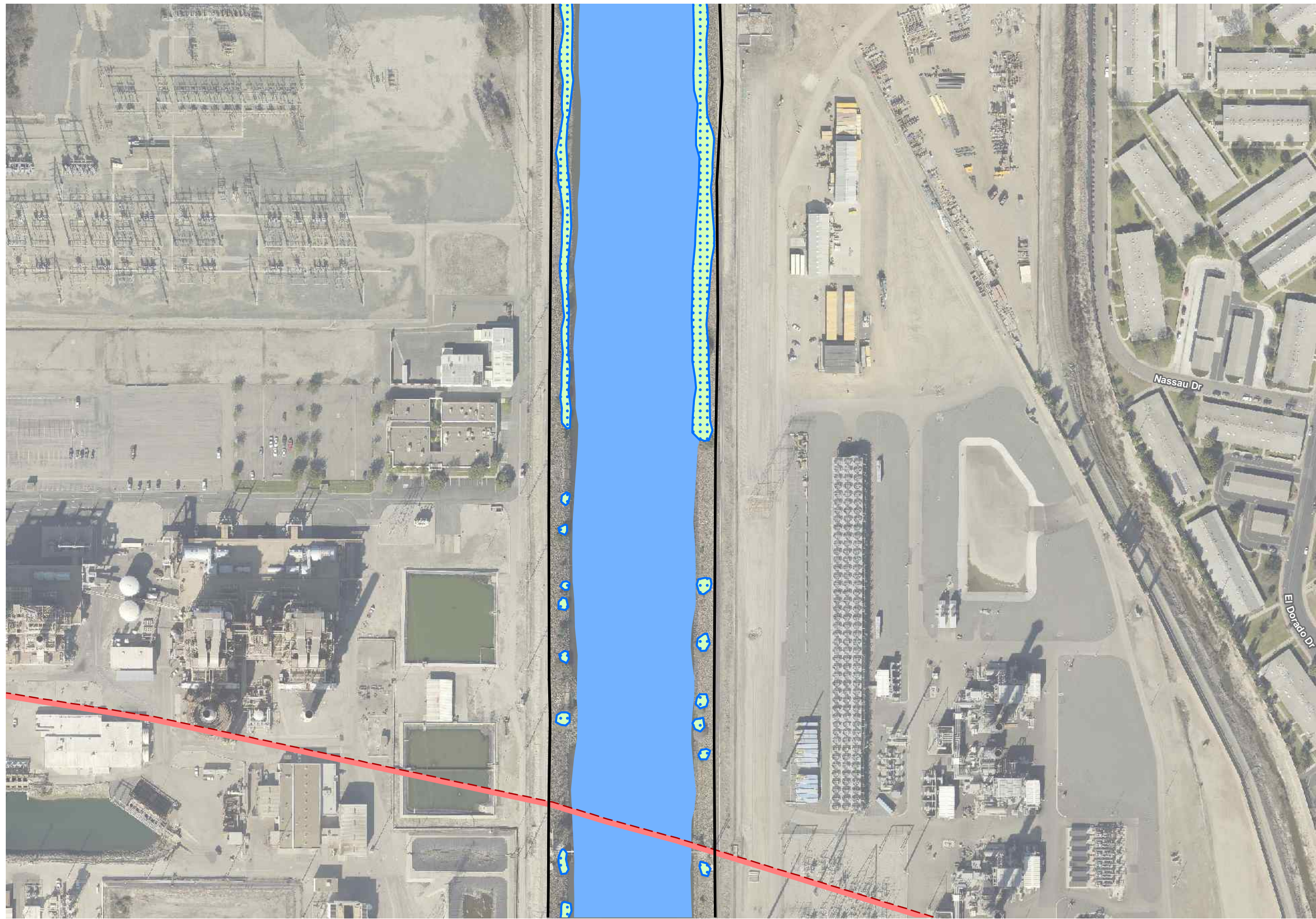


Exhibit 3.1–12d



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



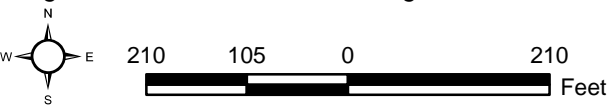
- LACFCD Easement Boundary
 - Coastal Zone Boundary
 - Annual Clearing Impact Area (11.2 acres)
- Vegetation Types and Other Areas**
- Peppertree Woodland
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

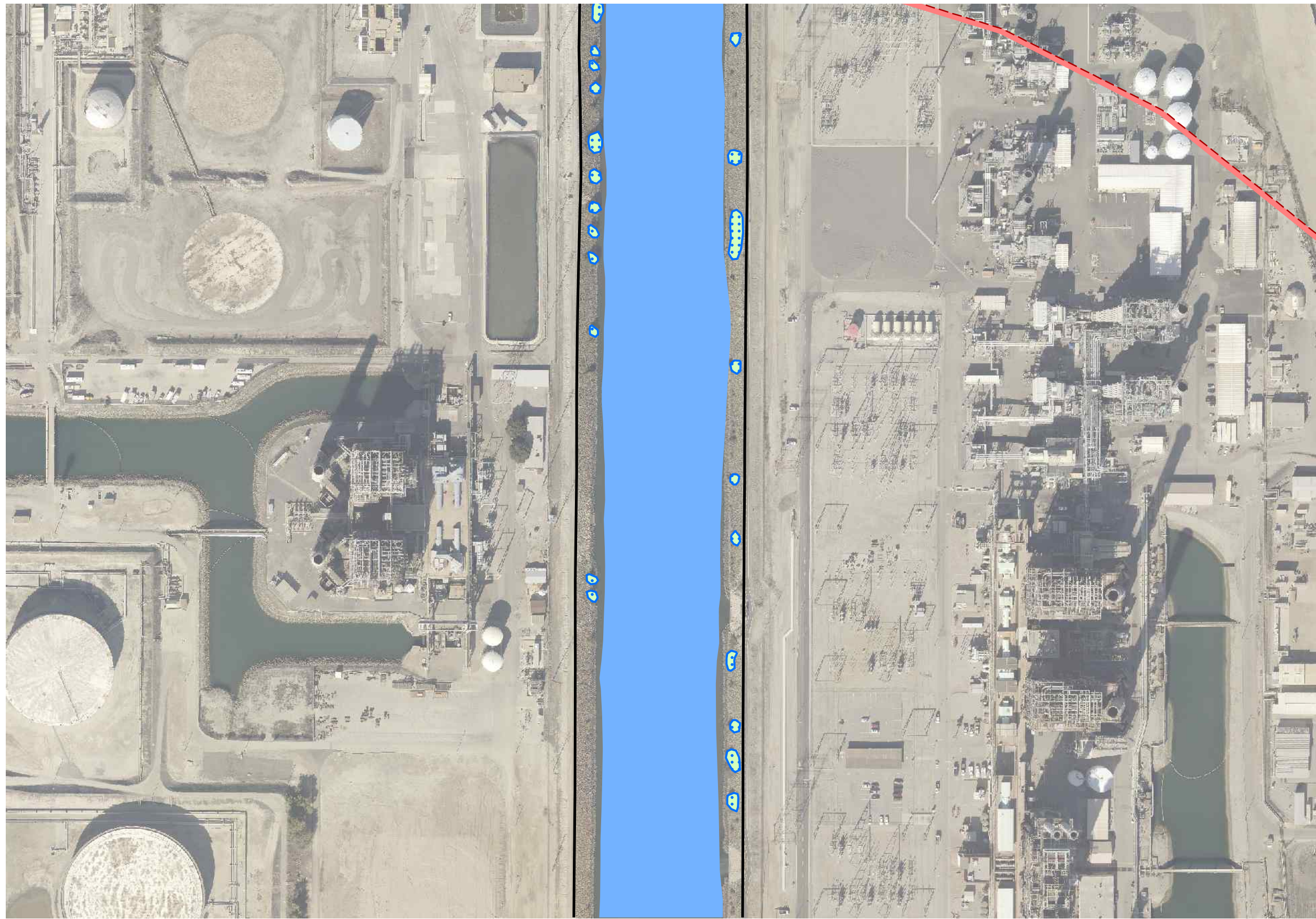
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–12e



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Coastal Zone Boundary
- Annual Clearing Impact Area (11.2 acres)
- Vegetation Types and Other Areas**
- Peppertree Woodland
- Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

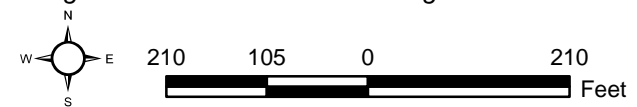






Exhibit 3.1–12f



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



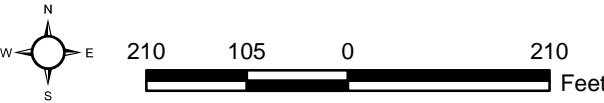
-  LACFCD Easement Boundary
-  Annual Clearing Impact Area (11.2 acres)
- Vegetation Types and Other Areas**
-  Peppertree Woodland
-  Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches



Exhibit 3.1–12g



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



-  LACFCD Easement Boundary
- Vegetation Types and Other Areas**
-  Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

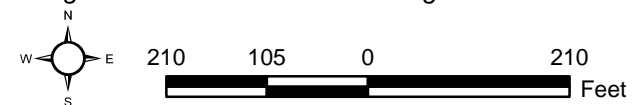
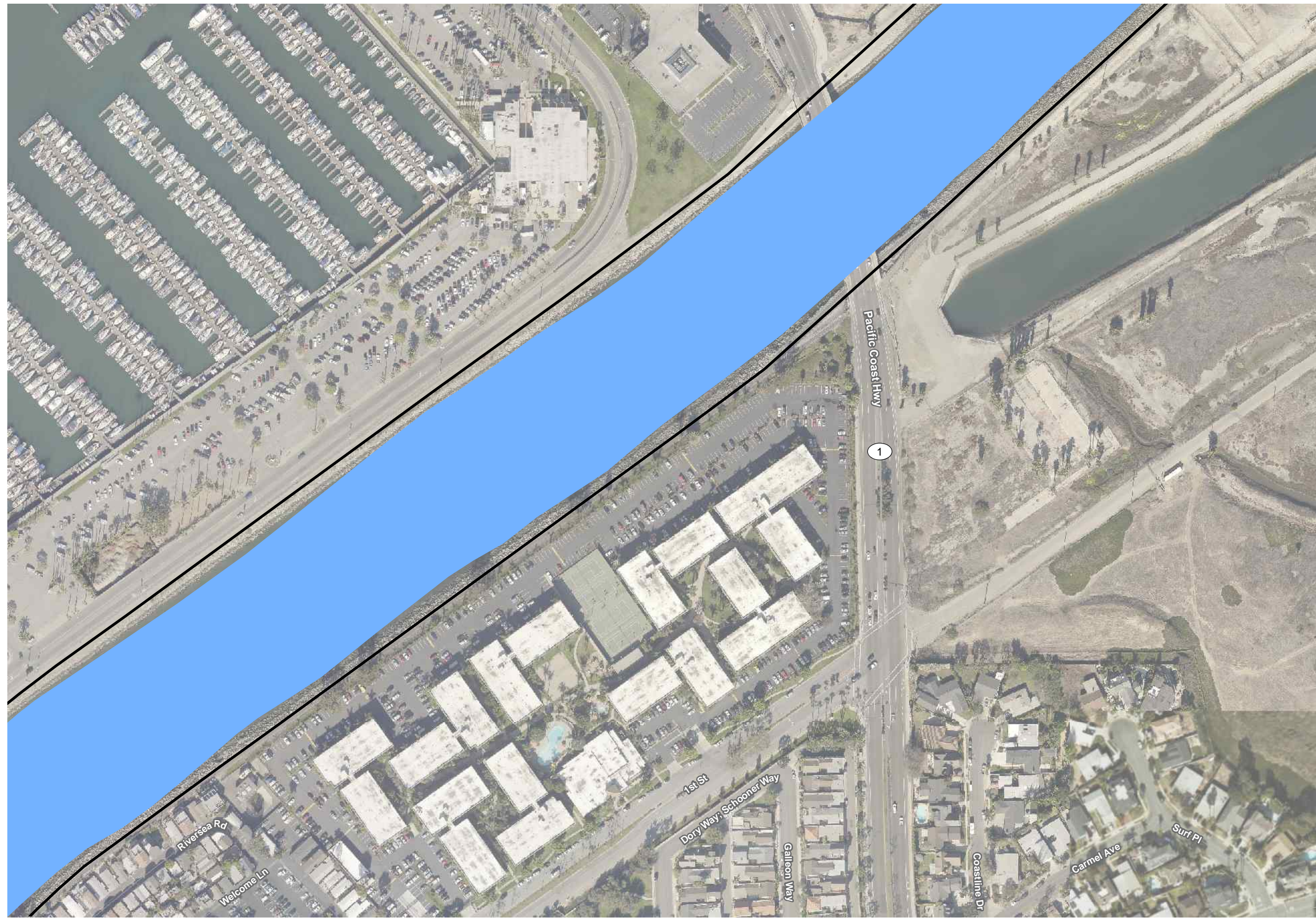




Exhibit 3.1–12h



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



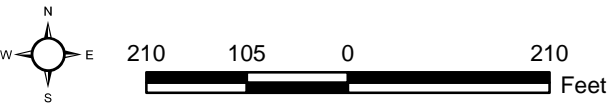
-  LACFCD Easement Boundary
- Vegetation Types and Other Areas**
-  Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

Exhibit 3.1–12i



Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



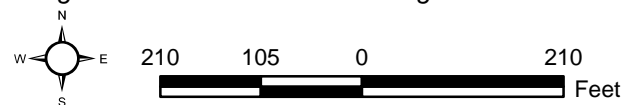
-  LACFCD Easement Boundary
- Vegetation Types and Other Areas**
-  Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches



Exhibit 3.1–12j



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



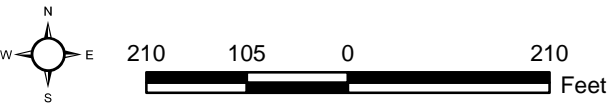
-  LACFCD Easement Boundary
- Vegetation Types and Other Areas**
-  Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 115 – San Gabriel River

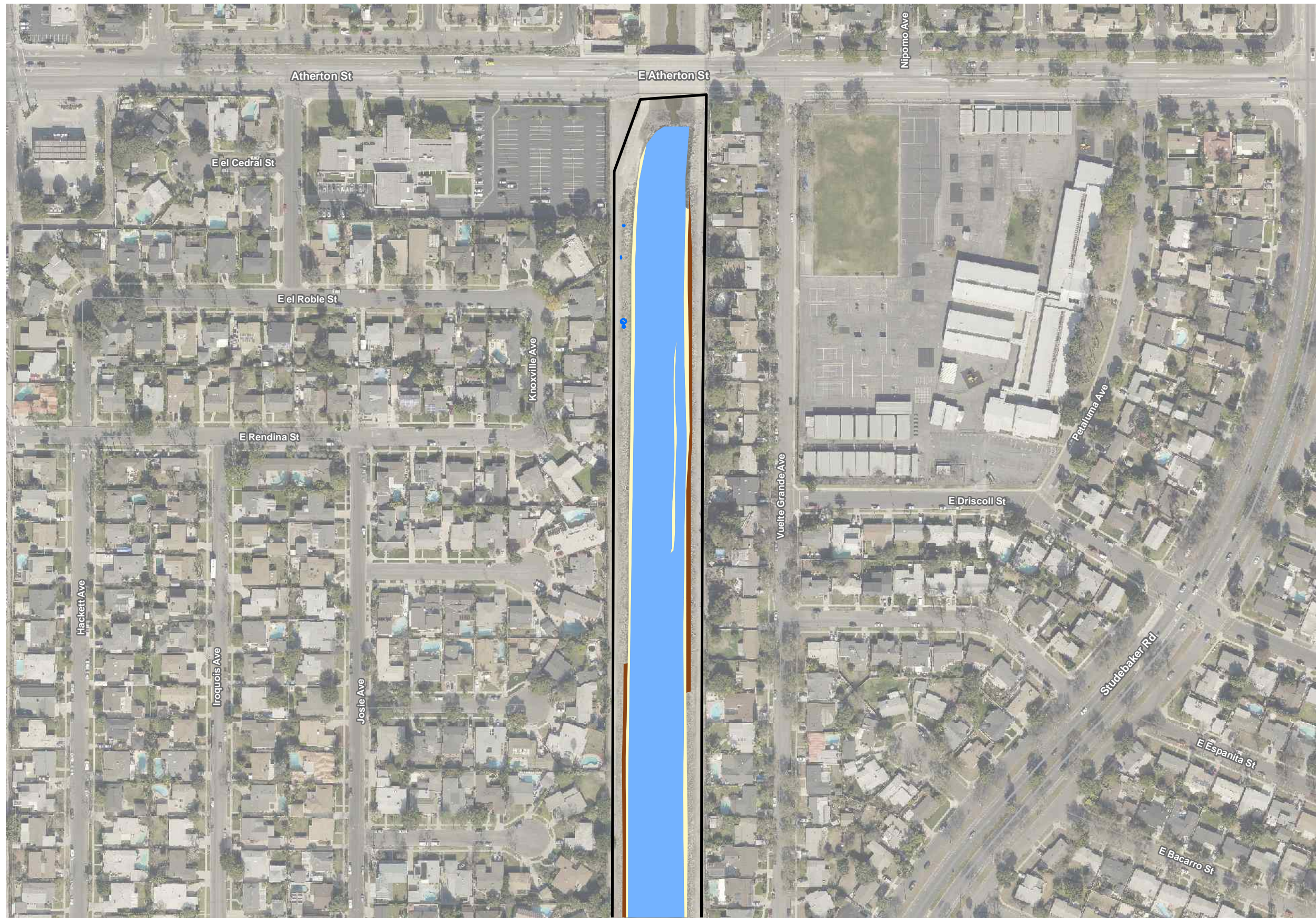
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1 – 12k



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



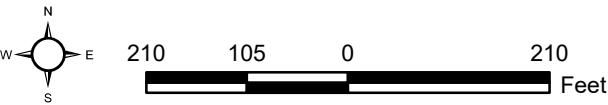
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.55 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 116 – Los Cerritos Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1 – 13a



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd

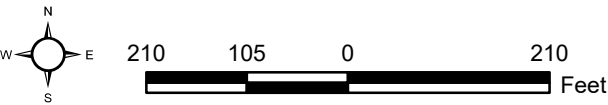


Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 116 – Los Cerritos Channel

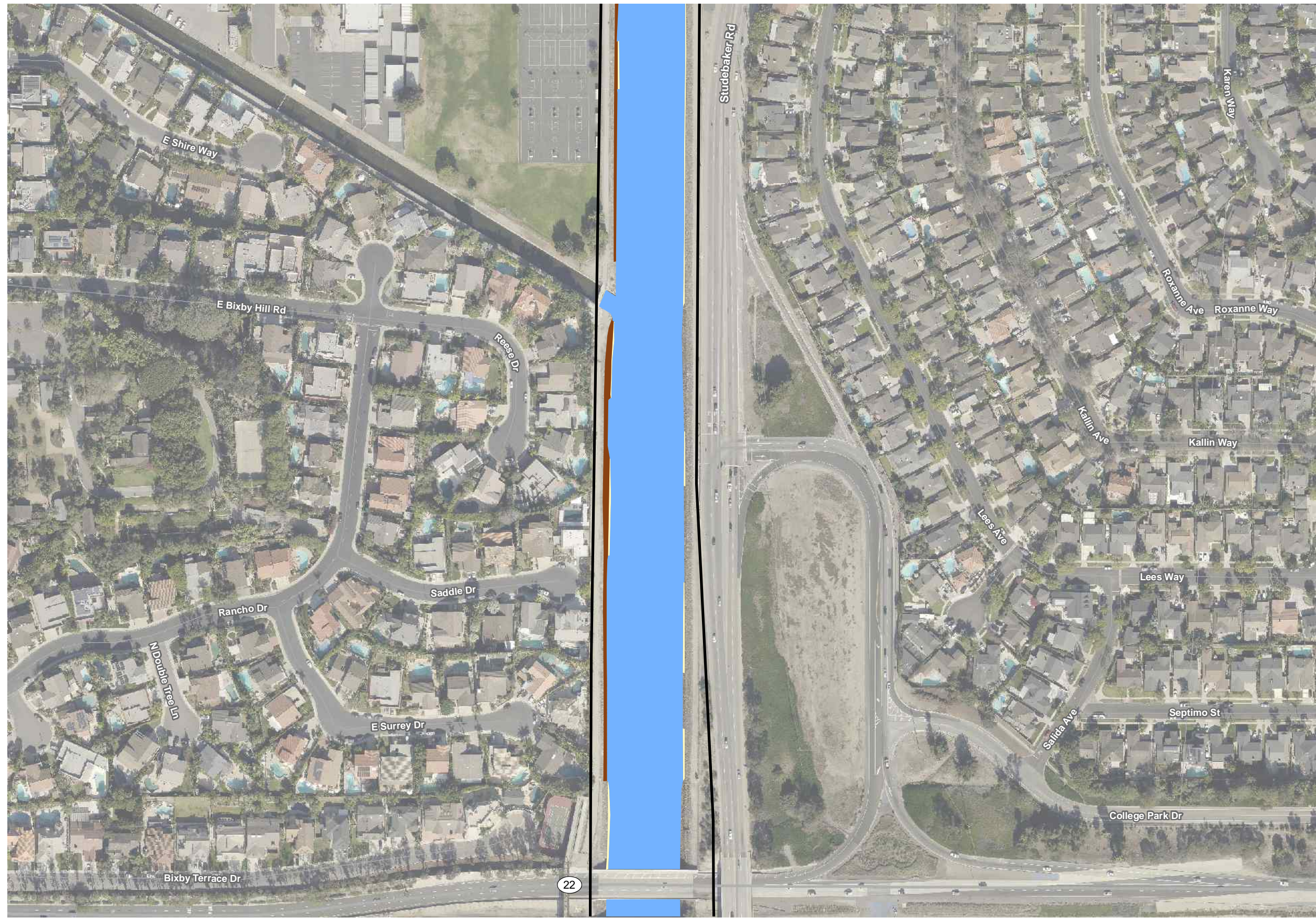
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches




Exhibit 3.1–13b



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



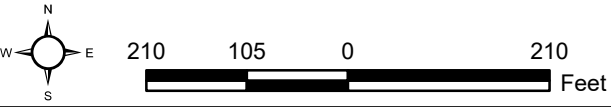
-  LACFCD Easement Boundary
- Vegetation Types and Other Areas**
-  Saltgrass – Pickleweed Marsh
-  Tidal River
-  Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 116 – Los Cerritos Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–13c



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



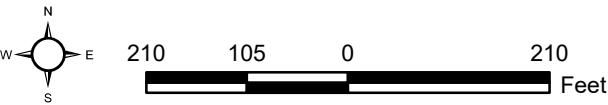
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.55 acres)
- Vegetation Types and Other Areas**
 - Saltgrass – Pickleweed Marsh
 - Tidal River
 - Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 116 – Los Cerritos Channel

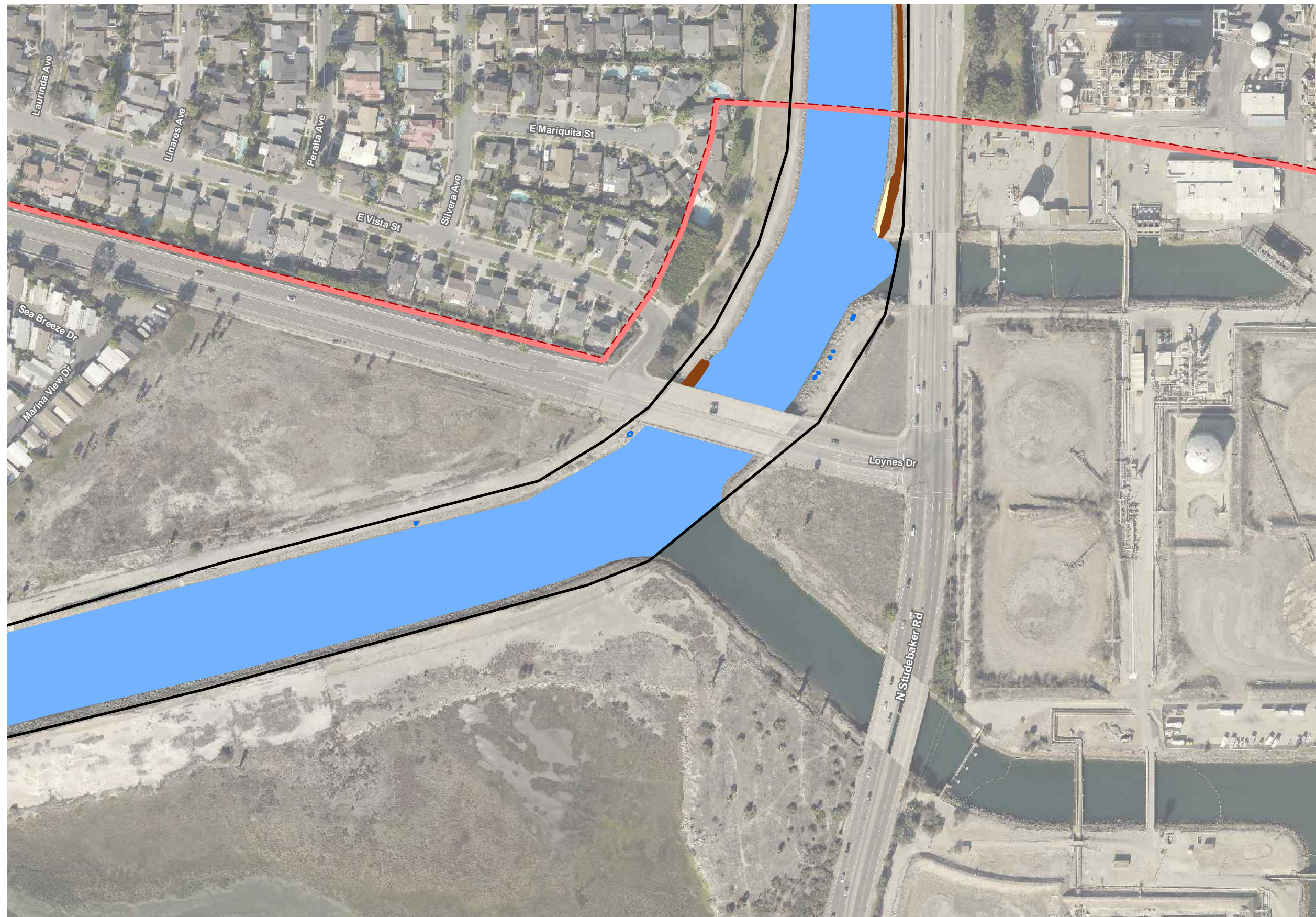
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–13d



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



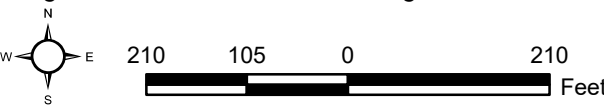
- LACFCD Easement Boundary
- Coastal Zone Boundary
- Annual Clearing Impact Area (0.55 acres)
- Vegetation Types and Other Areas**
- Saltgrass – Pickleweed Marsh
- Tidal River
- Upland Mustards

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 116 – Los Cerritos Channel

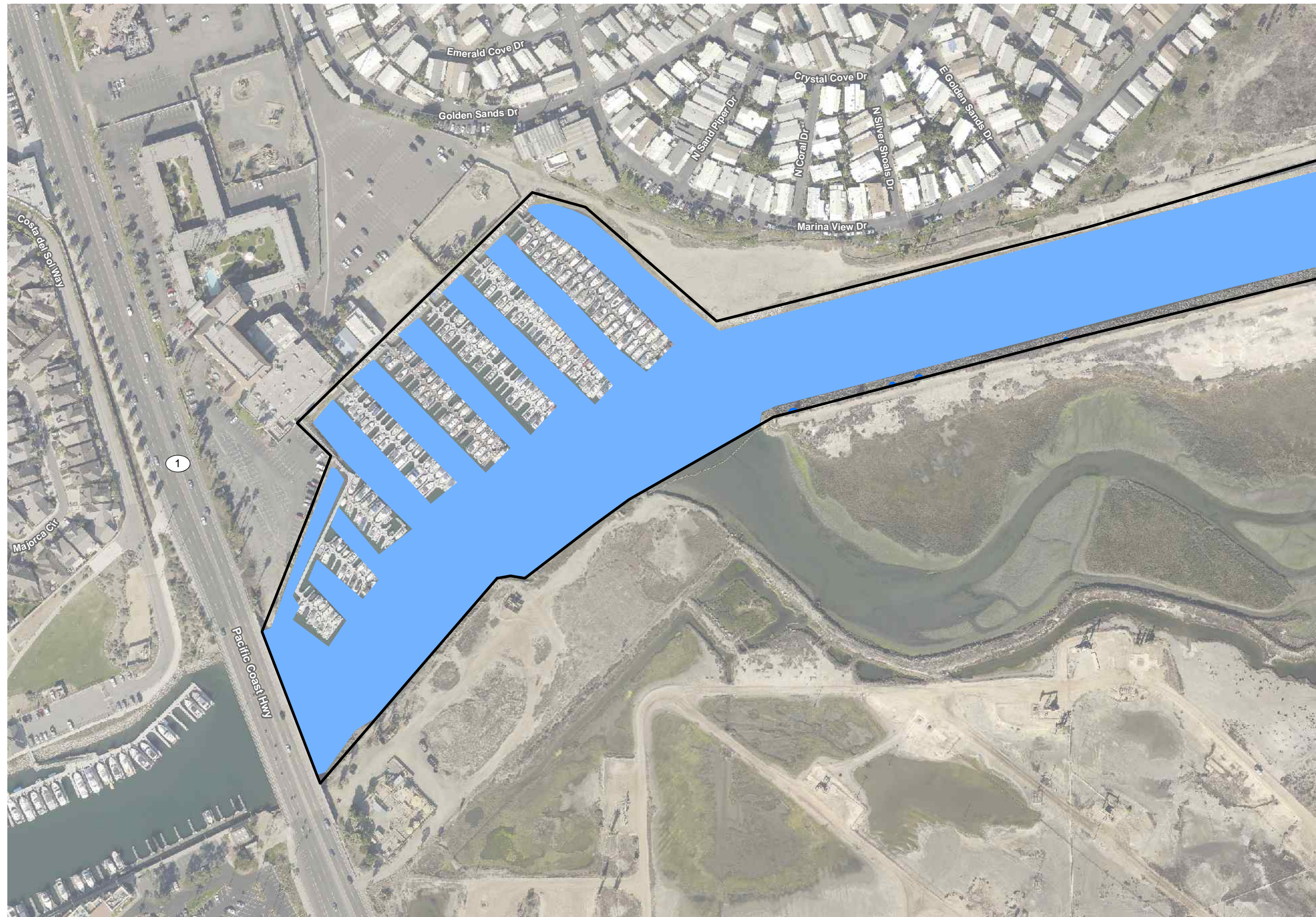
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1 – 13e



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



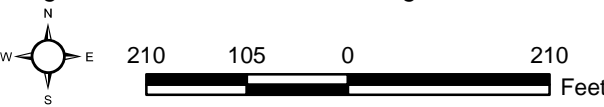
- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.55 acres)
- Vegetation Types and Other Areas**
 - Tidal River

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 116 – Los Cerritos Channel

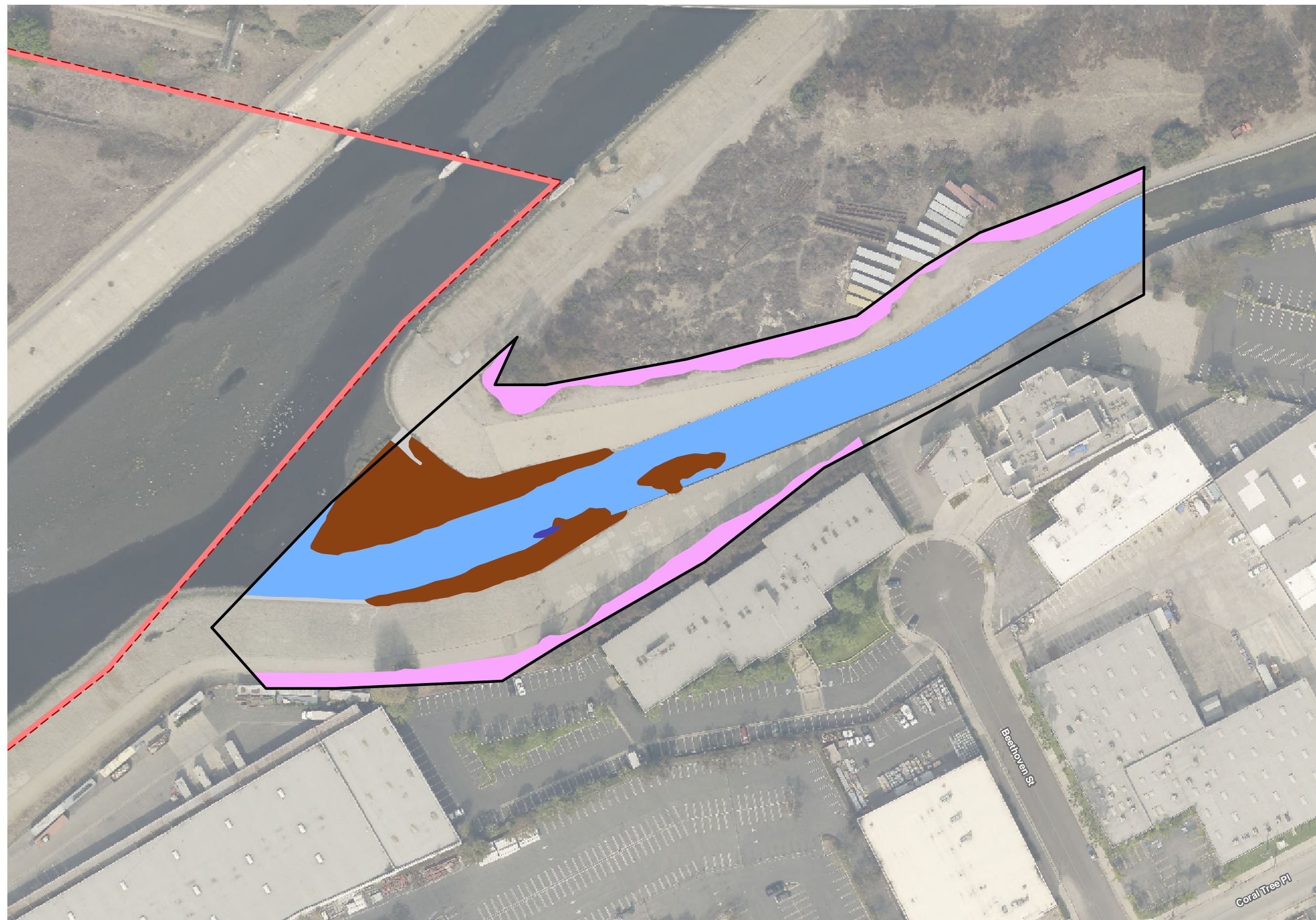
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–13f



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXDL\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



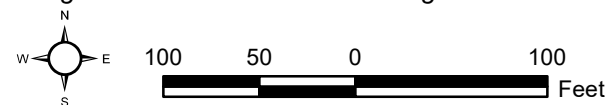
- LACFCD Easement Boundary
 - Coastal Zone Boundary
 - Vegetation Types and Other Areas**
 - Bare rock and/or soil
 - Bulrush – Cattail Marsh
 - Ornamental
 - Tidal River
 - Upland Mustards
- Note: No impacts are proposed for Reach 117.*

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 117 – Centinela Creek

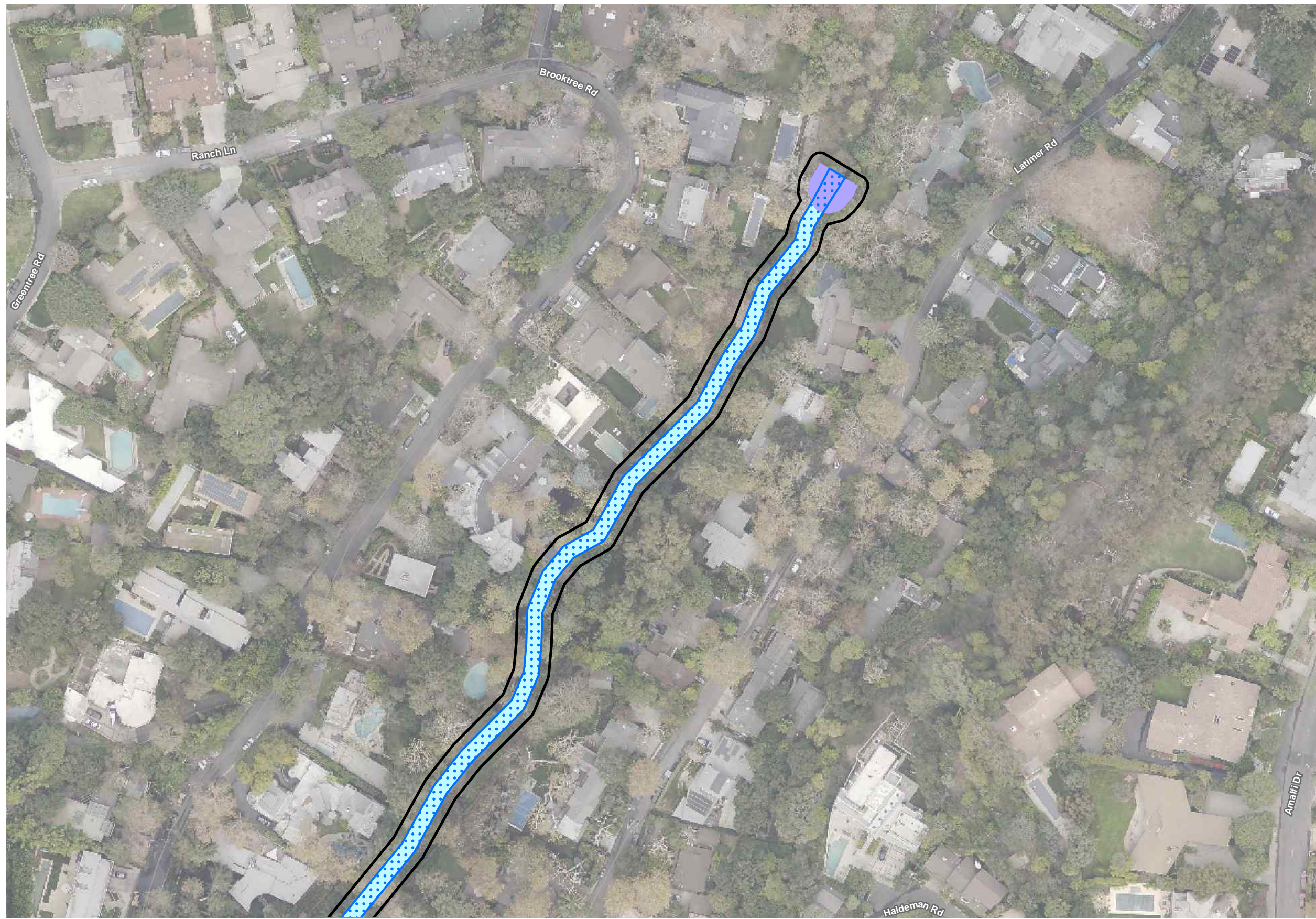
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–14



(Rev: 02-25-2020 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLA\DPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



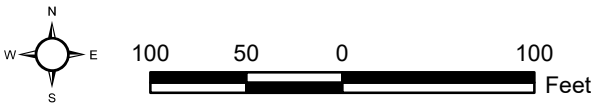
- LACFCD Easement Boundary
- Annual Clearing Impact Area (1.08 acres)
- Vegetation Types and Other Areas**
 - Arroyo Willow Shrubland
 - Disturbed Riparian Woodland – Non-native Herb

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 118 – Rustic Canyon Channel

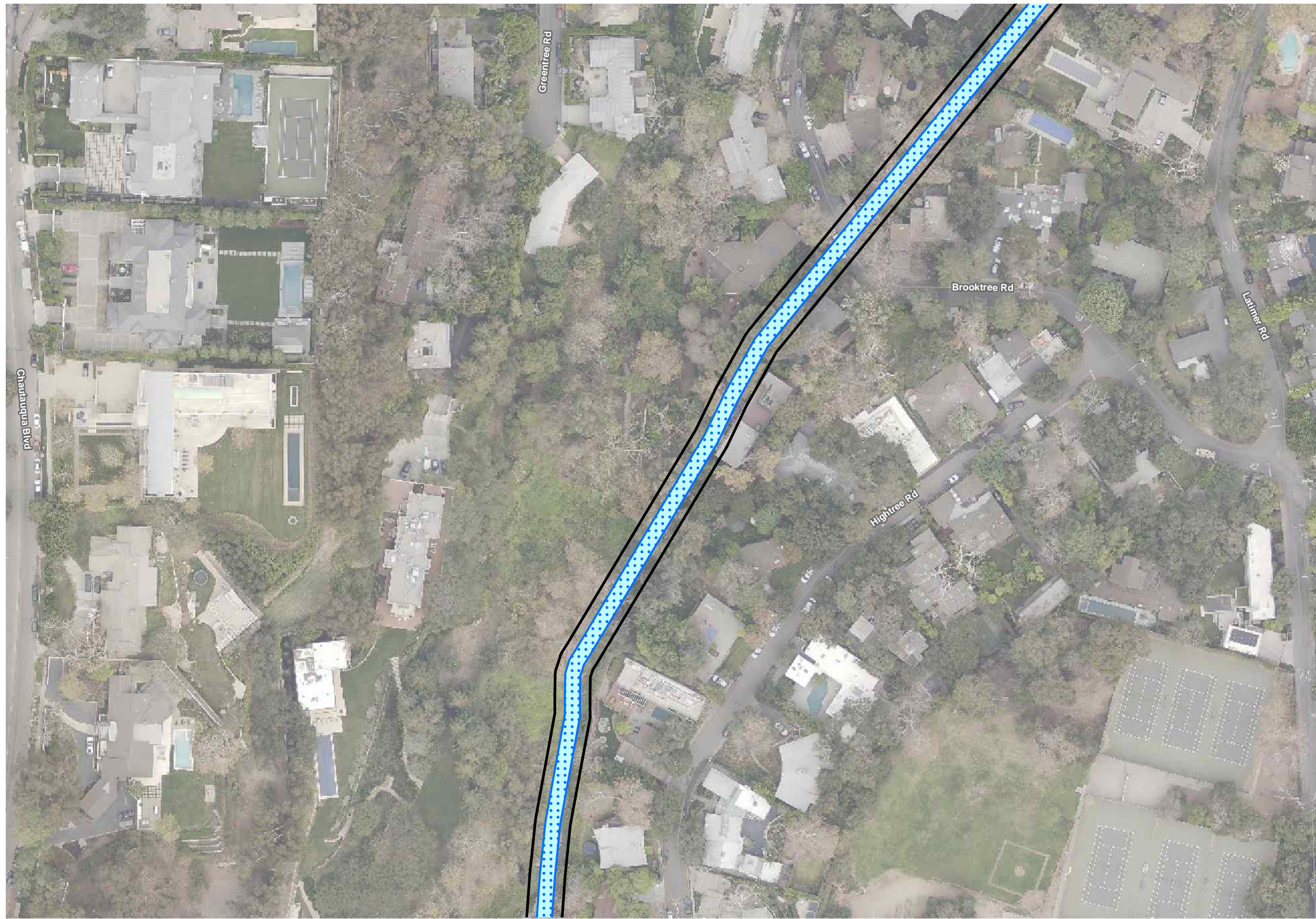
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1 – 15a



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd

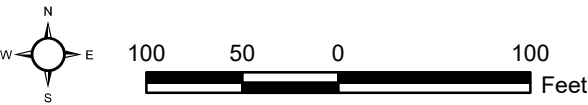


- LACFCD Easement Boundary
- Annual Clearing Impact Area (1.08 acres)
- Vegetation Types and Other Areas**
 - Disturbed Riparian Woodland – Non-native Herb

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 118 – Rustic Canyon Channel Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–15b



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
 - Coastal Zone Boundary
 - Annual Clearing Impact Area (1.08 acres)
- Vegetation Types and Other Areas**
- Arroyo Willow Shrubland
 - Disturbed Riparian Woodland – Non-native Herb

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 118 – Rustic Canyon Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

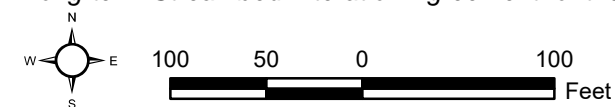


Exhibit 3.1–15c



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



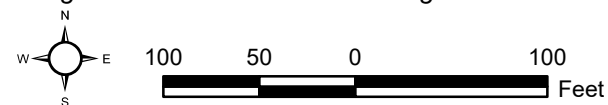
- LACFCD Easement Boundary
- Coastal Zone Boundary
- Annual Clearing Impact Area (1.08 acres)
- Vegetation Types and Other Areas**
 - Disturbed Riparian Woodland – Non-native Herb

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 118 – Rustic Canyon Channel

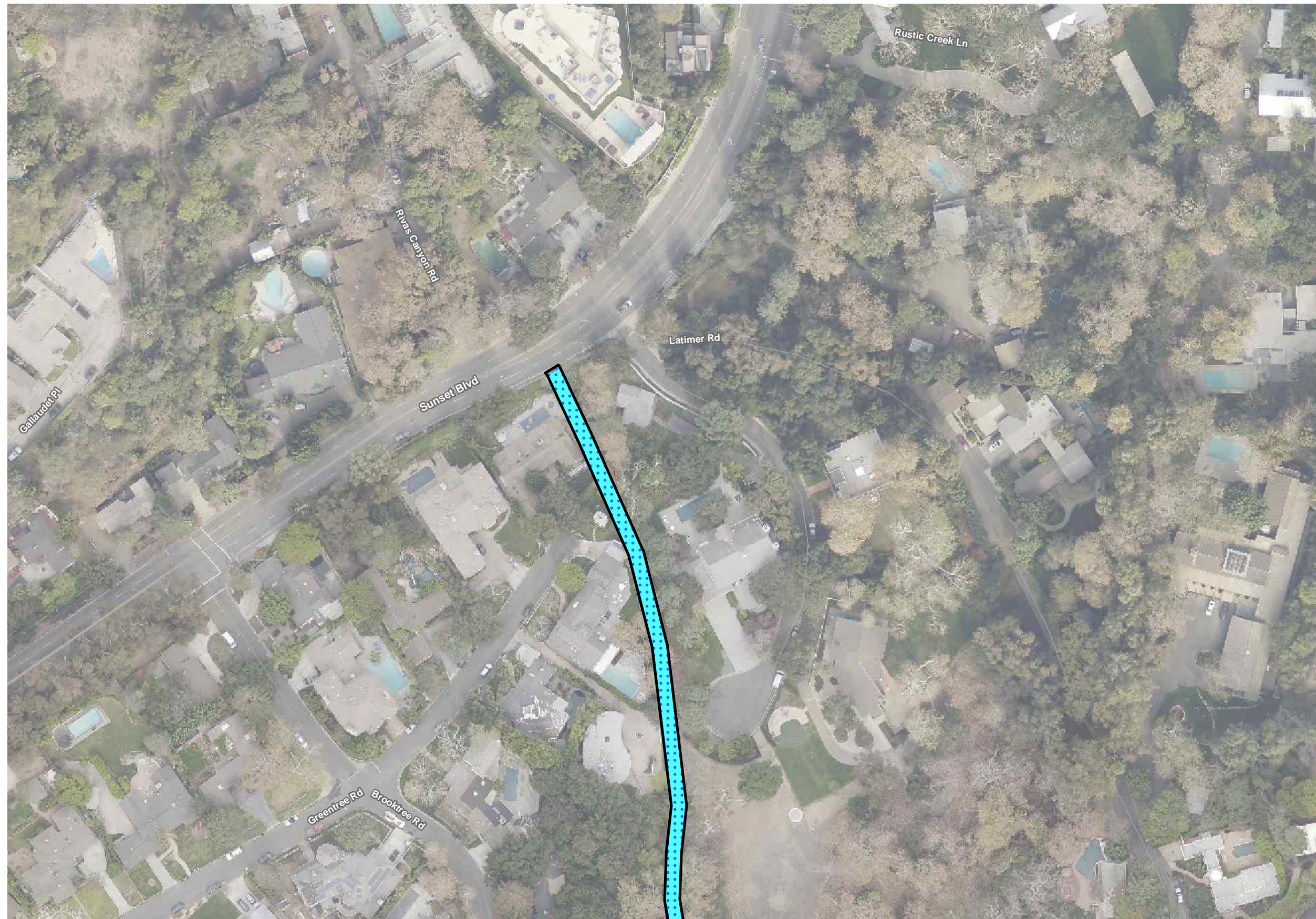
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–15d



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\EX_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.42 acres)
- Vegetation Types and Other Areas**
 - Non-native Riparian Semi-Natural Stand

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 119 – Rivas Canyon Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

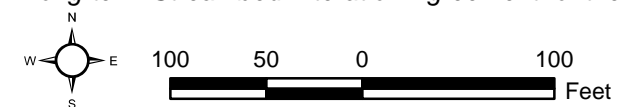
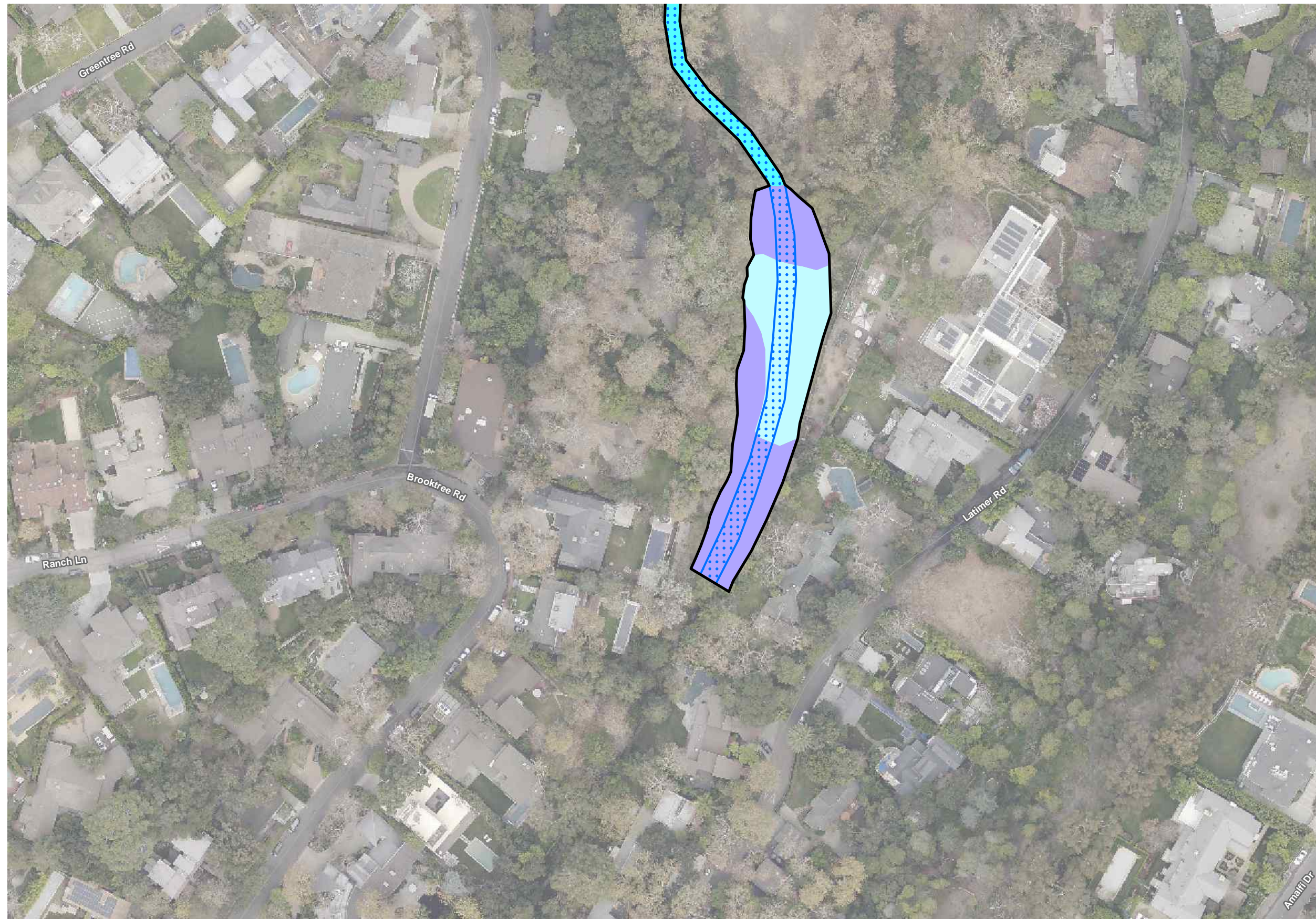


Exhibit 3.1–16a



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_111_119_Impacts_20180918.mxd



- LACFCD Easement Boundary
- Annual Clearing Impact Area (0.42 acres)
- Vegetation Types and Other Areas**
 - Arroyo Willow Shrubland
 - Disturbed Riparian Woodland – Non-native Herb
 - Non-native Riparian Semi-Natural Stand

Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 119 – Rivas Canyon Channel

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

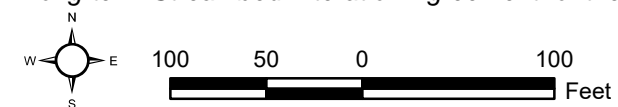


Exhibit 3.1–16b



(Rev: 09-18-2018 CJS) R:\Projects\DPW\3DPW029401\Graphics\MND\

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_120_Impacts_20180606.mxd



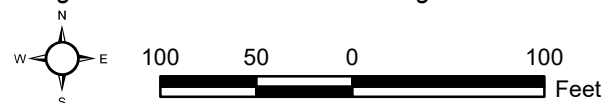
- Outlet Location
- Annual Clearing Impact (0.35 acres)
- LACFCD Easement Boundary (1.47 acres)
- Access Features**
 - Access Ramp (0.08 acres)
 - Access Road (0.33 acres)
- Vegetation Types and Other Areas**
 - Annual Brome Grassland
 - Cottonwood Forest
 - Ephemeral Scoured Streambed
 - Mulefat Shrubland
 - Scale-broom – Buckwheat Alluvial Shrubland
 - Disturbed
 - Developed
 - Open Water

Aerial Date: February, 2016

Project Impacts – Vegetation Types and Other Areas – Reach 120

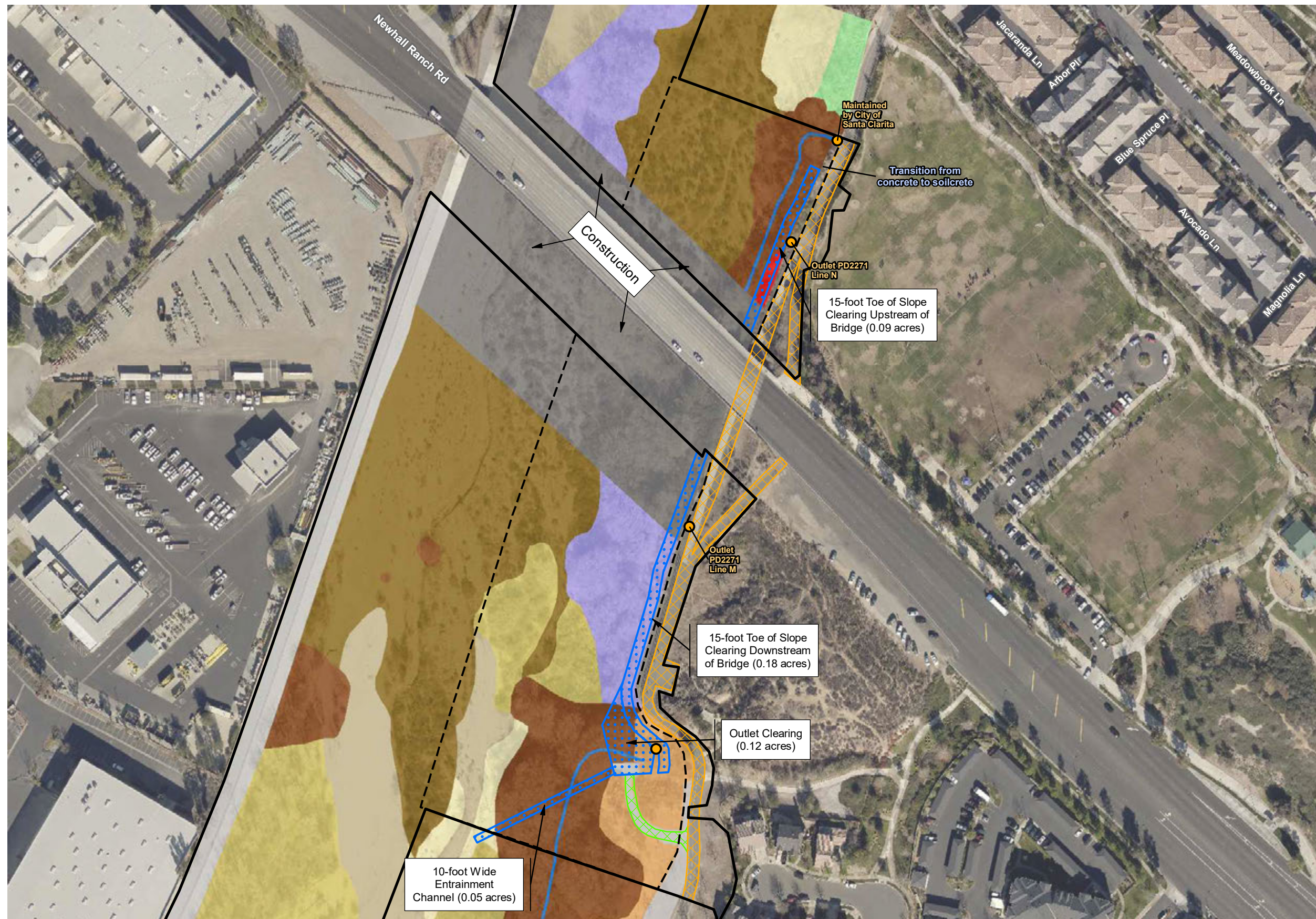
Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

Exhibit 3.1–17



(Rev: 06-06-2018 CJS) R:\Projects\IPAS\CoLADPW (DPW)\J247\Graphics\Reach_120_121\Ex_120_Impacts.pdf

D:\Projects\COLADPW\247\MXD\Long_Term_Maintenance_Select_Reaches\101_to_121\Ex_121_Impacts_20180606.mxd

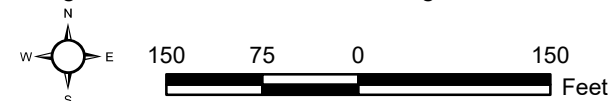


Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Reach 121 – San Francisquito Canyon Channel (PD 2271)

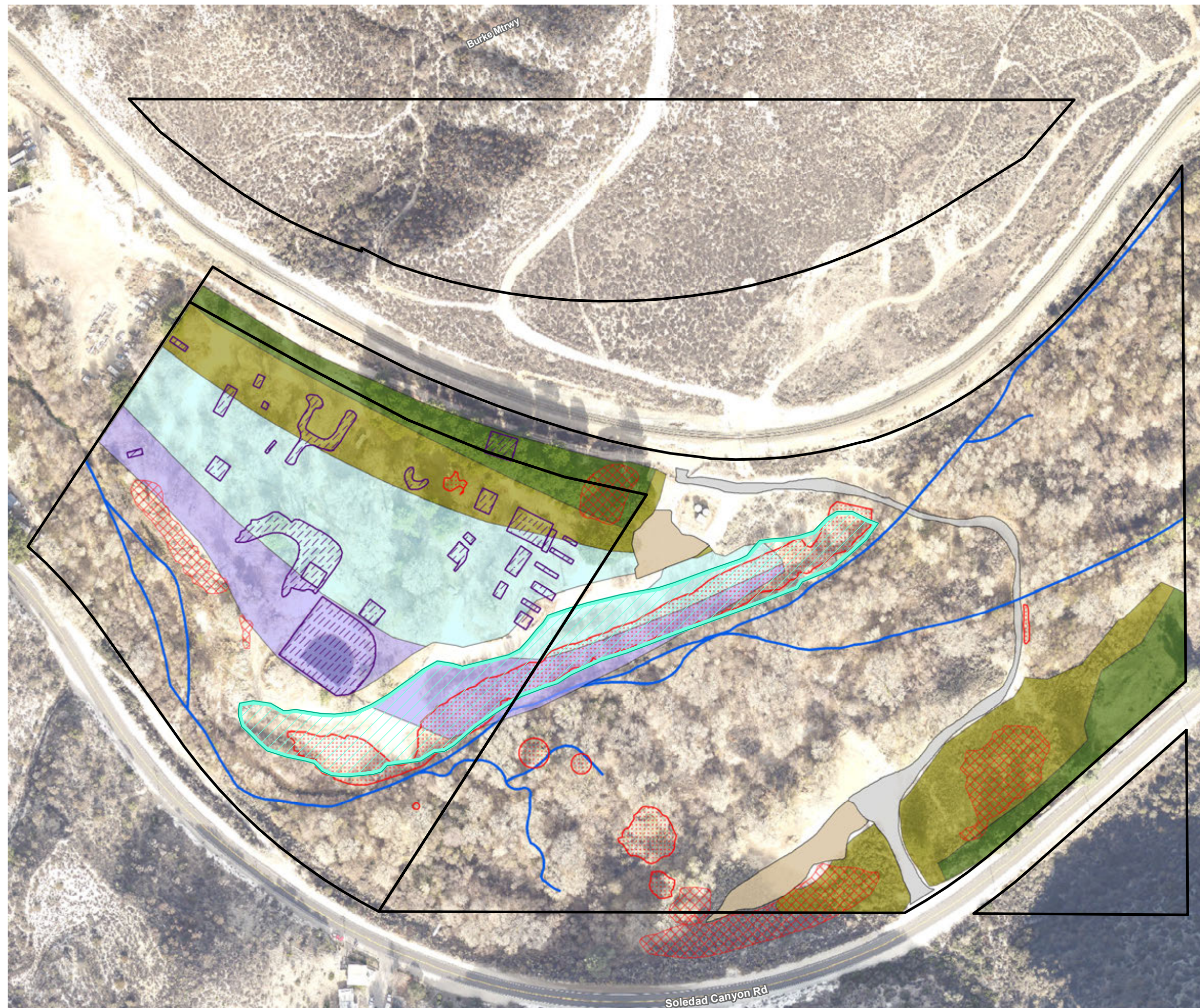
Exhibit 3.1–18

Long-term Streambed Alteration Agreement for the Soft-bottom Channel Maintenance Plan for Select Reaches

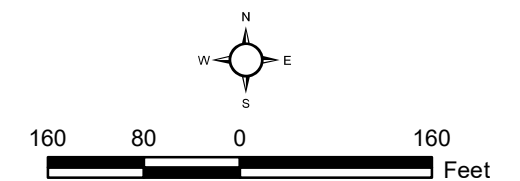


(Rev: 06-06-2018 CJS) R:\Projects\IPAS\CoLADPW (DPW)\J294\Graphics\MND\Ex_121_Impacts.pdf

D:\Projects\COLORADO\DPW\151501\Ex_SRR_ProjectImpacts_20190701.mxd



- SRR Site (41.13 acres)
- Intensive Enhancement**
 - Plant Installation
 - Restored Fremont Cottonwood – Willow Forest (2.26 acres)
 - Invasive Vegetation Removal Areas (1.43 acres)
 - Debris Pile Removal (1.28 acres)
 - Infrastructure Removal Areas (0.98 acres)
- Vegetation Types to be Installed**
 - Alluvial Sage Scrub (3.37 acres)
 - Cottonwood Willow Woodland (2.26 acres)
 - Oak Woodland (1.78 acres)
 - Transitional Riparian (3.85 acres)
- Other Areas**
 - Main Access Road (0.53 acres)
 - Staging Areas (0.48 acres)
 - Low Flow Channel



Aerial Source: LAR-IAC 2014

Project Impacts – Vegetation Types and Other Areas – Stickleback River Ranch Site

Exhibit 3.1–19

Long-term Streambed Alteration Agreement for the Soft-Bottom Channel Maintenance Plan for Select Reaches



(Rev: 07/09/2019 MKM) R:\Projects\DPW\3DPW029401\Graphics\IMND\

Wildlife

The abundance and diversity of wildlife that the Project's use these 18 reaches is dependent, in large part, on the size of the reach and its proximity to natural open space areas. As would be expected, species of limited mobility (e.g., amphibians, reptiles and small mammals) are not expected to be as diverse in small reaches that are well isolated by development. Those species of high mobility (e.g., birds) are often the most prominent wildlife component of small reaches isolated by development, especially during migration. As a result, the following discussions on common wildlife are limited to birds and mammals of relatively high mobility.

Reaches 101–105, 108, 109, 110, 120, 121

Bird species that generally characterize these Santa Clarita reaches during the summer season include mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), western scrub-jay (*Aphelocoma californica*), common raven (*Corvus corax*), cliff swallow (*Petrochelidon pyrrhonota*), bushtit (*Psaltirparus minimus*), Bewick's wren (*Thryomanes bewickii*), common yellowthroat (*Geothlypis trichas*), California towhee (*Melospiza crissalis*), song sparrow (*Melospiza melodia*), house finch (*Haemorhous mexicanus*), and lesser goldfinch (*Spinus [Carduelis] psaltria*). Mammal species expected to occur include the California ground squirrel (*Otospermophilus beecheyi*), Virginia opossum (*Didelphis virginiana*), desert cottontail (*Sylvilagus audubonii*), coyote (*Canis latrans*), northern raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*).

Reaches 112–119

Bird species that characterize the six coastal reaches with aquatic habitats (Reaches 112-117) include a variety of water birds, but also shore birds that feed at the water's edge. For the most part, the abundance of water birds reaches its peak during the winter season during southern California. At this season, common species have been observed at these six reaches include the American wigeon (*Anas americana*), mallard (*Anas platyrhynchos*), northern pintail (*Anas acuta*), blue-winged teal (*Anas discors*), cinnamon teal (*Anas cyanoptera*), green-winged teal (*Anas crecca*), bufflehead (*Bucephala albeola*), red-breasted merganser (*Mergus serrator*), ruddy duck (*Oxyura jamaicensis*), pied-billed grebe (*Podilymbus podiceps*), eared grebe (*Podiceps nigricollis*), western grebe (*Aechmophorus occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), brown pelican (*Pelecanus occidentalis*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), American coot (*Fulica americana*), black-necked stilt (*Himantopus mexicanus*), black oystercatcher (*Haematopus bachmani*), killdeer (*Charadrius vociferous*), spotted sandpiper (*Actitis macularius*), greater yellowlegs (*Tringa melanoleuca*), willet (*Tringa semipalmata*), whimbrel (*Numenius phaeopus*), least sandpiper (*Calidris minutilla*), long-billed dowitcher (*Limnodromus scolopaceus*), ring-billed gull (*Larus delawarensis*), western gull (*Larus occidentalis*), and California gull (*Larus californicus*). Some of the above species may nest in the vegetation at the water's edge. These species include the mallard, cinnamon teal, pied-billed grebe, and American coot. Other species, such as the killdeer and black-necked stilt may also nest at some of these reaches. The other species on the above list, however, use the reaches exclusively for foraging and/or loafing.

The aquatic habitats of these six coastal reaches are expected to support many fish species including northern anchovy (*Engraulis mordax*), cheek-spotted goby (*Lythrypnus alphigena*), arrow goby (*Clevelandia ios*), and California killfish (*Fundulus parvipinnis*). Mammals expected to occur at these six reaches include the California ground squirrel, Virginia opossum, common

raccoon, and coyote. Marine mammals such as the California sea lion (*Zalophus californianus*), and harbor seal (*Phoca vitulina*) may also occur at these coastal reaches.

The more upland nature of Reaches 118 and 119 are expected to support only common bird species that have adapted to urban areas or able to persist in small patches of native riparian habitat. During the summer season, these are expected to include Cooper's hawk (*Accipiter cooperii*), mourning dove, Anna's hummingbird, Allen's hummingbird (*Selasphorus sasin*), black phoebe, American crow (*Corvus brachyrhynchos*), bushtit, northern mockingbird (*Mimus polyglottos*), orange-crowned warbler (*Oreothlypis celata*), common yellowthroat, song sparrow, and house finch.

SRR Site

An avian point count was performed at the SRR site in December 2016 and the following species were identified: mourning dove, Anna's hummingbird, Nuttall's woodpecker, California scrub-jay (*Aphelocoma californica*), common raven, mountain chickadee (*Poecile gambeli*), oak titmouse (*Baeolophus inornatus*), house wren (*Troglodytes aedon*), western bluebird (*Sialia mexicana*), house finch, lesser goldfinch, spotted towhee (*Pipilo maculatus*), California towhee, white-crowned sparrow (*Zonotrichia leucophrys*), dark-eyed junco (*Junco hyemalis*), yellow-rumped warbler (*Setophaga coronata*), hairy woodpecker (*Picoides villosus*), and blue-gray gnatcatcher (*Ramphocaenus melanurus*). Other species common with cottonwood and willow riparian woodland habitat in the region would likely occur,

Special Status Resources

Special Status Vegetation Types

Fifteen vegetation types considered special status by CDFW are located within the Project's 18 reaches, as shown in Table 3-8, Vegetation Impacts. Most special status vegetation types are present in the Santa Clarita reaches, with just three in the six coastal reaches. Additionally, eelgrass occurs in the aquatic habitats of Reach 116, as described in Appendix B-1 (Chambers Group 2014b). Although not listed as a special status vegetation type or plant species by CDFW, eelgrass is considered to be a "Habitat Area of Particular Concern" by the Pacific Fishery Management Council due to its functional value as habitat for marine wildlife.

The SRR site supports southern cottonwood willow riparian forest throughout much of the area. This vegetation type is considered "special status" on a global basis.

Special Status Plant and Wildlife Species

Special status plant and wildlife species have the potential to occur in many of the reaches covered in this IS/MND. These plant and wildlife species are those that have been documented as imperiled, declining, or rare by State and federal resource agencies, academic institutions, and various conservation groups.

Special Status Plant Species

Initial biological assessment surveys (BonTerra Consulting 2013c, 2012, 2010, 2009a, 2007a, 2007b, BonTerra Psomas 2018a, 2015b, 2014a, 2014b, 2014c, 2014d, 2014e, 2014f, 2014i, Chambers Group 2014a, 2014b, 2014c, 2014d, ESA 2014a) identified potentially suitable habitat for the federally-listed Endangered Braunton's milkvetch (*Astragalus brauntonii*), the State-listed Endangered San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), the federally

and State-listed Endangered slender-horned spineflower (*Dodecahema leptoceras*), and Sanford's arrowhead (*Sagittaria sanfordii*), a California Rare Plant Rank (CRPR) List 1B.2 species (moderately threatened in California), at various reaches (as described in Section 2.6, Project Description for each reach, above). Focused plant surveys, conducted over multiple years, have been negative for these species and they are therefore considered absent from the reaches (BonTerra Consulting 2013a, 2009b, 2009c, 2009d, 2009e, 2009f, BonTerra Psomas 2019, 2015a, Chambers Group 2015b, 2015c, 2015d, 2015e). See the various focused survey reports in Appendices B-2 through B-33 for the biological assessments.

Focused plant surveys of the Project's 18 reaches have observed two special status plant species: southern tarplant was observed in Reach 113, and estuary seablite was observed in Reach 116 (BonTerra Consulting 2013a, 2009b, 2009c, 2009d, 2009e, 2009f, BonTerra Psomas 2019, 2015a, Chambers Group 2015b, 2015c, 2015d, 2015e). Southern tarplant has a CRPR of 1B.1 (seriously threatened in California), and estuary seablite has a CRPR of 1B.2 (moderately threatened in California). These observations are discussed in more detail below. The special status plant survey reports are provided in Appendices B-2 through B-13.

Southern Tarplant

Southern tarplant is an annual herb in the Asteraceae family that flowers between May and November. This plant is often found along the margins of marshes and swamps, can be found in vernal mesic valley and foothill grasslands, and has been known to grow in vernal pools as well. This species occurs at elevations up to 1,575 feet (0 to 480 meters) above mean sea level. This species is threatened by population fragmentation, urbanization, vehicles, development, foot traffic, grazing, habitat disturbance, and competition from non-native plants (CNPS 2019). This species has a CRPR of 1B.1, which are "seriously threatened in California" (i.e., over 80 percent of the occurrences are threatened or have a high degree and immediacy of threat). Several individuals were observed immediately outside Public Works right-of-way adjacent to the Dominguez Channel, in a potential staging area for the proposed maintenance work (Chambers Group 2015c, Appendix B-5).

Estuary Seablite

Estuary seablite is a perennial herb in the Chenopodiaceae family that typically blooms between May and October (CNPS 2009). It occurs in coastal salt marshes and swamps at elevations below approximately 15 feet above msl (Jepson Flora Project 2019). This species is potentially threatened by development and recreation (CNPS 2019). In southern California, this species is known from Los Angeles, Orange, San Diego, and Ventura counties (Jepson Flora Project 2019). Common associated species include native common woody pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*) and non-native hottentot fig (*Carpobrotus edulis*), slender-leaved iceplant (*Mesembryanthemum nodiflorum*), and Australian saltbush (*Atriplex semibaccata*). One individual was observed on the south-facing bank of Alamitos Bay adjacent to the marina in disturbed salt marsh habitat (BonTerra Consulting 2009f, Appendix B-13).

Special Status Wildlife Species

Ten Candidate or federally or State-listed Threatened or Endangered wildlife species, or CDFW Species of Special Concern with protection measures, have the potential to occur in the Project's 18 reaches and require avoidance or some other measure of protection. Six federally or State-listed Threatened or Endangered wildlife species have been documented within the reaches. These species are the green sea turtle, unarmored threespine stickleback (UTS), arroyo toad, California least tern, least Bell's vireo, and Belding's savannah sparrow. The yellow-billed cuckoo

and southwestern flycatcher may potentially occur, but surveys have been negative to date (BonTerra Consulting 2013c, 2012, 2010, 2009a, 2007a, 2007b, BonTerra Psomas 2018a, 2015b, 2014a, 2014b, 2014c, 2014d, 2014e, 2014f, 2014i, Chambers Group 2014a, 2014b, 2014c, 2014d, ESA 2014a). Due to the recent status change of Crotch bumble bee (*Bombus crotchii*) to Candidate State Endangered, surveys have not been conducted at any of the reaches. Although focused surveys for burrowing owl have not been conducted, burrowing owl has not been detected at any of the reaches to date. These ten species with special protection are discussed in greater detail below. See Appendices B-14 through B-40 of this IS/MND for additional information on these species and the special status wildlife surveys.

Additionally, Essential Fish Habitat (EFH) occurs in the aquatic habitats of Reaches 116 (Chambers Group 2014g). Although not listed as a special status vegetation type or plant species, eelgrass is considered to be a “Habitat Area of Particular Concern” by the Pacific Fishery Management Council due to its functional value as habitat for marine wildlife. See the EFH report in Appendix B-33 for further information.

While no formal biological assessment report or focused wildlife surveys have been performed at the SRR site, USFWS Critical Habitat for arroyo toad is present (USFWS 2011) and potentially suitable habitat for UTS, least Bell’s vireo, southwestern willow flycatcher, and yellow –billed cuckoo is also present (CDFW 2016a).

Crotch Bumble bee

On October 18, 2018, The Xerces Society drafted a petition to the State Of California Fish And Game Commission to list the Crotch bumble bee (*Bombus crotchii*), Franklin’s bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act (The Xerces Society 2018). The Crotch bumble bee is the only species in the petition that occurs in the Project region. The Crotch bumble bee occurs in coastal California east towards the Sierra-Cascade Crest and is less common in western Nevada. Comparing historic records to recent records, the petition concluded the Crotch bumble bee’s relative abundance has declined by 97.7 percent (The Xerces Society 2018). The Crotch bumble bee is a medium-tongued bee that prefers pollen from plant genera such as *Antirrhinum*, *Asclepias*, *Chaenactis*, *Clarkia*, *Dendromecon*, *Eriogonum Escholzia*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Koch et al. 2012, Williams et al. 2014). It can generally be found foraging where native flowering plants occur in grassland, scrub, chaparral, woodland, and riparian habitats in Southern California. As with most bumble bees, Crotch bumble bee is a ground nester and often makes its nest in abandoned mammal burrows in most undisturbed native habitat types. It has been shown that the survival of family lineages increases significantly with the proportion of high-value foraging habitat, including spring floral resources, within 820 feet–3,280 feet of the natal colony (Carvell et al. 2017). Foraging distance of the Crotch bumble bee is not well documented; however, studies of bumble bee foraging distance show most foraging occurs within one mile of the natal colony—though records of foraging distances upwards of three miles are documented in certain species (Saifuddin and Jha 2014). In bumble bees, only the newly hatched and mated queens survive to the following year by overwintering in a state of torpor. To date, bumble bee hibernating biology is poorly understood, and overwintering sites for the Crotch bumble bee have not been described. Queen bumble bees in northern California have been described as overwintering where no floral resources exist beneath litter of cypress trees close to the trunks and shaded from direct sun (Williams, N. M. et al. 2009).

A search of the iNaturalist research-grade observations of Crotch bumble bee turns up 56 observations in Los Angeles County between June 2017 and September 2019 (iNaturalist 2020).

Observations are scattered throughout, or within proximity to, the foothill and mountainous areas and are absent from desert areas in northeastern Los Angeles County, and are largely absent from the Los Angeles basin and foothills east of the 605 freeway (iNaturalist 2020).

On July 16, 2019, CDFW issued a Notification of Status Review for Four Bumble Bee Species (CDFW 2019). CDFW has 12 months to review the petition, evaluate the available information, and report back to the Commission whether the petitioned actions are warranted. Responses and information received by August 16, 2019, will be evaluated for incorporation in CDFW's final reports to the Commission.

Green Sea Turtle

The green sea turtle (*Chelonia mydas*) is a federally listed Threatened species. Green sea turtles are generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae (USFWS 2016). Open beaches with a sloping platform and minimal disturbance are required for nesting. Green sea turtles have strong nesting site fidelity and often make long distance migrations between feeding grounds and nesting beaches. The green sea turtle has a worldwide distribution in tropical and subtropical waters. Within the U.S., green sea turtles nest in small numbers in the U.S. Virgin Islands, Puerto Rico, Georgia, South Carolina, and North Carolina, and in larger numbers in Florida and Hawaii. Breeding colony populations in Florida part of the North Atlantic Distinct Population Segment (DPS) and on the Pacific Coast (East Pacific DPS) and are listed as Threatened as published in the *Federal Register*, April 6, 2016 (USFWS 2016). Although no focused surveys have been conducted, due to warm waters in Reach 115 associated with effluent from water treatment plant and upstream concrete lined channels, green sea turtles are known to forage at the upper end of the Reach and casual observations are frequent (BonTerra Consulting 2013c).

Unarmored Threespine Stickleback

The unarmored threespine stickleback (stickleback) is a federally and State-listed Endangered species and a California Fully Protected species. This fish occurs in weedy, permanent pools or backwaters and in slow-moving water along the margins of a stream. It primarily occurs in cool and clear water with mud or sand substrates. Its present range is now limited to the upper Santa Clara River system and in San Antonio Creek in northern Santa Barbara County. The Santa Clarita area Reaches 103, 104, 105, 109, 120, 121, and the SRR site provide potentially suitable habitat for this species (BonTerra Psomas 2018a, 2014c, 2014d, 2014e; CDFW 2016a, CDFW 2018a, CDFW 2018b; ESA 2014a). Stickleback has not been observed in Reaches 104, 105, 120, or 121. Stickleback was detected in Reach 103 from 2005 to 2008, but not from 2009 to 2014 (Psomas 2018b). Stickleback was also present in Reach 109 from 2009 to 2011, but not from 2012 to 2014. Due to the 2015 designation as a California Fully Protected species, the surveys in 2015-2018 were visual presence/absence only and no netting was conducted. Environmental measurements were also taken to determine habitat suitability (e.g., water temperature). No stickleback were visually observed at any reach at that time, but potentially suitable habitat was present at Reaches 103, 105, and 109 in 2015 and at Reaches 103 and 105 in 2016, therefore work activities proceeded as though stickleback were present. Surveys in 2017 and 2018 concluded that no suitable habitat was present in any reach and the species was considered absent. See Appendices B-14 through B-23 for habitat assessment reports of all Santa Clara River watershed reaches.

At the SRR Site, USFWS detected UTS on the adjacent downstream property approximately 15 years ago (Hovey 2018). Additionally, in August 2018, CDFW translocated a population of UTS from San Diego County to the low flow channel on the SRR Site (CDFW 2018a, 2018b).

Arroyo Toad

The arroyo toad is a federally listed Endangered species and a California Species of Special Concern. This species typically occurs in semi-arid regions near washes or intermittent streams from sea level to approximately 3,000 feet above msl (Zeiner et al. 1988). Designated Critical Habitat in the Project region for this species includes two locations. The western location includes Castaic Creek from the downstream edge of The Old Road right-of-way (adjacent to I-5) downstream to the confluence with the Santa Clara River and 4 mi (6.4 km) of the Santa Clara River from the confluence with San Francisquito Creek downstream to the confluence with Castaic Creek. The eastern location includes the Santa Clara River from the confluence with Bee Canyon upstream to the confluence with Arrastre Canyon (USFWS 2011). Reaches 104, 105, 109, 121, and the SRR site provide potentially suitable habitat for this species (BonTerra Psomas 2018a, 2014c, 2014d, 2014e, USFWS 2011). Focused surveys conducted since 2005 at Reaches 104 and 105; since 2009 at Reach 109; and in 2018 at Reach 121, have been negative for arroyo toad (see Appendix B-55 for the survey report) (BonTerra Psomas 2017, Psomas 2018f). Focused surveys conducted in 2003 for Santa Clara River Reaches 71 and 82 detected two arroyo toads approximately 0.56 mile downstream from the McBean Parkway bridge, which would be in the current survey area for Reach 109 (BonTerra Psomas 2017). The SRR site occurs within USFWS designated Critical Habitat for the arroyo toad (USFWS 2011). See Appendix B-18 for focused survey reports and Appendix B-37 for a summary of past survey results.

Yellow-billed Cuckoo

The western yellow-billed cuckoo is a federally listed Threatened and a State-listed Endangered species. This migratory bird requires broad areas of old-growth riparian habitats dominated by willows and cottonwoods with dense understory vegetation. This species formerly nested in the Los Angeles, San Gabriel, and the Santa Clara River systems, but has been considered extirpated as a breeder in Los Angeles County since the 1950s (Garrett and Dunn 1981; Allen et al. 2016). The Santa Clara reaches 103, 104, 109, and 121 provide potentially suitable habitat for this species. Focused surveys conducted at these reaches did not locate the species (BonTerra Psomas 2018b, 2016; see Appendices B-35 and B-39).

California Least Tern

The California least tern is a federally and State-listed Endangered and a California Fully Protected species. This migratory bird has traditionally nested in colonies on open sand, gravel, or shell beaches along seacoasts and on sand or gravel bars or on mudflats along rivers. In Los Angeles County, the current breeding population is at Venice Beach and Terminal Island in Long Beach where they benefit from fences and other protection efforts (Allen et al. 2016). The six coastal reaches with aquatic habitats provide potentially suitable foraging habitat, but nesting habitat is not present for this species. This species has been observed foraging in Reaches 112, 113, 114, 115, 116, and 117 incidentally during other surveys, as documented in Appendices B-24 through B-31 (BonTerra Consulting 2013c, 2012, 2010, 2009a, BonTerra Psomas 2015b, 2014i, Chambers Group 2014a, 2014b).

Burrowing Owl

Burrowing owl is a California Species of Special Concern. In southern California, burrowing owls breed and forage in grasslands and prefer flat to low rolling hills in treeless terrain. Due to loss of habitat, breeding birds in Los Angeles County are almost entirely restricted to the Antelope Valley, but some transient and winter visitors still occur on the coastal slope (Allen et al. 2016). A resident burrowing owl population persists on the Seal Beach Naval Weapons Station (SBNWS) in Orange County (Hamilton and Willick 1996, CDFW 2016). Reach 116 provides potentially suitable habitat for this species on the channel levee bordering the Los Cerritos Wetlands, as documented in Appendix B-26 (Chambers Group 2014b). Since this wetland is less than two miles from the SBNWS, there is potential for this species to occur at Reach 116.

Southwestern Willow Flycatcher

The southwestern willow flycatcher is a federally and State-listed Endangered species. This migratory bird breeds in riparian habitats along rivers, streams, or other wetlands where dense growth of willows, mulefat, arrowweed, tamarisk, or other plants are present, often with a scattered overstory of cottonwood (USFWS 1995). The Santa Clarita Reaches 103, 104, 105, 110, and 121 provide potentially suitable habitat for this species. Focused surveys conducted at these five reaches have not located the species (BonTerra Psomas 2018d; see Appendices B-36 and B-37 for the survey report).

Least Bell's Vireo

The least Bell's vireo is a federally and State-listed Endangered species. This migratory bird primarily breeds in riparian habitats dominated by willows with dense understory vegetation (USFWS 1986). A dense shrub layer two to ten feet above ground is the most important habitat characteristic for this species (Goldwasser 1981; Franzreb 1989). The Santa Clarita reaches 103, 104, 105, 109, 110, and 121 provide potentially suitable habitat for this species. Focused surveys conducted at these six reaches have located breeding vireos at Reach 103, but not the other five reaches (i.e., 104, 105, 109, 110, 121) (BonTerra Psomas 2017, 2018d; see Appendices B-36 and B-37 for the survey reports).

Belding's Savannah Sparrow

The Belding's Savannah sparrow is a State-listed Endangered species. This sparrow is a resident of pickleweed marshes bordering coastal estuaries (Allen et al. 2016). In Los Angeles County, this species nests at two locations: Ballona Wetlands in Playa del Rey and Los Alamitos wetlands (Allen et al. 2016). Although focused surveys have not been conducted, this species has been observed foraging in Reach 112 incidentally during other surveys, as documented in Appendix B-27. Reach 112 provides suitable foraging habitat, but not nesting habitat for this species (BonTerra Psomas 2015).

Jurisdictional Areas

Section 404 of the Clean Water Act (CWA) and Section 1602 of the *California Fish and Game Code* regulate activities affecting resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and the CDFW, respectively. "Waters of the U.S." under the jurisdiction of the USACE include navigable coastal and inland waters, lakes, rivers, and streams and their tributaries; interstate waters and their tributaries; wetlands adjacent to such waters; intermittent streams; and other waters that could affect interstate commerce. The CDFW has jurisdictional authority over resources associated with rivers, streams, and lakes. Section 401 of the CWA

provides the Regional Water Quality Control Board (RWQCB) with the authority to regulate, through a Water Quality Certification, any proposed federally permitted activity that may affect water quality. By nature of their function along a natural stream course, each reach covered in this IS/MND is considered to be under the jurisdiction of the USACE, the CDFW, and the RWQCB.

Impacts to vegetation types found in the Project area may be subject to permit requirements, as regulated by the USACE, the CDFW, and the RWQCB pursuant to Section 404 of the Clean Water Act and Sections 1600 et seq. of the *California Fish and Game Code*. The USACE takes jurisdiction over areas considered “waters of the U.S.,” which can consist of wetland and non-wetland areas. Non-wetland jurisdictional waters (identified in the table below as open water and other non-wetland “waters of the U.S.”) are typically defined by the ordinary high-water mark and other specific criteria. Wetlands, a subset of jurisdictional “waters of the U.S.,” are defined as those that possess the following three parameters: (1) hydrology that provides permanent or periodic inundation by groundwater or surface water; (2) hydric soils; and (3) hydrophytic vegetation. RWQCB jurisdictional limits equal those of the USACE and can also include “isolated waters” that do not have a connection to a traditional navigable waterway. CDFW jurisdictional limits extend to the top of bank and generally exceed the USACE jurisdictional limits. CDFW jurisdictional areas also include riparian habitat supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. The limits of CDFW jurisdiction are often defined by riparian vegetation.

Table 3-9, Summary of Impacts to Jurisdictional Resources, shows the amount of jurisdictional resources that occur within the Project survey area. The jurisdictional reports (BonTerra Psomas 2015d, 2014h; Psomas 2018d, 2018e) are provided in Appendices B-42 through B-45.

Nesting Birds

The Migratory Bird Treaty Act (MBTA) protects the nests of all native bird species, including common species such as mourning dove, Anna’s hummingbird and house finch. Nesting birds and raptors are also protected by Fish and Game Code. A variety of birds were observed during biological surveys and nesting birds have potential to occur in vegetation throughout the Project area.

Regulated Trees

Trees occurring within the reaches covered under this IS/MND are protected within the jurisdiction of the County of Los Angeles as well as State resource agencies in conjunction with jurisdictional waters regulatory permits. The County of Los Angeles Tree Ordinance (Ord. No. 177,404) protects all native oak trees of a certain size. No oak trees meeting the minimum size requirement described in the County of Los Angeles Tree Ordinance, have been documented during focused tree surveys (BonTerra Psomas 2015c, 2014g, 2014j, 2014l, 2014m, Chambers Group 2014e, 2014f, ESA 2014a). The tree survey reports are provided in Appendices B-47 through B-54.

3.4.2 IMPACT ANALYSIS

Regulatory Requirements

RR BIO-1 The LACFCD is required to obtain all necessary permits for impacts to “waters of the United States” and “waters of the State” from applicable resource agencies, including the United States Army Corps of Engineers (USACE) for a Federal Clean Water Act Section 404 permit; the Los Angeles Regional Water Quality Control Board (RWQCB) for a Federal Clean Water Act Section 401 Water Quality

Certification; and the California Department of Fish and Wildlife (CDFW) for a Section 1600 Long-term Streambed Alteration Agreement.

- RR BIO-2** All activities conducted as part of the Maintenance Plan and CHMMP must be conducted in full compliance with the federal Migratory Bird Treaty Act, Fish and Game Code, as well as all other applicable federal, State, and local laws.

Impact Discussion

- a) **Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Less than Significant with Mitigation. As previously discussed, initial biological surveys of the reaches were conducted at various times to document the existing biological resources and assess the potential presence of sensitive or special status plant and wildlife species. Subsequently, focused surveys were conducted for potentially occurring plant and wildlife species at particular reaches identified as having such potential. Based on the results of these surveys, methods to avoid or minimize impacts on special status species have been incorporated into the Maintenance Plan for future implementation, as summarized in Section 2.6 of this IS/MND under the header "Project Description for Each Reach." The survey results are presented in Table 3-7, Summary of Completed Special Status Plant and Wildlife Surveys, and are described below.

**TABLE 3-7
SUMMARY OF COMPLETED SPECIAL STATUS PLANT
AND WILDLIFE SURVEYS**

Reach Number	Special Status Plants (Spring Survey)	Unarmored Three-spine stickleback	Arroyo Toad	Least Bell' s Vireo	Southwestern Willow Flycatcher	Western Yellow-Billed Cuckoo
101	●					
102	●					
103*	●	●		●	●	●
104*	●	●	●	●	●	●
105*	●	●	●	●	●	
108	●					
109	●	●		●	●	●
110	●			●	●	
112	●					
113	●					
114	●					
115*	●					
116	●					
117	●					
118						
119						
120	●	●				
121	●	●	●	●	●	●
SRR site						
<p>* = Reach considered "sensitive" ● = Focused Surveys Performed Blue-Colored Space = Positive Result Orange-Colored Space = Not found in focused surveys conducted specifically for this channel reach since 2005; however, focused surveys conducted in 2003 for Santa Clara River Reaches 71 and 82 located two arroyo toads approximately 2,953 feet (0.56 mile) downstream from the McBean Parkway bridge, which would be in the current survey area for Reach 109. Note: Surveys for Crotch bumble bee have not been conducted at any of the reaches or SRR site due to its recent status change.</p>						

The purpose of the SRR site is to provide mitigation for impacts to special status species habitat at the reaches during maintenance activities. Temporary impacts to degraded habitat are expected during restoration activities at the SRR site; however, the overall purpose is to restore native habitat and return surface flows to this portion of the channel, resulting in the re-establishment of aquatic resources. Temporary impacts are minor short-term impacts that are typically associated with the construction phase of a project and do not cause a lasting physical loss or ecological degradation of a biological resource (e.g. vehicular staging areas). The impact must be restored to pre-project condition through natural ecological processes or active restoration in order to be classified as temporary. If the impact is not restored to pre-project condition, it is classified as permanent. Permanent impacts are defined as those that would permanently convert a biological resource to another type. Permanent impacts can result in physical loss of area and ecological degradation. The outcome of restoration to the SRR site

would establish habitat values that are higher than current conditions for special status species, including federally- and State-listed Threatened and Endangered species. Methods to avoid impacts to potentially occurring special wildlife status species will be incorporated into the FHMMP. Restoration activities at the SRR site are expected to result in a net positive condition for special status species in the region. Any federally and State-listed Threatened and Endangered species known to occur or potentially occur on site are discussed further below.

Plants

None of the reaches covered in this IS/MND have potential to support any federally or State-listed Threatened or Endangered plant species. Potentially suitable habitat does occur for other special status plant species and focused special status plant surveys were conducted at all but two reaches (Reaches 118 and 119) where surveys were deemed unwarranted due to lack of potentially suitable habitat. One special status plant species, southern tarplant (a CRPR 1B.1 species) was observed during focused plant surveys. The southern tarplant was observed in Reach 113 in 2009 and 2015. Focused plant surveys identified 34 occurrences of southern tarplant (627 individuals) in 2009 and one occurrence in 2015. See Section 3.4.1, Existing Conditions for more detailed information.

Proposed Project activities at Reach 113 have the potential to impact the southern tarplant either directly or indirectly. Due to the relatively large population of southern tarplant documented at Reach 113, and the low regional population numbers, any impacts would be considered potentially significant according to state CEQA guidelines. Implementation of MM BIO-1 (pre- and post-maintenance surveys by a qualified biologist) and MM BIO-2 (pre-maintenance surveys at Reaches 112-116) would be required to reduce this impact to a less than significant level.

Wildlife

Bombus crotchii (i.e., Crotch bumble bee), a Candidate State Endangered invertebrate species, has not been surveyed for in any of the Project's 18 reaches or at the SRR site due to its recent status change. A desktop habitat assessment for foraging, nesting, and overwintering habitat was conducted for this species at each of the 18 reaches and the SRR site in January 2020. The assessment was based on factors such as vegetation type, estimated current disturbance frequency (i.e., human or natural), distance to recent Crotch bumble bee observations, and distance from large patches (greater than 50 acres) of high-quality habitat. Reaches 112–117 and 120 were determined to have no suitable foraging, nesting, or overwintering habitat. Reaches 103, 104, 108, 109, 118, and 119 were determined to contain limited potentially suitable foraging, nesting, and overwintering habitat and Crotch bumble bee has a low potential to occur. Reaches 101, 102, 105, 110, 121, and the SRR site were determined to contain potentially suitable foraging, nesting, and overwintering habitat and Crotch bumble bee has a moderate potential to occur.

Any impacts to Crotch bumble bee at this time would be considered potentially significant as “take” and is not authorized. Implementation of MM BIO-3⁴ would be required to reduce this impact to less than significant. Additional protective methods may be incorporated within the HMMP prior to approval by CDFW. Should the protection status for Crotch bumble bee revert to its previous

⁴ No survey protocol specific to the Crotch bumble bee has been issued by CDFW, therefore, survey methodologies developed by USFWS for detecting the Rusty patched bumble bee (a federally-listed Endangered bumble bee) has been modified to develop this mitigation measure (USFWS 2018).

listing of California Species of Special concern after the review process, the protection measures included in MM BIO-3 would no longer be warranted.

The unarmored threespine stickleback, a federally and State-listed Endangered and California Fully Protected species, has been surveyed yearly in Reaches 103, 104, and 105 since 2005, in Reach 109 since 2011, and in Reaches 120 and 121 since 2018. While past surveys have found the species to occur or potentially occur in Reaches 103, 105, and 109, the most recent survey in 2018 found no potentially suitable habitat in any reach at the time of the survey. Stickleback is considered known from the SRR site, as described in in Section 3.4.1, Existing Conditions. Any impacts to unarmored threespine stickleback would be considered significant. Implementation of MM BIO-1 and MM BIO-4 would be required to reduce this impact to less than significant. Additional protective methods may be incorporated within the HMMP prior to approval by CDFW.

Focused surveys have been conducted for one amphibian species, the arroyo toad, at Reaches 104, 105, 109, and 121. The arroyo toad is listed as California Species of Special Concern and is a federally Endangered species. Focused surveys for the arroyo toad at Reaches 104 and 105 have been conducted every other year since 2005 with negative results, and once at Reach 121 in 2018 with negative results. Typically, these reaches do not support enough surface water to provide suitable breeding habitat for the arroyo toad; however, there are sightings of this species downstream about 1.5 miles at the confluence of San Francisquito Creek and the Santa Clara River. As a result, this species has potential to occur at Reach 105, especially after winters with above-average rainfall. The SRR site occurs within USFWS-designated Critical Habitat for the arroyo toad, and this species may potentially occur. Any impacts to arroyo toad would be considered significant. Implementation of MM BIO-1 and MM BIO-5 would be required to reduce this impact to a less than significant level. MM BIO-5 requires that a qualified biologist conduct focused surveys every two years in reaches where USFWS-designed Critical Habitat for arroyo toad occurs.

Focused surveys have been conducted for the following three bird species: the southwestern willow flycatcher, least Bell's vireo, and western yellow-billed cuckoo. Both the southwestern willow flycatcher and least Bell's vireo are federally- and state-listed as Endangered, while the western yellow-billed cuckoo is federally listed as Threatened and State-listed as Endangered. Survey results for these three species are shown in Table 3-7 above. Since 2002, the southwestern willow flycatcher has not been detected at any of the reaches in the Santa Clara River Watershed). The first sightings during focused surveys of least Bell's vireo in the reaches of the Santa Clara River Watershed occurred in 2011. The first sighting, a transient male, was observed at Reach 71 (not covered in this IS/MND) in May of 2011. That same bird or another transient male was then observed at Reach 105 in June of 2011. No nesting has been detected in Reach 105. In 2014, a least Bell's vireo pair was present in Reach 103 and attempted nest building in an adjacent back yard; nesting success was not determined for this pair. The following year at Reach 103, a singing male established a territory late in the season from June 8 to 18, 2015, but never paired with a female. Preliminary results of 2019 focused surveys indicate a least Bell's vireo nesting pair within Reach 103. Since 2016, surveys for the yellow-billed cuckoo have been negative at the reaches in the Santa Clara River Watershed. See Section 3.4.1 Existing Conditions for more detailed information. Although focused surveys have not been conducted at the SRR site, all three species may potentially occur. Any impacts to southwestern willow flycatcher, least Bell's vireo, and western yellow-billed cuckoo would be considered significant. Implementation of MM BIO-1, MM BIO-6, and MM BIO-7 would be required to reduce this impact to a less than significant level.

Two other federally or State-listed Threatened or Endangered bird species have the potential to occur: the California least tern and Belding's savannah sparrow. The California least tern is a

federally and State-listed Endangered species and a California Fully Protected species, and the Belding's savannah sparrow is a State-listed Endangered species. The Belding's savannah sparrow has been incidentally observed foraging on the banks at Reach 112 and is known to breed in the adjacent Ballona Wetlands Ecological Reserve. Potentially suitable foraging habitat for the Belding's savannah sparrow also occurs at Reach 116 and they are known to breed in the adjacent Los Cerritos Wetlands. No breeding habitat occurs for the Belding's savannah sparrow at either Reach 112 or 116. Limited foraging habitat occurs for the California least tern at Reaches 112, 113, 115, 116, and 117; but no breeding habitat is present. Therefore, impacts to these species would be less than significant. See Section 3.4.1, Existing Conditions, for more detailed information.

One notable California Species of Special Concern that may occur is the western burrowing owl. Potentially suitable burrowing owl habitat was observed at Reach 116 during the biological assessment, and burrowing has been documented within one mile of the reach. Proposed Project activities may result in impacts to burrowing owl. See Section 3.4.1 Existing Conditions for more detailed information. Impacts to burrowing owl would be considered potentially significant. Implementation of MM BIO-1, and MM BIO-8 would be required to reduce this impact to a less than significant level. MM BIO-8 requires that, prior to the initiation activities at Reach 116 that may disturb and/or remove potentially suitable burrowing owl habitat, a habitat assessment shall be conducted.

Although focused surveys for the federally threatened green sea turtle have not been conducted, only Reach 115 provides potentially suitable habitat for this species. The green sea turtle is routinely observed and reported from Reach 115 and National Oceanic and Atmospheric Administration Fisheries has documented the presence of this population. Impacts to this species may occur if maintenance activities would directly disturb the water column. This reach is nearly always submerged, and the green sea turtle is restricted to the water column. Impacts on the green sea turtle would be potentially significant due to its federally threatened status. See Section 3.4.1 Existing Conditions for more detailed information. MM BIO-10 would be required to reduce this impact to a less than significant level. MM BIO-10 requires that a Turtle Mitigation Plan be implemented for the Project. With implementation of MM BIO-1, MM BIO-3 through MM BIO-8, and MM BIO-10, all impacts to species identified as a candidate, sensitive, or special status species would be reduced to less than significant.

- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Less Than Significant with Mitigation. Riparian vegetation and other sensitive vegetation types occur within the Project areas. As shown in Table 3-8, Vegetation Impacts, the proposed Project would permanently affect 16.802 acres of riparian habitat, in boldface italic type, consisting of arroyo willow – giant reed shrubland, cattail marsh, cottonwood – tamarisk woodland, cottonwood – willow – mulefat woodland, cottonwood forest, disturbed riparian woodland – non-native herb, disturbed sagebrush – buckwheat shrubland, disturbed scale-broom – buckwheat alluvial shrubland, Gooding's willow – red willow woodland, mulefat – tamarisk shrubland, mulefat shrubland, open cottonwood – mulefat woodland, red willow – arroyo willow shrubland, revegetated sagebrush – tamarisk shrubland, sandbar willow shrubland, and scale-broom – buckwheat alluvial shrubland. The proposed Project would temporarily affect 1.0 acre of sensitive natural communities (or vegetation types) consisting of annual mowing of cattail marsh (Table 3-8).

Cottonwood, willow woodland, and other riparian habitat currently exist at the SRR site and would be enhanced or restored during habitat restoration activities. Temporary and indirect impacts to degraded habitat (e.g. removal of scattered native annual plants during demolition activities) would occur, and as discussed above in response to Threshold 3.4(a), the purpose of the Project activities at the SRR site is to restore and/or enhance native habitat. Because these impacts would be temporary in nature, and the outcome of these temporary impacts are a net positive for riparian vegetation in the Project region, these impacts are considered less than significant, and mitigation would not be required.

**TABLE 3-8
VEGETATION IMPACTS**

Vegetation Type or Other Areas	Reach Number	Total Acres Temporarily Impacted
Annual brome grassland	120, 121	0.126
<i>Arroyo willow – giant reed shrubland</i>	121	0.023
<i>Cattail marsh</i>	102, 108, 112, 114	3.518
<i>Cottonwood – tamarisk woodland</i>	104	0.220
<i>Cottonwood – willow – mulefat woodland</i>	104, 109, 110, 121	1.419
<i>Cottonwood forest</i>	102–105, 110	1.727
Disturbed	120, 121	0.130
<i>Disturbed riparian woodland – non-native herb</i>	112, 118, 119	3.264
<i>Disturbed sagebrush – buckwheat shrubland</i>	104	0.020
<i>Disturbed scale-broom – buckwheat alluvial shrubland</i>	101	0.120
Ephemeral scoured streambed	101, 102, 104, 105, 109, 110, 120	3.248
Giant reed stand	103, 110, 115	1.392
<i>Gooding’s willow – red willow woodland</i>	110	2.407
<i>Mulefat – tamarisk shrubland</i>	101, 102, 110	0.275
<i>Mulefat shrubland</i>	103–105, 110,	1.025
<i>Open cottonwood – mulefat woodland</i>	121	0.096
Ornamental tree stand	112, 115, 118, 119	11.297
<i>Red willow – arroyo willow shrubland</i>	108, 118, 119	1.307
<i>Revegetated sagebrush – tamarisk shrubland</i>	121	0.063
<i>Sandbar willow shrubland</i>	110	0.266
<i>Scale-broom – buckwheat alluvial shrubland</i>	101, 102, 110	1.053
Tamarisk shrubland	104, 110	0.194
Upland Mustards	102, 105, 112, 113, 116	8.053
<i>Riparian Habitat Subtotal</i>		16.802
Total		41.243
Vegetation types in <i>boldface italic type</i> are considered riparian or “special status” by the CDFW on a global or State basis. Source (Threat Ranking values): CDFG 2010.		

Impacts on these sensitive vegetation types in the reaches would be considered potentially significant prior to mitigation; (1) due to the low remaining acreage of these vegetation types in Southern California and in the Project areas; (2) because the CDFW lists these as special status vegetation types; and (3) because of these vegetation types’ potential to support special status species. Additionally, oak woodlands are subject to Senate Bill (SB) 1334 (Section 21083.4 of the *California Public Resources Code* [PRC]), which “provides funding for the conservation and

protection of California's oak woodlands". This bill mandates that oak woodlands be regulated by mitigation measures that are defined in the bill itself. Maintenance activities would result in minimal impacts to individual oak trees due to the Maintenance Plan requirements; and therefore, no significant impacts to oak woodlands are anticipated. The Maintenance Plan specifies that no impacts can occur to various tree species, including coast live oak, without specific approval from the CDFW prior to impacts. Additionally, maintenance activities to all sensitive vegetation types, including oak woodlands, shall be performed in accordance with the requirements set forth in the Section 1600 Agreement, which follow SB 1334. Additionally, implementation of MM BIO-9 would reduce impacts to all other special status vegetation types to less than significant. MM BIO-9 requires that the LACFCD obtain all necessary permits for impacts to jurisdictional areas prior to initiation of Project activities. Set forth in the permits are conditions and mitigation requirements, typically including the preparation of an HMMP. Approval of the HMMP is required prior to Project implementation. Although conceptual planning of mitigation activities may begin in advance, a detailed FHMP is generally prepared following adoption of the CEQA document. For purposes of this IS/MND, the estimated impacts of implementing the HMMP have been included as part of the Project. Implementation of the HMMP is part of the Project, and the associated impacts have been analyzed.

Riparian vegetation may potentially be regulated as components of the streambed and riparian areas which are regulated by CDFW per the *California Fish and Game Code* (Sections 1600–1616). Impacts to vegetation types in this regard are addressed under Threshold 3.4(c) below, which addresses impacts to federally protected wetlands.

Therefore, with implementation of MM BIO-9, the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Impacts would be reduced to less than significant with mitigation.

- c) **Would the project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Less than Significant with Mitigation. Table 3-9, Summary of Impacts to Jurisdictional Resources, shows the impacts to jurisdictional resources from implementation of the Project.

**TABLE 3-9
SUMMARY OF IMPACTS TO JURISDICTIONAL RESOURCES**

Jurisdictional Resources	Existing (acres)	Temporary Annual Maintenance Impact (acres)	Permanent Impact (acres)	Total Impact (acres)
Total USACE/RWQCB Jurisdiction	540.07	52.58	0.17	52.75
Wetland	7.93	6.19	0.04	6.23
Other Non-wetland "Waters of the U.S."	532.14	46.39	0.24	46.63
Total CDFW Jurisdiction	702.14	69.84	0.86	70.70
USACE: U.S. Army Corps of Engineers; RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife. Note: RWQCB jurisdiction generally matches that of the USACE. Source: BonTerra Psomas 2015d, 2014h; Psomas 2018d, 2018e.				

As shown in Table 3-9, the Project would temporarily impact a total of 52.58 acres of “Waters of the U.S.” under the jurisdiction of USACE and the RWQCB, including 6.19 acres of wetland and 46.39 acres of non-wetland Waters of the U.S. The Project would permanently impact 0.86 acres under CDFW jurisdiction. The Project would result in a total of 70.70 acres of temporary and permanent impacts under the jurisdiction of CDFW. Jurisdictional resources are protected by Sections 401 and 404 of the Clean Water Act (CWA) and by the California Fish and Game Code (Sections 1600–1616). Impacts on jurisdictional resources from reach activities would be significant prior to mitigation and would require permitting with each of the resource agencies. Implementation of MM BIO-9 requires permitting of jurisdictional resources through the applicable resource agencies and ensures that permanent impacts on jurisdictional resources are mitigated to obtain equivalent or superior biological functions and values as those impacted by the Project. Implementation of MM BIO-9 would therefore reduce this impact to a less than significant level. Through the permitting process, compensatory mitigation will be determined through negotiation with each resource agency. Work within jurisdictional areas at the SRR site would be limited to minor temporary disturbance during enhancement and restoration activities resulting in increased quantity and quality of jurisdictional resources upon completion. The impacts at the Project site would be less than significant, and no mitigation would be required.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact. The reaches covered in this IS/MND are expected to support some level of wildlife activity, both terrestrial, freshwater, and marine, including nesting by migratory birds. Local movement in each reach is expected to include wildlife species with low mobility (e.g., amphibians, reptiles) and those with high mobility (e.g., birds, large mammals). Project implementation may affect movement of these wildlife species differently. The more mobile species would be expected to move through the periphery of the Project site through habitats not impacted by Project activities. Most mammalian wildlife movement occurs at night when maintenance activities would not be occurring; therefore, these species would still be expected to use the reach for movement at night. Species with lower mobility may be adversely affected by Project implementation. These impacts, however, are expected to be short-term and less than significant. Therefore, no mitigation would be required. Furthermore, implementation of the Maintenance Plan and the CHMMP for the SRR site includes removal of non-native exotic vegetation, which is expected to have a beneficial effect on wildlife by creating an increase in native vegetation cover and habitats. Impacts on wildlife movement are considered less than significant and no mitigation is required.

The federal MBTA (see RR BIO-2) protects the nests of all native bird species, including common species such as mourning dove, Anna’s hummingbird, and house finch. Nesting birds and raptors have the potential to occur in each reach covered in this IS/MND as well as the SRR site. Besides the MBTA, Sections 3503 and 3503.5 of the *California Fish and Game Code* protect nesting migratory birds and raptors. As described in the Maintenance Plan and the CHMMP, Project activities are scheduled to occur during the non-breeding season to avoid all potential impacts with nesting birds. Therefore, this impact would be considered less than significant, and no mitigation would be required.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact. Although oak trees occurring within reaches may be occasionally trimmed or removed when necessary for flood control functionality, these activities would occur

within LACFCD easements and are exempt from local tree ordinances. In addition, impacts to oak trees are expected to be a rare occurrence and limited in extent and would, therefore, be considered less than significant. Additionally, all oak tree-trimming activities are conducted under the guidance of qualified Biologists and/or licensed Arborists to ensure the long-term health of the trimmed oak trees, as specified in the Maintenance Plan. The SRR site contains one oak tree adjacent to activity areas but not within the activity area. Therefore, no impacts to oak trees are expected. Impacts from the Project would be less than significant, and no mitigation is required.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant with Mitigation. Two of the LACFCD-maintained reaches (Reach 104 and 105) and the SRR site are located within Los Angeles County Significant Ecological Area (SEA) 20, Santa Clara River. The biological resources contributing to the SEA designation for this SEA include protection for core habitat of slender-horned spineflower (*Dodecahema leptoceras*) and unarmored threespine stickleback, riparian habitat, freshwater marshes, alluvial fan sage scrub, and intact upland communities (PCR 2000).

Implementation of the Maintenance Plan at Reaches 104 and 105 includes hand and mechanical clearing of all vegetation within a 15-foot-wide path along the toe of the left bank's slope lining, as well as grading a 10-foot-wide entrainment channel (30-feet and 60-feet long, respectively). A relatively limited amount of vegetation occurs within the disturbance limits at these reaches. Additionally, removal of exotic plant species throughout LACFCD easement boundaries will contribute to the overall biological value at these reaches. Although surveys of Reaches 104 and 105 have not detected any seasonal occupation of State or federally listed plant or wildlife species, there is some potential for unarmored threespine stickleback or least Bell's vireo to become established in these reaches in the future. UTS is known to occur at the SRR site. Project activities are not expected to impact core habitat of any special status species. Activities of the Project may include some temporary disturbances during initial implementation; however, the restoration of habitat at SRR is consistent with the goals of SEA 20 and therefore is considered less than significant.

The replacement of biological resources removed through the ongoing operation of the Maintenance Plan would be conducted in compliance with the applicable permits and ensured via implementation of RR BIO-1. Conditions 37 and 38 of Table 2-2 detail requirements to avoid impacts to unarmored threespine stickleback. In addition, the implementation of MM BIO-1, MM BIO-4, MM BIO-6, MM BIO-7 and MM BIO-9 would reduce these impacts to less than significant. Implementation of the Project activities, inclusive of these regulatory requirements and mitigation measures, would not conflict with the provisions of an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or State habitat conservation plan such as the LACDRP's SEA program. Therefore, impacts would be reduced to less than significant with mitigation.

3.4.3 MITIGATION MEASURES

MM BIO-1 Pre- and post-maintenance surveys shall be conducted by a qualified biologist annually at each reach where maintenance is scheduled for the current year to identify and document maintenance activities and their consistency with the Maintenance Plan and regulatory permit conditions and other required biological mitigation measures. Sensitive plant and wildlife species observed shall be recorded during these surveys. Photographs shall be taken from identical photo

stations prior to maintenance, and after maintenance is completed. Unauthorized vegetation maintenance shall be noted and reported to the Los Angeles County Flood Control District (LACFCD). The surveying qualified biologist shall prepare a report and submit to LACFCD that includes field data sheets, and pre- and post-maintenance photographs for each reach and determinations of compliance or non-compliance. LACFCD shall post the report and make it publicly available before the end of each calendar year as required by regulatory permits.

MM BIO-2 A qualified biological monitor shall conduct pre-maintenance surveys at Reaches 112-116⁵ to determine the limits of coastal salt marsh, freshwater marsh, saltgrass-pickleweed vegetation, and tarplant/pickleweed occurrences. These areas shall be flagged for avoidance prior to maintenance activities. Areas mapped as coastal salt marsh, freshwater marsh, or saltgrass-pickleweed (disturbed or not) and areas with pickleweed or tarplant shall be avoided. A full-time qualified biological monitor shall be present during maintenance activities in these marsh areas to confirm the disturbance limits.

MM BIO-3 For Reaches 101, 102, 105, 110, 121 and the Stickleback River Ranch (SRR) site, which are identified as containing potentially suitable foraging, nesting, and/or overwintering habitat and with a moderate potential occurrence for *Bombus Crotchii* (i.e., Crotch bumble bee), focused pre-construction presence/absence surveys for nesting/foraging shall be conducted by a qualified biologist. If nesting/foraging surveys are positive, a one-half-mile no work buffer shall be placed around the occupied area. If a nest is detected, the nest shall be monitored for activity by a qualified biologist. Once nesting activity has ceased and the colony is no longer active, the buffer shall be removed and maintenance activities may proceed between September 1 – October 1, when temperatures are still high, and the likelihood of overwintering queens is low. If nesting/foraging surveys are negative, the same restriction shall apply, and maintenance activities may proceed between September 1 – October 1. Overwintering detection surveys are not feasible due to the extreme difficulty in locating solitary overwintering bumble bees and due to the possibility for “take” of a Candidate State Endangered species. Survey methodology is as follows:

- a. No handling of the Crotch bumble bee shall occur during surveys. Three photograph-only pre-construction surveys shall be conducted for Crotch bumble bee in Reaches 101, 102, 105, 110, 121, and the SRR site. Surveys shall be conducted by a qualified biologist with experience identifying Crotch bumble bee and during suitable survey conditions (see below).
 - Time of Year – Pre-construction surveys must be conducted during the peak flight period from May through July, for the highest detection probability.
 - Weather – Preconstruction surveys shall take place when temperatures are above 60°F (15.5°C) and not during wet conditions (e.g., foggy, raining, or drizzling). Wait at least 1 hour after rain subsides before conducting a survey. Sunny days with low

⁵ No maintenance activities are proposed for Reach 117. Therefore, pre-construction surveys are not warranted at that reach.

wind speeds (less than 8 mph) are optimal. Partially cloudy days or overcast conditions are permissible if a person's shadow is visible.

- Time of Day - Surveys shall be conducted at least two hours after sunrise and three hours before sunset.
- b. Meandering transects shall be walked slowly within the survey area (disturbance area plus 50 feet) to obtain a 100% survey cover. Multiple transects at each site is recommended to adequately cover the highest quality habitat at the site; transect spacing will depend on the habitat. If the survey area is greater than 50 acres per surveyor, divide the survey area and survey separately in increments of 50 acres.
- c. Flowering plants shall be inspected with binoculars (butterfly binoculars recommended). Photographs of all bumble bees (*Bombus* spp.) encountered during the survey shall be taken with a digital single-lens reflex (DSLR) or point-and-shoot camera with adequate zoom capabilities and liquid-crystal display (LCD) screen to correctly identify bees in the field. To properly identify a bumble bee, it is best to take photos that clearly show the entire top side of the abdomen, the side of the thorax/abdomen, and the face/head. Several photos of each specimen shall be taken to show these various characteristics. Bumble bees shall be photographed as they forage, with a series of photos of each individual taken to document the bee's characteristics clearly, as described above. A "spacer" photo shall be taken between the series, so individuals can be distinguished when archiving photos and reporting findings.
- d. Crotch bumble bees make their nests in cavities, usually in abandoned rodent holes. Cavities such as mammal burrows shall be inspected with binoculars for evidence of bumble bee use. If multiple exiting/entering bumble bees are observed at a cavity, further observation shall occur until nesting is confirmed (e.g. multiple individuals entering the cavity). Detailed notes on nesting activity shall be recorded as listed below.
- e. During each survey, record the following data on Crotch Bumble Bee Survey Field Data Sheets or in a field notebook:
 - Surveyor's name
 - Project name/location
 - Date
 - Temperature (F)
 - Estimated wind speed (mph)
 - Estimated cloud cover (%)
 - Total combined time spent surveying (all surveyors)
 - Survey start time
 - Survey end time
 - Total survey area (acres)
 - Habitat type(s)

- Estimated vegetative cover
- Number of native plant species (spp.) in flower (0 spp., 1-4 spp., 5-9 spp., 10-14 spp., 15+ spp.)
- Description of observed or likely stressors in survey area
- File location of representative survey area photographs and species photographs
- For each bumble bee species observed, record: number of females, number of males, number of queens, flowers or species of plant being used, actual (A) or estimated (E) counts, % ID confidence (95-100% confident, 75-94%, 50-74%, 5-49%, <5%)
- For each Crotch bumble bee observed, record if it is a female, male, or queen; flower or species of plant being used, Latitude/Longitude, % ID confidence (95-100% confident, 75-94%, 50-74%, 5-49%, <5%)
- For each Crotch bumble bee nest observed, the surveyor shall record a description of the location, photographs of the nest opening (if feasible), record how many bumble bees enter/exit the nest per minute, Latitude/Longitude of nest location(s).

f. Results of the survey shall be provided to California Department of Fish and Wildlife (CDFW) within 30 days of survey completion.

MM BIO-4 For those reaches identified as potentially occupied by the unarmored threespine stickleback (Reaches 103, 104, 105, 109, and 121), no Project activities and/or heavy equipment shall be allowed in the active channel between November 2 and August 31 in any year if surface water is present. Pre-maintenance unarmored threespine stickleback surveys shall be conducted by a qualified biologist previously approved by CDFW annually prior to activities (occurring between September 1 and November 1) at each of these reaches. If surveys determine unarmored threespine stickleback is present or potentially present, the County shall not conduct Project activities at that location until the following year. If delaying channel-maintenance activities for one year is not feasible, a 10-foot no-work buffer and a 50-foot hand clearing only buffer from the wetted area shall be employed. All Project activities occurring within a reach occupied or potentially occupied by stickleback shall be monitored by a qualified Biologist. Buffer zones shall be flagged by the Biologist prior to work being conducted. The Biologist shall have the authority to stop and/or modify the Project activities if, in the professional opinion of the biologist, the activity has the potential to adversely affect the stickleback. In order to implement the FHMMP for the SRR site, work within 10 feet of occupied stickleback habitat may be required to occur. These methods will be implemented in accordance with CDFW and USACE requirements (i.e., avoidance and minimization measures) to be stipulated in the Final Habitat Mitigation and Monitoring Plan (FHMMP).

MM BIO-5 A qualified biologist shall conduct focused surveys every two years in those Project areas where USFWS designated Critical Habitat for arroyo toad occurs, or that have been identified as potentially suitable habitat for arroyo toad, specifically Reaches 104, 105, 109, 121. Surveys shall be conducted using USFWS approved survey protocol for arroyo toad. Survey methods include nocturnal and diurnal

visits within late spring and summer months to determine presence or absence of the species. If arroyo toad is determined to be present, then the regulatory agencies will be notified and no Project activities shall occur within the occupied reach without approval from regulatory agencies.

- MM BIO-6** Focused surveys for southwestern willow flycatcher (Reaches 103, 104, 105, 110, and 121), least Bell's vireo (Reaches 103, 104, 105, 109, 110, and 121), and western yellow-billed cuckoo (Reaches 103, 104, 109, 110, and 121) shall be conducted every two years within potentially suitable habitat. These riparian bird species are migratory and are therefore not present during the fall/winter season when Project activities shall occur. If focused surveys determine that any of these species are present, the "seasonally occupied habitat" shall be flagged for avoidance. Project activities shall be monitored by a qualified biologist with the authority to stop and/or modify the activities if, in the professional opinion of the biologist, the activity has the potential to adversely affect the riparian bird species being protected.
- MM BIO-7** To avoid and minimize impacts to U.S. Fish and Wildlife Service (USFWS) designated Critical Habitat for the southwestern willow flycatcher in soft-bottom channel Reaches 104 and 109, all Project activities shall be limited to the period outside of the nesting season (March 15 - September 15) of any year.
- MM BIO-8** Prior to the initiation of Reach 116 activities involving the disturbance and/or removal of potentially suitable burrowing owl habitat, a habitat assessment shall be conducted. If the habitat assessment concludes that the area lacks potentially suitable burrowing owl burrows, no additional action is required. However, if potentially suitable burrows are located in the assessment area, the burrows shall be flagged and avoided. Maintenance activities near any flagged burrows shall be monitored by a qualified biologist with the authority to stop and/or modify the maintenance activities if, in the professional opinion of the biologist, the activity has the potential to adversely affect the burrowing owl. Survey methods shall follow California Department of Fish and Wildlife's (CDFW's) 2012 Staff Report on Burrowing Owl Mitigation.
- MM BIO-9** Prior to initiation of Project activities, the Los Angeles County Flood Control District (LACFCD) shall obtain all necessary permits for impacts to jurisdictional areas of the following resource agencies: U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Coastal Commission (CCC), and California Department of Fish and Wildlife (CDFW). The LACFCD shall comply with all conditions specified in the regulatory agency permits and/or agreements. Pursuant to the permit requirements, the LACFCD shall develop a Storm Water Pollution Prevention Plan (SWPPP) that incorporates Best Management Practices (BMPs) for reducing or eliminating maintenance-related pollutants in the site runoff.

Mitigation for the loss of jurisdictional resources shall consist of enhancement and restoration of degraded jurisdictional resources at an appropriate mitigation site to replace impacted jurisdictional resources at a ratio of no less than 1:1 in biological value, determined through consultation with the above-listed resources agencies. Prior to the initiation of any maintenance-related activities in the soft-bottom channels, the LACFCD shall prepare and submit a Habitat Mitigation and

Monitoring Program (HMMP) for USACE and CDFW approval. The HMMP shall contain the following items:

- a. Responsibilities and qualifications of the personnel to implement and supervise the plan. The responsibilities of the Landowner, Specialists, and Maintenance Personnel that would supervise and implement the plan shall be specified.
- b. Site selection. The mitigation site shall be determined in coordination with the USACE and CDFW. The site shall either be located in a dedicated open space area on County land, USFS land, or off-site land shall be purchased, within the same watershed as the majority of the impacted reaches of this Project.
- c. Seed source. The seeds (or plantings) used shall be from local sources (within ten miles of the Project area) to ensure genetic integrity.
- d. Site preparation and planting implementation. Site preparation shall include (1) protection of existing native species; (2) trash, debris, and weed removal; (3) native species salvage and reuse (i.e., duff); (4) soil treatments (i.e., imprinting, decompacting); (5) temporary irrigation installation; (6) erosion-control measures (i.e., rice or willow wattles); (7) seed mix application; and (8) container species planting.
- e. Schedule. A schedule shall be developed which includes planting in late fall and early winter, between October 1 and January 30.
- f. Maintenance plan/guidelines. The maintenance plan shall include (1) weed control; (2) herbivory control; (3) trash and debris removal; (4) irrigation system maintenance; (5) maintenance training; and (6) replacement planting.
- g. Performance standards. Site performance shall meet or exceed written standards related to such items as 1) vegetation cover, 2) plant species diversity, and/or 3) sensitive wildlife usage. A contingency plan shall be included that outlines actions required if standards are not met.
- h. Monitoring plan. The monitoring plan shall include (1) qualitative monitoring (i.e., pre- and post-photographs and general observations); (2) quantitative monitoring (i.e., randomly placed transects); (3) performance criteria, as approved by the above-listed resource agencies; (4) monthly reports for the first year and reports quarterly thereafter; and (5) annual reports, which shall be submitted to the above-mentioned resource agencies on an annual basis, if required. The site shall be monitored and maintained for seven years, reduced to five years if performance measures are met, to ensure successful establishment of riparian habitat within the restored areas.
- i. Long-term preservation. Long-term preservation of the site shall also be outlined in the HMMP to ensure the mitigation site is not impacted by future development.

MM BIO-10 A Turtle Mitigation Plan has been developed for Reach 115 at the request of California Department of Fish and Wildlife (CDFW). Avoidance and minimization measures for the green sea turtle and western pond turtle are as follows:

- Environmental Education Training – To increase understanding and recognition of the green turtle and western pond turtle, environmental education training shall be provided. This training shall take place during initial construction activities (i.e., during the first tailboard session) and

periodically thereafter as needed. The training will focus upon detection, avoidance, and ecology of each of the two species of turtles. A brochure providing applicable information as well as representative photos of the two turtle species will be provided and should be kept on-site by construction personnel for reference.

- Clearance Surveys – Prior to construction activities a daily clearance survey of the active work areas and their immediate surroundings shall be conducted to determine presence/absence of both species of turtles. This clearance survey shall be conducted by a qualified individual familiar with green turtle and western pond turtle, their eggs, and hatchlings.
- Green Turtle Observations – Upon observation of a green turtle within or adjacent to active maintenance activities, all activities shall cease until the individual has moved away from the area a minimum distance of 50 feet. This determination shall be made by the qualified biological monitor present on-site. Green turtles shall not be approached, captured or relocated.
- Western Pond Turtle Observations – If a western pond turtle is observed within or adjacent to active maintenance areas, the biological monitor shall determine whether the individual will be impacted by maintenance activities. If the biological monitor determines that the turtle is not likely to be impacted, they shall monitor the individual until it has left the area or maintenance activities are completed. If the biological monitor determines that the turtle may be impacted by maintenance activities, the monitor shall relocate the individual within suitable habitat downstream and outside of the immediate work area as determined by the biological monitor on site.
- Turtle Observation Notification – Should a green turtle or western pond turtle be observed the appropriate individuals representing State and federal resources agencies shall be notified at the end of the maintenance season.
- Biological Monitoring – A biological monitor shall be present on-site during construction activities that occur within or adjacent to occupied habitat. Green sea turtles have been observed within Reach 115 and can move freely. Therefore, they are always presumed to be present and the habitat occupied. While on-site a monitor with the necessary permits shall be responsible for relocating western pond turtles, conducting surveys for all sensitive species, and communicating with the crews. The biological monitor shall have the authority to stop work should the situation warrant it. The monitor will provide a daily summary email describing the day's activities and any details of pertinent observations. Special status species will be reported to the California Natural Diversity Database (CNDDDB).
- Turtle Relocation Reporting – Once Reach 115 maintenance activities have been completed a final report shall be prepared and submitted to the CDFW. This report will detail the number of turtles collected, relative size classes, sex ratio and the duration of time turtles were held and where they were released (including GPS points).

- Best Management Practices – The following best management practices (BMI's), as applicable to turtles, have been required under the SAA and are summarized as follows:
 - a. The Permittee shall only use an herbicide approved for use in an aquatic environment. Contact shall be avoided with native vegetation and be applied on calm days (wind less than 5 miles per hour) to prevent airborne transfer of herbicides.
 - b. Mechanical equipment shall not be operated in the streambed except as subsequently approved by the CDFW.
 - c. Install sediment and erosion control measures and maintain sediment control(s) in good operating condition throughout the construction period and the following rainy season.
 - d. Should the sediment barrier fail to retain sediment, Permittee shall employ corrective measures and notify the CDFW immediately.
 - e. Materials used in the sediment barriers shall not pose an entanglement risk to fish/wildlife.
 - f. Remove siltation curtain and any supportive material once work is completed.
 - g. Upon CDFW determination that turbidity/siltation levels resulting from project-related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation shall be halted until effective CDFW-approved control devices are installed, or abatement procedures are initiated.
 - h. All activities performed in or near a stream shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. If a spill occurs the Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. CDFW shall also be notified by the Permittee and consulted regarding clean-up procedures.

Soft-Bottom Channel Reach 115 (Lower San Gabriel River) Maintenance – Turtle Mitigation Plan Los Angeles County Flood Control District Facilities and Projects, Los Angeles County, California, provided in Appendix B-42 of this IS/MND (Psomas 2018c) outlines additional avoidance and minimization measures required by CDFW. All activities included in the plan shall be performed during the appropriate phase of maintenance activities.

3.5 <u>CULTURAL RESOURCES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5.1 EXISTING CONDITIONS

The California Office of Historic Preservation and the State Historical Resources Commission have designated the California Register of Historical Resources (CRHR) as a program to identify, evaluate, register, and protect California's historical resources. The CRHR lists more than 600 significant historic and archaeological resources within Los Angeles County, including more than 580 sites listed in the National Register of Historic Places (NRHP) and more than 100 State Historical Landmarks. Among this vast number of resources are various missions, the La Brea tar pits, remnants of vast ranchos, routes of early explorers, stagecoach stations, forts, railroad depots, and the homes of prominent people who shaped local history (LACDRP 2008).

A cultural resources records search and literature review was conducted at the South Central Coastal Information Center (SCCIC) in July 2018 for the reaches. The SCCIC is located on the campus of California State University, Fullerton and serves as a record repository for the California Historical Resources Information System (CHRIS) for Los Angeles, Ventura, and San Bernardino Counties. The records search included a ½-mile radius around each of the Project reaches and was conducted by Psomas' cultural resources staff. The purpose of the search was to identify prehistoric or historic archaeological sites or historic buildings and structures previously recorded within and around each of the Project reaches. The results revealed 637 cultural resource studies have been conducted and 234 cultural resources have been identified within the ½-mile radius of the search areas. Of the 234 cultural resources, none were identified within the boundaries of the Project reaches. Of the 234 resources, 48 resources are prehistoric in origin, 189 date to the historic era, and 1 resource has been identified as protohistoric.

The cultural resources identified within the search radii offer a unique glimpse into the past lifeways of California. The sites consist of prehistoric habitation sites and lithic scatters, several isolated prehistoric artifacts, human remains dating to prehistoric and protohistoric periods, historic ranches, historic structures, water conveyance systems, and historic roads.

While none of the identified cultural resources are within the boundaries of the Project reaches, seven resources have been identified within proximity of the Project reaches and are briefly discussed below.

LAN 88 is a series of small prehistoric sites recorded in 1939 situated within the cities of Gardena and Carson. The sites are classified as workshop areas containing shell middens. Typically, these sites are difficult to locate due to their size and composition, but the area was marked as highly sensitive due to the sporadic distribution of similar sites.

A Prehistoric Village site (P-19-000306) is located in eastern Long Beach overlooking the Cerritos Channel. California State University Long Beach and the Veteran Hospital currently occupy the eastern portion of this site. The western portion of the site is located on City-owned land—the Rancho Los Alamitos Ranch and Gardens. The site is presumed to be the Gabrieliño village site Puvu, which was used well into the historic period.

The Project area also contains a historic structure that served as the field office for Bixby Ranch (P-19-187657). The building was constructed prior to 1927 and is located in an unincorporated portion of the City of Long Beach. The structure was evaluated in 2016, and the results indicate the structure is considered a significant resource under CEQA pursuant to Criterion A for its association with the Long Beach Oil Industry (1921-1945).

A historic trash scatter (19-004780) was recorded in Long Beach, located north of the Bixby Ranch Field Office structure. The scatter consists of boot soles (numerous), milled lumber (large quantity), spark plugs, air filters, oil filters, industrial filters, concrete fragments (numerous), red bricks (numerous), rope, insulators, engine hoses, engine belts, ceramic tiles (numerous), slag (numerous), lightbulb, Clorox bottles, plastic, bleach bottles, beer bottles (40 ounce), plastic screw top medicine bottles, Milk of Magnesia bottle fragments, aqua glass, porcelain jar fragment, miscellaneous amber, green, and clear glass fragments.

One resource (LAN-1233) contains both prehistoric and historic use. The archaeological site is located near Puute Ponds. The site contains prehistoric components, such as flaked lithic scatter and butchered faunal remains. The site also encompasses a historic homestead with associated debris and structural foundations. In 2010, five historic features and one prehistoric feature were present despite disturbances related to construction activities.

A prehistoric site (LAN 1007) containing a shell midden with possible human remains was recorded in Long Beach on the eastern slope of Signal Hill. The site was destroyed by on-going constructions activities at the time it was recorded in 1979.

LAN-4781 is a prehistoric site located in the City of Long Beach. The site was recorded in 2017 when the County of Los Angeles, Industrial Waste Division expanded its landfill onto the area. A testing phase revealed buried historic artifacts relating to the Bixby Ranch Company. The artifacts consisted of newspaper, plastic, metal, wood, glass, plant debris, rubber tubes and tires, and green waste.

The evaluation of cultural resources at the SRR site is based upon the “Cultural Resources Report for the Stickleback Movie Ranch” prepared by Dudek in January 2018. The report is summarized in this IS/MND and included in Appendix C. Dudek’s study included a cultural resources records search and literature review of the SRR site and a 0.25-mile radius through the (SCCIC); a pedestrian survey to assess the presence of cultural resources on the surface of the SRR site; building development and archival research; and recordation and evaluation of cultural resources identified within and around the SRR site.

The SRR site is composed of waste dump sites interspersed with invasive wetland species and multiple abandoned vehicles, equipment, dwellings, and facilities; parts of the property were burned in the 2016 Sand Fire. There are no previously recorded resources directly within the SRR site. However, the property is adjacent to California State Historic Landmark No. 717 – Angeles National Forest (P-19-186535).

No prehistoric resources were identified within the SRR site property as a result of the SCCIC records search or survey. However, two previously recorded historic-era archaeological sites (P-

19-001857 and P-19-001858) were identified directly north of the middle portion of the SRR site, as shown on Exhibit 3.1-19. P-19-001857 consists of a single grave marker located outside the confines of a dedicated cemetery. P-19-001858 consists of a prehistoric lithic scatter and a historic-age refuse scatter consisting of wagon parts, bottle glass, and food tins dating from the late nineteenth to early twentieth century. The site records associate the historic component of P-19-001858 with the isolated grave (P-19-001857.) Dudek re-visited these sites during their archaeological survey and updated the site records to reflect the current conditions.

Dudek Architectural Historian Kate Kaiser, MSHP, and Archaeologist Michelle Wilcox conducted a pedestrian survey of all the extant built environment within the SRR site in December of 2017. All buildings on the site were photographed, researched, and evaluated in consideration of NRHP, CRHR, and Los Angeles County designation criteria and integrity requirements. The Stickleback Movie Ranch Site contains a mix of residential and camping-related buildings and structures. There are 5 intact buildings on the site, 3 buildings that can be classified as ruins, and several structures relating to the property's history as an RV campground, that were constructed more than 45 years ago.

The results of the historic building assessment yielded negative results. None of the structures within the SRR site appear eligible for listing in the NRHP, CRHR, or local designation based on the lack of association to significant events that contributed to the broad pattern of history; no known association to significant historic people; the buildings do not represent distinctive characteristics of historic craftsmanship, such as type, period, method of construction, or artistic value; the buildings are unlikely to provide new information (data) important to prehistory or history; many of the structures do not retain the integrity of their original design; and the property does not contain features that define a cultural landscape. In summary, the SRR site appears to be "not eligible" under all NRHP, CRHR, and Los Angeles County designation criteria due to a lack of important historical associations and significantly compromised integrity.

3.5.2 IMPACT ANALYSIS

Regulatory Requirements

RR CUL-1 If human remains are encountered during excavation activities, the requirements of *California Public Resources Code* §5097.98 and *California Health and Safety Code*, §7050.5 will be followed. This includes halting all work in the immediate vicinity of the discovery and notifying the County Coroner (*California Public Resources Code* §5097.98), who will determine whether the remains are of forensic interest. If it is determined that the remains are prehistoric, the Native American Heritage Commission (NAHC) will then be contacted in order to designate the most likely descendant (MLD). Pursuant to Section 7050.5 of the *California Health and Safety Code*, the MLD will make his/her recommendation within 48 hours of being granted access to the site and is responsible for the ultimate disposition of the remains. The MLD's recommendation will be followed if feasible and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (*California Health and Safety Code*, §7050.5). If the landowner rejects the MLD's recommendations, the landowner will rebury the remains with appropriate dignity on the property in a location that will not be subject to further subsurface disturbance (*California Public Resources Code* §5097.98).

Impact Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact. There are no existing structures within the disturbance footprint of any of the reaches, and therefore, there are no historic built environmental resources. The maintenance activities would not physically alter any structures or alter the original function of the reaches. Within the SRR site, there are five intact buildings, three buildings that can be classified as ruins, and several structures relating to the property's history as an RV campground that were constructed more than 45 years ago. However, none of these structures are considered significant or eligible for listing (Dudek 2018). Therefore, the Project would not impact historic resources.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant with Mitigation. The implementation of the Maintenance Plan would require the occasional removal of accumulated sediment from reaches but would not involve substantial earthmoving or any excavation into native soils. Rather, the sediment clearance is limited to the removal of soils/debris/sediment that has been deposited from storm water flows from upstream areas and accumulated over time since the most recent sediment removal. Additionally, the surficial sediments on the reaches have been repeatedly disturbed by the seasonal flow of storm water and debris.

As discussed above, the results of the SCCIC record search indicate no known cultural resources within the boundaries of the Project reaches or SRR site. Although the record search determined there are recorded sites within the ½-mile buffer of some of the Project reaches, no direct impacts are expected to cultural resources are anticipated due to the distance between the known resources and the Project reaches. Additionally, the Project does not involve disturbing native sediments, which greatly reduces the likelihood of encountering buried resources. Even if archaeological resources were found to have previously washed down into a reach from an upstream source, they would not be in situ (in place), having originated elsewhere. Such archaeological resources would be considered "isolates" and would by definition not be considered significant resources. The Maintenance Plan would involve occasional localized, shallow grading to maintain the access roads into each basin; however, this activity would result in disturbance of non-native surficial sediments that have been previously disturbed during construction and previous maintenance of the access road. Similarly, the CHMMP activities would involve shallow grading of one-foot deep by three-foot wide low flow channel from the westernmost railroad culvert down to the main riverbed of the SRR site.

Therefore, it is not anticipated that the Maintenance Plan or CHMMP activities could impact undisturbed native sediments due to the previous construction and/or historic maintenance of the reaches. Nevertheless, the potential exposure of buried archaeological resources during Project activities, although remote, would be addressed by MM CUL-1, which requires that a qualified Archaeologist be retained in the event that cultural resources are encountered, and that a mitigation plan be developed and implemented that satisfies Sections 21074 and 21083.2(g) of the *California Public Resources Code* and Section 15064.5(a) of the State CEQA Guidelines. Additionally, Condition 24, Archaeology, of Table 2-2, Required Conditions of the Maintenance Plan, requires that in the event of any discoveries of historical artifacts during maintenance activities, the USACE Archaeology Staff must be notified within 24 hours. Compliance with MM CUL-1 would ensure that potential impacts to archaeological resources would be less than significant.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. Six of the sites identified within the search radii of the reaches (P-19-00054, P-19-00272, P-19-00356, P-19-00693, P-19-02676, P-19-02682, and P-19-03191) contain human remains. Most of these sites have been relocated or destroyed. There is a single, isolated historic-era grave located within the SRR site. The habitat restoration activities at the SRR site would not physically impact the grave. Therefore, the Project would not impact known human remains. Although the SCCIC results were positive for cultural resources containing human remains, it is unlikely the Project would impact these recorded sites or unknown remains for three reasons. First, the location of these sites is outside the boundaries of the Project reaches. Secondly, these sites were probably relocated after their recordation. Lastly, the Project does not intend to disturb native sediments, which reduces the likelihood of encountering unknown burials.

Storm water, sediment, and flows in the reaches are not expected to contain human remains. Thus, vegetation mowing, sediment and invasive species removal, and other routine maintenance activities that would disturb recently deposited sediment and debris, and vegetation that may grow on these areas, are not expected to affect any human remains, including those interred outside of formal cemeteries. Although the potential for human remains exists in the vicinity of the Project reaches, the Project is not expected to involve activities that may impact potential human remains. In the unlikely event of an unanticipated encounter with human remains in the reaches, the *California Health and Safety Code* and the *California Public Resources Code* require that any activity in the area of a potential find be halted and the Los Angeles County Coroner be notified, as described in RR CUL-1. There would be less than significant adverse impacts to human remains with compliance with RR CUL-1.

3.5.3 MITIGATION MEASURES

MM CUL-1 Should potential archaeological resources be found during ground-disturbing activities for the Project, ground-disturbing activities shall be temporarily halted and a qualified Archaeologist shall be retained to first determine whether the resource is a “Cultural Resource” pursuant to Section 21074 of the California Public Resources Code, a “unique archaeological resource” pursuant to Section 21083.2(g) of the California Public Resources Code, or a buried “historical resource” pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. If the potential resource is determined not to be significant by the Archeologist pursuant to the above-referenced section, work at the reaches would resume. If the archaeological resource is determined to be a “Cultural Resource”, “unique archaeological resource”, or a “historical resource”, the Archaeologist shall formulate a mitigation plan in consultation with the Los Angeles County Flood Control District that satisfies the requirements of the above-referenced sections. Upon approval of the mitigation plan by the County, the Project shall be implemented in compliance with the mitigation plan. If the Archaeologist determines that the archaeological resource is not a “Cultural Resource”, “unique archaeological resource”, or “historical resource”, for those resources that are 45 years old or more, s/he may record the site and submit the recordation form to the California Historic Resources Information System at the South Central Coastal Information Center at California State University, Fullerton.

3.6 <u>ENERGY</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.6.1 EXISTING CONDITIONS

The 18 existing reaches are passive in operation (i.e., passively channeling storm water), and these reaches do not necessitate consumption of energy resources during operation. Maintenance activities currently occurring at the reaches do use fuel for construction activities, as described in the impact discussion below. The previous use of the SRR site was a campground and RV park. However, it is not currently used as such. Currently, minimal energy is used to power an irrigation well at the SRR site.

3.6.2 IMPACT ANALYSIS

Impact Discussion

- a) **Would the project result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less than Significant Impact. The Project would result in energy consumption from the maintenance activities and restoration activities related to construction equipment use and vehicle trips, including worker trips, equipment delivery, and soil/vegetation export. Off-road construction equipment use was calculated from the equipment data (mix, hours per day, horsepower, load factor, and days per phase) as provided in the CalEEMod construction output files included in Appendix A of this IS/MND. The total horsepower hours for the Project based on the construction equipment data was then multiplied by fuel usage estimates per hours of construction activities included in CARB's OFFROAD2007 model. OFFROAD2007 inputs and outputs for the energy analysis are provided in Appendix D of this IS/MND.

Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod model assumptions. Total vehicle miles traveled (VMT) was then calculated for each type of construction-related trip and divided by the corresponding miles per gallon factor using CARB's Emissions FACTor 2014 model (EMFAC2014). EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Construction equipment delivery and haul trucks were assumed to be heavy-duty diesel trucks. As shown in Table 3-10, Fuel Energy Use During Project Activities, a total of 4,943 gallons of gasoline and 30,388 gallons of diesel fuel is estimated to be consumed during Project construction.

**TABLE 3-10
FUEL ENERGY USE DURING PROJECT ACTIVITIES**

Source	Gasoline (gallons)	Diesel Fuel (gallons)
Off-road construction equipment	0	21,405
Worker commute trips	4,770	5
Vendor trips	72	1
On-road haul trips	101	8,976
Total	4,943	30,388
Sources: Psomas 2019 based on data from CalEEMod, OFFROAD2007, and EMFAC2014. CalEEMod data can be found in Appendix A, and energy data can be found in Appendix D.		

Fuel energy consumed during maintenance activities at the reaches and restoration activities at the SRR site would be temporary, and this amount of fuel consumption would not represent a significant demand on energy resources. Furthermore, there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy efficient compared to construction sites in other parts of the State. The proposed Project would not create a high enough demand for energy to require development of new energy sources. Project-related maintenance activities are essential for flood control and to prevent damage to downstream homes and the environment that could result from a lack of maintenance activities. Therefore, the proposed maintenance and habitat restoration activities would not result in inefficient, wasteful, or unnecessary fuel consumption. There would be a less than significant impact, and no mitigation is required.

Operation

The proposed Project has been designed to maintain the function of the soft-bottom channel reaches and to restore activities at the SRR site, which would not result in increased use of the reaches or SRR site. As such, operation of the Project would be essentially the same as the existing condition, with the exception that some areas may need less frequent maintenance. Therefore, fuel consumption related to visitor and other vehicular trips would remain the same. There would be a less than significant impact, and no mitigation is required.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The proposed Project would not include structures or infrastructure to which these policies would be applicable. The Project would involve negligible long-term energy use, primarily related to the irrigation system and would generate a nominal amount greenhouse gas (GHG) emissions (refer to Section 3.8, Greenhouse Gas Emissions, of this IS/MND).

As discussed above, the Project would involve energy use during maintenance and restoration activities. For the reaches, the energy associated with long-term operations (after Year 1 initial activities) would lessen overtime and would be limited to energy use from maintenance trips. For the SRR restoration activities, after Tasks 5 and 6 (initial removals and hardscape/earthworks, respectively) and Tasks 7 and 8 (site preparation and planting), the long-term operations would be limited to maintenance activities of the habitat at the SRR site. These long-term maintenance activities at the SRR site, as detailed in Tasks 9 of the CHMMP and referenced in Section 2.7, may include the following: maintenance of planted vegetation and removal of invasive species. At the reaches and SRR site, there would be no electricity or natural gas use for general functioning of the reaches or SRR site. As such, the Project would neither obstruct nor contribute to the County's policies related to energy use. There would be no impact, and no mitigation is required.

3.6.3 MITIGATION MEASURES

There would be no significant adverse impacts on energy; therefore, no mitigation measures are required.

3.7 <u>GEOLOGY AND SOILS</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.7.1 EXISTING CONDITIONS

Geologic conditions within the hillsides and foothill areas of Los Angeles County are known to be a potential source of geologic and soils hazards for developed properties. There are numerous regional active and potentially active faults and buried thrust faults throughout Los Angeles County. Mud and debris flows, active deep-seated landslides, hillside erosion, and man-induced slope instability comprise most hillside hazards. Debris flows are generally formed when unconsolidated material becomes saturated and unstable and can contain sands, silts, sediments, cobbles, vegetation, and woody debris. Areas vegetated with chaparral are especially susceptible to debris flows after a wildfire, when the vegetation that holds the soils in place is destroyed. Rapidly moving storm water runoff can flow down hillside slopes into canyons, where the flows pick up speed and debris and can act as a small river system. In order to prevent flood damage to surrounding properties, soft-bottom channels have been constructed to capture storm water flows and associated silt, vegetation, and debris that flow from upstream dams and debris basins, and from surrounding areas in case of excess storm water.

At the SRR site, soil data was reviewed to determine the suitability of the site to support native plant communities. The *Report and General Soil Map of Los Angeles County, California*, prepared by the U.S. Department of Agriculture Natural Resource Conservation Service, was consulted to determine the soil series at SRR. The flood plain is defined as sandy alluvial land. The parent material is defined as alluvium, originating from many eroded areas within the watershed. The soil is sand on the surface, and subsoils are stratified sand to loam, with heavy gravel composition.

3.7.2 IMPACT ANALYSIS

Regulatory Requirements

RR HYD-1, provided in Section 3.10, Hydrology and Water Quality, is applicable to the analysis of topsoil loss below.

Impact Discussion

- a) **Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**
 - iii) **Seismic-related ground failure, including liquefaction?**
 - iv) **Landslides?**

No Impact. Reach 103 is adjacent to a portion of the San Gabriel fault zone, Honor Rancho section (San Gabriel fault). Reaches 109 and 121 cross the Holser fault. Reaches 115 and 116 cross the Newport-Inglewood-Rose Canyon fault zone, South Los Angeles basin section. The SRR site is adjacent to the Soledad fault (USGS 2019). As such, it is possible that in a seismic event, surface rupture could occur within these fault zones. However, the Project would not involve the development of habitable structures or new facilities that could expose people or structures to risks from surface rupture.

Most of the Project areas are located within either Alquist-Priolo Earthquake Fault Zones, landslide zones, and/or liquefaction zones, including areas within the Newhall, Oat Mountain, Torrance, Long Beach, Seal Beach, Los Alamitos, Whitaker Peak, Topanga, Agua Dulce, and Venice Quadrangles (DOC 2002). However, the Project would not have an adverse effect on surface fault rupture and seismic-related ground failure (i.e., landslide or liquefaction). Implementation of the Project would not involve the development of habitable structures or new facilities whose height, mass, or materials would pose a hazard in the event of surface rupture. The Project would allow for maintenance activities to be conducted on existing facilities to protect residences, businesses, and infrastructure from potential damage caused by floodwaters and debris, and passive habitat at the SRR site. Soft-bottom channels are designed to convey storm water and sediment from upstream canyon areas through the channelized reaches; this would include sediment movement due to liquefaction and landslides. Therefore, the presence and maintenance of these flood control reaches contributes to preventing damage to downstream properties and infrastructure from seismically induced ground failure. Also, the potential for surface rupture, landslides, and/or liquefaction at one or more of the reaches or SRR site are existing seismic hazards that affects the Project areas, and the Maintenance Plan and CHMMP would not exacerbate these conditions. Therefore, the Project would not directly or indirectly cause substantial adverse effects, including

the risk of loss, injury, or death associated with surface rupture, liquefaction, or landslides, and no mitigation is required.

a) Would the directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

ii) Strong seismic ground shaking?

No Impact. The reaches are located throughout Los Angeles County, which has numerous mapped and unknown fault traces. Some of the nearest named faults include the Holser Fault, San Gabriel Fault, Castaic Valley Fault, Santa Felicia Fault, Los Alamitos Fault, Charnock Fault, Soledad Fault, and Overland Avenue Fault. Consistent with their location in a seismically active region, the reaches and SRR site may be subject to strong ground shaking resulting from a major earthquake on one or more active or potentially active faults in the area within the lifetime of the Maintenance Plan or CHMMP. Seismic ground shaking from major earthquakes in the region is not anticipated to be greater at the reaches or SRR site than at any other sites in southern California. The potential for strong ground shaking is an existing seismic hazard that affects the Project areas, and the Maintenance Plan and CHMMP would not exacerbate this condition. Also, the Project would not involve construction of habitable structures or structures whose height, mass, or materials would pose a hazard in the event of an earthquake. There would be no impacts due to exposure to substantial adverse effects from seismic ground shaking, and no mitigation is required.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. The purpose of the Maintenance Plan is to maintain the functionality of the soft-bottom channel reaches by removing vegetation, sediment, and debris. By definition, the reaches are regularly subject to scouring and deposition of sediment through storm flows following rain events or dam releases. Maintenance activities would not disturb previously undeveloped areas or expose previously vegetated areas to new soil erosion. Sediment removal activities within the reaches would eliminate accumulated sediment deposited from upstream areas and would not contribute to new erosion or loss of topsoil. The habitat restoration activities detailed in the CHMMP would establish native vegetation, which would reduce soil erosion or the loss of topsoil.

For the reaches and SRR site that involve disturbance in areas of greater than one acre, compliance with the State Water Resources Control Board's (SWRCB's) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities⁶ (Construction General Permit) would be required (RR HYD-1). Pursuant to the Construction General Permit, the LACFCD would be required to prepare, or have prepared by the Construction Contractor, a Storm Water Pollution Prevention Plan (SWPPP) that would include erosion-control Best Management Practices (BMPs). Additionally, Conditions 15 and 16 of Table 2-2 require appropriate soil erosion and sediment controls to be used throughout the maintenance activities of the reaches, such as permanent stabilization of all exposed soil, other fills, above and below the ordinary high-water mark or high tide line at the earliest practicable date, and other BMPs to minimize soil erosion during maintenance activities. Through compliance with RR HYD-1 and Conditions 15 and 16 during maintenance activities, there would be a less than significant impact related to soil erosion and loss of topsoil, and no mitigation is required.

⁶ Order No. 2009-0009-DWQ, NPDES No. CAS000002, adopted by the SWRCB on September 2, 2009 (effective for all project sites on July 1, 2010) and most recently amended by Order No. 2012-0006-DWQ on July 17, 2012.

- c) **Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?**
- d) **Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

No Impact. It is possible the native soils underlying the reaches and SRR site and surrounding areas are susceptible to unstable soils that could result in collapse, compression, and/or expansion. However, the Maintenance Plan and CHMMP do not involve the construction of new structures or habitable facilities that would be subject to adverse effects due to any unstable soil characteristics. The reaches and SRR site were originally constructed to account for the existing geological characteristics of each site and maintenance and/or restoration activities would not create new unstable geologic units or soils or expose people to geological hazards. Therefore, there would be no direct or indirect risk related to locating a structure on unstable geologic units or expansive soils, and no mitigation is required.

- e) **Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

No Impact. The Project does not include septic tanks, and there are no septic tanks at the reaches. The SRR site has existing septic tanks that would remain at the Project site if they are determined to be of natural inert material (i.e., gravel). Thus, there would be no impacts related to the use of septic tanks or alternative wastewater disposal systems, and no mitigation is required.

- f) **Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

No Impact. The implementation of the Maintenance Plan would not include construction of any new structures, development in any new locations, and excavations into native soils, as discussed under Threshold 3.5(b). Shallow excavations into younger Quaternary Alluvium, which is common in floodplains and would also constitute the upper layers of native soils, are unlikely to produce significant fossil vertebrate remains. Deeper excavations that extend into older Quaternary deposits may encounter significant vertebrate fossils; however, the Maintenance Plan does not include activities that would excavate soils to such depths (i.e., into older Quaternary deposits) that could reveal paleontological resources. The SRR site is underlain by plutonic anorthosite, which has no potential for paleontological resources. Furthermore, the reaches are engineered facilities that do not contain any unique geologic features. There would be no potential to destroy a unique paleontological resource or site, or a unique geologic feature. There would be no impact, and no mitigation is required.

3.7.3 MITIGATION MEASURES

There would be no significant impacts related to geology and soils; therefore, no mitigation is required.

3.8	<u>GREENHOUSE GAS EMISSIONS</u>	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.1 EXISTING CONDITIONS

Global climate change is currently an important environmental, economic, and political issue. Increasing greenhouse gas (GHG) emissions has led to an anthropogenic⁷ warming trend of the earth's average temperature, which is causing changes in the earth's climate. Scientific research indicates very high confidence (i.e., at least 90 percent) that the rate and magnitude of current global temperature changes are anthropogenic and that global warming will lead to adverse climate change effects around the globe (IPCC 2007). GHG emissions are primarily associated with (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

On September 27, 2006, AB 32, the California Global Warming Solutions Act of 2006, was enacted by the State of California. The legislature stated that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California". AB 32 caps California's GHG emissions at 1990 levels by 2020. This bill represents the first enforceable Statewide program in the United States to cap all GHG emissions from major industries and include penalties for noncompliance. While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB 32 lays out a program to inventory and reduce GHG emissions in California and from power generation facilities located outside the State that serve California residents and businesses.

At the direction of the State Legislature in Senate Bill (SB) 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines that require GHG emissions analysis in CEQA documents.⁸

Neither the County of Los Angeles or the LACFCD, nor any other entity with jurisdiction over the County or the LACFCD, have adopted GHG emissions significance thresholds to assist lead agencies in determining whether impacts are significant with respect to GHG emissions.

Beginning in April 2008, the South Coast AQMD convened a working group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. The Working Group met approximately once per month. On December 5, 2008, the South Coast AQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for industrial projects where the South Coast AQMD is the lead agency (South Coast

⁷ Anthropogenic effects, processes, objects, or materials are those that are derived from human activities, as opposed to those occurring in natural environments without human influence.

⁸ The CEQA Guidelines revisions were adopted December 30, 2009. The Adopted Amendments became effective March 18, 2010.

AQMD 2008). The interim screening threshold for industrial projects is 10,000 metric tons of carbon dioxide equivalent units per year (MTCO₂e/yr).

In September 2010, the Working Group presented a tiered approach to determining GHG significance. At Tier 1, a GHG emissions impact would be less than significant if the project qualifies under a categorical or statutory CEQA exemption. At Tier 2, a GHG emissions impact would be less than significant if the project is consistent with a previously adopted GHG reduction plan meeting specific requirements.⁹ Tier 3 for industrial projects proposes extending the 10,000 MTCO₂e/yr screening threshold applicable to South Coast AQMD lead agency projects to other lead agency industrial projects. Tier 3 proposes the following screening values for residential and commercial projects: either a single 3,000 MTCO₂e/yr threshold for all land use types or separate thresholds of 3,500 MTCO₂e/yr for residential projects; 1,400 MTCO₂e/yr for commercial projects; and 3,000 MTCO₂e/yr for mixed-use projects. A project with emissions less than the applicable screening value would have less than significant GHG emissions.

No thresholds have been adopted that directly relate to ongoing activities such as the Maintenance Plan or CHMMP because it is not a common type of project (i.e., residential, commercial, industrial, transportation, etc.). To provide a conservative significance threshold, the 3,000 MTCO₂e/yr would be an appropriate threshold for determining the significance of the project. The more conservative 1,400 MTCO₂e/yr for commercial projects assumes that commercial land uses would generate substantial traffic. Since this Project is ongoing maintenance and would not generate any substantial long-term operational traffic, the 3,000 MTCO₂e/yr threshold for all land use types was determined to be the most applicable.

3.8.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less than Significant Impact. There are no stationary sources or ongoing operational sources of emissions associated with the Project; the only GHG source is the periodic maintenance activities for the reaches and SRR site, as discussed in Section 2.4, Project Description. The Maintenance Plan involves an ongoing set of activities related to vegetation mowing/removal, sediment removal, and soft-bottom channel maintenance. Habitat restoration activities at the SRR site would occur concurrently with maintenance activities at the reaches. The reach maintenance and SRR habitat restoration activities were modeled to occur concurrently during the first two years of Project implementation. For purposes of a conservative GHG analysis, long-term

⁹ The plan must (1) quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area; (2) establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable; (3) identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area; (4) specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; (5) establish a mechanism to monitor the plan's progress toward achieving the level and to require an amendment if the plan is not achieving specified levels; and (6) be adopted in a public process following environmental review (CEQA Guidelines §15183.5).

maintenance activities of the SRR site were consolidated and modeled to occur within the two-year time frame of the reaches and SRR habitat restoration activities.

GHG emissions are generated by vehicle engine exhaust from construction equipment, on-road hauling trucks, vendor trips, and worker commuting trips. GHG emissions were calculated by using CalEEMod version 2016.3.2, as discussed in Section 3.3, Air Quality. The results are provided in metric tons of CO₂ equivalent (MTCO₂e) for Year 1 activities at the reaches and the totality of habitat restoration activities at the SRR site, and the CalEEMod data is provided in Appendix A of this IS/MND. Table 3-11 shows GHG emission from Year 1 activities at the reaches and all of the consolidated activities at the SRR site, which provides a worst-case scenario, because subsequent year activities would involve less off-road vehicles and consequently generate less emissions than initial year (Year 1) activities. The estimated GHG emissions from the Project are shown in Table 3-11, Project-Related Greenhouse Gas Emissions.

**TABLE 3-11
ANNUAL PROJECT-RELATED GREENHOUSE GAS EMISSIONS**

	Emissions (MTCO₂e)
Initial Year Activities (18 Reaches)	520
Totality of SRR Habitat Restoration Activities	57
Total	577
Threshold	3,000
Exceeds Threshold?	No
MTCO ₂ e: metric tons of carbon dioxide equivalent CalEEMod output data are in Appendix A.	

GHG emissions generated from maintenance and/or restoration activities are finite and occur for a relatively short period of time. Unlike the numerous opportunities available to reduce a project's long-term GHG emissions through design features, operational restrictions, use of green building materials, and other methods, GHG emissions-reduction measures for construction equipment are relatively limited. As shown in Table 3-11, the emissions for Project activities to clear the reaches and complete habitat restoration activities at the SRR site would be 577 MTCO₂e. Subsequent year emissions for this Project would be less than 577 MTCO₂e. These values are substantially less than 3,000 MTCO₂e per year. There would be less than significant impacts from Project-related GHG emissions, and no mitigation is required.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The Los Angeles County 2035 General Plan was adopted by the Los Angeles County Board of Supervisors on October 6, 2015. The Los Angeles County 2035 General Plan accommodates new housing and jobs within the unincorporated areas in anticipation of population growth in the County and the region (LACDRP 2015a). The Air Quality Element summarizes air quality issues and outlines the goals and policies in the General Plan that will improve air quality and reduce the GHG emissions. It states "The South Coast Air Basin, which includes the majority of Los Angeles County, continues to have among the worst air quality ratings in the country. Additionally, climate change, caused by an increase in greenhouse gas emissions, is one the most pressing environmental issues faced by all levels of government. Air pollution and climate change pose serious threats to the environment, economy, and public health" (LACDRP 2015a).

The *Final Unincorporated Los Angeles County Community Climate Action Plan 2020* (CCAP) is part of the County General Plan and was adopted along with the General Plan on October 6, 2015. The CCAP provides policy guidance for reducing GHG emissions generated within the unincorporated areas. The CCAP ensures that the County will be able to reduce its emissions to 1990 levels by 2020 (LACDRP 2015b). There are 26 local actions included in the CCAP, and the local actions are grouped into five strategy areas: green building and energy; land use and transportation; water conservation and wastewater; waste reduction, reuse, and recycling; and land conservation and tree planting. The CCAP does not generally address activities related to the Maintenance Plan or CHMMP.

The Los Angeles Countywide Sustainability Plan, named *OurCounty*, was adopted on August 9, 2019. The plan aims to uphold the Paris Climate Agreement by creating a fossil-fuel free Los Angeles County within the next three decades, with 160 health-focused strategies centered on communities that have been disproportionately affected by environmental pollution. *OurCounty* is organized around 12 goals. *OurCounty* includes, but is not limited to, the following goals and milestones: powering unincorporated areas and County facilities with 100 percent renewable energy by 2025; increasing urban tree canopy coverage by 15 percent by 2035; diversity over 95 percent of waste from landfills; developing land-use tools to limit new development in high climate-hazard areas; and ensuring that all residents have safe and clean drinking water, and that rivers, lakes and the ocean meet federal water quality standards. Goal-5, which focuses on “thriving ecosystems, habitats, and biodiversity” is relevant to this Project. Specifically, Action 68 of Goal 5 aims to “establish comprehensive and coordinated management guidelines for local waterways, which balance priorities such as water management, flood risk mitigation, habitat, biodiversity, and community preference” (Chief Sustainability Office 2019). The reaches analyzed in this Project are flood-control structures, and mitigation measures, as detailed in Section 3.4, Biological Resources, would ensure that impacts to habitat and biodiversity at the Project site would be reduced to less than significant. Additionally, the Project would be consistent with Action 42, which aims to develop a plan to ensure effective, well-maintained flood risk mitigation infrastructure to communities and include a mechanism to facilitate reporting of incidents by residents/municipalities to help identify and address any chronic local flooding issues” by reducing flood-risk associated with the reaches. The soft-bottom channels provide flood-control protection from storm water runoff from surrounding areas. Maintenance of the reaches analyzed in this IS/MND would prevent future risk of flood and damage to downstream residences, businesses, and infrastructure, therefore preventing future, highly intensive energy use to repair damages from emergency events. Therefore, the Project would be consistent with and would not conflict with the *OurCounty* plan.

The Maintenance Plan and CHMMP do not conflict with the State policies regarding GHG reduction, the CCAP, or any applicable plan or policy adopted by the Board of Supervisors for the reduction of GHG. Climate change impacts on the environment include sea-level rise, flooding, and severe heat waves. Maintenance of the soft-bottom channels and habitat restoration of the SRR site are positive actions to avoid or minimize the harmful effects that may occur from climate change, specifically, due to increased flooding due to changes in weather patterns or increased wildfires. Maintenance of the reaches is a climate adaptation measure that would minimize damage to surrounding properties from increased flooding associated with climate change. There would be no impacts related to conflicts with applicable GHG emissions reduction policies, and no mitigation is required.

3.8.3 MITIGATION MEASURES

There would be no significant impacts related to GHG emissions; therefore, no mitigation measures are required.

3.9 <u>HAZARDS/HAZARDOUS MATERIALS</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 EXISTING CONDITIONS

The California Department of Toxic Substance Control (DTSC) maintains the Hazardous Waste and Substances Sites (Cortese) List, which was compiled pursuant to Section 65962.5 of the *California Government Code* for use by State and local agencies and which provides information about hazardous substances release sites. The Cortese List identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic materials identified through the abandoned site assessment program, sites with underground storage tanks (USTs) having a reportable release, and all solid waste disposal facilities from which there is known migration. None of the reaches or the SRR site analyzed in this IS/MND are located on any of the Cortese sites currently identified within Los Angeles County (DTSC 2018).

A Phase I Environmental Site Assessment (Phase I ESA) was prepared by Dudek for the SRR site, titled "Phase I Environmental Site Assessment Stickleback Movie Ranch APN 3210009013 and 3210009014, Santa Clarita, California" (Dudek 2018). This report can be found in Appendix E-1 of this IS/MND. Based on this report, the SRR site was undeveloped land from at least 1900 until sometime between 1947 and 1960, after that it was used for residential purposes. It was developed with several small structures, multiple concrete pads for parking recreational vehicles, and other infrastructure to support campground operations. Various waste chemicals

and solid debris were observed on SRR site. Evidence of a 2016 wildfire was observed during site reconnaissance, including burned automobiles, recreational vehicles, and structures. Burned paint cans were found within the foundation of one burned structure at the site (Dudek 2018). The Phase I ESA prepared for the SRR site provided evidence of one recognized environmental condition (REC) in connection with the site: toxic materials or residue that may be present in soil at the site, due to vehicles and structures, which burned in a wildfire (Dudek 2018).

As detailed in the Summary of Findings of the Asbestos and Lead Survey with Soil Sampling Report for the Stickleback River Ranch Project Memorandum, prepared by Public Works Construction Division, samples have been gathered at the SRR site for asbestos, lead, arsenic, Polycyclic Aromatic Hydrocarbons (PAHs) and Title 22 Metals (Public Works 2019). This summary of findings can be found in Appendix E-2 of this IS/MND. From these samples, Asbestos Containing Materials (ACM) and Asbestos Containing Construction Material (ACCM) were found within the debris and buildings at the SRR site. Fifty-seven samples of paint were collected. Lead-based paint (LBP), which is paint that contains lead at a concentration below 5,000 parts per million (ppm), was also found within debris piles and buildings at the SRR site. Soil was collected from the dripline of structures on the site to test for potential lead content that may have resulted from the deterioration of lead based or lead containing paint. The lead content detected in these soil samples ranged between 2.99 and 50.4 ppm. These concentrations are all below 80 ppm, which is the Residential Land Use Direct Exposure Screening Level set by the DTSC. One of three soil samples from SPG-3 was found to contain 148 ppm arsenic. Four additional step out samples were collected around this location during this sampling event, in order to evaluate the extent of the elevated arsenic concentrations. No arsenic was detected in two of the step out samples; however, the other two samples contained 141 and 142 ppm arsenic, respectively. These concentrations are above file background level of 10.4 ppm. SPG-3 was estimated to contain approximately 300 cubic yards of material. Elevated arsenic concentrations were detected in one of the three separate stockpiles associated with this group. The total amount of arsenic-impacted material is estimated to be 100 cubic yards (Public Works 2019).

An area formerly used to store automobiles and other items at the SRR site was screened for possible contaminants in the soil due to the burning of the vehicles and associated items in this area. Ten samples were collected in a random scattered pattern covering the area of the former junk yard. The samples were analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) and Title 22 Metals. For PAHs, the results were compared to EPA Residential Land Use Direct Exposure Screening Levels or SFRWQCB Tier 1 Screening levels. For metals, the results were compared to DTSC or EPA Residential Land Use Direct Exposure Screening Levels. The concentrations of PAHs detected were below regulatory levels. Elevated concentrations of antimony, arsenic, copper and lead were detected in sample JY01. Elevated concentrations of lead were detected in sample JY02. Samples JY01 and JY02 were located adjacent to each other on the west side of the junk yard sampling area. The impacted area around JY01 and JY02 is estimated to be 20 feet by 50 feet. Additionally, groundwater from the existing well at the SRR site was tested for inorganic constituents in 2014. The laboratory test results can be found in Appendix E-3 of this IS/MND. As a result of the laboratory tests, all inorganic constituents passed the Primary and Secondary criteria except for Manganese, under the Secondary Criteria. The Primary criteria is regulated for health concerns. If there is a failure for a primary consistent, treatment is normally required. Secondary constituents are regulated because they may adversely affect the taste, odor, or appearance of drinking water, and are not directly health related. Therefore, the failure of Manganese as a Secondary constituent does not require treatment (FGL 2014).

3.9.2 IMPACT ANALYSIS

Regulatory Requirements

- RR HAZ-1** Project activities are required to comply with existing federal, State, and local regulations regarding hazardous material use, storage, disposal, and transport to prevent risks to public health and safety, including but not limited to regulations set forth by the U.S. Environmental Protection Agency; U.S. Department of Transportation (Hazardous Materials Transportation Act); Toxic Substances Control Act; California Department of Toxic Substances Control (DTSC); California Department of Transportation (Caltrans); and California Department of Public Health. Any on-site generated waste during the Project activities that meets hazardous waste criteria must be stored, manifested, transported, and disposed of in accordance applicable regulations and in a manner to the satisfaction of the local Certified Unified Program Agency (CUPA), the Los Angeles County Fire Department.
- RR HAZ-2** The County must be responsible for ensuring that all hazardous materials or wastes must be transported to and/or from the Project only by a Licensed Hazardous Waste Hauler, who shall be in compliance with all applicable State and federal requirements, including the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation (Caltrans) standards; Occupational Safety and Health Administration (OSHA) standards; and Subtitle C of the Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 263).
- RR HAZ-3** Any Project activities at the SRR site that have the potential to expose construction workers and/or the public to asbestos-containing materials (ACMs) or lead-based paint (LBP) must be conducted in accordance with applicable regulations, including, but not limited to, California Occupational Safety and Health Administration (CalOSHA) regulations (California Code of Regulations, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead]) and South Coast Air Quality Management District (South Coast AQMD) Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). The Asbestos-Abatement Contractor must comply with notification and asbestos-removal procedures outlined in Rule 1403 to reduce asbestos-related air quality health risks. Rule 1403 applies to any demolition or renovation activity and the associated disturbance of ACMs. Additionally, RR TRA-1 from Section 3.17, Transportation, related to temporary traffic control would be applicable to the analysis of emergency response and evacuation plans.

Impact Discussion

- a) **Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
- b) **Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**
- c) **Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?**

Less than Significant with Mitigation. Implementation of the Project would utilize some heavy equipment (i.e., excavators, trucks, tractors) at the reaches and SRR site during Year 1 and subsequent annual maintenance activities within all reaches, and during restoration activities at the SRR site. This equipment would be fueled by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous materials. Project activities may also involve the use of hazardous materials, such as grease, oils, and other chemicals, which could pose risks to workers or lead to soil and groundwater contamination if not properly stored, used, or disposed. No manufacturing or industrial activities are proposed by the Project and no aboveground storage tanks, underground storage tanks, natural gas transmission lines, or other hazardous material storage facilities/conduits would be built as part of the Project. No hazardous materials use, storage, waste generation, or disposal is anticipated to occur during long-term use and operation of the Maintenance Plan or CHMMP.

All maintenance and habitat restoration activities would be conducted in compliance with existing federal, State, and local hazardous material regulations. The handling of hazardous materials used in equipment would be conducted in accordance with existing regulations (RR HAZ-1) regarding the transport of hazardous materials; use of hazardous materials; and procedures to implement in the event of a spill. The Section 1600 Long-Term Streambed Alteration Agreement contains conditions regarding the use of herbicides, equipment and access, fill or spoil, structures, pollution, sedimentation, and litter, as detailed in Table 2-2. Condition 13, Emergency Response Plan, of Table 2-2 requires that a previously submitted Emergency Response Plan be available onsite during work activities for the reaches. This plan identifies the actions that should be taken in the event of a spill of petroleum products, or other material harmful to aquatic or plant life, and the identification and uses of emergency response materials. In accordance with regulatory permits, only herbicides approved for aquatic use can be used at the reaches, as detailed further in Condition 3 of Table 2-2, Required Conditions of the Maintenance Plan. Post-emergent herbicide spraying would only be used in areas with dense invasive vegetation and as specified in the reaches permits. Implementation of a Water Diversion Plan and other appropriate BMPs required by the regulatory agencies would also prevent chemicals from entering the runoff, as detailed in Condition 19, Water Diversion Plan, of Section 2.5 and Table 2-2. Compliance with these conditions would avoid hazardous materials impacts to waters within the reaches and avoid the creation of a significant hazard to the public or the environment.

The Phase I ESA, prepared for the SRR site, provided recommendations for addressing evidence of one recognized environmental condition (REC) in connection with the site: toxic materials or residue that may be present in soil at the site due to vehicles and structures, which burned in a wildfire (Dudek 2018). To address this REC and other potential hazards, the following recommendations were made: soil sampling for metals and dioxins; characterization and disposal of waste chemicals in accordance with applicable local, State and federal guidelines or

regulations; disposal of solid debris stored at the site in accordance with applicable local, State and federal guidelines or regulations; and a lead-based paint (LBP) and asbestos survey prior to demolition of any subject property structures.

Per the recommendations of the Phase I ESA, soil and debris sampling have been conducted at the SRR site, and the results are detailed in Section 3.9.1, Existing Conditions, of this section. As stated above, Asbestos Containing Materials (ACM) and Asbestos Containing Construction Material (ACCM) were found within the debris and buildings at the SRR site. Additionally, LBP was found within paint samples at the SRR site. The ACM, ACCM, and LBP must be removed prior to Project activities at the SRR site. Per RR HAZ-2, the County must ensure that all hazardous materials be transported from the Project site only by a Licensed Hazardous Waste Hauler, who must be in compliance with all applicable State and federal requirements, including the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation (Caltrans) standards; Occupational Safety and Health Administration (OSHA) standards; and Subtitle C of the Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 263). Per RR HAZ-3, Project activities that would have the potential to expose construction workers and/or the public to ACM, ACCM, and LBP, must be conducted in accordance with regulations, including CalOSHA regulations (CCR, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead]) and South Coast AQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). With compliance with RR HAZ-1 through RR HAZ-3, impacts from ACM, ACCM, and LBP would be less than significant.

Soil samples from the SRR site were also found to contain the following contaminants: arsenic, antimony, copper, and lead, as detailed in Section 3.9.1, Existing Conditions (Public Works 2019). Specifically, arsenic was found in sample SPG-3, which was estimated to contain approximately 300 cubic yards (cy) of material. The total amount of arsenic-impacted material in Sample SPG-3 is estimated to be 100 cy of material (Public Works 2019). Sample JY01 and JY02 contained elevated concentrations of arsenic, antimony, copper, and lead in an area estimated to be 20 feet by 50 feet. Per the recommendations of the Summary of Findings of the Asbestos and Lead Survey with Soil Sampling Report for the Stickleback River Ranch Project, a depth of 6 inches, for 18.5 cubic yards total, must be removed from this area. Therefore, per MM HAZ-1, prior to ground disturbance or demolition activities at the SRR site, the County shall ensure that remediation and/or removal of the contaminated soils (i.e., contamination including, but not limited to, arsenic, antimony, copper, and lead) shall be completed at the SRR site. Remediation and/or disposal shall be conducted with the oversight of applicable regulatory agencies such as the Los Angeles County Fire Department [operating as the CUPA], the South Coast Air Quality Management District (South Coast AQMD), the California Department of Toxic Substances Control (DTSC), and/or the U.S. Environmental Protection Agency in compliance with established maximum contaminant levels (MCLs). In addition to implementation of MM HAZ-1, compliance with RR HAZ-1 through RR HAZ-3 would ensure that impacts from hazards/hazardous materials would be less than significant with mitigation.

Ongoing operations of the reaches and SRR site would not involve the use or transport of hazardous materials and would not emit hazardous materials. As such, impacts would be less than significant related to the transport, use, disposal of hazardous materials, or the emission or handling of hazardous materials.

- d) **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Less than Significant Impact. The 18 reaches included in the Maintenance Plan and the SRR site are not on a list of hazardous materials sites identified on the Cortese List, and the activities conducted under the Plan would not create a significant hazard to the public or the environment (DTSC 2018). Additionally, for the SRR site, the Project site was not located within U.S. Environmental Protection Agency (USEPA) federal sources and several other State regulatory databases, as listed under Sections 10.1 and 10.2 of Appendix E. However, the SRR site was listed in the Clandestine Drug Labs (US CLD) database. This database is associated with an illegal drug lab. According to Environmental Data Resources, LLC (EDR) on October 16, 2002, an illegal drug lab operated, or drug lab equipment and/or materials were stored, at 9777 Soledad Canyon Road, space 28, which is located within the SRR site. Given that clandestine drug laboratories are typically inspected and cleaned up by fire department hazardous materials teams and evidence of a drug lab operation was not observed during the site reconnaissance performed by Dudek, this listing is not likely to have impacted the environmental conditions at the SRR site (Dudek 2018). Therefore, there would be a less than significant impact, and no mitigation is required.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

No Impact. Reaches 112 and 117 are located approximately 1.75 miles from Los Angeles International Airport (LAX). However, the activities associated with the Maintenance Plan and CHMMP would not involve new structures or activities that could pose a safety hazard associated with aircraft activity or that would conflict with an airport land use plan. While most of the Project areas are located more than two miles from an airport or private airstrip, maintenance of reaches and habitat restoration of the SRR site located in proximity to a public or private use airport would not increase the exposure of people to excessive aircraft or airport noise since the Project would not introduce a residential population at the site, nor would it result in permanent employment. The maintenance crew would be present at the reaches only for short periods of time. There would be no impacts related to air traffic, and no mitigation is required.

- f) **Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Less than Significant Impact. The reaches are developed channels and do not contain any emergency facilities, nor do they serve as emergency evacuation routes. Similarly, the SRR site is a habitat restoration site and does not contain any emergency facilities nor serves as an emergency evacuation route. During the short-term, intermittent maintenance activities, the construction equipment would be placed within the reach itself and/or within the fenced easement of the County reaches. Most of the reaches have access roads located parallel and adjacent to the entirety of the reaches, which would be utilized by the trucks and other construction equipment. It is possible that for some reaches (e.g., Reach 118 and 119), vehicles or trucks may need to temporarily park on the public roads. However, at no time would the use of public roadway interfere with emergency evacuation. At the SRR site, the construction equipment would be placed within the staging area of the SRR site, as shown on Exhibit 3.1-19. An access road (Soledad Canyon Road) would be used for CHMMP activities.

Sediment removal at the reaches is completed by a backhoe or excavator transferring the sediment into dump trucks. Backhoes and/or excavators, mowers, blowers, chainsaws, and other hand tools would be used to complete the activities of the CHMMP. Generally, dump trucks are used to transport the sediment from the reaches to a designated sediment placement site or landfill. For habitat restoration activities at the SRR site, soils and demolition material would be exported to Chiquita Landfill or reused onsite. Trucks trips to and from the reaches during vegetation and sediment removal would occur for short periods of time at individual reaches throughout the County. The haul routes utilized by these trucks are designated truck routes, and traffic near the reaches and SRR site would be controlled in compliance with Caltrans' *Manual on Uniform Traffic Control Devices* (MUTCD), as discussed in Section 3.17, Transportation (RR TRA-1). Thus, obstructions to traffic flows would be minimized, and interference with emergency response or evacuation would not be significant. Also, the annual maintenance activities of all the reaches would not occur simultaneously; a reasonable worst-case scenario is discussed in Section 3.3, Air Quality, which assumes the maintenance of two reaches and habitat restoration activities at the SRR site occurring simultaneously. Therefore, the Project would not result in new or increased impacts to emergency response or evacuation plans. There would be less than significant impacts, and no mitigation is required.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. Six reaches (Reaches 101, 102, 104, 105, 110, and 120) and the SRR site are located within areas designated by CAL FIRE and the County of Los Angeles Fire Department as a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2007). Implementation of the Maintenance Plan and CHMMP would not involve the construction or operation of habitable structures in wildland areas or promote development in wildland areas. Also, vegetation maintenance activities that would be conducted under the Maintenance Plan would reduce the potential for brush fires within the reaches due to reductions in vegetative fuel loads. At the SRR site, in July 2016, the Sand Fire burned over 95 percent of the vegetation at SRR. Since then, the native trees and shrubs (e.g., willows, sycamores) have re-sprouted extensively from surviving root/crown tissues and have created a dense thicket. The habitat restoration activities at the SRR site would not exacerbate the existing risk for wildland fires. The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. There would be no impacts related to wildfires, and no mitigation is required.

3.9.3 MITIGATION MEASURES

MM HAZ-1 Prior to ground disturbance or demolition activities at the Stickleback River Ranch (SRR) site, the County shall ensure that remediation and/or removal of the contaminated soils (i.e., contamination including, but not limited to, arsenic, antimony, copper, and lead) shall be completed at the SRR site. Remediation and/or disposal shall be conducted with the oversight of applicable regulatory agencies such as the Los Angeles County Fire Department [operating as the CUPA], the South Coast Air Quality Management District (South Coast AQMD), the California Department of Toxic Substances Control (DTSC), and/or the U.S. Environmental Protection Agency in compliance with established maximum contaminant levels (MCLs).

3.10 <u>HYDROLOGY AND WATER QUALITY</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) result in substantial erosion or siltation onsite or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.10.1 EXISTING CONDITIONS

The County is served by five principal drainage systems: the Los Angeles River Basin, the San Gabriel River Basin, the Santa Clara River Basin, the Coastal Basin, and the Antelope Valley portion of the South Lahontan Basin. Runoff characteristics are influenced by soil type, slope, vegetation, and many other conditions. The seasonal standard rainfall in the County fluctuates between 27.50 inches in the San Gabriel Mountains to 7.83 inches in the desert. The average annual rainfall for the County is 15.65 inches. Storm water runoff can be affected by snowmelt from mountains in the upper elevations when warm spring rains fall on a snowpack (Public Works 2018).

In mountainous areas, the steep canyon slopes create rapid concentrations of storm water runoff. The amount of moisture present in the soil during a storm has a pronounced effect on the amount of sediment in storm water runoff. Soil is driest prior to the beginning of a rainy season due to the lack of rainfall and the evapotranspiration process during the dry summer months. Precipitation onto dry soils is nearly entirely absorbed (except for periods of extremely intense rainfall) and significant storm water runoff generally does not occur until soils are wetted to capacity. Due to the porosity of mountain soils and high infiltration rates, runoff occurs primarily as interflow, or subsurface flow, in addition to direct runoff on the surface. Spring or base flow is essentially limited

to areas within the San Gabriel Mountain range. Thus, most streams in the County are intermittent (Public Works 2018).

Storm water runoff from a recently burned watershed can result in greatly increased flows and higher quantities of sediment and debris in the flows due to burned and dislodged vegetation and lowered infiltration rates. Within Los Angeles County, debris production from a major storm event has amounted to as much as 223,000 cy per square mile of watershed. Boulders up to eight feet in diameter have been deposited in valley areas a considerable distance from their source. Debris quantities that are equivalent in volume to the storm water runoff (i.e., 100 percent bulking) have been documented in major storms (Public Works 2018).

In hilly areas, storm water runoff and debris production rates are normally smaller than those from mountainous areas of the same size. In hilly areas that have been developed for urban use, storm water concentration times become considerably decreased due to drainage improvements (e.g., curbs/gutters, storm drains), which expedite the movement of storm water flows. Additionally, runoff volumes and rates have increased due to increased impervious surfaces (e.g., buildings, parking areas, driveways, and roadway pavement), which do not allow for the infiltration of storm water flows into the soils. However, erosion is controlled and debris is minimized in urban areas due to reduced contact between storm water flows and native soils (Public Works 2018). The soft-bottom channels provide flood-control protection from storm water runoff from surrounding areas.

The SRR site and Reaches 101-105, 108-110, and 120-121 are located within the Santa Clara River Watershed. The natural hydrology of the Santa Clara River has been altered by surrounding development, including unpermitted berming of the north and south banks and development of the road levee (Soledad Canyon Road) to the south. In the eastern portion of the survey area, the river has a broad floodplain with multiple braided low flow channels. Within this floodplain surface flows occur nearly perennially, drying up rarely during long dry spells. The water table is high, less than 1 to 2 feet below the surface, as indicated by the perennial water level in the existing recreational pool (Psomas 2019). Reaches 112-113 and 117-119 are in the Santa Monica Bay Watershed. The Santa Monica Bay Watershed covers 385 square miles over 27 sub-watersheds within seven jurisdictions (Los Angeles Stormwater Program 2019). Reaches 115 and 116 are located within the San Gabriel River Watershed. The San Gabriel River Watershed is 58 miles long and passes through 19 cities within the County. Reach 114 is located within the Los Angeles River Watershed. The Los Angeles River Watershed is 55 miles long and covers 834 square miles. Most of the Los Angeles River Watershed is highly developed and covers the jurisdiction of 43 cities within Los Angeles County (Los Angeles Stormwater Program 2019).

3.10.2 IMPACT ANALYSIS

Regulatory Requirements

RR HYD-1 Construction equipment-related discharges are regulated under SWRCB Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredged or Fill Discharges That Have Received State Water Quality Certification", which requires compliance with all conditions of the Water Quality Certification issued by the RWQCB. The Maintenance Plan and CHMMP must be conducted in compliance with the Water Quality Certification requirements ensure that any discharge from the reaches do not conflict with the applicable provisions of Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law.

Impact Discussion.

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. The operations of the Maintenance Plan would not involve a new activity or construction that could result in the generation of water pollutants. The operations of the CHMMP at the SRR site would not result in construction activities that could cause generation of water pollutants. Project activities at the reaches and SRR site would be intermittent and short-term and would not generate wastewater that would require on-site disposal. As described in Section 3.9, Hazards and Hazardous Materials, implementation of MM HAZ-1 would require the removal of contaminants, including but not limited to, arsenic, antimony, copper, and lead. Additionally, asbestos containing materials (ACM), asbestos containing construction materials (ACCM) and lead based paint (LBP) would be removed per RR HAZ-1 through RR HAZ-3. Implementation of MM HAZ-1 and compliance with RR HAZ-1 through RR HAZ-3 would minimize the potential for degradation of surface or ground water quality. Water used for dust control would not result in runoff or pollutants in the runoff. Equipment used at the Project areas may inadvertently lead to leaks of oil and grease, vehicle fluids, and other solvents into the ground. However, this impact is unlikely and would not be considered significant since no fueling or equipment maintenance activities would be conducted at the reaches or SRR site. Also, the number, type, or frequency of the construction equipment required for mowing, sediment and vegetation removal and other maintenance activities would not change over existing conditions at the reaches; therefore, pollutants generated from mechanical equipment would remain consistent with historic operations at the reaches.

As stated in Section 3.9, Hazards/Hazardous Materials, in accordance with regulatory permits and per the Maintenance Plan, only herbicides approved for aquatic use can be used at the reaches. Condition 3 of Table 2-2 provides information regarding the agency-approved methods of herbicide application, which is pursuant to the Aquatic Pesticide Application Plan—Weed Control, an attachment to the Maintenance Plan. Post-emergent herbicide spraying would only be used in areas with dense invasive vegetation, if necessary, and left for a week prior to its removal. Condition 17 of Table 2-2 requires water quality monitoring for reaches with a continuous flow of water that will continue beyond the reach's downstream limit. Implementation of a Water Diversion Plan (Condition 19 of Table 2-2) and other appropriate BMPs required by the CDFW would also prevent chemicals from entering the runoff. Compliance with these conditions would avoid impacts to waters within the reaches.

Discharges are regulated under SWRCB Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredged or Fill Discharges That Have Received State Water Quality Certification", which requires compliance with all conditions of the Water Quality Certification issued by the RWQCB (see RR HYD-1). Compliance with the Water Quality Certification issued by the RWQCB would ensure that any discharge from the reaches and at the SRR site do not conflict with the applicable provisions of Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law.

Impacts on surface or ground water quality would be less than significant with compliance with the waste discharge requirements of the RWQCB and the conditions of the anticipated Section 1600 Agreement, and no mitigation is required.

- b) **Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

Less than Significant Impact. Implementation of the Maintenance Plan would not require municipal water supplies and would, therefore, have no impact on groundwater supplies, as water used for dust control for the reaches would be limited and would come from off-site sources, supplied via a water truck. This water would also percolate into the ground for minimal recharge of the underlying aquifer. The Maintenance Plan would not interfere with groundwater recharge, as no impervious cover would be constructed, and groundwater recharge would continue to occur via percolation through the reach facilities. Sediment removal would also not be deep enough to affect the underlying groundwater. There would be no impacts to groundwater at the reaches.

Per the CHMMP, an existing water well would remain on-site to supply water for the irrigation of planted/seeded native habitat. However, the water for irrigation of the native habitat would be used, as needed, for a short duration during initial seeding and planting establishment. This water would also percolate into the ground for minimal recharge of the underlying aquifer at the SRR site. The CHMMP would not interfere with groundwater recharge, as no impervious cover would be constructed, and groundwater recharge would continue to occur via percolation at the habitat restoration site. Therefore, activities at the SRR site would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. There would be a less than significant impact, and no mitigation is required.

- c) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

- i) **result in substantial erosion or siltation onsite or offsite?**

Less than Significant Impact. The purpose of the Maintenance Plan is to maintain the functionality of the soft-bottom channel reaches by removing vegetation, sediment, and debris. The reaches are regularly subject to scouring and deposition of sediment through storm flows following rain events or dam releases. Maintenance activities would not alter the existing drainage pattern of the reaches or expose previously vegetated areas to new soil erosion or siltation. Sediment removal activities within the reaches would eliminate accumulated sediment deposited from upstream areas and would therefore reduce the possibility of substantial siltation as a result of the maintenance activities, and there would be no addition of impervious surfaces to the reaches.

The SRR site is located within the Santa Clara River Watershed. Currently, the portions of the SRR site are dry and developed with other semi-permanent uses (i.e., campground, parking lots, concrete-block structures, recreational swimming pool, RV park, etc.) near off-site single-family homes. The natural hydrology of the Santa Clara River has been altered by surrounding development, including unpermitted berming of the north and south banks and development of the road levee (Soledad Canyon Road) to the south. No impervious surfaces would be added to the SRR site, and the establishment of native plants at the SRR site would reduce and control erosion and siltation at the SRR site and allow the Santa Clara River to return to its historic flood regime. Additionally, the CHMMP would establish erosion-control measures as part of the habitat restoration activities and long-term maintenance of the site. There would be a less than significant impact, and no mitigation is required.

- c) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**
- ii) **substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?**
 - iii) **create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**
 - iv) **impede or redirect flood flows?**
- d) **Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

Less than Significant Impact. There is a potential that water may be present within some reaches during maintenance activities, and water is always present within Reaches 112-117. As such, there would be times when surface water flows would require diversion from areas undergoing maintenance activities at certain reaches. In order to minimize impacts to existing drainage patterns within the applicable reaches, the Maintenance Plan contains the preparation of a site-specific Water Diversion Plan, subject to the approval of CDFW and RWQCB, and as detailed in Condition 19 of Section 2.5 of this IS/MND. The activities of the Maintenance Plan would maintain the capacity and functionality of the reaches by allowing them to perform their primary function during heavy rains, substantially reducing the adverse effects from flooding on surrounding properties. Annual channel maintenance would have a beneficial impact on drainage patterns and storm drain infrastructure. By maintaining the functionality of the reaches, the Maintenance Plan reduces the potential for uncontrolled flooding and downstream erosion, and there would be no impact on drainage patterns or increase in surface runoff volumes, and no mitigation is required.

The SRR site is located within the Santa Clara River Watershed. Currently, portions of the SRR site are dry and developed with other semi-permanent uses (i.e., campground, parking lots, concrete-block structures, recreational swimming pool, etc.) near off-site single-family homes. As shown on Exhibit 3.1-19, there are low-flow channels intersecting the SRR site. The natural hydrology of the Santa Clara River has been altered by surrounding development, including unpermitted berming of the north and south banks and development of the road levee (Soledad Canyon Road) to the south. In the eastern portion of the survey area, the Santa Clara River has a broad floodplain with multiple braided low flow channels. Within this floodplain surface flows occur nearly perennially, drying up rarely during long dry spells. In addition to the necessity of the SRR site to complete compensatory mitigation activities (i.e., habitat restoration) for the Santa Clara River reaches, the activities at the SRR site would remove most infrastructure associated with its previous use and allow the river to follow its historic flood regime. By establishing native habitat at the SRR site, the CHMMP would reduce the potential for uncontrolled flooding and downstream erosion, and there would be no impact on drainage patterns or increase in surface runoff volumes, and no mitigation is required.

The Project would not alter the existing drainage pattern of the reaches or SRR site, would not alter the course of streams or rivers, and would not add impervious surfaces. There would be a less than significant impact.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. As detailed under Section 2.3, Relevant Policies and Regulations, there are nine Regional Water Quality Control Boards (RWQCBs) in California. The reaches and SRR site for this Project are in Region 4, the Los Angeles Region. The SWRCB and the Los Angeles RWQCB have adopted a Water Quality Control Plan (or “Basin Plan”) for the Los Angeles Region. The Basin Plan contains goals and policies, descriptions of conditions, and proposed solutions to surface and groundwater issues. The Basin Plan also establishes water quality standards for surface and groundwater resources and includes beneficial uses and levels of water quality that must be met and maintained to protect these uses. These water quality standards are implemented through various regulatory permits pursuant to CWA Section 401 for Water Quality Certifications and Section 402 for Report of Waste Discharge permits.

Disturbance to jurisdictional surface waters (i.e., wetlands, channels, ponds, or marine waters) requires a Federal Clean Water Act Section 404 permit from the USACE, a Federal Clean Water Act Section 401 Water Quality Certification and National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB)/State Water Resources Control Board (SWRCB), a Section 1600 Agreement pursuant to the California Fish and Game Code from the California Department of Fish and Wildlife (CDFW), and, for some reaches, a Coastal Development Permit from the California Coastal Commission (CCC). As part of the Project, these permits would be obtained, as detailed in RR BIO-1. Additionally, the reaches and SRR site are not located within areas of Los Angeles County that have medium or high priority basins in critical overdraft. Medium or high priority basins are managed by sustainable groundwater management plans in the County (LACWD 2019). Therefore, there be no conflict with a sustainable groundwater management plan. Overall, there would be a less than significant impact, and no mitigation is required.

3.10.3 MITIGATION MEASURES

There would be no significant impacts to hydrology and water quality; therefore, no mitigation measures are required.

3.11 <u>LAND USE AND PLANNING</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 EXISTING CONDITIONS

The reaches and SRR site are restricted for public facility use and are maintained by the LACFCD. All Project areas are located on LACFCD-maintained property via an easement that has been granted to the LACFCD. As a part of the CHMMP, the SRR site would be closed to the public with fencing during the restoration activities.

3.11.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project physically divide an established community?

No Impact. The Maintenance Plan consists of activities at existing soft-bottom channels. It does not involve the expansion of the existing soft-bottom channels or the construction of new channels. Therefore, the Maintenance Plan would not divide an established community, and there would be no impact.

The CHMMP would convert portions of a previously-private-owned property to a habitat restoration site. The SRR site is located in a sparsely populated rural area. The habitat restoration portions of the Project site are between Soledad Canyon Road to the south and a railroad track to the north. Habitat restoration activities would not block Soledad Canyon Road or the railroad, or any other established roadway within an established community. The habitat restoration portions of the SRR site would be fenced but would not create any substantial barriers for the existing community or physically divide an established community. Therefore, there would be no impact.

b) Would the project cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The Maintenance Plan and CHMMP would not require changes to existing or planned land uses, and thus, would not conflict with applicable land use plans, policies, or regulations. Implementation of the Project would also be made in accordance with pertinent permits (i.e., the CDFW 1600 Long-Term Streambed Alteration Agreement, the USACE Section 404 Permit, and the RWQCB Section 401 Water Quality Certification, the NDPES General Permit for Storm Water

Discharges, CCC Coastal Development Permit, and City of Long Beach Local Coastal Development Permit). There would be no impacts related to conflicts with applicable land use plans, policies, or regulations, and no mitigation is required.

3.11.3 MITIGATION MEASURES

There would be no impacts to land use and planning; therefore, no mitigation measures are required.

3.12 MINERAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 EXISTING CONDITIONS

Mineral resource areas include existing surface mining sites, areas identified as containing significant mineral resources by the State Mining and Geology Board, and areas suitable for the production of energy resources, including crude oil and natural gas. The County of Los Angeles depends on the California Geological Survey to identify deposits of regionally significant aggregate mineral resources. These clusters or belts of mineral deposits are designated as Mineral Resource Zone 2 (MRZ-2), which are areas that require special management due to the presence of mineral resources important to the County. Four major MRZ-2s are located in the County: the Little Rock Creek Fan, Soledad Production Area, Sun Valley Production Area, and Irwindale Production Area (LACDRP 2016). Based on the Mineral Resources Map in the General Plan Update (Figure 9.6 in the General Plan), which depicts the generalized boundaries of the MRZ-2 lands in the County, some reaches and the SRR site in the Santa Clarita Valley area may be within or near areas designated as MRZ-2.

3.12.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
- b) **Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Impact. The reaches included in the Maintenance Plan are existing facilities where no mineral extraction activities are ongoing. There are also no mineral extraction activities occurring at the SRR Site. While aggregate resources may be present in or near Project areas, past grading and maintenance activities have disturbed any surface resources, and the essential functions of the reaches for public safety are not likely to be superseded by the need for mining at the reaches. At the SRR site, past grading, demolition, and construction activities for the existing uses may have disturbed any surface resources that could have been present. Historic sediment removal activities would have also affected the availability of resources, although no impervious areas are present to preclude future mining activity. Implementation of the Maintenance Plan and CHMMP

would not require mineral resources nor change the availability of resources on or near the Project areas. Additionally, no new structures or facilities would be constructed that could restrict future mineral resource recovery activities at the Project areas. Thus, there would be no impacts to mineral resources.

3.12.3 MITIGATION MEASURES

There would be no impacts to mineral resources; therefore, no mitigation measures are required.

3.13 <u>NOISE</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 EXISTING CONDITIONS

The reaches and SRR site analyzed for this Project are in proximity to noise-sensitive receptors, including residential areas. The Project areas do not contain any permanently-installed mechanized equipment that would generate noise on an ongoing basis.

3.13.2 IMPACT ANALYSIS

Regulatory Requirements

RR NOI-1 All Project activities must be conducted in compliance with the County's noise regulations, as contained in Chapter 12.08, Noise Control, and Chapter 12.12, Building Construction Noise, of the *Los Angeles County Code*.

Impact Discussion

- a) **Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less than Significant Impact. The County has established noise level limits for activities, which generate noise under Chapter 12.08 – Noise Control (see RR NOI-1). This chapter provides exterior and interior noise standards as well as specific noise restrictions for various noise sources. The County has also listed activities that are exempt from chapter restrictions as detailed in Section 12.08.570. Section 12.08.570.H specifically applies to the proposed Project and states:

H. Public Health and Safety Activities. All transportation, flood control, and utility company maintenance and construction operations at any time on public right-of-way, and those situations which may occur on private real property deemed necessary to serve the best interest of the public and to protect the public's health and well being, including but not limited to street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, snow removal, house moving, vacuuming

catchbasins, removal of damaged poles and vehicles, repair of water hydrants and mains, gas lines, oil lines, sewers, etc.

This code exempts noise-generating activities that involve maintenance activities in flood control facilities. This exemption applies directly to the Project activities.

Although Section 12.08.570.H. exempts noise produced from flood control maintenance and construction operations at any time on public right-of-way, the reaches are located within the boundaries of other jurisdictions. The Project areas are located in the unincorporated County and in a total of four cities: Carson (Reach 113), Long Beach (Reaches 114-116), Los Angeles (Reaches 112, 117-119), and Santa Clarita (Reaches 103-105, 108-110, 120-121, and the SRR site).

The City of Carson has adopted the County of Los Angeles noise ordinance, including the exemption under Section 12.08.570.H; therefore, noise generated by Project-related activities at Reach 113 would be exempt. The City of Long Beach, pursuant to Section 8.8.202 of the Long Beach Municipal Code; City of Los Angeles, pursuant to Section 41.40 of the Los Angeles Municipal Code; and City of Santa Clarita, pursuant to Section 11.44.080 of the Santa Clarita Municipal Code, have hourly limits for construction activity but no quantified noise level limits against which to assess what is considered a substantial noise increase. The City of Los Angeles prohibits construction noise, per Section 41.40 of the Los Angeles Municipal Code between the hours of 9:00 PM and 7:00 AM Monday through Friday. Project-related construction activities would not occur outside of the hours allowed by local noise ordinances.

Noise from the Project would be generated from the following activities: trimming and removal of native and non-native vegetation, demolition of a pool and paving at the SRR site, clearing of debris, and trash, sediment removal, and associated equipment use and truck traffic. These activities would generate noise levels high enough to be audible at surrounding land uses. As discussed in Section 2.4, Project Description, vegetation removal would occur by hand or mechanical means and clearing of debris would be completed by hand. Mechanical equipment would be used for demolition and debris and sediment removal, and may include, but is not limited to, a chain saw, all-terrain vehicle (ATV), tractor, tractor mower, D6 or D8 dozer, excavator, gradall with mower attachment, rubber or track loader, 6+6 water truck, off-road dump truck, bob-cat with mower attachment, back-hoe, and/or street sweeper. The temporary use of motorized equipment at the reaches and SRR site and the hauling of sediment by dump trucks would generate noise at adjacent land uses and along the haul routes during the activity.

Mowing and vegetation removal may use diesel-engine driven tractors that generate noise that is audible within 500 to 1,000 feet in quiet surroundings, or may be done using mechanized tools (e.g., mowers, weed whackers) similar to such activities at a private residence and less audible depending on proximity to the reach. The type of equipment that LACFCD's staff/contractors would use in the reaches, including excavators, gradalls, and chain saws, typically produce noise levels of 80-85 dBA at a distance of 50 feet (FTA 2006).

At the reaches, the Project involves maintenance activities that proceed in a linear fashion along the channel, the time that is spent in proximity to each individual noise sensitive use is brief due to the rate of progress clearing the channel. As such, the fraction of time that maintenance activities would occur proximate to an individual receptor would generally be on the order of hours, and not days. In addition, the average channel width is approximately 220 feet, and as such, substantive noise attenuation would occur over this distance. The average channel width of 220 feet also does not consider the actual distance between the channel and the nearest noise sensitive land uses, which would further attenuate noise from these activities. In addition, the

maintenance activity at the reaches would occur during the least noise-sensitive portions of the day (i.e., would not occur during the evening or nighttime). Consequently, noise exposure from maintenance activities at the reaches would be brief and, for the reasons described above, would not be considered substantial. Therefore, there would be less than significant impacts related to a substantial temporary or periodic noise level increase, and no mitigation is required.

Similarly, at the SRR site, the nearest sensitive receptor is one residence located 60 feet west of the Project boundary. The type of equipment that LACFCD's staff/contractors would use at the SRR site is comparable to the equipment used at the reaches, including excavators, gradalls, and chain saws. This would typically produce noise levels of 80-85 dBA at a distance of 50 feet. The fraction of time that noise from the loudest activities (i.e., demolition, infrastructure removals) that would occur proximate to this receptor would generally be on the order of hours, and not days. Consequently, noise exposure from restoration activities at the SRR site would be brief and, for the reasons described above, would not be considered substantial. Therefore, there would be less than significant impacts related to a substantial temporary or periodic noise level increase, and no mitigation is required.

Overall, the operation of the reaches (i.e., passively channeling storm water) and habitat restoration at the SRR site currently do not and would not generate substantial operational noise as a result of the Project. The Project would involve periodic maintenance activities at the reaches and SRR site, which would generate short-term noise associated with clearing of the reaches and maintenance of habitat at the SRR site but to a lesser extent than would occur for the initial Project activities. The Project would not install any permanent noise sources nor generate notable traffic. The reaches would remain their primary functions as soft-bottom channels. The SRR site would be converted from a campground to a vegetated, unoccupied site, and would therefore reduce ambient noise levels overall.

Additionally, because the Project's activities are exempt under Section 12.08.570.H, the Project's short-term construction-related noise would not result in exposure of persons to, or generation of, noise levels in excess of standards established by the County. There would be a less than significant impact and no mitigation is required.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Two types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 25 feet from the source of vibration. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For this analysis, potential structural damage and human annoyance associated with vibration from Project activities are based on Caltrans vibration limits identified in Table 3-12, Structural Vibration Damage Thresholds, and Table 3-13, Human Response to Transient Vibration, respectively.

TABLE 3-12
STRUCTURAL VIBRATION DAMAGE THRESHOLDS

Structure and Condition	Maximum ppv (in/sec)	
	Transient Sources*	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50
ppv: peak particle velocity; in/sec: inches per second.		
* Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.		
Source: Caltrans 2013.		

TABLE 3-13
HUMAN RESPONSE TO TRANSIENT VIBRATION

Average Human Response	ppv (in/sec)
Severe	2.000
Strongly perceptible	0.900
Distinctly perceptible	0.240
Barely perceptible	0.035
ppv: peak particle velocity; in/sec: inches per second	
Source: Caltrans 2013.	

Construction/maintenance activity can result in varying degrees of ground vibration, depending on the equipment and methods used; the distance to the affected structures; and the soil type. Table 3-14, Typical Vibration Levels during Construction Activities, presents the anticipated vibration from these pieces of construction equipment in inches per second (in/sec) peak particle velocity (ppv) at 25 feet from the equipment.

**TABLE 3-14
TYPICAL VIBRATION LEVELS DURING CONSTRUCTION ACTIVITIES**

Equipment	ppv at 25 ft (in/sec)*
Vibratory Roller	0.210
Large bulldozer	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
ppv: peak particle velocity; ft: feet; in/sec: inches/second	
* The ppv is defined as the maximum instantaneous positive or negative peak of the vibration signal and is usually measured in in/sec.	
Source: Caltrans 2013.	

According to the data in Table 3-12, the threshold for structural vibration damage to modern industrial/commercial buildings is 0.5 in/sec for intermittent sources. Below this level, there is virtually no risk of building damage. The Project would not use vibratory rollers, large bulldozers, or similar large equipment. Loaded trucks would be used occasionally and could operate as close as 10 feet from an adjacent building; at that distance, the vibration level would be an estimated 0.25 in/sec ppv. These vibration levels would be below the 0.5 in/sec ppv threshold and no structural damage would occur.

Persons in the buildings adjacent to the Project activities would be further from the equipment than the distances to the structures (i.e., 5 and 10 feet) used to estimate building vibrations; therefore, the vibration levels felt by these persons would be less than the estimated 0.25 to 0.28 in/sec ppv levels estimated for structural impacts. According to Table 3-13, vibrations may be perceptible during infrequent occurrences when maintenance activities or the habitat restoration activities are conducted in proximity to receptors. However, instances for which vibration would be perceptible are infrequent and of short duration because the maintenance activities generally occur at distances for which vibration would not be perceptible. Therefore, the annoyance from any perceptible vibration would be considered less than significant and no mitigation would be required.

- c) **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. While most reaches and the SRR site are located more than two miles from an airport or private airstrip, maintenance of reaches and habitat restoration of the SRR site located in proximity to a public or private use airport would not increase the exposure of people to excessive aircraft or airport noise since the Project areas are not permanently staffed and the maintenance crew would be present at the reaches only for short periods of time. The Project also does not result in the development of noise-sensitive uses that would be adversely affected by aircraft noise. Thus, there would be no impact related to Project site exposure to airport noise, and no mitigation is required.

3.13.3 MITIGATION MEASURES

There would be no significant impacts to noise; therefore, no mitigation measures are required.

3.14 <u>POPULATION AND HOUSING</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 EXISTING CONDITIONS

The reaches and SRR site do not include habitable structures, nor are there permanent employees stationed at the reaches or SRR site. Rather, the LACFCD-contracted staff travel to the sites to perform inspection and maintenance activities at the reaches on select days but leave when the work is completed. Similarly, workers would travel to the SRR site to perform the construction and habitat restoration activities at the site on select days but leave when the work is completed. Thus, there are no on-site operations staff or associated employment positions. In addition, there are no housing units, households, or residents at the Project areas.

3.14.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?**
- b) **Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Impact. As discussed above, the Project areas do not have on-site resident population or employment opportunities. The Project activities also would not lead to the creation of housing or employment at the reaches and SRR site. Current LACFCD personnel and their contractors would provide maintenance services for the reaches, as has occurred on other permitted reaches under the jurisdiction of the LACFCD. The Maintenance Plan would not involve expansion of existing reaches or construction of new reaches. The CHMMP would convert existing campground/RV park facilities to a fenced habitat restoration site. Therefore, there would be no change in land uses that could induce growth. The continued maintenance of the reaches and addition of native habitat at the SRR site would not promote development in the surrounding area or induce indirect population growth. In addition, the operations under the Maintenance Plan would not eliminate existing housing such that would require construction of replacement housing elsewhere. There would be no impacts related to population and housing, and no mitigation is required.

3.14.3 MITIGATION MEASURES

There would be no impacts to population and housing; therefore, no mitigation measures are necessary.

3.15 <u>PUBLIC SERVICES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project result in :				
a) Substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 EXISTING CONDITIONS

Public services in the County are provided by various law enforcement and fire protection agencies, school districts, and other public agencies. The SRR site would be fenced as part of the Project and the reaches are currently fenced to prevent trespassing and vandalism and to promote public safety. However, there are no specific public services that are required by the reaches or their maintenance, or the SRR and the habitat restoration activities.

3.15.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

No Impact. As discussed above in Section 3.14, Population and Housing, the implementation of the Maintenance Plan and CHMMP would not induce population growth directly or indirectly and would not construct structures that require public services. Therefore, there would be no change

in demand for police and fire protection services or facilities. Also, no demand for schools, parks or other public facilities would be generated by the reaches or SRR site. There would be no impact to public services, and no mitigation is required.

3.15.3 MITIGATION MEASURES

There would be no impacts to public services; therefore, no mitigation measures are required.

3.16 <u>RECREATION</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would/does the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 EXISTING CONDITIONS

The reaches and the SRR site would not generate demands for parks and recreation. There are no recreation activities associated with the maintenance of the reaches or habitat restoration of the SRR site. While some of the reaches are located adjacent to recreational trailheads, trails, and parks, public access within the LACFCD-managed property or LACFCD easement areas for the reaches is prohibited.

3.16.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Impact. As discussed above in Section 3.14, Population and Housing, implementation of the Maintenance Plan and CHMMP would not induce population growth directly or indirectly, and there are no residents, households, or housing units at the reaches or SRR site that may generate a need for or increase use of neighborhood and regional parks, including nearby recreational trails. Project activities would be confined to the reaches and SRR site and would not affect adjacent trails, trailheads, or recreational activities. There would be no impacts to existing recreational facilities, and no mitigation is required.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

No Impact. The Maintenance Plan and CHMMP would not involve recreational activities or facilities, nor would it include the construction or reconstruction of recreational facilities. There would be no impacts related to new or expanded recreational facilities, and no mitigation is required.

3.16.3 MITIGATION MEASURES

There would be no impacts related to recreation; therefore, no mitigation measures are required.

3.17 TRANSPORTATION	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.17.1 EXISTING CONDITIONS

As shown in Exhibit 2.1, Regional Location, the Project areas analyzed in this IS/MND are largely concentrated in Santa Clarita and along the coastal regions of Los Angeles County. Vehicle trips come from and return to the LACFCD maintenance yards or their contractor yards to the reaches and SRR site during mowing, invasive species removal, and other maintenance activities at the reaches, and habitat restoration activities at the SRR site. The truck traffic generated by sediment removal and vegetation activities, as part of activities of the Maintenance Plan, occurs between the reaches and various designated sediment placement sites (SPS) or landfills. The truck traffic generated by infrastructure removal and habitat restoration activities, as part of the CHMMP, would occur between the SRR site and landfills.

3.17.2 IMPACT ANALYSIS

Regulatory Requirements

RR TRA-1 The County requires the implementation of temporary traffic control measures in accordance with the *Standard Specifications for Public Works Construction* (Greenbook), which contains standards for traffic and access (i.e., maintenance of access, traffic control, and notification of emergency personnel). The maintenance activities will include temporary traffic control in accordance with the Greenbook during maintenance activities.

RR TRA-2 The movement of large equipment on public roadways will be made in compliance with Title 16, Highway, of the *Los Angeles County Code*, which requires a moving permit and provisions on the size of vehicles/equipment; night moves; moving in inclement weather; parking on streets; travel outside peak hours and holidays; over-length, over-height and over-width requirements; lighting; signs; and restricted routes.

Impact Discussion

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities?

Less than Significant Impact. Traffic generated from implementation of the Project activities would vary at the reaches and SRR site. At the reaches, Year 1 activities would begin on September 1, 2020 and end on March 14, 2021, and annual maintenance activities would occur from September 1 through March 14 of each year. Reaches 101-105, 108-110 would be maintained yearly from September to March with no overlapping work occurring within these reaches. Reaches 112-116 and 118-121 would have concurrent work occurring at different reaches throughout the initial activity duration. Traffic generated from implementation of the CHMMP would be limited to worker and haul trips for infrastructure removals and habitat restoration and planting activities.

The sediment and vegetation removal activities require one or more large trucks to transport a backhoe or small excavator to the reaches, multiple dump trucks to transfer sediment and vegetation from the basin to a designated SPS or landfill (the total number of dump trucks varies widely dependent on the quantity of sediment to be cleared from each basin and the distance to the SPS or landfill), and a limited number of trucks or other vehicles to transport personnel to perform the basin maintenance. The habitat restoration activities at the SRR site require dump trucks to transfer demolition material, vegetation, and soils to the Chiquita Landfill.

The Los Angeles County Congestion Management Program (CMP) includes the following: monitoring of the highway and roadway system in the County; a multi-modal system performance analysis; promotion of alternative modes of transportation; monitoring of land use and roadway performance by individual jurisdictions; and guidelines for conducting a Traffic Impact Analysis (TIA). The CMP TIA guidelines require analysis of freeway segments, ramps, and intersections if the proposed project would add 150 or more trips (in either direction) during either the AM or PM weekday peak periods at any location.

Freeway and major roadways in the County's CMP would be utilized by trucks and vehicles coming to and from the reaches and SRR site. Because the Project areas are located throughout the County, so too is the volume of periodic truck traffic from Project activities, which would involve travel on freeways and surface streets, dispersed throughout the County. The number of workers at the reaches would range from 6 to 20 workers, and the number of workers at the SRR site would range from 2 to 9 workers. The maximum daily trips at the reaches would be 23 one-way worker trips (at Reach 105) and 40 one-way worker trips (at Reach 113). The highest one-way worker trips at the SRR site would occur during Task 5d, for a total of 18 one-way worker trips. For illustrative purposes, assuming work was to occur at these two reaches and during Task 5d at the SRR site on the same day, this would amount to a maximum of 81 worker trips per day at the Project areas, which are generally located in different areas of Los Angeles County. Additionally, between the reaches and the SRR site, there would be an average of 18 haul truck trips per day. In total, there would be an average of 99 one-way trips per day. Therefore, the addition of 99 trips would not lead to substantial local increases in traffic which would affect roadway and intersection capacities. There would be a less than significant impact to CMP freeway segments, ramps, and intersections, as this is less than 150 trips and would generally occur across different freeway segments, ramps, and intersections. Also, trips to and from the reaches and SRR site would be intermittent and short term. Since no measurable impact on street system performance would occur, no conflict with the Los Angeles County CMP is expected. There would be no impact related to the County CMP.

With the addition of equipment trips, additional trips may be generated each work day, with a one-time travel to and from the site by equipment to be used and staged on-site at the reaches and SRR site. At the reaches, sediment and vegetation removal would vary from year to year, but Year 1 activities would be the most conservative worst-case scenario, because vegetation and sediment clearing activities have accumulated due to lack of consistent maintenance. Similarly, the first year of CHMMP activities would be the most intensive, due to removal of infrastructure and existing vegetation, but trips would be reduced significantly during long-term maintenance of the SRR site habitat. These trips would represent a less than significant impact to overall traffic volumes and circulation patterns across the County.

Haul routes are selected based on the use of designated truck routes, with preference to wider streets and avoidance of areas with public congregation. These haul routes are also presented to affected cities for approval or selection of alternate routes, and information flyers are posted at developments along the route prior to the start of hauling activities. With Project activities occurring intermittently, operation of the Project would not result in a permanent increase in traffic volumes or traffic patterns at any one roadway, freeway, or intersection. Traffic impacts on the circulation system would be less than significant. Also, no impacts would occur related to mass transit, non-motorized travel, or pedestrian and bicycle paths with implementation of these Project activities. Most of the Project areas are closed off to the public. However, in the case that the reaches are adjacent to pedestrian and bicycle paths, the maintenance work would be intermittent and would occur for a short period of time and would not substantially impact the pathways near the reaches. Implementation of the Project would not conflict with a program, plan, ordinance or policy addressing the circulation system. There would be a less than significant impact, and no mitigation is required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. Section 15064.3(b)(1) of the State CEQA Guidelines refers to evaluating transportation impacts using vehicle miles traveled (VMT) for land use projects. It should be noted that the proposed Project is not a land use project; it is rather a short-term, construction-based activity and would not generate any long-term change in traffic conditions.

The CEQA Guidelines Section 15064.3(b)(3) states that, for many projects, a qualitative analysis of construction traffic may be appropriate. The VMT generated by the Project would occur on a short-term yet yearly basis during maintenance activities at the reaches and at restoration activities at the SRR site. VMT refers to the amount and distance of automobile travel attributable to a project. The term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. Agencies are not required to include heavy-duty freight vehicles in their CEQA analyses under Senate Bill 743, which is the basis of this analysis. Furthermore, it needs to be recognized that the VMT analysis of on-road passenger vehicles and light trucks is not required if total trips do not exceed 110 daily trips. If trips exceed the threshold of 110 trips per day, only then a quantitative VMT analysis would be required. As identified in response to Threshold 3.17(a) above, there would be a maximum of approximately 81 personal/work vehicles (on-road, passenger vehicles) traveling each day to and from the Project sites, which is below the threshold of 110 daily trips. Therefore, preparation of a VMT analysis is not required.

As such, the Project would not conflict or be inconsistent with Section 15064.3(b) of the State CEQA Guidelines. There would be a less than significant impact, and no mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project would not include changes to any road configurations that may create sharp curves or dangerous intersections. At the reaches, construction equipment and trucks would mostly be confined within the fenced portions of the reach and to access roads, which are intended to accommodate maintenance activities. Access roads are maintained to ensure safe passage, as part of the Maintenance Plan, but the alignment of the access roads would not be altered. Condition 14 of Table 2-2, Required Conditions of the Maintenance Plan, details the access routes, vehicle maintenance, and equipment staging requirements for the maintenance activities. These activities must be located within existing parking areas, access roads, and access ramps. At the SRR site, construction equipment and trucks would be confined to the Project site, at the staging area, as shown on Exhibit 3.1-19. There would be no potential to increase roadway hazards due to design features or incompatible uses. There would be no impact.

d) Result in inadequate emergency access?

Less than Significant Impact. The Maintenance Plan and CHMMP would generate truck traffic during Project activities, with sediment removal possibly generating as much as approximately 80 trips per day in the worst-case scenario. These truck trips would be queuing in and out of the reaches and SRR site and could temporarily interfere with emergency response or evacuation in areas directly adjacent to the reaches or SPS/landfill.

To reduce the potential for interference with emergency access during Maintenance Plan activities, the LACFCD complies with requirements for traffic control as needed for the specific conditions of the maintenance site. Any activities on or adjacent to public streets that could limit traffic flow, such as construction equipment delivery, would be conducted with traffic control measures per Public Works Greenbook (RR TRA-1). RR TRA-1 would ensure that existing circulation would not be affected during Project activities in such a way that would physically impair or impede emergency access.

The movement of large equipment on public roadways (as needed to transport equipment to and from the Project areas) is regulated by Title 16, Highway, of the *Los Angeles County Code*, which requires a moving permit and compliance with regulations on the permitted size of vehicles/equipment; night moves; moving in inclement weather; parking on streets; travel outside peak hours and holidays; over-length, over-height, and over-width requirements; lighting; signs; and restricted routes (RR TRA-2). This would prevent traffic hazards when large equipment is transported to and from the reaches and SRR site, if required. Impacts related to traffic hazards and emergency access would be less than significant, and no mitigation is required.

3.17.3 MITIGATION MEASURES

There would be no significant impacts related to transportation; therefore, no mitigation measures are required.

3.18 <u>TRIBAL CULTURAL RESOURCES</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
e) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 EXISTING CONDITIONS

This section evaluates the Project's potential for any adverse effects on tribal cultural resources (TCRs). A TCR, as defined in Section 21074 of the Public Resources Code, is a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to California Native American tribes. As presented in Section 3.5, Cultural Resources, the ½-mile search radii surrounding each of the Project reaches and SRR site was positive for archaeological and historic cultural resources. However, no cultural resources were identified within the boundaries of the Project. Nevertheless, it should be noted that the SCCIC may not have documentation regarding TCRs near the Project reaches or SRR site. Therefore, outreach to the Native American Heritage Commission (NAHC) and tribal representatives with knowledge of the area is warranted.

3.18.2 IMPACT ANALYSIS

Regulatory Requirements

RR CUL-1 from Section 3.5, Cultural Resources, related to unanticipated encounter of human remains, is applicable to the analysis of tribal cultural resources.

Impact Discussion

- a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**
- i) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? or**
 - ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

Less Than Significant with Mitigation. As indicated above and in Section 3.5 of this IS/MND, based on a SCCIC record search there are no cultural resources within each reach or the SRR site that are currently listed on the California Register of Historical Resources (CRHR). Therefore, the proposed Project would not have an impact on documented tribal cultural resources that are listed or eligible for listing on the CRHR or a local register. Additionally, a Sacred Lands File Search was conducted by the NAHC on June 20, 2018. The results indicated TCRs have been identified within the vicinity of the Project site(s). However, the details regarding these resources are only known by the local tribes. The NAHC provided four tribal organizations with knowledge of the area. These tribal organization include:

- Gabrieliño Band of Mission Indians–Kizh Nation
- Gabrieliño/Tongva San Gabriel Band of Mission Indians
- Gabrieliño/Tongva Tribe
- Gabrieliño Tongva Indians of California Tribal Council

Furthermore, the Project is subject to Assembly Bill (AB) 52, which requires lead agencies to initiate consultation with California Native American Tribes that have requested to be notified of proposed projects within their traditional use area (TUA). The Tribes are provided 30 days to request consultation after the lead agency notifies the tribe of a proposed project.

On June 25, 2018 and June 23, 2020, the LACFCD submitted notification of the Project via certified mail to the representatives of the five tribes that have requested such notification – the Gabrieliño Band of Mission Indians–Kizh Nation, Gabrieliño-Tongva San Gabriel Band of Mission Indians, Fernandeano Tataviam Band of Mission Indians, San Manuel Band of Mission Indians, and Tejon Indian Tribe. These letters are available in Appendix C of this IS/MND. It is noted that two of these five tribes are among those identified by the NAHC via the Sacred Lands File Search. Pursuant to AB 52, each of these groups and/or individuals were mailed an informational letter describing the Project and requesting any information regarding resources that may exist on or near the Project site.

The LACFCD received one request for government-to-government consultation from the Fernandeño Tataviam Band of Mission Indians. Accordingly, in August 2018 and June 2020, the LACFCD pursued consultation with a representative from the Fernandeño Tataviam Band of Mission Indians through a phone conversation between Jairo Avila (Tribal Historic and Cultural Preservation Officer) of this tribe and the LACFCD. However, the consultation meetings failed to identify any known TCRs within the Project reaches or the SRR site. Therefore, no impacts to TCRs known to the local tribes would occur within each reach or the SRR site.

A response from the San Manuel Band of Mission Indians was received by email; however, no consultation was requested. Finally, the LACFCD did not receive a response from the Kizh Nation, San Gabriel Band of Mission Indians, or the Tejon Indian Tribe within the allocated 30 days. The LACFCD satisfied the consultation requirements by submitting scoping and notification letters to the five tribes listed for notification and initiating consultation with the Fernandeño Tataviam Band of Mission Indians.

Based on coordination to date, Native American representatives have not provided information indicating there are resources that are significant to a California Native American tribe or otherwise qualify as Tribal Cultural Resources, as defined in Public Resources Code Section 21074. However, it is acknowledged this portion of Los Angeles County was inhabited by Native American tribes. Therefore, there is always the possibility that undiscovered intact cultural resources, including tribal cultural resources may be present below the surface in native sediments. The Project does not anticipate disturbance of native soil; however, in the event that native soils are disturbed mitigation measures have been included requiring Native American monitoring when construction activities are disturbing native soil. Implementation of MM TCR-1 and MM TCR-2 would provide for appropriate protection of tribal cultural resources that may be discovered during Project construction activities. Therefore, this impact would be less than significant with mitigation.

3.18.3 MITIGATION MEASURES

- MM TCR-1** Prior to Project activities within each reach or the SRR site the Los Angeles County Flood Control District (LACFCD) shall determine whether any of the activities have the potential to disturb native soils (i.e., soils that are in-situ that have not previously been disturbed by grading and are not composed of sediment washed down from upstream areas). If Tribal Cultural Resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall assess the find. The Lead Agency or Project manager shall contact the Fernandeño Tataviam Band of Mission Indians (FTBMI) to consult if any such find occurs within the areas culturally and traditionally affiliated with the FTBMI.
- MM TCR-2** The Lead Agency and/or applicant shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

3.19 UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.19.1 EXISTING CONDITIONS

New water, sewage, electricity, telecommunications, and other utilities and service systems are not required for operation and maintenance of the reaches or restoration of the SRR site. Water for dust control would be sourced from municipal water supplies and trucked to the Project site. Water for seeding and planting of native vegetation at the SRR site would be sourced from the existing water well at the SRR site.

3.19.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**
- b) **Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

- c) **Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Less Than Significant Impact. The Maintenance Plan would not produce wastewater, require potable water supplies, require the construction of storm drain, electric power, natural gas, or telecommunication facilities nor would it induce population growth or otherwise contribute to a need for new or increased water or wastewater facilities. The Project would require a limited amount of water for the control of fugitive dust during localized grading activities at the reaches; this water would be provided by a water truck on an as-needed basis. Water for dust control would be sourced from municipal water supplies and trucked to the Project site; however, the amount of water would be limited and finite. Implementation of the Maintenance Plan would not require any water supplies and would not involve any new landscaping or associated irrigation.

At the SRR site, water for seeding and initial planting of native vegetation at the SRR site would be sourced from the existing water well at the Project site. The water use from the existing well would be limited to the initial habitat restoration activities through an irrigation pipe. After initial plant establishment, the habitat would require little to no water. There is a possibility that minimal water would be used from the existing well for control of fugitive dust or the water would be sourced from municipal water supplies and trucked to the SRR site. Therefore, the Project would not need new water supplies, tanks, pumps, or other water system facilities. There would be a less than significant impact related to water, wastewater, or storm drain facilities, and no mitigation is required.

- d) **Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**
- e) **Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Less Than Significant Impact. Sediments removed from the reaches would be disposed off-site and deposited in Public Works-maintained sediment placement site (SPS) or landfills. Different SPS/landfills would be used to dispose of sediment loads, which often change due to various factors such as distance from the reaches, travel time to the SPS, remaining capacity of the SPS, vehicle capacity at the SPS, available equipment and resources of the LACFCD, time constraints, and SPS permit requirements. Vegetation and organic matter removed during mowing activities are brought to landfills, which are also used for disposal of sediments with high organic matter content.

The Chiquita Canyon Landfill would be used for activities pursuant to the Maintenance Plan. The Chiquita Canyon Landfill expansion was approved by the Board of Supervisors on July 25, 2017. Under the new conditional use permit, Chiquita Canyon Landfill has a permitted daily capacity of 12,000 tons, and the annual maximum capacity increased from 2.3 million tons per year to 2.8 million tons per year, and is anticipated to operate through the year 2047 (Board of Supervisors 2017). Sediment from the reaches would also be sent to the Puente Hills Landfill (for clean fill dirt only) or Waste Management, Inc., in the City of Carson, depending on capacity of the landfill and the proximity of the reach. At the SRR site, demolition and vegetation materials would be disposed of at the Chiquita Canyon Landfill or to a landfill capable of accepting hazardous materials, per MM HAZ-1.

The activities associated with the Maintenance Plan would not generate a constant stream of solid wastes that would be disposed of at a specific landfill. Vegetation and organic matter disposal from annual mowing and invasive species removal generate limited waste volume that can be readily accepted by the landfills. No hazardous materials would be generated at the reaches, which may require special handling and disposal. The activities at the SRR site would result in the export of 540 CY of soils and vegetation and 120 tons of demolition material, and this minimal export would occur over a short period of time. Soils at the SRR site contaminated with arsenic, antimony, copper, and lead, and materials containing ACM, ACCM, and LBP would be disposed of per RR HAZ-1 through HAZ-3 and with implementation of MM HAZ-1. Also, the Project would not conflict with waste reduction regulations since the sediment and organic matter from the reaches and SRR site may be used as landfill cover, compost, or recycled as fill. Thus, impacts related to solid waste disposal would be less than significant, and no mitigation is required.

3.19.3 MITIGATION MEASURES

There would be no significant impacts to utilities and service systems; therefore, no mitigation measures are required.

3.20 <u>WILDFIRE</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.20.1 EXISTING CONDITIONS

Six reaches (Reaches 101, 102, 104, 105, 110, and 120) and the SRR site are located within areas designated by CAL FIRE and the County of Los Angeles Fire Department as a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2007).

3.20.2 IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

- a) **If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?**

Less than Significant Impact. As discussed above, six reaches and the SRR site are located within lands classified as VHFHSZ zones. The reaches are developed channels and do not contain any emergency facilities, nor do they serve as emergency evacuation routes. Similarly, the SRR site is a habitat restoration site and does not contain any emergency facilities nor serve as an emergency evacuation route. During the short-term, intermittent maintenance activities, the construction equipment would be placed within the reaches and/or within the fenced easement of the County reaches. Most of the reaches have access roads located parallel and adjacent to the entirety of the reaches, which would be utilized by the trucks and other construction equipment. It is possible that for some reaches (e.g., Reach 118 and 119), vehicles or trucks may need to temporarily park on the public roads. However, at no time would the use of public roadway by construction traffic interfere with emergency evacuation. At the SRR site, the construction

equipment would be placed within the staging area of the SRR site, as shown on Exhibit 3.1-19. An access road (Soledad Canyon Road) would be used for CHMMP activities at the SRR site.

As described in Section 3.17, Transportation, generally, dump trucks are used to transport the sediment from the reaches to a designated sediment placement site or landfill. For habitat restoration activities at the SRR site, soils and demolition material would be exported to Chiquita Landfill or reused onsite. Trucks trips to and from the reaches during vegetation and sediment removal would occur for short periods of time at individual reaches throughout the County. The haul routes utilized by these trucks are designated truck routes, and traffic near the reaches and SRR site would be controlled in compliance with Caltrans' *Manual on Uniform Traffic Control Devices* (MUTCD), as detailed in RR TRA-1. Thus, obstructions of traffic flows would be minimized, and interference with emergency response or evacuation would not be significant. Also, the annual maintenance activities of all the reaches would not occur simultaneously; a reasonable worst-case scenario is discussed in Section 3.3, Air Quality, which assumes the maintenance of two reaches and habitat restoration activities at the SRR site occurring simultaneously. Therefore, the Project would not result in new or increased impacts to emergency response or evacuation plans. There would be less than significant impacts, and no mitigation is required.

- b) If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**
- d) If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

Less than Significant Impact. The LACFCD currently performs routine maintenance and periodic vegetation and sediment removal within various LACFCD-managed channels in order to maintain functionality and design flow capacity of these reaches. One of the main purposes of the maintenance of the reaches is to reduce fire hazards at the reaches. The clearing and removal of excess vegetation and sediment would reduce the potential vegetative fuel for a wildfire, and therefore, reduce wildfire risk at the reaches. At the SRR site, in July 2016, over 95 percent of vegetation consisting of riparian woodland and upland scrub was burned. The native trees and shrubs (e.g., willows, sycamores) have since re-sprouted extensively from surviving root/crown tissues, creating a dense thicket. As part of the Project activities at the SRR site, the vegetation would be cleared, and the habitat would be restored. Although the six reaches and SRR site are within a VHFHSZ, the locations of these Project areas are within the Santa Clara Watershed and generally consist of riparian habitat. At times, in the event of heavy rainfall, the reaches and SRR site may contain water, as the reaches are flood-control facilities.

The Project areas are generally located adjacent to residences or commercial uses, which have several fire protection facilities in the vicinity that could respond to an emergency at the site. In the long term, the Project does not propose any habitable structures, change the topography, and does not change uses or activities in the VHFHSZ-designated areas. Additionally, the reaches and SRR site would only have temporary Project workers during maintenance or restoration activities; the Project would not introduce permanent residents to the Project areas.

Overall, the purpose of the Project is to maintain functionality and design flow capacity of reach facilities; provide adequate flood-control protection; reduce fire hazards; and implement vector-

control requirements. Soft-bottom channels are designed to convey storm water and sediment from upstream canyon areas through the channelized reaches. Additionally, these soft-bottom channels convey storm flows from open space and urban areas within their tributary watersheds and are constructed downstream of dams and debris basins to provide flood. At the SRR site, the establishment of native riparian vegetation would reduce runoff and slope instability. There would be a less than significant impact related to exacerbating wildfire risk, and no mitigation is required.

- c) **If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

Less than Significant Impact. The reaches and the SRR site within the VHFHSZ may require the maintenance of access roads at the SRR site and reaches, and existing water well at the SRR site, particularly during the two years of the Project. Installation of irrigation infrastructure would be required at the SRR site. Implementation of the Project would utilize some heavy equipment (i.e., excavators, trucks, tractors) at the reaches and SRR site during Year 1 and subsequent annual maintenance activities within all reaches, and during restoration activities at the SRR site. This equipment would be fueled by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered flammable materials. Project activities may also involve the use of other flammable materials, such as grease, oils, and other chemicals, which could pose risks to workers or lead to soil and groundwater contamination if not properly stored, used, or disposed. The use of any construction equipment presents a risk of accidental fire. All maintenance and habitat restoration activities would be conducted in compliance with existing federal, State, and local hazardous material regulations. The handling of hazardous materials used in equipment would be conducted in accordance with existing regulations (see RR HAZ-1 and RR HAZ-2, in Section 3.9, Hazards/Hazardous Materials, of this IS/MND) regarding the transport of hazardous materials, use of hazardous materials, and procedures to implement in the event of a spill. Overall, the Project activities would occur for a short period of time at the reaches and SRR site (on the order of days to weeks at the reaches and SRR site) and would reduce vegetative fuel buildup at the reaches. This is not considered a substantial exacerbation of wildfire risk. There would be a less than significant impact, and no mitigation is required.

3.20.3 MITIGATION MEASURES

There would be no significant impacts associated with wildfire; therefore, no mitigation measures are required.

3.21 <u>MANDATORY FINDINGS OF SIGNIFICANCE</u>	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Does the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.21.1 MANDATORY FINDINGS OF SIGNIFICANCE ANALYSIS

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wild-life population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

Less than Significant with Mitigation. Compliance with regulatory requirements and mitigation measures would ensure that the activities under the Project would not result in potentially significant impacts to the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of a Rare or Endangered plant or animal; or eliminate important examples of the major periods of California history or prehistory. There would be a less than significant impact with implementation of the mitigation measures for air quality, biological resources, cultural resources, and tribal cultural resources, as identified in the analyses presented above and no additional mitigation is required.

- b) **Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Less than Significant Impact. The proposed Project reaches and SRR site are located throughout Los Angeles County, spanning in length from 190 feet (Reach 117) to 8.3 miles (Reach 113), and often adjacent to residential and commercial uses. Activities at the reaches would be short-term and intermittent at the scattered reach locations across the County of Los Angeles. Maintenance activities at the reaches would occur on an annual basis from September 1 to

March 14. Overall, there is no set schedule on the order of Project activities at the reaches and SRR site, and therefore, it cannot be determined when/if reach maintenance activities would occur concurrent with other nearby public and/or private development projects. Thus, it would be speculative to determine the timing of maintenance activities. Additionally, the reaches are located between many land uses and span across many miles, and it is likely that other projects occur nearby the reach locations. It should also be noted that in the absence of specific projects anticipated in proximity of reaches activities, it would be speculative to identify Project's contribution to cumulative impacts. However, the activities at the reaches occur over a short period of time and would be staged on-site, with minimal environmental impacts and no long-term changes in the operations of the reaches. Because the environmental impacts of these activities are considered relatively minimal with or without mitigation, if a private or public development project were to occur in proximity to a reach undergoing maintenance, the Project's contribution to the cumulative impacts would be less than significant, activities at each of the reaches and SRR site occur on the order of days and are staged on-site, within the boundaries of the reaches and SRR site.

However, at the SRR site, a project will occur within the same general timeframe as Project's SRR site activities. The Mountains and Rivers Conservation Authority (MRCA) purchased the SRR property and established agreements with LACFCD and the Metropolitan Water District (Metropolitan), allowing them to use the SRR site to achieve their mitigation requirements. Metropolitan's Foothill Feeder Repair and Future Inspections Project (Foothill Feeder Project) has one component that would occur at the SRR site. Therefore, the cumulative impact analysis for the Project only includes the Foothill Feeder Project as a related cumulative project. Because the Project would result in only construction-related impacts, a cumulatively considerable impact could result only if construction of a related project occurred at the same time as the Project.

The Foothill Feeder Project proposes UTS habitat enhancement activities, that would occur during the LACFCD's Task 8, UTS Habitat Enhancement (see Section 2.7.1, CHMMP Tasks). Although both the Metropolitan and LACFCD would work in conjunction towards the same task, their activities would differ and would not occur on the same day.

The Metropolitan and LACFCD would work to enhance the UTS habitat at the SRR site and would establish an equestrian trail as part of Task 8. Metropolitan will remove two existing culverts that currently exist on one low flow channel and, if needed, will remove contours of the low flow channel at this location. The culvert removal would occur over one week, within an area of approximately half an acre. Following re-contouring, Metropolitan will remove invasive plant species at this location and install container plants and cuttings on the banks of the low flow channel. After Metropolitan's work on Task 8, LACFCD would allow for passive restoration of the vegetation surrounding the access road (the margins of the road at the SRR site). This would allow vegetation to grow into the road, leaving a corridor gap of approximately 7.5 feet for a public equestrian trail. The LACFCD's portion of this task would occur over two days, after completion of Metropolitan's activities at the SRR site.

The temporary disturbance footprint for the Foothill Feeder Project would be within the existing disturbance footprint of the SRR site. The physical extent of the impact footprint and the duration of habitat restoration for the Foothill Feeder Project would be less than the Project.

As stated above, because the Project would result in only construction/habitat restoration-related activities, a cumulatively considerable impact could result only if construction of a related project occurred at the same time as the Project. Therefore, this assessment of cumulative impacts is focused on construction activities, as long-term operations of the Project would remain the same as the existing condition. As such, no potential contribution from the Project is anticipated to long-

term cumulative impacts. The proposed Project requires mitigation to reduce identified impacts related to local air quality (MM AQ-1), biological resources (MM BIO-1 through MM BIO-10), cultural resources (MM CUL-1), tribal cultural resources (MM TCR-1), and hazards and hazardous materials (MM HAZ-1), which would also be applicable to potential cumulative impacts.

It should be noted that, as demonstrated in the analyses in Sections 3.1 through 3.20 of this IS/MND, the Project would not result in impacts related to Aesthetics, Agriculture and Forestry Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire; therefore, implementation of the Project would have no contribution to cumulative impacts related to these topics. Therefore, these topics are not further addressed, below.

The potential for cumulatively considerable impacts when considering the Project and Task 8 of the Foothill Feeder Project is presented below for all environmental topics with identified impacts that would be less than significant or less than significant with mitigation, with the exception of topics focused out from further assessment, as indicated above.

Air Quality. The assessment of cumulatively considerable emissions for air quality pollutants for which the region is in non-attainment is addressed under Threshold 3.3[b]. As discussed, construction of the Project would result in a less than significant cumulative impact with mitigation for all criteria pollutants for which the SoCAB is in non-attainment. The Foothill Feeder Project would also be required to reduce emissions for all criteria pollutants to less than the SCAQMD's thresholds. Therefore, in light of mitigating potential impacts for each project, no cumulative air quality impacts would occur, and no new mitigation is required.

Biological Resources. As stated above, the MRCA holds agreements with LACFCD and Metropolitan, allowing them to use the SRR site to achieve their biological mitigation requirements. The activities at the SRR site, including Metropolitan's contribution to the same, would restore habitat and provide UTS habitat enhancement. The temporary disturbance footprint for the UTS habitat enhancement would be within the existing footprint of the SRR site. The physical extent of the impact footprint and the duration of activities for the Foothill Feeder Project would be less than the Project. As the temporary disturbance footprint of the Foothill Feeder Project would not extend beyond the boundaries of the SRR site, and the extent of physical impact would be less than the Project, the analysis contained in Section 3.4, Biological Resources, would cover and be applicable to the potential cumulative impacts, and no new impacts would occur that have not been analyzed in Section 3.4. MM BIO-1 through MM BIO-10 would apply to Project's potential contribution to cumulative impacts. Thus, less than significant cumulative biological resources impacts would occur, and no new mitigation is required.

Cultural Resources. The geographic area for consideration of cumulative impacts to cultural resources includes the SRR site, as the Foothill Feeder Project is within the SRR site. As discussed in Section 3.5, Cultural Resources, within the SRR site, there are five intact buildings, three buildings that can be classified as ruins, and several structures relating to the property's history as an RV campground that were constructed more than 45 years ago. However, none of these structures is considered significant or eligible for listing, thus there would be no impact to historical resources. The results of the SCCIC record search indicate no known cultural resources within the boundaries of the SRR site, which includes the footprint of the Foothill Feeder Project. The encounter of human remains during excavation activities is addressed by adherence to California Public Resources Code Section 5097.98 (RR CUL-1). For Task 8 of the CHMMP activities, the Project would allow for passive restoration of the vegetation surrounding the access road. Although the likelihood of encountering archaeological resources on the SRR site is

considered low, MM CUL-1 describes procedures for monitoring and protocols to be followed if cultural resources are discovered during grading. As stated in the Foothill Feeder Draft Environmental Impact Report (EIR), no archaeological resources or paleontological resources were identified along the access roads or clearings within the potential UTS conservation action site. No buildings or structures were identified within the potential UTS conservation action site (Metropolitan 2017). Thus, less than significant cumulative cultural resources impacts would occur, and no new mitigation is required.

Hazards/Hazardous Materials. Impacts related to hazards and hazardous materials are typically limited to the site on which that impact occurs. While construction activities of these two projects may occur at the same time, each project would be required to address its own impacts and comply with regulations and mitigation that would avoid or mitigate potential impacts. For the Foothill Feeder Project, no equipment or waste that is currently at the SRR site would be transported, altered, used, or disposed of as a result of the project. Additionally, the analysis determined that no new wildfire impacts would result from Metropolitan's activities at the SRR site. For the Project, analysis in Section 3.9 identifies RR HAZ-1 through RR HAZ-3 and MM HAZ-1 to address the potential impacts. Same mitigation and regulatory requirements would apply to Project's potential contribution to cumulative impacts. Therefore, less than significant cumulative hazards and hazardous impacts would occur, and no new mitigation is required.

Tribal Cultural Resources. The geographic area for consideration of cumulative impacts to tribal cultural resources includes the Project area, as the Foothill Feeder Project is within the general Project area. As discussed in Section 3.18, Tribal Cultural Resources, there is always the possibility that undiscovered cultural resources, including tribal cultural resources be present below the surface in native sediments. The Project does not anticipate disturbance of native soil; however, if native soils are disturbed, MM TCR-1 and MM-TCR-2 have been included requiring Native American monitoring and outreach to the Fernandeano Tataviam Band of Mission Indians (FTBMI) when construction activities are disturbing native soil. Given the adjacency of the two projects, the same findings would also be applicable to the related project. Because there are regulatory measures to appropriately handle any unanticipated cultural resources and consult with affected tribes regarding potential tribal resources, it is reasonable to assume that similar measures would also be required for the Feeder Foothill Project. Therefore, less than cumulative impacts to tribal cultural resources would occur.

Compliance with regulatory requirements and mitigation measures, as presented in the analyses above, would ensure that the activities associated with the Project would not have impacts that would be cumulatively considerable. There would be a less than significant impact related to cumulatively considerable impacts, and no additional mitigation is required.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. The operations of the Project, including the maintenance activities at the reaches and habitat restoration activities at the SRR site, do not have any environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, as previously discussed within the text of each environmental analysis. Implementation of the Maintenance Plan would benefit the County population and land uses by ensuring the continued integrity and functionality of the soft-bottom channel reaches, thereby reducing the potential for adverse effects on human beings and exposure of residences, businesses, and infrastructure from potential damage from floodwaters, fire hazards, and vector-borne disease. Therefore, there would be a less than significant impact related to adverse effects on human beings, and no mitigation is required.

SECTION 4.0 DOCUMENT PREPARERS AND CONTRIBUTORS

Psomas (Environmental Document Preparation)

Principal Manager	Jim Hunter
Senior Project Manager	Alia Hokuki
Project Manager	Daria Sarraf
Air Quality, Greenhouse Gas, and Noise Manager	Tin Cheung
Air Quality and Greenhouse Gas Specialist....	Daria Sarraf
Biological Resources Manager	Marc T. Blain
Senior Biologist	Brian E. Daniels
Biologist	Sarah Thomas
Biologist.....	Katie Gallagher
Cultural Resources Manager	Charles Cisneros
Archaeologist	Kassie Sugimoto
GIS/Graphics.....	Christopher J. Starbird
GIS/Graphics.....	Michael Deseo
Word Processing.....	Sheryl Kristal

This page is intentionally left blank.

SECTION 5.0 REFERENCES

- Bay Area Air Quality Management District (BAAQMD). 2009 (September). *California Environmental Quality Act Draft Air Quality Guidelines*. San Francisco, CA: BAAQMD. <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Workshop%20Draft%20-%20BAAQMD%20CEQA%20Guidelines%209-2009.ashx>.
- BonTerra Consulting. 2013a. *Results of a Focused Survey for Special Status Plants for the Giant Reed Removal Project at Los Angeles River Soft-Bottom Channel Reach 114 in Long Beach, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2013b. *Results of a Wildlife Survey for the Giant Reed Removal Project at Los Angeles River Soft-Bottom Channel Reach 114 in Long Beach, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2013c. *Results of Habitat Inventory Surveys and Habitat Assessment at the Lower San Gabriel River Reach 115, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2012. *Results of Biological Inventory Surveys of Upper Ballona Creek, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2010. *Results of Biological Reconnaissance Surveys of Two Soft-Bottom Channels, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2009a. *Results of Biological Reconnaissance Surveys of Three Soft-Bottom Channels, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2009b. *Results of Focused Plant Surveys for the Ballona Creek Soft-Bottom Channel, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2009c. *Results of Focused Plant Surveys for the Dominguez Soft-Bottom Channel, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2009d. *Results of Focused Plant Surveys for the Los Angeles River Soft-Bottom Channel, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2009e. *Results of Focused Plant Surveys for the San Gabriel River Soft-Bottom Channel, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2009f. *Results of Focused Plant Surveys for the Los Cerritos Soft-Bottom Channel, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2007a. *Results of Biological Inventory Surveys at Soft-Bottom Channel Reaches 29, 33, 101, 102, 104, 105, 106, and 107, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.
- . 2007b. *Results of Biological Reconnaissance Surveys of Eight Flood Control Facilities, Los Angeles County, California*. Pasadena, CA: BonTerra Consulting.

- BonTerra Psomas. 2018a. *Results of a Biological Reconnaissance Survey of LACFCD Soft-Bottom Channel Reaches 120 and 121 in the City of Santa Clarita, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2018b (November). *2018 Focused Survey Results for Yellow-Billed Cuckoo Los Angeles County Flood Control District Soft-Bottom Channels Maintenance*. Pasadena, CA: BonTerra Psomas.
- . 2017. *2017 Focused Survey Results Los Angeles County Flood Control District Soft-Bottom Channels Maintenance Clearing*. Pasadena, CA: BonTerra Psomas.
- . 2016. *2016 Focused Survey Results for Yellow-Billed Cuckoo Los Angeles County Flood Control District Soft-Bottom Channels Maintenance Clearing*. Pasadena, CA: BonTerra Psomas.
- . 2015a. *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*. Pasadena, CA: BonTerra Psomas.
- . 2015b. *Results of Biological Inventory Surveys of Reach 112, Ballona Creek, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2015c. *Field Survey of Vegetation along Soft Bottom Channel Reach 114, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2015d. *Jurisdictional Delineation Report Soft Bottom Channels Reaches 112 through 117 Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014a. *Results of Biological Inventory Surveys of Reach 101, Violin Canyon (PD 1707 & 2312), near Castaic, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014b. *Results of Biological Inventory Surveys of Reach 102, Violin Canyon (PD 2275 & 2312), near Castaic, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014c. *Results of Biological Inventory Surveys of Reach 104, Castaic Creek (PD 2441 Units 1 & 2), near the City of Santa Clarita, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014d. *Results of Biological Inventory Surveys of Reach 105, San Francisquito Canyon Channel (PD 2456), in the City of Santa Clarita, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014e. *Results of Biological Inventory Surveys of Reach 109, Santa Clara River – South Bank, West of McBean Parkway MTD 1510, in the City of Santa Clarita, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014f. *Results of Biological Inventory Surveys of Reach 110, Hasley Canyon Channel (PD 2262), near the City of Santa Clarita, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014g. *Results of Tree Inventory Survey at Reaches 101, 102, 104, 105, 109, and 110, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.

- . 2014h. *Jurisdictional Delineation Report Soft Bottom Channels Reaches 118 and 119 Pacific Palisades, California*. Pasadena, CA: BonTerra Psomas.
- . 2014i. *Results of Biological Inventory Surveys of Centinela Creek Reach 117, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014j. *Results of Biological Inventory Surveys of Reach 112, Ballona Creek, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014k. *Results of Tree Inventory Surveys at Reach 112, Ballona Creek, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014l. *Results of Tree Inventory Survey at the Lower San Gabriel River Reach 115, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- . 2014m. *Results of Tree Inventory Survey at Reach 117, Centinela Creek, Los Angeles County, California*. Pasadena, CA: BonTerra Psomas.
- California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03). Website <http://www.rareplants.cnps.org> [accessed 08 June 2019].
- California Air Pollution Control Officers Association (CAPCOA). 2008 (January). *CEQA and Climate Change*. Sacramento, CA: CAPCOA
- California Air Resources Board (CARB). 2016 (May 4). Ambient Air Quality Standards. Sacramento, CA: CARB. <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.
- . 2008 (December). *Climate Change Proposed Scoping Plan, a Framework for Change*. Sacramento, CA: CARB.
- California Assembly. 2006. Assembly Bill No. 32: Air pollution: greenhouse gases: California Global Warming Solutions Act of 2006 (Nunez). Sacramento, CA: the State. <http://www.arb.ca.gov/cc/docs/ab32text.pdf>.
- California Department of Toxic Substances Control (DTSC). 2018 (September, last accessed). Hazardous Waste and Substances Site List. http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm.
- California Department of Forestry and Fire Protection (CAL FIRE). 2007 (November 7, adopted). Fire Hazard Severity Zones in SRA. Sacramento, CA: CAL FIRE.
- California Governor's Office of Planning and Research (OPR). 2008 (June 18). *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*. Sacramento, CA: OPR. <http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>.
- California Department of Conservation (DOC). 2002. Earthquake Zones of Required Investigation. Sacramento, CA: DOC.
- California Department of Fish and Wildlife (CDFW). 2019. Notification of Status Review for Four Bumble Bee Species. Sacramento, CA: CDFW, Natural Heritage Division.

- . 2018a. Inland Fisheries Survey Memorandum Region 5. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2018b. Inland Fisheries Survey Memorandum Region 5. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2016a. California Natural Diversity Database. Records of Occurrence for the USGS Agua Dulce 7.5-minute quadrangles. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2016b. California Natural Diversity Database. Records of Occurrence for western burrowing owl. Sacramento, CA: CDFW, Natural Heritage Division.
- . 2012. Staff Report on Burrowing Owl Mitigation. Sacramento, CA: CDFW, Natural Resources Agency.
- California Department of Fish and Game (CDFG). 2010 (September). *List of Vegetation Alliances and Associations, Vegetation Classification and Mapping Program*. Sacramento, CA: CDFG.
- California Department of Transportation (DOT) 2018. (June, last accessed). Scenic Highway Mapping System. Sacramento, CA: DOT.
http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.
- . 2013. (September). Transportation and Construction Vibration Guidance Manual. Sacramento, CA: DOT.
http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf.
- Carson, City of. 2018 (May, last accessed). Carson Municipal Code. Chapter 5, Noise Control Ordinance. Carson, CA: City of Carson.
<http://www.codepublishing.com/CA/Carson/html/Carson05/Carson050500.html>.
- Carvell, C. et al. 2017. Bumblebee family lineage survival is enhanced in high-quality landscapes. *Nature* 543, 547– 549. (doi:10.1038/nature21709).
- Chambers Group. 2015a. *Soft Bottom Channel Vegetation Clearing Project Preconstruction Eelgrass Survey Report*. Santa Ana, CA: Chambers Group.
- . 2015b. *Results from the Focused Plant Survey for Soft-Bottom Channel Reach 112, Ballona Creek, Maintenance Project, Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- . 2015c. *Results from the Focused Plant Survey for Soft-Bottom Channel Reach 113, Dominguez Channel, Maintenance Project, Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- . 2015d. *Results from the Focused Plant Survey for Soft-Bottom Channel Reach 115, Lower San Gabriel River, Maintenance Project, Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- . 2015e. *Results from the Focused Plant Survey for Soft-Bottom Channel Reach 116, Los Cerritos Channel, Maintenance Project, Los Angeles County, California*. Santa Ana, CA: Chambers Group.

- . 2014a. *Biological Technical Report for the Dominguez Soft Bottom Channel Reach Maintenance Project Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- . 2014b. *Biological Technical Report for the Los Cerritos Soft Bottom Channel Reach Maintenance Project Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- . 2014c. *Biological Technical Report for Soft-Bottom Channel Reach 118-Rustic Canyon Channel Maintenance Project Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- . 2014d. *Biological Technical Report for Soft-Bottom Channel Reach 119-Rivas Canyon Channel Maintenance Project Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- . 2014e. *Results from the Native Tree Assessment for the Rustic Canyon Reach Maintenance, Los Angeles County*. Santa Ana, CA: Chambers Group.
- . 2014f. *Results from the Native Tree Assessment for the Rivas Canyon Reach Maintenance, Los Angeles County*. Santa Ana, CA: Chambers Group.
- . 2014g. *Essential Fish Habitat Assessment for Maintenance of Eight Soft-Bottom Channels Los Angeles County, California*. Santa Ana, CA: Chambers Group.
- ESA Biological Resources. 2014a. Biological Assessment and Tree Inventory for Reach 103 (Bouquet Canyon Channel) and Reach 108 (Pico Canyon Channel), Los Angeles County, California. Los Angeles. CA: ESA
- . 2014b. Los Angeles County Flood Control District - Bouquet Canyon Channel (Reach 103) And Pico Canyon Channel (Reach 108) Vegetation Maintenance Project Southwestern Willow Flycatcher and Least Bell's Vireo Protocol 45-Day Survey Report. . Los Angeles. CA: ESA
- FGL Environmental Agricultural Analytical Chemists (FGL). 2014 (October 14). Laboratory Report for 9777 Soledad Canyon Road. Santa Paula, CA: FGL.
- Franzreb, K.E. 1989. *Ecology and Conservation of the Endangered Least Bell's Vireo* (Biological Report 89[1]). Washington, D.C.: USFWS, Endangered Species Office.
- Garrett, K. and J. Dunn. 1981. *Birds of Southern California: Status and Distribution*. Los Angeles, CA: Audubon Press.
- Goldwasser, S. 1981. *Habitat Requirements of the Least Bell's Vireo* (Final Report, Job IV-38.1). Sacramento, CA: CDFG.
- Hovey, T., 2018 (August 17). Personal Communication. Telephone Conversation between Tim Hovey (California Department of Fish and Wildlife) and Katie Gallagher (Psomas).
- iNaturalist.org (2020). iNaturalist Research-grade Observations for *Bombus crotchii* in Los Angeles County. Occurrence dataset https://www.inaturalist.org/observations?place_id=962&taxon_id=271451 accessed via GBIF.org on 2020-01-05.

- Jepson Flora Project. 2019 (September 2018, Revision 6). Jepson eFlora. Berkeley, CA: The Jepson Herbarium. <http://ucjeps.berkeley.edu/eflora/>.
- Koch, J., Strange, J., Williams, P. 2019 (2012). Bumble Bees of the Western United States. Washington, D.C.: U.S. Department of Agriculture Forest Service.
- Long Beach, City of. 2018 (May 21, last accessed). Long Beach Municipal Code. Title 8, Chapter 8.80—Noise. Long Beach, CA: City of Long Beach. https://library.municode.com/ca/long_beach/codes/municipal_code?nodeId=TIT8HESA_CH8.80NO.
- Los Angeles Army Corps of Engineers (LA ACOE). 1999. Operations, Maintenance, Repair, Replacement and Rehabilitation Manual. Los Angeles, CA: LA ACOE.
- Los Angeles, City of. 2018 (May 21, last accessed). Official City of Los Angeles Municipal Code. Chapter XI—Noise Regulation. Los Angeles, CA: City of Los Angeles. [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles_ca_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc).
- Los Angeles County Board of Supervisors (Board of Supervisors). 2017 (July 25). *State of Proceeding for the Regular Meeting of the Board of Supervisors of the County of Los Angeles Held in Room 381B of the Kenneth Hahn Hall of Administration, 500 West Temple Street, Los Angeles, California, 90012, Tuesday, July 25, 2017, 9:30 AM*. Los Angeles, CA: Board of Supervisors. http://file.lacounty.gov/SDSInter/bos/sop/1026976_072517.pdf.
- Los Angeles County Chief Sustainability Office (Chief Sustainability Office). 2019 (July). OurCounty—Los Angeles Countywide Sustainability Plan. Los Angeles, CA: Chief Sustainability Office. <https://ourcountyla.org/wp-content/uploads/2019/07/OurCounty-Final-Plan.pdf>.
- Los Angeles County Public Works (Public Works). 2019 (July 1). Summary of Findings of the Asbestos and Lead Survey with Soil Sampling Report for the Stickleback River Ranch Project Memorandum. Alhambra, CA: Public Works.
- . 2018 (June 5, last accessed). 2015-2016 Hydrologic Report. Alhambra, CA: Public Works. <http://www.ladpw.org/wrd/report/acrobat/Hydrologic%20Report%202015-2016.pdf>.
- . 2017 (September). Countywide Integrated Waste Management Plan—2016 Annual Report. Los Angeles, CA: Public Works. <https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF>.
- . 2008 (last accessed). San Gabriel River and Montebello River Forebay Water Conservation System. <http://ladpw.org/wrd/publication/system/background.cfm>.
- Los Angeles County Department of Regional Planning (LACDRP). 2016 (May 24, last accessed). 2035 County of Los Angeles General Plan: Public Review Draft: Seismic and Geotechnical Hazards. Los Angeles, CA: LACDRP. http://planning.lacounty.gov/assets/upl/project/gp_2035_entire-draft2014.pdf

- . 2015a (Adopted October 6). Los Angeles County General Plan 2035 (Chapter 8: Air Quality Element). Los Angeles, CA: LACDRP. http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch8.pdf.
- . 2015b (August). *Final Unincorporated Los Angeles County Community Climate Action Plan 2020* (prepared with assistance from ICF International). Los Angeles, CA: LACDRP. http://planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf.
- . 1976. Los Angeles County Significant Ecological Areas Study. Prepared by England and Nelson for the Los Angeles County Department of Regional planning and Environmental Systems Research Institute.
- Los Angeles County Waterworks Districts (LACWD). 2019 (June, last accessed). Sustainable Groundwater Management Act. Los Angeles, CA: LACWD. <https://dpw.lacounty.gov/wwd/web/About/SGMA.aspx>.
- Los Angeles Stormwater Program. 2019 (July, last accessed). About Watersheds. Los Angeles, CA: Los Angeles Stormwater Program. <https://www.lastormwater.org/about-us/about-watersheds/>.
- Metropolitan Water District of Southern California (Metropolitan). 2017 (December). Draft Foothill Feeder Repair and Inspections Project Supplemental Environmental Impact Report. Los Angeles, CA: Metropolitan.
- PCR Services Corporation and Frank Hovore Associates. 2000. *Biological Resources Assessment of the Proposed Santa Clara River Significant Ecological Area*. Los Angeles, CA: Los Angeles County, Department of Regional Planning and PCR Services Corporation.
- Psomas. 2019 (February 8). *Results of the Focused Special Status Plant Survey Conducted for the Los Angeles County Flood Control District Soft Bottom Channels Annual Maintenance Program, Los Angeles County, California*. Pasadena, CA: Psomas.
- . 2018a. *Unarmored Threespine Stickleback Pre-Clearing Presence/Absence Survey Results for 27 Los Angeles County Department of Public Works Soft-Bottom Channels*. Pasadena, CA: BonTerra Psomas.
- . 2018b. *Results of Southwestern Willow Flycatcher and Least Bell's Vireo Focused Surveys for the Los Angeles County Flood Control District Soft Bottom Channels Maintenance Project, Los Angeles County, California*. Pasadena, CA: Psomas.
- . 2018c. *Soft-Bottom Channel Reach 115 (Lower San Gabriel River) Maintenance – Turtle Mitigation Plan Los Angeles County Flood Control District Facilities and Projects, Los Angeles County, California*. Pasadena, CA: Psomas.
- . 2018d. *Jurisdictional Delineation Report Soft-Bottom Channel Reaches 101 through 110 Los Angeles County, California*. Pasadena, CA: Psomas.
- . 2018e. *Jurisdictional Delineation Report Soft-Bottom Channel Reaches 120 and 121 in Santa Clarita, California*. Pasadena, CA: Psomas.

- . 2018f. *Results of Arroyo Toad Focused Surveys for the Los Angeles County Flood Control District Soft Bottom Channels Maintenance Project, Los Angeles County, California*. Pasadena, CA: Psomas
- Saifuddin, M. and Jha, S. 2014 (April). Colony-Level Variation in Pollen Collection and Foraging Preferences Among Wild-Caught Bumble Bees (Hymenoptera: Apidae), *Environmental Entomology*, Volume 43, Issue 2, Pages 393–401, (<https://doi.org/10.1603/EN13261>).
- Santa Clarita, City of. 2018 (April 10, current through). Santa Clarita Municipal Code. Chapter 11.44 Noise Limits. Santa Clarita, CA. City of Santa Clarita.
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation (Second Edition)*. Sacramento, CA: CNPS.
- South Coast Air Quality Management District (South Coast AQMD). 2019 (April). South Coast AQMD Air Quality Significance Thresholds. Diamond Bar, CA: South Coast AQMD. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>.
- . 2017a (April 6, last accessed). Air Quality Management Plan (AQMP). Diamond Bar, CA: South Coast AQMD. <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.
- . 2017b (March). Final 2016 Air Quality Management Plan. Diamond Bar, CA: South Coast AQMD. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15>.
- . 2016 (February). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. Diamond Bar, CA: South Coast AQMD. <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2>.
- . 2013 (February). Final 2012 Air Quality Management Plan (February 2013). Diamond Bar, CA: South Coast AQMD. <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>.
- . 2009 (March). *South Coast AQMD Air Quality Significance Thresholds*. Diamond Bar, CA: South Coast AQMD. <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>.
- . 2008 (October). *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*. Diamond Bar, CA: South Coast AQMD.
- . 1993. CEQA Air Quality Handbook. Diamond Bar, CA: South Coast AQMD.
- U.S. Environmental Protection Agency (USEPA). 2019 (May 29, last accessed). Nonattainment Areas for Criteria Pollutants (Green Book). Washington, D.C: USEPA. <https://www.epa.gov/green-book>.
- U.S. Fish and Wildlife Service (USFWS). 2019 (April 12). *Survey Protocols for the Rusty Patched Bumble Bee (Bombus affinis)*. Bloomington, MN: USFWS.

- . 2016 (April 6). Endangered and Threatened wildlife and Plants; Final Rule to List Eleven Distinct Population Segments of the Green Sea Turtle (*Chelonia mydas*) as Endangered or Threatened and Revision of Current Listings Under the Endangered Species Act; Final Rule.
 - . 2011 (February 9). Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Arroyo Toad; Final Rule. Federal Register 76(27): 7245–7467. Washington, D.C.: USFWS.
 - . 1995 (February 27). Endangered and Threatened Wildlife and Plants: Final Rule, Determining Endangered Status for the Southwestern Willow Flycatcher. *Federal Register*. 60(38): 10693–10715. Washington, D.C.: USFWS.
- United States Department of Transportation, Federal Transit Administration (FTA). 2006 (May). Transit Noise and Vibration Impact Assessment. Washington, D.C.; FTA.
- U.S. Geological Survey (USGS). 2019 (May 30, last accessed). U.S. Quaternary Faults. Washington, D.C.: USGS.
- Williams, N. M. 2019. Fantastic Bees and Where to Find Them: Locating the Cryptic Overwintering Queens of a Western Bumble Bee. *Ecosphere*10(11): e02949.10.1002/ecs2.2949.
- Xerces Society, The. 2018 (October 18). A Petition to The State Of California Fish and Game Commission to List the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. Portland, OR: The Xerces Society.

This page intentionally left blank