



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

---

**Los Angeles Regional Water Quality Control Board**

April 4, 2016

Mr. Sree Kumar  
Los Angeles County Flood Control District  
900 S. Fremont Ave, Annex 2<sup>nd</sup> Floor  
Alhambra, CA 91803

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
No. 7008 1140 0002 8671 9905

Dear Mr. Kumar,

**TRANSMITTAL OF THE WASTE DISCHARGE REQUIREMENTS AND CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION FOR LOS ANGELES COUNTY FLOOD CONTROL DISTRICT MAINTENANCE CLEARING OF ENGINEERED EARTH-BOTTOM FLOOD CONTROL CHANNELS, LOS ANGELES COUNTY (FILE NO. 99-011)**

In accordance with the California Water Code, this Regional Water Board, at a public meeting held on February 11, 2016, reviewed the revised, tentative Waste Discharge Requirements and Clean Water Act Section 401 Water Quality Certification (WDRs) including two changes brought to the Regional Water Board on a change sheet, considered all factors in the case and adopted Order No. R4-2015-0032 (copy enclosed).

We are sending the paper copy of the WDRs to LACFCD only. For those on the mailing list or other interested parties who would like access to a copy of the WDRs, please go to the Regional Water Board's website at:

[http://www.waterboards.ca.gov/losangeles/water\\_issues/programs/401\\_water\\_quality\\_certification/FloodControl.shtml](http://www.waterboards.ca.gov/losangeles/water_issues/programs/401_water_quality_certification/FloodControl.shtml)

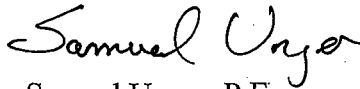
Mr. Sree Kumar  
Los Angeles County Flood Control District

- 2 -

April 4, 2016

Should you have questions concerning Order No. R4-2015-0032 please contact Valerie CarrilloZara, P.G., at (213) 576-6759 or Dr. LB Nye at (213) 576-6785.

Sincerely,



Samuel Unger, P.E.  
Executive Officer

cc:

Jemellee Cruz, Los Angeles County Flood Control District  
Matt Chirdon, California Department of Fish and Wildlife  
Daniel Swenson, US Army Corps of Engineers  
Melissa Scianni, U.S. Environmental Protection Agency, Region 9  
Jennifer Fordyce, State Water Resources Control Board  
Bill Orme, State Water Resources Control Board

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**ORDER NO. R4-2015-0032-A1**

**WASTE DISCHARGE REQUIREMENTS FOR:**

**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, PROPOSED  
MAINTENANCE CLEARING OF ENGINEERED EARTH-BOTTOM FLOOD  
CONTROL CHANNELS, LOS ANGELES COUNTY (File No. 99-011)**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds that:

1. The Los Angeles County Flood Control District (LACFCD) (Discharger) is responsible for providing flood control through a network of channels (which are also waters of the State) throughout Los Angeles County to enhance public safety. Adequate channel capacity needs to be maintained in order to reduce the risk of loss of life or property that could otherwise result from flooding during large storm events. The LACFCD is authorized to perform such maintenance pursuant to the Los Angeles County Flood Control Act (Water Code Appendix § 28-2).
2. Channel capacity is maintained by clearing sediment, vegetation and debris within the channel to an engineered, pre-designed level.
3. For dredge and fill activities such as channel clearing, the Clean Water Act (CWA) requires permitting from the Army Corps of Engineers (ACOE) under CWA section 404 and Water Quality Certification by the State under CWA section 401 (401 Certification). In addition, under California Fish and Game Code section 1600, such activities are also regulated by a Streambed Alteration Agreement (SAA) issued by the California Department of Fish and Wildlife (CDFW).
4. The State of California may also regulate such discharges through Waste Discharge Requirements (WDRs) as authorized by the California Water Code (CWC). Pursuant to CWC section 13263, the Regional Water Quality Control Boards are required to prescribe WDRs for any proposed or existing discharge unless WDRs are waived pursuant to Water Code section 13269.
5. The Regional Board has determined to regulate the subject discharge of dredge and fill materials into waters of the State by issuance of these WDRs pursuant to CWC section 13263. The Regional Board considers WDRs necessary to adequately control potential impacts to beneficial uses of waters of the State from these maintenance clearing activities to meet the objectives of the California Wetlands Conservation Policy (Executive Order W-59-93), and to accommodate and require appropriate changes over the life of the project.

6. The goals of the California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993) include ensuring “no overall loss” and achieving a “...long-term net gain in the quantity, quality, and permanence of wetland acreage and values...” Senate Concurrent Resolution No. 28 states that “[i]t is the intent of the legislature to preserve, protect, restore, and enhance California’s wetlands and the multiple resources which depend on them for benefit of the people of the State.” Section 13142.5 of the CWC requires that the “[h]ighest priority shall be given to improving or eliminating discharges that adversely affect...wetlands, estuaries, and other biologically sensitive areas.”
7. CWC section 13263 authorizes the Regional Board, after any necessary hearing, to prescribe requirements as to the nature of any proposed discharge with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements must implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of CWC section 13241. In accordance with subdivision (g) of section 13263, all discharges of waste into the waters of the State are privileges, not rights, and these WDRs shall not create a vested right to continue to discharge and are subject to rescission or modification.
8. Pursuant to CWC section 13267, the Regional Board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement authorized by Division 7 of the CWC, may investigate the quality of any waters of the state within its region. In conducting such an investigation, the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. These WDRs incorporate requirements for water quality monitoring, Feasibility Studies, pilot projects and monitoring and technical reports associated with those requirements, which are necessary to ensure that the discharge of waste complies with these WDRs and is protective of the environment. In addition, investigating alternative maintenance methods may result in multiple benefits including improved ecological outcomes, improved aesthetics for public recreation, and reduced use of resources (e.g., less water use, fewer truck trips for removing vegetative matter), among others.
9. The Regional Board, on June 13, 1994, adopted, in accordance with section 13240 et seq. of the CWC, a revised Water Quality Control Plan, Los Angeles Region (Basin Plan). This updated and consolidated revised Basin Plan was approved by the State Water Resources Control Board (State Board) and the Office of Administrative Law on November 17, 1994, and February 23, 1995, respectively. A summary of regulatory

provisions is contained in California Code of Regulations, title 23, section 3930. The Basin Plan designates beneficial uses for surface and ground waters in Chapter 2, establishes water quality objectives that must be attained or maintained to protect the designated beneficial uses in Chapter 3, and sets forth implementation programs to attain the water quality objectives. The Basin Plan has been amended occasionally since 1994. This Order is in compliance with the Basin Plan, and amendments thereto.

10. These WDRs are adopted pursuant to CWC sections 13263 and 13267. It sets forth requirements, prohibitions, and other conditions to implement the Basin Plan, and LACFCD's responsibilities for monitoring and reporting. LACFCD is responsible for ensuring compliance with these WDRs.
11. These WDRs do not authorize additional hardscape, concrete, or rock, and none of the maintenance activities conducted by LACFCD under these WDRs have involved hardscaping, laying concrete or placing rock in these channels.

#### **Background/History**

12. The Los Angeles County Flood Control Act (ACT) was adopted by the California State Legislature in 1915. The Act established the Los Angeles County Flood Control District and empowers it to provide flood protection, water conservation, recreation and aesthetic enhancement within its boundaries. The Flood Control District is governed, as a separate entity, by the County of Los Angeles Board of Supervisors.
13. In 1997, LACFCD proposed complete clearing of 100 earth-bottom channels in anticipation of the El Niño storm season, encompassing a total of 886 acres. Of this acreage, approximately 203 acres were vegetated.
14. LACFCD developed a Maintenance Plan for the Annual Clearing of Earth-Bottom Flood Control Channels in 1999 (Maintenance Plan) in collaboration with the ACOE, CDFW (then California Department of Fish and Game (CDFG)) and the Regional Board. The Maintenance Plan has been published under later dates, but all versions of the Maintenance Plan define channel clearance by the 1997 pre-El Niño clearing.
15. The Maintenance Plan defined the reaches and included information about clearing methods for specific reaches, but the basis for determining the required extent of clearing is not documented in the Maintenance Plan and has not been transparent to the Board or the public.
16. In 1999, a Streambed Alteration Agreement, Memorandum of Understanding was entered into by LACFCD and CDFW (then CDFG) (MOU 5-076-99).
17. The ACOE permitted LACFCD's vegetation and debris clearing maintenance activities under the CWA Section 404 Nationwide Permit 31 "Maintenance of Existing Flood

Control Facilities” in 1998. The Regional Board issued a CWA Section 401 Water Quality Certification for these activities in 1999 (File No. 99-011).

18. During this time, the Regional Board and the ACOE developed the first programmatic permit and 401 Certification for the earth-bottom channel maintenance activities utilizing limits developed for the 1997 pre-El Niño clearing. However, the Regional Board recognized the need to ultimately develop a more comprehensive plan beyond direct use of the 1997 limits that would allow vegetation and the associated habitat to be preserved within these earth-bottom channels to the maximum extent feasible. At that time, the CWA Section 404 Permit and 401 Certification only authorized 48.2 acres of the approximately 203 vegetated acres for clearance activities.
19. To mitigate the 48.2 acres impacted by removal of vegetation, the Big Tujunga Wash Mitigation Bank was established, which contains 62.7 acres (achieving a 1.3:1 mitigation ratio).
20. The success criteria for the Big Tujunga Wash Mitigation Area have been met. Field data collection for the functional analysis and success monitoring studies was conducted in August 2012 and reported in the 2012 Annual Report for the Big Tujunga Wash Mitigation Area.
21. The ACOE, after evaluation of updated information, has reissued the Nationwide Permit for these channel maintenance activities by the LACFCD every five years since 1998. The latest Nationwide Permit was issued in September 2014.
22. The number of soft bottom channels reaches authorized to be maintained under the Nationwide Permit has changed during each permit cycle due to channels being combined, or the addition of new channels. The ACOE divides channels into reaches that it considers to be sensitive and non-sensitive based on a Biological Opinion from the US Fish and Wildlife Service. The ACOE normally incorporates special conditions such as avoidance of nesting seasons or hand clearing, for reaches it deems to be sensitive.
23. The 401 Certification was renewed by the Regional Board on October 17, 2003, conditionally authorizing maintenance of 99 earth-bottom channels. At that time, the ACOE permitted maintenance of the same channels under Nationwide Permit 31 in letters dated October 21, 2003 (for 61 channels) and December 22, 2003 (for 17 channels). The total number of channels identified in these two letters differs from those in the CDFW (then CDFG) SAA and the Regional Board’s 401 Certification because the ACOE combined some channels in the Nationwide Permit 31.
24. The October 17, 2003 renewal of the Water Quality Certification for 99 channels was amended in September 2006. The amended Certification allowed for maintenance clearing activities in earth-bottom channel reaches within the County of Los Angeles. The amended Certification expired on March 15, 2007.

25. In 2003, the State Board issued Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges that have received State Water Quality Certification," which requires compliance with all conditions of Water Quality Certifications. The 2003 State Board Order included regulation of discharges from earth-bottom channel maintenance.
26. On March 14, 2007, a Water Quality Certification application package was submitted by LACFCD with attachments requesting renewal and amendment of the Water Quality Certification for channel maintenance clearing activities. Specifically, LACFCD requested to renew and further amend the Water Quality Certification to include additional channel reaches. The Regional Board deemed the application complete on July 10, 2008.
27. The Regional Board extended the amended October 17, 2003 Water Quality Certification by letter on September 10, 2007 until March 15, 2008, and extended it by letter again on August 29, 2008 until January 31, 2009.
28. The Regional Board letter of August 29, 2008, which extended the Water Quality Certification, required LACFCD to submit certain information to the Regional Board by November 14, 2008. To wit:

By this letter, we require the County [LACFCD] to submit to us a technical report with a reach by reach list of all the reaches proposed to be included in the renewed Certification with a hydrologic analysis of each reach and a assessment of the biological functions and values for each reach. This report shall be submitted by November 14, 2008 which will ensure we can complete the renewed certification in timely manner.

The required information was not submitted.

29. A tentative Water Quality Certification, "99-011, 2009 renewal," was released for public comment on July 6, 2009. Written comments were accepted until 5:00 p.m. on August 5, 2009. Response to comments and a revised tentative Water Quality Certification were prepared and published on the Regional Board's website.
30. The Water Quality Certification "99-011, 2009 renewal" was unable to be issued by the Regional Board because more than one year had passed from submission of a complete application (CWA § 401 [33 U.S.C. §1341] paragraph (1)). Accordingly, pursuant to federal law, LACFCD was authorized to proceed pursuant to Nationwide Permit 31 without conditions imposed by the Regional Board in the permit. The channel clearing activities continue to be regulated under and must separately comply with the provisions of LACFCD's CWA Section 404 permit and the CDFW SAA.
31. To ensure compliance with State Water Quality Standards contained in the Basin Plan and other applicable Regional and State plans and policies for Water Quality Control,

WDRs were required for the renewal of the project and were taken to the Regional Board for consideration in February of 2010. The WDRs, Order No. R4-2010-0021, were approved by the Regional Board on February 4, 2010 (2010 WDR). The 2010 WDR included 10 new channel reaches authorized to be cleared in addition to the reaches included in the previous Certification. The 2010 WDR also acted as 401 certification for those 10 reaches. The 2010 WDR also included the deletion of several reaches previously covered by the Water Quality Certification that were no longer earth-bottom channels.

32. On February 12, 2015, the Regional Board adopted Order No. R4-2015-0032, renewed WDRs for discharges associated with channel clearing activities in Los Angeles County (2015 WDR). The term of the renewed 2015 WDR was one year.
33. Regional Board direction to Regional Board staff, upon issuance of the renewed 2015 WDR, included:
  - a. Ensure transparency and clarity with regards to the use and results of LACFCD and ACOE hydraulic models to determine channel capacities and reaches where more vegetation can remain;
  - b. Facilitate greater involvement of interested non-governmental stakeholder groups in discussions and, where possible, crafting of recommendations, regarding channel clearing activities, particularly in the Los Angeles River in light of river restoration and revitalization efforts; and
  - c. Coordinate principles and discussions related to activities regulated under this WDR with other water resource management efforts such as efforts to increase stormwater retention, beneficial use protection and enhancement, and river restoration projects.
34. Regional Board staff and LACFCD staff initiated a series of in-depth discussions, referred to as "WDR Working Group Meetings," with interested stakeholder groups including Friends of the Los Angeles River, Arroyo Seco Foundation, Heal the Bay, the Nature Conservancy, Mountains Restoration Conservation Authority, San Fernando Valley Audubon, and Santa Clara Organization for Planning the Environment, which also included participation by ACOE, CDFW, and California Coastal Commission. Nine meetings were held between April 2, 2015 and December 15, 2015. Agendas, presentations, meeting notes and sign-in sheets are available at <https://dpw.lacounty.gov/lacfd/WDR/workgroup.aspx>.
35. During these WDR Working Group Meetings, the group has:
  - a. Discussed and raised the level of understanding of hydraulic models used in Feasibility Studies (as detailed in Findings 49– 67);
  - b. Reviewed the channel maintenance obligations of the LACFCD, including ACOE requirements for ACOE-built channels, levee safety requirements, and FEMA requirements;



- c. Reviewed concerns of environmental and conservation organizations, including Friends of the Los Angeles River and Heal the Bay, especially pertaining to Reach 25 of the Los Angeles River and Compton Creek;
  - d. Discussed results of the new Risk and Uncertainty analysis required for ACOE-built channels, as applied to Reach 25 of the Los Angeles River; and
  - e. Identified, and then reviewed, results of a pilot project employing an alternative clearing method of mowing instead of scraping to remove vegetation in the lower Los Angeles River (Reach 25) and Compton Creek.
36. As described above, the WDR Working Group prioritized its discussions and pilot efforts on the lower reaches of the Los Angeles River.
37. On October 7, 2015, the Regional Board received the LACFCD's Report of Waste Discharge (ROWD), applying for reissuance of WDRs for its maintenance clearing activities in earth-bottom channels.

#### **Background on Watersheds within which the Earth-Bottom Channels are Located**

38. The reaches for which maintenance clearing activities are covered by this Order are located in the Los Angeles River watershed, San Gabriel River watershed, Santa Clara River watershed, Malibu Creek watershed, and Dominguez Channel watershed. The Los Angeles County Department of Public Works has directed the development of, or participated in the development of, Master Plans for each of these watersheds. Each of these Master Plans include objectives and plans for environmental and habitat enhancement in addition to flood control.
39. The Los Angeles River Master Plan was completed and adopted by the County of Los Angeles Board of Supervisors in 1996. The Los Angeles River Master Plan created a multi-objective program for the river. This plan recognizes the River's important purpose for flood protection, and it advocates for environmental enhancement, recreational opportunities, and economic development. In addition, the Los Angeles River Revitalization Master Plan was completed by the City of Los Angeles in April 2007 with a vision of the future of the Los Angeles River.
40. The San Gabriel River Corridor Master Plan was completed in June 2006 for the County of Los Angeles Department of Public Works to enhance habitat, recreational and open space resources along the river in a manner compatible with flood and water management.
41. The Santa Clara River Enhancement and Management Plan (SCREMP) completed in 2005 is a guidance document for the preservation, enhancement, and sustainability of the resources that occur within the 500-year floodplain limits of the Santa Clara River mainstem. This plan was prepared for the Ventura County Watershed Protection District and the Los Angeles Department of Public Works.

42. The Malibu Creek Watershed Council developed the 1995 Malibu Creek Watershed Natural Resources Plan and other studies to protect and preserve the health of the Malibu Creek Watershed. Los Angeles County Department of Public Works is a partner in the Watershed Council.
43. The Dominguez Watershed Management Master Plan was developed for the County of Los Angeles Department of Public Works in 2004. The Plan provides for the protection, enhancement, and restoration of the environment and beneficial uses of the Dominguez Watershed.
44. The Los Angeles River flows 51 miles from the western end of the San Fernando Valley to the Pacific Ocean at Long Beach and includes several major tributaries including Tujunga Wash, Burbank Western Channel, Arroyo Seco, Rio Hondo, and Compton Creek. The Los Angeles River watershed comprises an area of about 834 square miles. Of this area, the incorporated cities and unincorporated portion of Los Angeles County comprise 599 square miles. The remaining acreage consists of the Los Angeles National Forest and other uses.
45. The San Gabriel River watershed comprises a 682 square mile area of eastern Los Angeles County and has a main channel length of approximately 58 miles. It originates in the San Gabriel Mountains and flows through heavily developed areas before emptying into the Pacific Ocean in Long Beach. The main tributaries of the river are Walnut Creek, San Jose Creek, and Coyote Creek. In the middle of the watershed are large spreading grounds used for groundwater recharge. The watershed is hydraulically connected to the Los Angeles River through the Whittier Narrows Reservoir (occurring mostly during high storm flows).
46. The Santa Clara River is approximately 100 miles long and the watershed comprises approximately 1,200 square miles. The river originates in the northern slope of the San Gabriel Mountains in Los Angeles County, traverses Ventura County, and flows into the Pacific Ocean halfway between the cities of San Buenaventura and Oxnard. Large tributaries include Sespe, Piru and Santa Paula Creeks and a lagoon exists at the mouth of the river. Land use is predominately open space with concentrations of residential, agriculture, and some industrial uses along the mainstem of the river. The Santa Clara River is the largest river system in southern California that remains in a relatively natural state; this is a high quality natural resource for much of its length.
47. The Malibu Creek watershed comprises 109 square miles. The watershed extends from the Santa Monica Mountains and adjacent Simi Hills to the Pacific Coast at Santa Monica Bay. Several creeks and lakes occur in the upper portions of the watershed, and these ultimately drain into Malibu Creek at the downstream end of the watershed. Malibu Creek drains into Malibu Lagoon, a 13-acre tidal lagoon.
48. The Dominguez Channel watershed is 133 square miles. This watershed includes the Los Angeles and Long Beach Harbors. The Dominguez Channel is 15 miles long. The

watershed also includes Wilmington Drain, which empties into Machado Lake and other drainages, which drain directly or indirectly to the Los Angeles and Long Beach Harbors. Ninety-one percent of land in the watershed is developed.

#### **Feasibility Study Requirements and Status**

49. As an outgrowth of the original Maintenance Plan development and the incomplete effort in 2008 to further develop an understanding of the hydrology and biological functions for each reach in order to reform and improve the required channel clearing and to make the basis transparent to the Regional Board and the public, the 2010 WDR required "Feasibility Studies," as discussed below, for each watershed.
50. The 2010 WDR required the study of the hydraulic capacity and existing conditions of all reaches covered by the 2010 WDR to determine where a potential may exist for native vegetation to remain within the soft-bottom portion of the channel (Feasibility Study). The Feasibility Studies also required identification of any channels that could potentially provide restoration opportunities for riparian habitat. These restoration opportunities were to be identified based on the Feasibility Studies and a consideration of restoration plans by other agencies.
51. The required analyses were split over multiple years to allow LACFCD flexibility in completing the required studies. The data and technical ability necessary to conduct the required analyses exists within LACFCD.
52. LACFCD implemented the Feasibility Study process with a schedule of one or more watersheds per year to be analyzed, such that completion of all watersheds/studies would occur within six (6) years of the 2010 WDR issuance. LACFCD has solicited stakeholder input during Feasibility Study Workplan development.
53. LACFCD has completed three Feasibility Study Workplans, including the Los Angeles River watershed, the San Gabriel River watershed and the Malibu and Dominguez Channel watersheds.
54. The Los Angeles River Feasibility Study Workplan was completed in July 2010. The Los Angeles River includes 25 maintained soft-bottom reaches, which range from 25 feet to 11,000 feet in length.
55. The Regional Board conditionally approved the Los Angeles River Feasibility Study Workplan on September 10, 2011 pending an additional hydraulic analysis to be completed. To date, the additional hydraulic analysis has not been completed and Regional Board staff have determined that the additional analyses are not needed at this time.
56. The Los Angeles River Feasibility Study included a comprehensive hydraulic analysis for Los Angeles River soft-bottom channel reaches and was developed using the United

States Army Corps of Engineers (USACE) Hydrologic Engineering Center's River Analysis System (HEC-RAS) computer program. HEC-RAS is designed to perform hydraulic calculations for natural and improved channels.

Channel geometry data was obtained from as-built plans, field measurements, LiDAR (Light Detection and Ranging), and recent topographic surveys. Design flow rates were used in the hydraulic analysis to ensure the soft-bottom reaches continue to provide the as-designed flood protection to the public. For undeveloped areas, design flow rates accounted for the effects of a burned watershed and the inclusion of sediment (bulking).

Estimating the roughness coefficients through calibration was not possible since stream gage stations were not available within the soft-bottom channel reaches. Roughness coefficients were determined following the procedures specified in references "Open-Channel Hydraulics" by Ven T. Chow and "Guide for Selecting Manning's Roughness Coefficients for Natural Channels and Flood Plains," United States Geological Survey Water-supply Paper 2339. Field site investigations were conducted for all soft-bottom reaches and the information gathered was used to determine appropriate adjustment factors and estimate roughness coefficients.

For reaches that were found to have additional channel capacity, the amount and type of additional vegetation that might be allowed to remain in the channel reach was determined in consultation with a qualified biologist. A revised hydraulic model was then developed using roughness coefficients adjusted to represent the recommended vegetation levels. Results of these models were checked to ensure that sufficient capacity was maintained along the entire reach. For reaches with insufficient capacity, the amount of vegetation that needs to be removed to restore flood capacity will be determined.

57. Results of these analyses conducted during the Los Angeles River Feasibility Study were presented to stakeholders at a technical workshop on June 24, 2013. Subsequently, as part of the WDR Working Group Meetings held throughout 2015, the LACFCD conducted additional analyses on the reaches of the Los Angeles River and presented the preliminary results of this additional analysis to Regional Board staff and stakeholders participating in the WDR Working Group. Of the 25 reaches in the Los Angeles River Watershed, the Los Angeles River Feasibility Study Report identified eight reaches where additional native vegetation or the replacement of non-native vegetation with native vegetation could occur. No change in current maintenance vegetation clearance practices was recommended for eleven reaches due to insufficient hydraulic capacity for additional vegetation. In six reaches, additional vegetation removal may be required.
58. The eight Los Angeles River reaches that were identified as having the capacity to contain additional native vegetation or the replacement of non-native with native vegetation are:

- a. **Reach 7, In Bull Creek Main Channel Outlet.** Additional vegetation may remain; however, concerns relating to vector control will require further analysis of current maintenance activities.
  - b. **SBC Reach 22, Halls Canyon Channel.** Except on the crib structures, allow native shrubs to grow on the invert of the entire channel reach. Selectively protect native shrubs by removing non-native vegetation
  - c. **Reach 25, Los Angeles River.** In the last 500 feet of the reach (i.e., the downstream end of reach) and on the left bank looking downstream, allow four willow trees to grow and mature at the edge of the water. The willow trees will be maintained under the existing maintenance plan that allows for trimming of lower branches.
  - d. **Reach 1, Bell Creek.** Allow willow canopy to spread outside the channel. Allow native shrubs such as coyote bush and mule fat to become established in this area. Relocate the existing chain-link fence to protect this area from current uses which include staging and storage of maintenance equipment and materials.
  - e. **Reach 20, Webber Channel, Tributary to Halls Canyon Channel.** Allow native herbaceous and shrub species to grow on right bank looking downstream. Selectively remove non-native species from right bank.
  - f. **Reach 21, Webber Channel (main channel inlet at bridge), tributary to Halls Canyon Channel.** Allow native herbaceous and shrub species to grow on left bank looking downstream underneath the coast live oak woodland. Selectively remove non-native ground cover species (e.g., ivy) from the left bank.
  - g. **Reach 19, Pickens Canyon, tributary to Verdugo Wash.** Except for on the crib structures, allow native shrubs to grow on the invert of the channel reach from the upstream end to the pedestrian bridge at Mountain Avenue. Selectively protect native shrubs by removing non-native vegetation.
  - h. **Reach 9, Tributary to the Sepulveda Flood Control Basin Project No. 106.** Remove non-native ash trees at the top of both banks and replace with native trees. Sycamore trees are the preferred native trees to be planted.
59. The Los Angeles River reaches identified in the Los Angeles River Feasibility Study Report as having insufficient capacity to allow for additional native vegetation include Reaches 3, 4, 5, 6, 8, 10, 15, 16, 24, 96, and 100. These reaches are already being fully cleared on an annual basis. The Los Angeles River reaches identified in the Los Angeles River Feasibility Study Report as having insufficient capacity to allow current areas of vegetation to remain include Reaches 2, 12, 13, 14, 18, and 99. These reaches have contained vegetation protected from removal under permits currently in force. LACFCD will seek approvals from applicable agencies to remove the vegetation that now remains in these reaches.
60. The Los Angeles River Feasibility Study Report with recommendations for changes to maintenance regimes was completed in August 2013 (without the additional hydraulic analysis). Changes to vegetation clearing maintenance consistent with the recommendations from the Feasibility Study will be incorporated into an updated

Maintenance Plan for soft-bottom reaches, which is under development as described in Finding 77.

61. The San Gabriel River Feasibility Study Workplan was completed in January 2013. The Regional Board approved the San Gabriel River Feasibility Study Workplan on January 21, 2015. The San Gabriel River includes 7 maintained soft-bottom reaches, which range from 30 feet to 31,000 feet in length.
62. The Malibu Creek and Dominguez Channel Feasibility Study Workplan was completed in April 2014. The Regional Board approved the Malibu Creek and Dominguez Channel Feasibility Study Workplan on January 21, 2015. The Malibu and Dominguez Channels includes 11 maintained soft-bottom reaches, which range from 56 feet to 3,584 feet in length.
63. The final watershed that requires feasibility studies is the Santa Clara River Watershed.
64. The San Gabriel River Feasibility Study Report was submitted to the Regional Board on January 29, 2016. In addition, substantial progress was made on the reanalysis of the Los Angeles River reaches. As requested by stakeholders at the WDR Working Group Meetings, a reanalysis of the Los Angeles River was conducted by LACFCD. The results of this analysis and a discussion of the methodology used were provided at the WDR Working Group Meetings over several sessions. LACFCD also performed the ACOE's new Risk and Uncertainty analysis on Los Angeles River Reach 25 and results were provided at the WDR Working Group Meetings.
65. While the lower reaches of the Los Angeles River were a priority for the WDR Working Group, because the engineered aspects of the lower reaches of the Los Angeles River were constructed by the ACOE, there are additional federal requirements that must be met before changing the characteristics of the channel, and therefore, flood protection. LACFCD hired WEST Consultants to perform an evaluation of the lower reach of Los Angeles River (Reach 25) using the US Army Corps of Engineers' Risk and Uncertainty analysis. A Risk and Uncertainty analysis is a statistical analysis that takes into account the uncertainty of the hydrology, hydraulics, and consequences. The preliminary results of this analysis show there is an 80% probability that the 133-year flood's water surface elevation would be below the as-constructed top of levee elevation in Los Angeles River Reach 25.
66. LACFCD is working with the ACOE to address ACOE's comments on the Risk and Uncertainty analysis. When the Risk and Uncertainty analysis is finalized, LACFCD will be able to consider applying to the ACOE to modify channel clearing activities in this reach.
67. An interagency team consisting of LACFCD, Regional Board, ACOE and CDFW are collaborating on an updated Maintenance Plan to meet the requirements of all agencies by 2017.

### Pilot Project

68. To investigate and determine if alternative maintenance methods for removing vegetation in lower Los Angeles River, Reach 25 and Compton Creek, would be more protective of beneficial uses and would be operationally feasible, LACFCD voluntarily executed a pilot project during their channel clearing activities in October of 2015.
69. The Reach 25 and Compton Creek pilot project included clearing invasive species by the standard methods, castor bean by hand and *Arundo donax* by excavator; however, most of the vegetation was removed by mowing from a skidsteer vehicle or a flail mower close to the water's edge. Dump truck use was reduced to less than 10% of the previous year's use and water use was reduced to less than 50% of the previous year's use. Mowing left a short growth of vegetation in place, which is expected to lessen erosion from the site and provide faster regrowth of habitat in the area. The overall scope of work and benefits of the pilot project were the same for both reaches. An evaluation of these alternative maintenance methods relative to the potential for long-term buildup of material, environmental impacts, and impacts to LACFCD operations is continuing.

### Additional Findings

70. During the winter season, LACFCD personnel continually monitor flow conditions in channels and inspect facilities. Urgent work conducted during and immediately after storm events is usually not routine maintenance, but instead, may be considered an emergency activity. However, many of the repairs are small in scope and would otherwise fit under the provisions of this WDR.
71. As part of the flow and water quality monitoring systems, LACFCD maintains various stations throughout the County. These stations consist of temporary and/or permanent houses with attached gauges, conduits, pumps, sensors, and probes typically placed in the invert of the channel. The houses may be mounted on bridges and/or other structures along several watercourses in the County. In order to obtain accurate data, the flow adjacent to the gauges, conduits, pumps, sensors, and probes must be laminar (i.e., non-turbulent). 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. Stream Gages in earth-bottom reaches are maintained in the San Gabriel River and Santa Clara River and locations are included in Attachment 1.
72. Any project that is necessitated due to imminent threat to life or property is subject to ACOE Regional General Permit 63 (RGP 63). Emergency is defined as, "a sudden, unexpected, occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movement, as well as such occurrences as riot, accident, or sabotage."

73. Neither this WDR, nor any previous WDR or Water Quality Certifications, authorize any new construction or modification of flood control facilities.
74. LACFCD has developed and published watershed maps, which indicate areas of maintenance (impact acreages and types of vegetation impacted) and approximate schedules (including baseline biological surveys, post-surveys and maintenance activity descriptions). This information has been made publicly available on the LACFCD website and has been noticed to interested persons. For each reach, the information has included: (a) the proposed schedule; (b) a description of the reach's existing condition; (c) the area of proposed impact; and (d) a description of any existing aquatic resources (e.g., wetland/riparian vegetation based on readily available information and pre-clearing biological surveys).
75. LACFCD has developed and published and submitted to the Regional Board, Annual Project and Mitigation Monitoring Reports as required on May 4, 2010, for 2009-2010; August 30, 2011, for 2010-2011; April 30, 2012, for 2011 –2012; May 1 2013, for 2012-2013; and May 29, 2014, for 2013-2014.
76. LACFCD has developed and complies with a Hazard Analysis and Critical Control Points (HACCP) for Malibu and Santa Monica Canyon watersheds to limit the spread of invasive New Zealand mudsnail and giant reed (*Arundo donax*), dated April 1, 2010.
77. LACFCD has begun to draft, and proposes to complete, in collaboration with the ACOE, CDFW and Regional Board by 2017 an updated Maintenance Plan. This Maintenance Plan will incorporate revised scopes of work for previously authorized reaches, a re-evaluation of sensitive or non-sensitive status (per the US Fish and Wildlife Service's Biological Opinion) and an updated list of reach numbers and organizations. It will incorporate reaches 1-110, which after accounting for the removal and splitting of several reaches will total 108 reaches proposed for maintenance. Details of the proposed changes are listed below:
  - a. Reaches that have been removed (no longer maintained by LACFCD) include Reaches 11, 17, 23, 30, 31, 65, 68, 81, 83, 84, 85 and 111 (12 total);
  - b. Reaches that have been combined include Reach 59 into Reach 58 and Reach 62 into Reach 61;
  - c. Reaches 25, 40, and 43 now have both an (a) and (b) component and are discussed separately;
  - d. Reaches 60, 59, and 58 are no longer combined with 55, Reaches 67 and 69 are no longer combined, and Reaches 70 and 68 are no longer combined;
  - e. Consequently, there are 14 numerical reaches that will be removed and three reaches that will be added (due to the splitting of 25, 40 and 43) to the Maintenance Plan.
  - f. Within the original reaches 1-110, there are now 100 active reaches. The previous 2010 WDR already permitted Reaches 101-110 and will continue to be covered in this WDR.



- g. Land use changes have also resulted in the addition of new reaches (Reaches 112–119). Once these have been added, there will be a total of 108 reaches covered by the Maintenance Plan in development. Reaches 112–119 are not included in this Order.

#### **FEMA Levee Certification**

78. Currently, the County of Los Angeles is a participating community in the National Flood Insurance Program (NFIP). The Federal Emergency Management Agency (FEMA) administers the NFIP, identifies flood hazards, assesses flood risks, and provides appropriate flood hazard and risk information to communities. This information is provided through Flood Insurance Rate Maps (FIRMs). FEMA has currently updated these maps and modernizing FIRMs. This effort is called Flood Map Modernization or Map Mod.
79. FEMA has required all levee owners to certify their levees before mapping them in Map Mod. Property owners in the communities protected by these levees have a 1-percent-annual-chance (100-year flood) level of flood protection and will likely not be required to secure flood insurance by lenders.
80. LACFCD has undertaken the effort to certify 65 miles of levees in Los Angeles County. LACFCD is the lead for Compton Creek (in conjunction with ACOE as a co-lead), San Gabriel River, Coyote Creek, Dominguez Channel, Santa Clara River, and tributaries to the Santa Clara.
81. The levee certification consists of three main technical components:
1. Hydraulic analysis;
  2. Subsurface soil exploration and geotechnical/structural (design) analysis; and
  3. Formal Operation and Maintenance (O & M) Plan and Report.
82. The completed certification work has been submitted. FEMA may accredit the levee systems, where appropriate, and present the updated, accurate flood hazard and risk information on the maps and related documents.
83. In order to obtain FEMA accreditation for the levees, LACFCD is required to demonstrate that maintenance of the levees will ensure their stability, height, and overall integrity in order to continue providing protection to the adjacent residents.

#### **ACOE Levee Requirements**

84. While FEMA accredits levees as meeting requirements set forth by the NFIP, the ACOE addresses operation and maintenance, risk management, and risk reduction levee needs as part of its responsibilities under the ACOE's Levee Safety Program. The ACOE may inspect levees in Los Angeles County and require risk reduction improvements to the levees by LACFCD.

85. The ACOE also maintains a Levee Vegetation Management Policy. The most recent descriptions of the ACOE's vegetation management policy are contained in the ETL 1110-2-583 "Guidelines for Landscape Planting and Vegetation Management at Levees, Floodwalls, Embankment Dams, and Appurtenant Structures," adopted by the ACOE on April 30, 2014, which generally requires that there is no vegetation within 15 feet of a levee structure.

#### **CWA Section 401 Certification**

86. The current Nationwide Permit 31 issued by the ACOE authorizes maintenance in 61 existing channels. Biological Consultation between the ACOE and the U.S. Fish and Wildlife Service is ongoing for 31 of the channel reaches covered by this Order. This Nationwide Permit 31 expires in 2017. This Order also acts as a CWA Section 401 Water Quality Certification for the Nationwide Permit 31 for these activities.
87. Pursuant to California Code of Regulations, title 23, section 3860, the following three standard conditions shall apply to this project:
- a. This Certification action and Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to CWC section 13330, and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).
  - b. This Certification action and Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to California Code of Regulations, title 23, section 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
  - c. This Certification and Order is conditioned upon total payment of any fee required pursuant to California Code of Regulations, title 23, division 3, chapter 28, and owed by the applicant.

#### **CEQA and Notification**

88. The California Environmental Quality Act (CEQA) requires certain projects approved by State agencies to comply with CEQA, and requires a lead agency to prepare an appropriate environmental document (e.g., Environmental Impact Report or Negative Declaration) for such projects. The Regional Board finds that the proposed activities are categorically exempt from the provisions of CEQA pursuant to California Code of Regulations, title 14, section 15301(d) (Existing Facilities).
89. Any person aggrieved by this action of the Regional Board may petition the State Board to review the action in accordance with Water Code section 13320 and California Code

of Regulations, Title 23, sections 2050 and following. The State Board must receive the petition by 5:00 p.m. , 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions will be provided upon request or may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

90. The Regional Board has notified the LACFCD and other interested agencies and persons of its intent to prescribe WDRs for this discharge and has provided an opportunity to submit written comments. Tentative amended WDRs was released for public comment on December 18, 2015. Written comments were accepted until 5:00 p.m. on January 19, 2016.
91. The Regional Board, in a public meeting on February 11, 2016, heard and considered all comments pertaining to these WDRs.

**IT IS HEREBY ORDERED** that the Los Angeles County Flood Control District, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following, pursuant to authority under California Water Code sections 13263 and 13267.

**Permitted Activities**

1. LACFCD proposes to clear vegetation and debris from 100 earth-bottom channel reaches in order to provide flood control and protect human health and property.
2. The 100 channels include a total of 45 miles of waterways throughout Los Angeles County and approximately 947 acres of jurisdictional waters of the United States.
3. The reaches listed in Attachment 1 are included under this Order. This list has been updated to reflect all 100 channel reaches and is consistent with the list in the Preliminary Jurisdictional Delineation Report prepared by LACFCD dated September 4, 2014. Attachment 1 includes the LACFCD reach number (1 to 110), hydrologic code, beneficial uses, length, acreage, and location information.
4. Channel reaches identified as County Reach numbers 11, 17, 23, 30, 31, 65, 68, 81, 83, 84, 85 and 111 (12 total) are not included in this Order and shall be removed from the Approved Maintenance Plan. Any required maintenance in these channels will be permitted or certified separately.
5. Land use changes have resulted in the addition of new reaches, Reaches 112–119. These new reaches will be permitted under a separate CWA Section 401 Water Quality Certification.

6. Unless approved by the Regional Board after results of the Feasibility Study and approved by other appropriate regulatory agencies including the ACOE and CDFW, channel clearing shall not exceed "1997/1998 storm season clearing level" conditions established by the Regional Board, CDFW (then CDFG), and ACOE prior to the 1997 El Niño storm season (Reaches 1-100). This baseline level was utilized to identify the maximum vegetation removal authorized for each reach, and will be incorporated into the new Maintenance Plan with changes resulting from the Feasibility Studies as the changes are approved by the appropriate regulatory agencies identified above.
7. LACFCD shall comply with the specifications of the Maintenance Plan, and the Mitigation Monitoring Program prepared for this maintenance program, or any subsequently approved plans that follow. Only revisions approved by the Regional Board Executive Officer, ACOE and CDFW shall be authorized for this project.
8. Clearing will be either through the use of heavy equipment, including trucks, bulldozers, dump trucks, and front-end loaders, along with other specialized equipment, or in areas where there are sensitive species and native vegetation, clearing shall take place by hand as specified in the approved Maintenance Plan in order to selectively avoid protected resources. Equipment will access the channels by existing access roads.

#### **Maintenance of All Existing Invert Access Ramps**

9. All existing channel invert access ramps shall be part of the approved annual maintenance for all earth-bottom channel facilities, including new reaches that have been added to the WDR. The invert access ramps, whether constructed with dirt, lined with concrete, or armored with riprap on the sides, are critical structures for access to earth-bottom channel reaches.

Maintenance activities for these ramps shall include inspection, minor maintenance repairs, and storm damage repair and rehabilitation. Storm damage repair and rehabilitation includes restoring ramps that are damaged or washed out during a storm, back to pre-storm conditions.

10. Notching and limited vegetation removal from drain channel outlets shall be conducted on reaches where mechanical removal of sediment and vegetation is allowed, and is consistent with the original channel designs. In stream reaches that are approved for mowing or hand removal of vegetation, work on installing notches at 45-degrees and clearing drain channel outlets shall be conducted by hand and/or hand tools, and shall be consistent with all terms of the Maintenance Plan and WDRs.
11. Maintenance activities may require conducting as-needed sediment removal to provide continuous flow (to address vector issues), capacity, vegetative growth, and proper drainage. Locations and amounts of sediment removed will be reported as part of the Annual Reports.

12. Non-emergency minor repairs during the winter season may include the following: regrading inverts to repair minor erosion and to remove ponded water; repair of minor storm damage; and in-kind structural repairs. These repairs may include, but are not limited to, minor in-kind riprap replacement, flap gate repair and/or replacement, invert and slope repairs, and erosion control structures.
13. 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 these 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.

#### **Notification Protocol and Thresholds for Additional Review**

14. Pursuant to California Water Code section 13267, LACFCD shall submit an Annual Workplan with a schedule of the upcoming reaches proposed for maintenance clearing. The Annual Workplan shall include, at a minimum, the following information: (a) proposed schedule; (b) acreage of areas to be impacted (vegetated and non-vegetated); (c) a description of any existing aquatic resources; (d) site-specific BMPs to be implemented; and (e) proposed application of pesticides. The Discharger shall send the Annual Workplan not later than July 15 of each year to the Regional Board Executive Officer and 401 Certification Unit staff, and send notices of additional routine maintenance work as the needs are discovered in the field. The Executive Officer may require additional time to review or add additional requirements or require separate permitting for certain activities proposed upon review of the Annual Workplan or notice of additional routine maintenance work; however, if the Executive Officer does not provide any comments, additional requirements or a request for additional time within 60 days for the Annual Workplan, or 15 days for the notice of additional routine maintenance work, LACFCD is authorized to proceed pursuant to the Annual Workplan or notice of additional routine maintenance work as proposed.

Routine maintenance may require additional review if the work exceeds certain thresholds of impact. For projects that exceed the following thresholds, the Discharger shall provide information similar to a pre-construction notification for a 401 Water Quality Certification for 60-day review.

#### Project Exceeds Original Footprint

For any work resulting in temporary or permanent impacts within the ordinary high water

mark outside the original project boundaries, LACFCD shall submit a new proposed scope of work to the Regional Board Executive Officer with all pertinent information for consideration to support either confirmation that the project area(s) is within the scope of these WDRs or a determination that the LACFCD must apply for supplemental WDRs or a separate CWA Section 401 Water Quality Certification for the work.

Project Deviates from the Pre-Approved Surface Water Diversion Plan

If a water diversion is planned to occur in a manner which deviates from the Pre-Approved Water Diversion Plan, LACFCD shall submit the new plan to the Regional Board Executive Officer for review and approval. The Executive Officer is authorized to approve changes to the Surface Water Diversion Plan provided that it is consistent with this Order.

**Best Management Practices**

15. All appropriate Best Management Practices (BMPs) shall be implemented in order to avoid any impacts to water quality. LACFCD shall follow the "BMP Manual for Soft Bottom Clearing" developed by LACFCD in 2003 and all other necessary BMPs. The maintenance clearing activities shall not result in indirect impacts to water quality or beneficial uses of downstream water bodies. The maintenance clearing activities shall not result in changes in the quantity or quality of water in downstream waterbodies as a result of maintenance activity, or during operation subsequent to the maintenance activities. The maintenance clearing activities shall not result in changes in water quality in the channel that would cause or contribute to water quality exceedances during periods between maintenance activities, or upon their annual completion.

**Feasibility Study**

16. The Regional Board requires Feasibility Studies of the earth-bottom channels and associated maintenance activities covered by these WDRs in order to either:
  - a. Determine that the channel clearing activities have avoided and minimized where possible vegetation clearing; and appropriately mitigated for effects of vegetation clearing on the beneficial uses of the affected reaches where avoidance is not possible; or
  - b. Support modifications to channel clearing activities to achieve the appropriate and necessary levels of avoidance and minimization; and mitigation where avoidance is not possible.
17. As part of the on-going assessment of channel conditions and hydraulic capacity, LACFCD shall perform a study of the hydraulic capacity and existing conditions of all reaches covered by these WDRs to determine where the potential may exist for native vegetation to remain within the soft-bottom portion of the channel or if additional hydraulic capacity is needed. In addition, any channels which may potentially provide restoration opportunities for riparian habitat/vegetation growth shall be identified based on these assessments and a consideration of restoration plans by other agencies.

18. LACFCD shall continue the Feasibility Study process with a schedule of one or more watersheds per year. The Regional Board Executive Officer may extend the final deadline by up to 6 months for good cause. LACFCD shall continue to solicit stakeholder input during the remaining Feasibility Study Workplan development and prior to the finalization of the Technical Assessment Report and recommendations.
19. The watershed study areas shall include any channels directly or indirectly affected by proposed maintenance.
20. For each watershed, the Feasibility Study shall include (but not be limited to) the following components:
  - a. Study Workplan
  - b. Technical Assessment Report
  - c. Recommendations

#### **Feasibility Study Workplans**

21. The remaining Feasibility Study Workplans shall continue to be submitted to the Regional Board Executive Officer for approval. The only pending Feasibility Study Workplan is for the Santa Clara River Watershed. The plan will include: a detailed plan for a hydrologic and hydraulic analysis of each earth-bottom segment in relation to the conveyance capacity of the upstream and downstream channels, in addition to the Water Quality Monitoring. The hydraulic analysis shall include, but not be limited to, the height and density of vegetation in the earthen channel bottom and its effect on the conveyance capacity of flood flow in the channel and shall include discussion of changes in expected stream flow in response to requirements of the Los Angeles County Municipal Separate Storm Sewer System (MS4) NPDES Permit, Standard Urban Stormwater Mitigation Plans (SUSMPs), Total Maximum Daily Loads (TMDLs) and other pertinent local plans including, but not limited to the Integrated Regional Water Management Plan (IRWMP) (including implementation of, and plans for, increased stormwater infiltration), the City of Los Angeles' Integrated Resources Plan, the relevant watershed master plan and LACFCD's Drought Management Plan. Several reasonable Manning's n should be used in the hydraulic analysis to evaluate the representative height of the channel for flood control and natural habitat purposes and should be in accordance with "Guide for Selecting Manning's Roughness Coefficients for Natural Channels and Flood Plains," United States Geological Survey Water-Supply Paper 2339 or other appropriate guidance.

The assessment of biological functions and values of these reaches should be made such that comparisons of habitat type, maturity and extent of native or invasive plants can be made between reaches.

#### **Water Quality Monitoring**

22. The objectives of the water quality monitoring are to assess BMP effectiveness and to ensure that water quality is not impacted as a result of the proposed maintenance activities, or surface water diversion. BMPs are to be implemented in association with maintenance activities to avoid impacts to water quality that would result in exceedances of water quality standards. As part of the Feasibility Study, water quality assessments within each reach will be required on a one-time basis before, after, and during maintenance clearing activities. Each project reach will require three (3) sampling stations: upstream of the project reach; within the project reach; and downstream of the project reach. The testing parameters required will be the same as for Surface Water Diversion.
- pH
  - temperature
  - dissolved oxygen
  - turbidity
  - total suspended solids (TSS)

In addition, in some circumstances, more than one sampling event prior to the start of work may be advisable to establish baseline conditions when baseline conditions are variable. Or, in some circumstances, more than one monitoring location, upstream, within the project reach, or downstream, may be advisable due to the length of the reach and/or to distinguish other influences on water quality. For example, water quality may also vary due to discharges into the project area from storm drains, salt/fresh mixing zones or changes in waterbody characteristics (e.g., a change from a hard to soft, vegetated, bottom). LACFCD shall consider and document if additional sampling events, locations or parameters are needed or useful.

Downstream TSS shall be maintained at ambient levels. Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

Analyses must be performed using approved US Environmental Protection Agency methods, where applicable.

These constituents shall be measured at least once prior to the maintenance activity and then monitored on a daily basis during the first week of maintenance activities, and then on a weekly basis, thereafter, until the work is complete. When reaches are within the watershed designated for a Feasibility Study in a particular year, water quality monitoring should be conducted for those reaches as part of the Feasibility Study and reported with the Technical Assessment Report.

Any exceedance of water quality standards may result in corrective and/or enforcement actions, including increased monitoring and sample collection.

#### **Technical Assessment Report – Hydraulic, and Water Quality Assessment**



23. Within 6 months of Workplan approval, a Technical Assessment Report (Report) shall be submitted and will include a reach-by-reach list of all the reaches included in the subject watershed with a hydraulic analysis of each reach.

For each reach, the Report shall address capacity requirements for flood control; design criteria and anticipated limitations; and an analysis of potential areas where vegetation may remain; areas with the potential for restoration of native vegetation; and/or where justification exists to clear additional vegetated area. For those areas where vegetation may remain, the Report should specify the amount(s) and type(s) of native vegetation that could remain in the channel.

A comprehensive hydraulic analysis for the existing vegetation conditions will be developed for each channel reach listed in these WDRs using HEC-RAS. The data needed to perform the hydraulic computations consists of geometric data, flow data, and roughness coefficients. Sources of channel geometry will consist of as-built plans, field measurements, LiDAR (Light Detection and Ranging), and recent topographic surveys.

The design flow rates will be obtained from various sources, including existing channel design plans, hydraulic reports, and hydrologic studies. For undeveloped areas, design flow rates will account for the effects of a burned watershed and the inclusion of sediment (bulking):

Estimating the roughness coefficients through calibration using HEC-RAS will be done when two stream gaging stations, one upstream and one downstream of a channel reach, are available. For channel reaches with no gaging stations, roughness coefficients will be determined following the procedures specified in references "Open-Channel Hydraulics" by Ven T. Chow and "Guide for Selecting Manning's Roughness Coefficients for Natural Channels and Flood Plains," United States Geological Survey Water-supply Paper 2339. These references describe the use of Cowan's formula, which starts with selecting a base roughness coefficient for native bed material in a straight, uniform, and smooth channel. Based on field site observations and sound engineering judgment, adjustments will be made to the base roughness coefficient to account for surface irregularities, channel cross-section variation in shape and size, obstructions, vegetation, and meandering. Field site investigations will be conducted for all soft-bottom reaches to note vegetation type, density and size, and obstructions within the channel. The information gathered from these site investigations will be used to determine appropriate adjustments and estimate roughness coefficients.

After the hydraulic analyses of the existing vegetation conditions had been completed, the results will be reviewed to determine which reaches have additional capacity and insufficient capacity. For reaches that are found to have additional channel capacity, the amount and type of additional vegetation that might be allowed to remain in the channel reach will be determined in consultation with qualified biologist. A hydraulic model will then be developed using roughness coefficients adjusted to represent the recommended vegetation levels. Results of these models will be checked to ensure that sufficient

capacity is maintained along the reach. For reaches with insufficient capacity, the amount of vegetation that needs to be removed to restore flood capacity will be determined.

This Report will also include an assessment of the biological functions and values for each reach and an assessment of water quality as required. These evaluations shall consider whether the vegetation in the channels is native or an exotic and/or invasive species. This will be useful when determining the value or priority of leaving the vegetation in the channel. The documentation shall also distinguish between sections of invasive/exotic species.

### **Requirements for Feasibility Study Recommendations**

24. Within 6 months of Workplan approval, LACFCD shall submit recommendations to the Regional Board Executive Officer and shall include options for reaches where vegetation may be allowed to remain or where native vegetation could be re-established. Recommendations shall also include suggested schedules of vegetation removal frequency in order to ensure the maximum habitat preservation is achieved, consistent with necessary flood control. For recommendations approved by the Executive Officer and by other appropriate regulatory agencies including the ACOE and CDFW, LACFCD shall make the necessary changes to the Maintenance Plan, including proposals for additional BMPs as may be appropriate, and shall submit such changes to the Executive Officer 21 days prior to any clearing activities.
25. By March 31, 2016, LACFCD will submit to the Regional Board, a draft Feasibility Report for the Malibu Creek and Dominguez Channel.
26. By February 28, 2017, LACFCD will submit to the Regional Board, a final Feasibility Report for the Malibu Creek and Dominguez Channel, including recommendations.
27. By August 31, 2017, LACFCD will submit to the Regional Board, a draft Feasibility Report for the Santa Clara River.
28. By February 28, 2018, LACFCD will submit to the Regional Board, a final Feasibility Report for the Santa Clara River including recommendations as described in item 24, "Requirements for Feasibility Study Recommendations."
29. LACFCD shall conduct Risk and Uncertainty analyses or other appropriate analyses, working with the ACOE, as warranted in order to identify those reaches with federally required maintenance requirements that may be candidates for revised maintenance procedures that would allow more vegetation to remain in the channel, or that would allow alternative channel clearing approaches/methods potentially more protective of beneficial uses. LACFCD, with assistance from ACOE and guidance from the WDR Working Group, will work to determine the number of reaches on which to perform Risk and Uncertainty analyses. LACFCD may apply under section 14 of the Rivers and Harbors Act of 1899 and codified in 33 USC section 408 (commonly referred to as

“Section 408”) or may pursue alternative approaches as determined by the ACOE for modification of federally required maintenance requirements with the ACOE, if appropriate.

30. LACFCD shall continue to facilitate and host WDR Working Group meetings once per month or less often with concurrence from the WDR Working Group Meeting participants during calendar year 2016, and other outreach activities, as appropriate, to involve stakeholders in review of feasibility reports and decision making concerning priorities for Risk and Uncertainty analyses, Section 408 applications, the location, type and scope of pilot projects to evaluate alternative channel clearing approaches/methods, and potential additional water quality monitoring locations and timing.

### **Pilot Projects**

31. Continuing LACFCD's efforts begun in 2015, LACFCD shall identify pilot projects to investigate alternative vegetation management methods that may be more protective of beneficial uses, especially wildlife and habitat uses. Examples of pilot projects may include but are not limited to: mowing as opposed to scraping for vegetation clearing; clearing just one bank of a particular reach each year; replacing an invasive plant species such as *Arundo donax* with slower-growing native species; exploring different combinations of plant species in a given reach; or study and review of land use in the vicinity of a reach to determine if a level of infrequent flooding could be tolerated.
32. LACFCD shall provide to the Regional Board Executive Officer, and shall make available to stakeholders, potential pilot projects for the upcoming maintenance season (July 1 to June 30). Additional pilot projects may be identified during the maintenance season.
33. LACFCD shall investigate improved maintenance methods by conducting two or more pilot projects each year (July 1 to June 30) after consultation with the Regional Board Executive Officer, ACOE, and stakeholders. If the ACOE prohibits the proposed pilot project, the LACFCD shall identify alternative locations and/or pilot maintenance methods that are acceptable to the ACOE for implementation on a pilot basis. Alternatively, the LACFCD shall identify reaches that are not subject to federal maintenance requirements and, thus, are not subject to ACOE review.
34. LACFCD shall evaluate pilot projects in terms of: a) ecological impact, impact to beneficial uses, and impact to local communities; b) positive or negative effects on downstream water quality; c) identification of conditions in permits or other requirements that would need to be modified for the pilot project to be required as routine maintenance; and d) impacts to LACFCD operations in terms of costs, schedule, resources, etc. LACFCD shall consider the recommendations of the WDR Working Group when determining additional evaluation criteria. LACFCD shall provide a technical report evaluating the pilot project within four months of completion of the pilot project with interim recommendations or, when possible, final recommendations.

35. With Regional Board Executive Officer approval, and subject to approval by other agencies including ACOE and CDFW, as necessary, LACFCD shall implement new channel maintenance practices based on the outcomes of the pilot projects during term of this Order, as feasible.
36. A technical report containing an evaluation of the Reach 25 and Compton Creek pilot project discussed in Findings 68 and 69 with interim recommendations or, if possible, final recommendations shall be submitted to the Regional Board Executive Officer by March 31, 2016.

### **Prohibitions**

33. Fueling, lubrication, maintenance, operation, and storage of vehicles and equipment shall not result in a discharge or a threatened discharge to waters of the State. At no time shall LACFCD use any vehicle or equipment which leaks any substance that may impact water quality. Staging and storage areas for vehicles and equipment shall be located outside of waters of the State.
34. No construction material, spoils, debris, or any other substances associated with this project that may adversely impact water quality standards, shall be located in a manner which may result in a discharge or a threatened discharge to waters of the State. Designated spoil and waste areas shall be visually marked prior to any excavation and/or construction activity, and storage of the materials shall be confined to these areas.
35. The discharge shall not: 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.

### **Other Requirements**

36. LACFCD shall submit copies of any other final permits and agreements required for this project, including, but not limited to, the ACOE CWA Section 404 Permit and the CDFW's Streambed Alteration Agreement to the Regional Board 401 Certification Unit. These documents shall be submitted prior to any discharge to waters of the State.
37. LACFCD shall comply with the specifications of its Mitigation Monitoring Program, and the Maintenance Plan, or any subsequently approved plans that follow.
38. Prior to any maintenance activities within the subject reaches, LACFCD shall develop and publish watershed maps which indicate areas of maintenance (impact acreages and types of vegetation impacted) and approximate schedules (including baseline biological

surveys, post-surveys and maintenance activity descriptions). This information shall be made publicly available on the LACFCD internet website and be noticed via email notification or other direct notification to watershed councils and other interested persons prior to any routine maintenance activities. For each reach, the information shall include: (a) the proposed schedule; (b) a description of the reach's existing condition; (c) the area of proposed impact; and (d) a description of any existing aquatic resources (e.g., wetland/riparian vegetation based on readily available information and pre-clearing biological surveys). After submission to the Regional Board Executive Officer, LACFCD will post the Annual Project and Mitigation Monitoring Reports as required to the LACFCD website.

39. LACFCD shall implement the Plan for Hazard Analysis and Critical Control Points dated April 1, 2010 (HACCP) or any subsequently Executive Officer-approved HACCP to limit the spread of invasive species.
40. LACFCD shall comply with all water quality objectives, prohibitions, and policies set forth in the Basin Plan, as amended.
41. LACFCD shall implement all Best Management Practices as outlined in the Maintenance Plan, including, but not limited to, the following:

Prior to start of any annual maintenance clearing, qualified biologists shall perform pre-clearing biological resource surveys and photo documentation including sensitive/endangered species focused surveys on specific reaches. No work shall commence without confirmation of findings or no findings of sensitive/endangered species from the biologists. These surveys are also meant to minimize impact on any resources that may potentially use or benefit from the channel.

During construction, biologists shall be available for consultation for any issues that may arise.

42. LACFCD and all contractors employed by LACFCD shall have copies of this Order, the approved Maintenance Plan, and all other regulatory approvals for this project on site at all times and shall be familiar with all conditions set forth therein.
43. All excavation, construction, or maintenance activities shall follow best management practices to minimize impacts to water quality and beneficial uses. Dust control activities shall be conducted in such a manner that will not produce downstream runoff.
44. All waste and/or dredged material removed shall be relocated to a legal point of disposal if applicable. A legal point of disposal is defined as one for which WDRs have been established by a California Regional Water Quality Control Board, and is in full compliance therewith. Please contact the Land Disposal Unit, at (213) 620-6600 for further information.

45. LACFCD shall implement all necessary control measures to prevent the degradation of water quality from the proposed project in order to maintain compliance with the Basin Plan. The discharge shall meet all effluent limitations and toxic and effluent standards established to comply with the applicable water quality standards and other appropriate requirements, including the provisions of sections 301, 302, 303, 306, and 307 of the CWA. This Order does not authorize the discharge by LACFCD for any other activity than specifically described in the current CWA Section 404 Permit for this project.
46. LACFCD shall allow the Regional Board and its authorized representative entry to the premises, including all mitigation sites, to inspect and undertake any activity to determine compliance with this Order, or as otherwise authorized by the CWC.
47. Application of pesticides must be supervised by a certified applicator and be in conformance with manufacturer's specifications for use. Compounds used must be appropriate to the target species and habitat. Pesticide utilization shall be in accordance with State Water Resources Control Board pesticide permits including Water Quality Order Nos. 2011-0003-DWQ, for Aquatic Animal Invasive Species Control; 2011-0004-DWQ, for Spray Applications; 2011-0002-DWQ, for Vector Control; and 2013-0002-DWQ, for Weed Control.
48. LACFCD shall not conduct any routine maintenance activities within waters of the State during a rainfall event. LACFCD shall maintain a one-day (1-day) clear weather forecast before conducting any operations within waters of the State. 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.
49. LACFCD shall utilize the services of a qualified biologist with expertise in riparian assessments during all construction activities where clearing involves areas to be partially cleared (i.e., some vegetation is to remain in the same reach or in an adjacent reach). The biologist shall be available if necessary during maintenance activities to ensure that all protected areas are marked properly and ensure that no vegetation outside the specified areas is removed. The biologist shall have the authority to stop the work, as necessary, if instructions are not followed. The biologist shall be available upon request from this Regional Board for consultation within 24 hours of request of consultation.
50. No activities shall involve wet excavations (i.e., no excavations shall occur below the seasonal high water table). A minimum 5-foot buffer zone shall be maintained above the existing groundwater level. If construction or groundwater dewatering is proposed or anticipated, LACFCD shall file a Report of Waste Discharge to this Regional Board and obtain any necessary NPDES permits/WDRs prior to discharging waste. Sufficient time should be allowed to obtain any such permits (generally 180 days). If groundwater is encountered without the benefit of appropriate permits, LACFCD shall cease all activities in the areas where groundwater is present, file a Report of Waste Discharge to this Regional Board, and obtain any necessary permits prior to discharging waste.

51. All maintenance activities not included in this Order, and which may require a permit, must be reported to the Regional Board for appropriate permitting. Bank stabilization and grading, as well as any other ground disturbances, are subject to restoration and revegetation requirements, and may require additional WDR action.
52. Maintenance activities in the Santa Clara River area shall comply with the provisions of the Natural Rivers Management Plan (NRMP). The following provisions apply to soft-bottom channel reaches that are within the jurisdiction of the approved NRMP: a) Periodic clearing of vegetation immediately upstream and downstream of certain existing bridges which were not designed in accordance with the NRMP; b) Periodic removal of woody vegetation from riprap to protect its structural integrity; c) Periodic clearing of storm drain outlets to ensure proper drainage; d) Periodic removal of ponded water that causes odor problems; e) As-needed repairs of bridges; f) As-needed repairs of bank protection; and g) As-needed clearing of vegetation from water quality filters and treatment basins.
53. All surface waters, including ponded waters, shall be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water.
54. LACFCD shall develop and submit a Surface Water Diversion Plan (plan) to the Executive Officer. The Surface Water Diversion Plan shall include the proposed method and duration of diversion activities, structure configuration, construction materials, equipment, erosion and sediment controls, and a map or drawing indicating the locations of diversion and discharge points. Contingency measures to address the need for regulation of flow discharge rates and/or direction of flows to protect beneficial uses downstream of the diversion shall be included as part of the Surface Water Diversion Plan. The Surface Water Diversion Plan shall be submitted prior to any surface water diversions.
55. LACFCD shall implement the Surface Water Diversion Plan for all water diversions or, for circumstances which require a deviation from the Surface Water Diversion Plan, may submit to the Regional Board an individual plan for the surface water diversion prior to the surface water diversion.
56. If surface flows are present, then upstream and downstream monitoring for the following shall be implemented:
  - pH
  - temperature
  - dissolved oxygen
  - turbidity
  - total suspended solids (TSS)

In addition, in some circumstances, more than one sampling event prior to the start of work may be advisable to establish baseline conditions when baseline conditions are

variable. Or, in some circumstances, more than one monitoring location, upstream, within the project reach, or downstream, may be advisable due to the length of the reach and/or to distinguish other influences on water quality. For example, water quality may also vary due to discharges into the project area from storm drains, salt/fresh mixing zones or changes in waterbody characteristics (e.g., a change from a hard to soft, vegetated, bottom). LACFCD shall consider and document if additional sampling events, locations or parameters are needed or useful.

Downstream TSS shall be maintained at ambient levels. Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

Analyses must be performed using approved US Environmental Protection Agency methods, where applicable. These constituents shall be measured at least once prior to diversion and then monitored for on a daily basis during the first week of diversion and/or dewatering activities, and then on a weekly basis, thereafter, until the in-stream work is complete.

LACFCD shall submit results of the analyses as part of the Annual Monitoring Report to the Regional Board, to the attention of the 401 Program Unit, in a tabular format containing results of each parameter for each channel reach. Diversion activities shall not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Any such violations may result in corrective and/or enforcement actions, including increased monitoring and sample collection.

57. LACFCD shall restore all areas of TEMPORARY IMPACTS to waters of the United States and all other areas of temporary disturbance outside of areas of maintenance which could result in a discharge or a threatened discharge to waters of the State. Restoration shall include returning areas to pre-project contours and planting with native vegetation, if feasible. Restored areas shall be monitored and maintained with native species as necessary for five years. LACFCD shall implement all necessary Best Management Practices to control erosion and runoff from areas associated with this project.
58. If ongoing maintenance activities on a new channel reach were covered by previous certifications with mitigation, additional mitigation will not be required. Prior to clearing of the new reaches, or where additional clearing has been authorized by the Regional Board, LACFCD will document and provide to the Regional Board the amount of riparian vegetation to be removed for maintenance in these reaches.
59. LACFCD shall provide COMPENSATORY MITIGATION for the new impacts based on a ranking system which evaluates functions and values within each reach. Mitigation ratios will be determined on a case-by-case basis in compliance with the USEPA and ACOE 2008 Final Rule for Compensatory Mitigation for Losses of Aquatic Resources. Mitigation proposed by LACFCD will require approval by the Regional Board Executive Officer.



60. LACFCD shall submit a draft Mitigation Plan for approval by the Regional Board Executive Officer for the new permanent impacts on a timeline as agreed collectively and for approval by all regulatory agencies, including the ACOE and CDFW. The Draft Mitigation Plan will specify the proposed types of mitigation types, third party conservancies, or in lieu fee programs as determined by LACFCD, the Regional Board, ACOE, and CDFW. The Draft Mitigation Plan shall also include location, methods, monitoring, performance criteria, reporting and any other pertinent information. The Regional Board Executive Officer will approve the plan, require changes and re-submission, or will make modifications to the plan, as appropriate to achieve the no-net-loss policy of Executive Order W-59-93.
61. Mitigation shall take place in the vicinity of the impacted reach or off-site. If not feasible, within the same watershed. If LACFCD can demonstrate that there are no mitigation areas in the same watershed, mitigation may occur through in-lieu funding with an approved Mitigation Bank or via a Conservancy Group, as approved by all regulatory agencies including the ACOE and CDFW.
62. All mitigation areas shall be preserved and maintained as habitat in perpetuity.
63. To determine compliance with this Order, pursuant to CWC section 13267, LACFCD shall submit to the Regional Board Executive Officer an Annual Project and Mitigation Monitoring Report (Annual Report) by May 1<sup>st</sup> of each year for each year this Order is in effect. Any revisions to the previous Annual Reporting outline and/or technical or field checklists shall be submitted to the Regional Board Executive Officer for approval within 60 days of the issuance of this amended Order.
64. The Annual Report shall describe in detail all of the project/maintenance activities performed during the previous year and all restoration and mitigation efforts until success targets are met. The Annual Reports shall describe the status of other agreements (e.g., mitigation banking) or any delays in the mitigation process. At a minimum the Annual Reports shall include the following documentation, as set forth in the Annual Report Outline dated April 5, 2010:

Annual Report Summary

- a. List of attached documentation;
- b. Description of all project/maintenance activities performed during the previous year;
- c. Discussion of all restoration and mitigation efforts;
- d. Status of other agreements (e.g., mitigation banking) or any delays in the mitigation process;
- e. Summary of compliance with all requirements of these WDRs; and
- f. A certified statement (Declaration) from LACFCD that all information reported in the annual report is complete and accurate.

Documentation/Attachments

- a. Mitigation site: color photo documentation (pre-, during, and post-project and mitigation site conditions);
  - b. Narrative and photo documentation of any BMP installations during and post-project maintenance activities;
  - c. Evaluation of the effectiveness of BMPs utilized based on field observations and water quality monitoring data required;
  - d. Photo documentation of any vegetation left within maintenance areas immediately following maintenance clearing (including acreage);
  - e. Documentation of estimates of volumes of vegetation removed from the project areas including an analysis of inter-annual trends in vegetation loads;
  - f. Documentation of estimates of volumes of trash removed from the project areas including an analysis of inter-annual trends in trash loads;
  - g. Documentation of estimates of volumes of sediment removed from the project areas including an analysis of inter-annual trends in sediment loads;
  - h. Biological information including baseline biological surveys and post-surveys;
  - i. Geographical positioning system (GPS) coordinates in decimal-degrees format outlining the boundary of actual project and new mitigation areas (one time submittal);
  - j. The overall status of project including a detailed schedule of work;
  - k. Copies of all revised permits related to this project;
  - l. Water quality monitoring results for each reach;
  - m. A certified statement of "No Net Loss" of Wetlands Associated with this project;
  - n. Discussion of any monitoring activities and exotic plant control efforts; and
  - o. Description of all outreach activities in the previous year.
65. All applications, reports, or information submitted to the Regional Board shall be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.
66. Each and any report submitted in accordance with this Order shall contain the following completed declaration;

"I declare under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_ (Title)"

67. All communications regarding this project and submitted to this Regional Board shall identify the Project File Number 99-011 2015 Amended WDR. Submittals shall be sent to the Executive Officer where identified and to the 401 Certification Unit, Attention: Valerie Carrillo Zara.
68. Any modifications of the proposed project may require submittal of a new CWA Section 401 Water Quality Certification application or Report of Waste Discharge and appropriate filing fee.

### **Compliance and Enforcement**

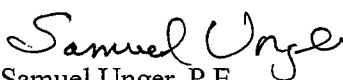
69. LACFCD or their agents shall report any noncompliance with this Order. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time LACFCD becomes aware of the circumstances. A written submission shall also be provided within five days of the time LACFCD becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
70. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law.
71. In response to a suspected violation of any condition of this Order, the State Board or Regional Board may require the holder of any permit or license subject to this Order to furnish, under penalty of perjury, any technical or monitoring reports the State Board or Regional Board deems appropriate, provided that the burden, including costs, of the reports shall be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
72. In response to any violation of the conditions of this Order, the State Board or Regional Board may add to or modify the conditions of this Order as appropriate to ensure compliance.
73. After notice and opportunity for a hearing, this Order may be modified, revoked and reissued, or terminated or modified for cause, including, but not limited to:
  - a. Violation of any term or condition contained in this Order;
  - b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;

- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized reuse;
  - d. Endangerment to public health or environment that can only be regulated to acceptable levels by Order modification or termination.
74. Additional Reports: The Dischargers shall furnish any information the Regional Board may request to determine whether or not cause exists for modifying, revoking and reissuing, or terminating this Order. The Dischargers shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

**Effective Date and Term**

75. This amended Order takes effect upon its adoption by the Regional Board.
76. Term: This Order expires on July 20, 2018 or upon such time it is replaced coincident with a renewed ACOE CWA Section 404 permit, whichever is sooner. If an ACOE CWA Section 404 permit is renewed, LACFCD must file a Report of Waste Discharge with the Regional Board no later than 120 days before of the expected date of the renewed ACOE CWA Section 404 permit for consideration of issuance of new or revised requirements. If no such ACOE CWA Section 404 Permit is renewed and LACFCD wishes to continue maintenance activities after this Order expires, LACFCD must file a Report of Waste Discharge with the Regional Board no later than 120 days before the expiration date of this Order for consideration of issuance of new or revised requirements. Any discharge of waste after the expiration date of this Order is a violation of Water Code section 13264. The Regional Board is authorized to take appropriate enforcement action for any noncompliance with this provision including assessment of penalties.
77. Regional Board Order No. R4-2010-0021, adopted by the Regional Board on February 4, 2010, is hereby terminated, except for enforcement purposes.

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on February 12, 2015, and amended on February 11, 2016.

  
Samuel Unger, P.E.  
Executive Officer

- Attachment 1. Reaches 1-110 LACFCD soft-bottom channel WDR  
Attachment 2. Reaches 1-110 permitting summary LACFCD soft-bottom channel WDR

Maintenance of Earthbottom Channels Waste Discharge Requirements and Clean Water Act Section 401 Water Quality Certification

Waters Name	Hydrological Code	Beneficial Uses	Area (Acres)	Length (feet)	Upstream		Downstream		Local Waterway		
					Latitude	Longitude	Latitude	Longitude			
1 - Bell Creek- MTD 963 M.C.I.	180701050210	MUN, GWR, REC-1, REC-2, WARM, WILD	0.9	197	34.20267	-118.65899	962' u/s of Highlander Rd	34.20242	-118.65843	766' u/s of Highlander Rd	
2 - Dry Canyon Creek (Calabasas) PD T1845	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD	1.24	1549	34.14711	-118.63044	676' u/s Park Ora	34.15177	-118.63181	870' d/s Park Ora	Bell Creek
3 - Santa Susana Creek tributary to Browns Canyon Creek M.C.I.	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD	0.06	99	34.27091	-118.60975	5560' N of Devonshire St	34.27096	-118.60990	5635' N of Devonshire St	Dry Canyon
4 - Browns Canyon Creek	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD	3	1303	34.271614	-118.590776	1895' u/s of Rinaldi St	34.27502	-118.59174	556' u/s of Rinaldi St	Santa Susana Creek
5 - Caballero Creek M.C.I. (West Fork)	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD	1.3	654	34.14974	-118.536845	890' u/s of Reseda Blvd	34.15061	-118.53665	238' u/s of Reseda Blvd	Browns Creek
6 - Caballero Creek M.C.I. (East Fork)	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD	0.35	164	34.14991	-118.536416	588' u/s of Reseda Blvd	34.15027	-118.53674	428' u/s of Reseda Blvd	Caballero Creek
7 - Bull Creek M.C.O.	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD	5.61	2704	34.17875	-118.4978	165' d/s of e/l of Victory Blvd	34.18617	-118.49778	Confluence w/ Los Angeles River	Caballero Creek
8 - Hayvenhurst Drain, tributary to the Sepulveda Flood Control Basin Project - Proj	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD, WET	0.3	218	34.16421	-118.491525	Havenhurst	34.16472	-118.49105	Ventura Fwy	Bull Creek
9 - Tributary to the Sepulveda Flood Control Basin, Project 106 Outlet	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD, WET	0.12	120	34.18557	-118.47502	400' d/s of Victory Blvd	34.18524	-118.47502	520' d/s of Victory Blvd	Tributary of LA River
10 - Tributary to the Sepulveda Flood Control Basin, Project No 469	180701050208	MUN, GWR, REC-1, REC-2, WARM, WILD, WET	7.12	4084	34.18843	-118.47365	751' d/s of Victory Blvd	34.18477	-118.48406	LA River (4945' d/s of Victory Blvd)	Sepulveda Basin
12 - Haines Canyon Creek M.C.O.	180701050105	MUN, GWR, REC-1, REC-2, WARM, WILD, RARE	0.4	400	34.2684	-118.32128	791' d/s of Wentworth St	34.26843	-118.32194	1228' d/s of Wentworth St	Tributary of LA River
13 - Tributary to Hansen Lake, Project No 5215 unit 1	180701050205	MUN, GWR, REC-1, REC-2, WARM, WILD, RARE	0.55	591	34.27146	-118.3591	1030' d/s of Foothill Blvd	34.26999	-118.35995	1535' d/s of Foothill Blvd	Haines Canyon
14 - May Channel (M.C.O. into Pacoima Cyn)	180701050206	MUN, GWR, REC-1, REC-2, WARM, WILD, RARE	0.63	588	34.31194	-118.41056	3038' d/s of Hubbard St	34.31058	-118.40975	3728' d/s of Hubbard St/Conf. W/ Pacoima Cyn	Tributary of Tujunga Wash
15 - Pacoima Wash	180701050204	MUN, GWR, REC-1, REC-2, WARM, WILD, RARE	5.25	4656	34.22734	-118.45947	159' d/s of Parthenia	34.21471	-118.45828	1187' d/s of Lanark St	May Channel
16 - Verdugo Wash-Las Barras Cyn (chnl Inlet)	180701050207	MUN, GWR, REC-1, REC-2, WARM, WILD, RARE	0.07	131	34.23318	-118.27123	157' u/s of conf. w/Las Barras Cyn Chnl	34.23310	-118.27142	27' u/s of conf. w/Las Barras Cyn Channel	Pacoima Wash
18 - Englehard Channel, tributary to Verdugo Wash	180701050207	MUN, GWR, REC-1, REC-2, WARM, WILD	1.1	744	34.20773	-118.24328	800' u/s of conf. w/ Verdugo Wash	34.20707	-118.24096	Conf. w/ Verdugo Wash	Verdugo Wash
19 - Pickens Canyon, tributary to Verdugo Wash	180701050207	MUN, GWR, REC-1, REC-2, WARM, WILD	3.42	2461	34.22852	-118.22765	Crib dam No.7	34.22224	-118.22892	Pickens Debris Basin	Verdugo Wash
20 - Webber Channel, tributary to Halls Canyon Channel (strm @ private bridge)	180701050207	MUN, IND, PROC, GWR, REC-1, REC-2, WARM, WILD	0.13	123	34.22804	-118.21786	861' u/s of Los Amigos St	34.22792	-118.21801	746' u/s of Los Amigos St	Webber Channel
21 - Webber Channel, tributary to Halls Canyon Channel (main chnl inlet d/s bridge)	180701050207	MUN, IND, PROC, GWR, REC-1, REC-2, WARM, WILD	0.03	25	34.22753	-118.21875	496' u/s of Los Amigos St	34.22750	-118.21879	471' u/s of Los Amigos St	Picken's Canyon
22 - Halls Canyon Channel	180701050207	MUN, IND, PROC, GWR, REC-1, REC-2, WARM, WILD	2.63	2465	34.22228	-118.22217	1370' u/s of Jessen Dr	34.22315	-118.22090	Halls Cyn Debris Basin	Webber Channel
24 - Compton Creek	180701060606	MUN, GWR, REC-1, REC-2, WARM, WILD, WET	30.3	13495	33.87585	-118.21981	COE Station 199+31.00	33.84239	-118.20489	Los Angeles River	Halls Canyon
25a - Los Angeles River - Willow to PCH (East/Left bank)	180701060606	MUN, IND, PROC, GWR, NAV, REC-1, REC-2, COMM, WARM, EST, MAR, WILD, RARE, MIGR, SPWN, SHELL, WET	56.2	5127	33.80427	-118.20471	Willow St	33.79722	-118.20466	Pacific Coast Hwy	Los Angeles River
25b - Los Angeles River - Willow to PCH (West/Right bank)				5127	33.79166	-118.21419	Willow St	33.79019	-118.20622	Pacific Coast Hwy	Los Angeles River
26 - Tributary to Dominguez Channel, Project 740				0.35	947	33.87151	-118.29046	500' u/s of Artesia Blvd	33.87407	-118.29061	400' d/s Artesia Blvd
27 - Wilmington Drain	180701060606	MUN, REC-1, REC-2, WARM, WILD, RARE, WET..	7.87	3045	33.79928	-118.28843	110 Fwy	33.79114	-118.28580	Pacific Coast Hwy	Unnamed Tributary of Dominguez Channel
28 - Triunfo Ck (PD T2200)	180701050402	MUN, GWR, REC-1, REC-2, WARM, WILD, RARE	23	431	34.11493	-118.77973	384' u/s of Mulholland Hwy	34.11439	-118.77941	D/s edge of Mulholland Hwy	Wilmington Drain
29 - Las Virgenes Creek (PD T1684) M.C.I.	180701050205	MUN, REC-1, REC-2, WARM, COLD, WILD, RARE, MIGR, SPWN, WET	1.16	357	34.16862	-118.70269	Los Angeles/Ventura County Boundary	34.16796	-118.70183	3006' u/s of Thousand Oaks Blvd	Triunfo Creek
32 - Stokes Cyn Channel (PD T043)	180701050205	MUN, REC-1, REC-2, WARM, COLD, WILD, RARE, MIGR, SPWN, WET	1.4	2178	34.10891	-118.696319	Int. of Quad Sheet blue line w/east bdy Sec 6	34.11058	-118.69363	1600' u/s Mulholland Hwy & Stokes Cyn Rd	Las Virgenes Creek
33 - Medea Creek (PD T1378 u.2)	180701060606	MUN, GWR, REC-1, REC-2, WARM, COLD, WILD, RARE, WET.	0.69	818	34.15525	-118.75899	731' u/s of Thousand Oaks Blvd.	34.15420	-118.75953	215' d/s of Thousand Oaks Blvd	Stokes Canyon
34 - Medea Creek (PD T1005) Main Channel Outlet (Chumasa Park)	180701060606	MUN, ND, PROC, AGR, GWR, REC-1, REC-2, WARM, COLD; WILD, RARE	0.19	413	34.14589	-118.75564	535' d/s of Kanan	34.14863	-118.75040	940' d/s of Kanan	Medea Creek
35 - Medea Creek M.C.I.-under Route 101	180701060606	MUN, GWR, REC-1, REC-2, WARM, COLD, WILD, RARE, WET	0.14	99	34.14384	-118.76184	98' u/s of u/s side of Roadside Dr	34.14530	-118.75767	13' u/s of u/s side of Roadside Dr	Medea Creek
36 - Cheseboro Main Channel Inlet	180701060606	MUN, GWR, REC-1, REC-2, WARM, COLD, WILD, RARE, WET	0.08	61	34.14262	-118.74363	100' u/s of Driver Ave	34.14579	-118.73993	44' u/s of Driver Ave	Cheseboro Main Channel Inlet
37 - Medea Ck/Cheseboro Ck Outlet	180701060606	MUN, GWR, REC-1, REC-2, WARM, COLD, WILD, RARE, WET	0.47	228	34.14199	-118.75937	614' d/s of Agoura Road	34.14202	-118.75899	784' d/s Agoura Road	Medea Creek
38 - Lindero Creek M.C.O.	180701060601	MUN, REC-1, REC-2, WARM, WILD	0.19	205	34.14301	-118.76405	83' d/s of Agoura Rd	34.14271	-118.76403	270' d/s of Agoura Road	Lindero Main Channel Outlet
39 - San Gabriel River, Beatty Channel Outlet @ SGR 25+99.00	180701060601	MUN, IND, PROC, AGR, GWR, REC-1, REC-2, WARM, COLD, WILD, RARE	0.26	406	34.14388	-117.93313	2323' d/s of Todd Ave	34.14404	-117.93377	2415' d/s of Todd Ave	San Gabriel River
40a - San Gabriel River - Santa Fe Dam to I-10 Freeway	180701060601	MUN, IND, PROC, AGR, GWR, REC-1, REC-2, WARM, COLD, WILD, RARE	0.32	20996	34.06229	-117.97878	Santa Fe Dam	34.06452	-118.00442	I-10 Freeway	Beatty Channel Outlet
40b - San Gabriel River - I-10 Freeway to Thienes Ave	180701060601	MUN, GWR, REC-1, REC-2, WARM, WILD, RARE	254.22	12374	34.05158	-118.0157	El Monte	34.03859	-118.02697	Thienes Ave	San Gabriel River
41 - Walnut Creek	180701060601	MUN, GWR, REC-1, REC-2, WARM, WILD, WET	40.9	6090	34.06058	-117.99677	N Baldwin Park Blvd	34.05866	-118.00638	San Gabriel River	San Gabriel River
42 - San Jose Creek d/s 1000' from end of concrete channel	180701060601	MUN, GWR, REC1, REC2, WILD, WET	2.75	801	34.03257	-118.00566	COE Station 87+25.00	34.03237	-118.00829	COE Station 79+25.00	San Gabriel River
43a - San Gabriel River - Upper	180701060601	MUN, ND, PROC, AGR, GWR, REC-1, REC-2, WARM, COLD; WILD, RARE	74.61	3586	34.017319	-118.05875	Whittier Narrows Dam	34.01355	-118.06256	San Gabriel River Parkway	San Jose Creek
43b - San Gabriel River - Lower	180701060601	MUN, ND, PROC, AGR, GWR, REC-1, REC-2, WARM, COLD; WILD, RARE		3068	34.00759	-118.06985	San Gabriel River Parkway	34.00678	-118.06849	Beverly Blvd	San Gabriel River
44 - San Gabriel River - Rubber Dams	180701060601	MUN, ND, PROC, AGR, GWR, REC-1, REC-2, WARM, COLD; WILD, RARE	175.76	30895	33.96892	-118.08779	Beverly Blvd	33.93116	-118.10702	Firestone Blvd	San Gabriel River
45 - Sand Canyon (PD T1307) Main Channel Inlet	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	0.05	102	34.43108	-118.4207	2018' u/s of Soledad Cyn Rd	34.43096	-118.42079	1916' u/s of Soledad Cyn Rd	Sand Canyon
46 - Sand Canyon (PD T1307) Main Channel Outlet	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	0.03	84	34.42971	-118.42267	1100' u/s of Soledad Cyn Rd	34.42959	-118.42270	1020' u/s of Soledad Cyn Rd	Sand Canyon

## Maintenance of Earthbottom Channels Waste Discharge Requirements and Clean Water Act Section 401 Water Quality Certification

47 - Santa Clara River Main Chnl. (PD 1733 unit 1)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	0.76	1658	34.41467	-118.44702	D/s edge of State Route 14	34.41431	-118.44973	1875' d/s of State Route 14	Santa Clara River
48 - Mint Cyn Channel b/w Sierra Hwy & Adon Ave	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD.	3.1	2501	34.43035	-118.4432	Sierra Hwy	34.42489	-118.44797	1800' d/s of Sierra Hwy	Mint Cyn Channel
49 - Mint Cyn Channel b/w Adon Ave & Scherzinger	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	0.68	385	34.4244	-118.44846	Under Adon Ave	34.42398	-118.44884	382' d/s of Adon Ave	Mint Cyn Channel
50 - Mint Cyn Channel b/w Solomint & Soledad	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	1.54	735	34.41442	-118.44903	768' u/s of Soledad Cyn Rd	34.41683	-118.45382	99' u/s of Soledad Cyn Rd	Mint Cyn Channel
51 - Mint Cyn M.C.O. (PD 1894)/Santa Clara River - Main Channel	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	6.4	931	34.41358	-118.45596	1044' d/s of Soledad Cyn Rd	34.41323	-118.45743	SCR on d/s side of Sierra Hwy	Mint Cyn Channel
52 - Sierra Hwy Rd Drainage (CDR 523.203)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD.	0.4	772	34.41792	-118.45414	253' s/w of Dolan & east edge of Sierra Hwy	34.41688	-118.45393	Confluence w/ Mint Cyn Channel	Sierra Hwy Rd Drainage
53 - Santa Clara River Non-main Chnl. (PD 832) M.C.I.	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	0.03	35	34.40727	-118.46415	25' d/s of Sierra Hwy	34.40936	-118.46013	70' d/s of Sierra Hwy	Santa Clara River
54 - Santa Clara River Non-main Chnl. (PD 832) M.C.I.	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	0.31	316	34.41148	-118.4592	821' d/s of Sierra Hwy	34.41186	-118.45946	1098' d/s of Sierra Hwy	Santa Clara River
55 - Santa Clara River Main Chnl. Right Bank Reach (PD's 910, 832, 1758, 1562 unit 2)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	1.63	3518	34.41111	-118.46885	Sierra Hwy	34.41323	-118.45743	3049' d/s Sierra Hwy	Santa Clara River
56 - Santa Clara River Main Chnl - Left Bank Reach (PD 832)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	0.47	2346	34.42946	-118.4642	3049' d/s Sierra Hwy	34.42413	-118.46525	3501' d/s of Sierra Hwy (Hidaway Ave, produced)	Santa Clara River
57 - Whites Cyn (PD T704 M.C.I.)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	2.64	695	34.40849	-118.46774	1449' u/s of Foxlane	34.41080	-118.46724	753' u/s of Foxlane	Whites Cyn
58 - Santa Clara River Main Channel - Right Bank (PD 374)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	1.21	2644	34.41431	-118.47283	2114' u/s of old Soledad Cyn Rd bridge	34.41587	-118.47667	U/s of old Soledad Cyn Rd bridge	Santa Clara River
60 - Santa Clara River Main Channel - Right Bank Reach (PD's 1339 & 374)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	1.5	3166	34.41587	-118.47667	D/s side of new Soledad Cyn Rd bridge	34.42340	-118.48182	Conf. w/PD 313 (d/s Newhouse St, produced)	Santa Clara River
61 - Santa Clara River Main Channel (PD 659 & 754)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	4.3	4715	34.4205	-118.48385	D/s side of new Soledad Cyn Rd bridge	34.42665	-118.49406	1634' d/s of new Soledad Cyn Rd bridge	Santa Clara River
63 - Oak Ave Rd Drainage (CDR 523.081)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	2.8	914	34.42502	-118.502918	1400' N of Soledad Cyn Rd @ SCE lines	34.42379	-118.50258	2300' N of Soledad Cyn Rd @ SCE lines	Oak Ave Rd Drainage
64 - Soledad Cyn Rd Drain (CDR 523.071 D outlet)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.85	574	34.42052	-118.51215	[E side of] LA Aqueduct N of Soledad Cyn Rd	34.42129	-118.50404	1250' NW/o Soledad Cyn Rd & LA Aqueduct	Soledad Cyn Rd Drain
66 - Santa Clara River Main Channel (PD 1538)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	1.04	710	34.423209	-118.538688	1417' u/s of Bouquet Cyn Rd	34.42278	-118.53647	706' u/s of Bouquet Cyn Rd	Santa Clara River
67 - Bouquet Cyn Upper (PD's 1201, 802, 700B, & 625)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, COLD, WILD, SPWN, WET	16.3	6344	34.45979	-118.4929	63' d/s of Hob Ave, produced	34.44897	-118.50654	153' u/s of Urbandale Ave	Bouquet Cyn Upper
69 - Bouquet Cyn Middle (PD's 722, 773, 1365, 1065, & 451)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, COLD, WILD, SPWN, WET	12.51	7326	34.44828	-118.50748	122' d/s of Urbandale Ave	34.43441	-118.52395	54' d/s of middle crossing, Bouquet Cyn Rd	Bouquet Cyn Mid
70 - Bouquet Cyn Lower (PD's 544 & 345)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, COLD, WILD, SPWN, WET	8.54	3503	34.43429	-118.52399	2866' u/s lower crossing, Bouquet Cyn Rd	34.43081	-118.53445	D/s side of lower crossing, Bouquet Cyn Rd	Bouquet Cyn Lower
71 - Santa Clara River Main Channel (PD 1946)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	1.01	242	34.424	-118.56181	276' u/s of McBean Pkwy (conf w/ SF-SCR)	34.42401	-118.56221	D/s edge of McBean Parkway	Santa Clara River
72 - South Fork- SCR (Smizer Ranch M.C.I.)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.14	101	34.36955	-118.55678	1150' u/s of Wiley Canyon Road	34.36937	-118.55653	1050' u/s Wiley Canyon Road	Santa Clara River
73 - Wildwood Cyn Chnl (PD T361) M.C.I.	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	0.05	83	34.3715	-118.53922	109' u/s of Cedartown St	34.37128	-118.53921	U/s side of Cedartown St	Wildwood Canyon
74 - Wildwood Cyn Chnl (PD T361)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	0.02	365	34.37166	-118.53925	161' d/s of Cedartown St	34.37242	-118.53968	277' d/s of Cedartown St	Wildwood Canyon
75 - South Fork-SCR (PD's 725, 916, 1041, & 1300)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	18.92	14075	34.37972	-118.5522	255' d/s of Lyons Ave	34.41453	-118.54418	D/s edge of Magic Mtn Parkway	Santa Clara River
76 - Pico Cyn (PD 813)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	4.26	4116	34.38939	-118.552514	Vista Valencia Golf Course	34.38833	-118.54656	South Fork Santa Clara River	Pico Canyon
77 - Newhall Ck Outlet	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	6.29	2092	34.39038	-118.54311	1040' d/s of 15th St	34.39505	-118.54038	Confluence w/SCR-South Fork	Newhall Creek Outlet
78 - Placerita Creek	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	1.16	376	34.39077	-118.54067	D/s edge of San Fernando Rd	34.39169	-118.53634	Confluence w/ Newhall Creek	Placerita Creek
79 - South Fork- SCR (Valencia Blvd Bridge Stabilizer)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	1.17	168	34.41909	-118.54878	D/s edge of Valencia Blvd	34.41916	-118.54933	167' d/s of Valencia Blvd	Santa Clara River
80 - South Fork-SCR (PD's 1947 & 1946)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	8.18	2686	34.42035	-118.55385	3080' u/s of McBean Parkway	34.42399	-118.56141	276' u/s of McBean Pkwy (conf.w/SCR)	Santa Clara River
82 - Santa Clara River Main Chnl (PD 2278)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	4.8	849	34.42547	-118.57382	740' s/e of Ave. Hopkins & Ave. Rockefeller	34.42836	-118.57059	S/o Avenue Hopkins & Avenue Rockefeller	Santa Clara River
86 - Violin cyn M.C.O.	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	1.3	1006	34.49086	-118.61224	1021' d/s Ridge Route Rd	34.49005	-118.61100	Conf w/ Castaic Creek	Violin Canyon
87 - Castaic- Old Road Drainage (CDR 525.021D) Outlet	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.19	225	34.45146	-118.61599	610' d/s of Hasley Cyn rd, w/o The Old Rd	34.45122	-118.61621	Conf w/ Castaic Creek	Castaic Creek
88 - Hasley Cyn Upper (PD T1496)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.42	1051	34.47089	-118.66325	755' u/s of Sharp Rd	34.46816	-118.66237	330' d/s of Sharp Rd	Hasley Canyon Upper

89 - Hasley Cyn South Fork (PD T1496)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.28	341	34.46612	-118.66224	331' u/s of Romero Cyn Rd along South Fork	34.46543	-118.66150	160' u/s of Romero Cyn Rd	Hasley Canyon South Fork
90 - Hasley Cyn Lower (North Fork PD T1496)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.68	1051	34.46408	-118.66563	1089' u/s of Romero Cyn Rd along Main Line	34.46496	-118.66093	100' d/s of Romero Cyn Rd	Hasley Canyon Lower
91 - San Martinez Chiquito Cyn u/s Keningston Rd	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.31	599	34.44857	-118.67272	530' u/s of San Martinez Rd (w/o Borton St)	34.44764	-118.67108	Keningston Rd	San Martinez Chiquito Canyon
92 - San Martinez Chiquito Cyn (N. Fork) unnamed	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.29	768	34.45066	-118.67356	920' u/s of c// of San Martinez Rd	34.44872	-118.67297	Conf. w/ San Martinez Chiquito Cyn Chnl	San Martinez Chiquito Canyon
93 - S.M.C.C. b/w Keningston/Val Verde Park	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.56	1072	34.44767	-118.67097	400' d/s of Keningston Rd	34.44693	-118.66757	1054' d/s of Keningston Rd	San Martinez Chiquito Canyon
94 - S.M.C.C. b/w Val Verde Park/ d/s of Madison St	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	1.57	2446	34.44093	-118.66301	1092' u/s of Chiquito Cyn Rd	34.44193	-118.65604	268' d/s of Madison St	San Martinez Chiquito Canyon
95 - Project No 1224	180701020201	MUN, AGR, GWR, REC1, REC2, WARM, WILD.	7.95	1823	34.54303	-117.98298	Ave T	34.54691	-117.98446	Confluence of Little rock Creek	Unnamed Tributary of Little Rock Wash
96 - PD 1591, Calabassas	180701020201	MUN, AGR, GWR, REC1, REC2, WARM, WILD.	0.92	532	34.14607	-118.63025	85' u/s of culvert under Vicasa Drive	34.14675	-118.63043	360' d/s of culvert under Vicasa Drive	Dry Canyon
97 - PD 1982, Castaic Creek	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	2.3	2002	34.45126	-118.61622	300' d/s of The Old Road	34.44625	-118.61822	2300' d/s of The Old Road	Castaic Creek
98 - Walnut Creek - Channel Inlet	180701020201	MUN, ND, PROC, AGR, GWR, REC-1, REC-2, WARM, COLD; WILD, RARE	0.14	51	34.07981	-117.86027	30' u/s of perpendicular ext. of Chaparro Rd	34.07983	-117.86020	Perpendicular extension of Chaparro Road	Walnut Creek
99 - Kagel Canyon - Tujung Wash	180701020201	MUN, GWR, REC-1, REC-2, WARM, WILD	1.67	4844	34.29612	-118.3778	Blue Sage Drive	34.28418	-118.37417	City of Los Angeles Boundary	Kagel Canyon
100 - Dry Canyon Calabassas Creek Inlet	180701020201	MUN, GWR, REC-1, REC-2, WARM, WILD	0.05	114	34.1556	-118.6328	1835' u/s of Ave San Luis	34.15534	-118.63259	1775' u/s of Ave San Luis	Dry Canyon
101 - Violin Cyn (PD 2312)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE	5.04	1818	34.50334	-118.62599	2637' u/s of Lake Hughes Road	34.49918	-118.62264	820' u/s of Lake Hughes Road	Violin Canyon
102 - Violin Cyn (PD 2275)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE	1.76	975	34.50809	-118.63997	1072' u/s of d/s face of Sierra Oak Trail RCB	34.50814	-118.63678	94' u/s of d/s face of Sierra Oak Trail RCB	Violin Canyon
103 - Bouquet Cyn Channel (PD 2225)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, COLD, WILD, SPWN, WET	7.31	1348	34.42678	-118.54201	173' d/s of centerline of Newhall Ranch Road (Beginning of Grouted Stone Toe)	34.42554	-118.54366	MWD Fee R/W on the Right Bank. Embankment turn at the Santa Clara River on Left Bank	Bouquet Canyon Channel
104 - Castaic Creek (PD 2441 Unit 2)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	38.12	2223	34.44217	-118.61282	669' u/s of Muirfield Lane Centerline	34.44582	-118.61466	478' d/s of Turnberry Lane Centerline	Castaic Creek
105 - San Francisquito Cyn Channel (PD 2456)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET	13.8	833	34.44554	-118.55743	417' u/s of Decoro Drive Centerline	34.44328	-118.55789	416' d/s of Decoro Drive Centerline	San Francisquito Canyon Channel
106 - Castic Drain Outlet	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	1.46	751	34.48337	-118.61439	Toe of Grouted Riprap Apron	34.48531	-118.61523	147' D/S of Grouted Rip Rap Apron	Castic Drain Outlet
107 - The Old Road Channel	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD, RARE, WET.	0.51	1028	34.35549	-118.55286	230' US Driveway into 24136 the Old Road	34.35775	-118.55456	U/S of Concrete Lined Channel	Unnamed Tributary Upstream of South Fork of Santa Clara River
108 - Pico Canyon ( PD 2528)	180701020201	MUN, IND, PROC, AGR, GWR, FRSH, REC-1, REC-2, WARM, WILD	1.38	3100	34.38166	-118.58176	Stevenson Ranch DB	34.38624	-118.5731	The Old Road	Pico Canyon
109 - Santa Clara River - S. Bank W. of Mcbean Pkwy (MTD1510)	180701020201	MUN, AGR, GWR, FRSH, REC1, REC2, WARM, WILD, WET	5.34	372	34.42412	-118.5643	371' U/S Mcbean Pkwy centerline	34.42408	-118.56308	PD 1946	Santa Clara River
110 - Hasley Canyon Channel(PD2262)	180701020201	MUN, AGR, GWR, FRSH, REC1, REC2, WARM, WILD, WET	7.79	3737	34.45157	-118.63377	PD 2508	34.4455	-118.62423	Castic Creek	Hasley Canyon Channel

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
1	Bell Creek- MTD 963 M.C.I.	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The reach clearing work will involve hand cutting a 15-foot wide "tunnel" through the vegetation to the right-of-way boundary to train flows to the center of the reach inlet.	No change.  The hydrological studies identify that this reach as able to contain more vegetation. The Biological Technical Report (BTR) for the Feasibility Study (FS) recommends allowing the willow canopy to spread outside the channel on the left bank and to allow native shrubs such as coyote brush and mule fat to become established in this area. Furthermore, the BTR recommends that the existing chain-link fence be relocated to protect the native vegetation in this area (approximately 0.06 acre).
2	Dry Canyon (Calabasas) PD T1845	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The reach clearing work will involve maintaining and clearing a 20-foot-wide path along the centerline of the reach. Trees within and on the channel banks will not be allowed to mature. Hand clearing will be performed annually to keep the center portion of the reach clear and vegetation will be removed from the openings in the crib walls to the extent necessary to prevent structural damage to the crib walls.	The new language ("trees within and on the channel banks will not be allowed to mature") is required because the banks are vertical crib walls which large trees damage. Most, if not all of the trees on the crib walls are ornamental species.  Hydrological studies identified this reach as hydraulically deficient and requiring an additional 0.39 acre of vegetation to be removed.
3	Santa Susana Creek M.C.I.	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Hand cutting and clearing vegetation and trees will be done in an 18-foot-wide area by 75-foot long area at the inlet to the reach. Oak trees will be left in place.	No change.  The hydrological studies identified this reach as hydraulically sufficient, but without the capacity for any additional vegetation. The existing maintenance plan has been fully implemented and there are no outstanding issues.
4	Browns Creek	Approved	Non-sensitive								N/A	CAGN	Not likely to destroy or adversely modify; the upper 200 feet of this reach is in CH, but is not cleared and contains riparian woodlands habitats lacking the constituent elements necessary for suitable CAGN habitat	N/A	Mechanical equipment will be used to keep clear all vegetation from bank to bank within the rail and timber revetment.	No change.  The hydrological studies identified this reach as hydraulically sufficient, but without the capacity for any additional vegetation. The maintenance plan has been fully implemented and there are no outstanding issues.
5	Caballero Creek M.C.I. (West Fork)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The vegetation clearing work will involve hand clearing a 20-foot-wide path along the centerline of the reach.	No change.  The hydrological studies identified these two reaches as hydraulically sufficient, but without the capacity for any additional vegetation. The maintenance plan has been fully implemented and there are no outstanding issues.
6	Caballero Creek M.C.I. (East Fork)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The vegetation clearing work will involve hand clearing a 20-foot-wide path along the centerline of the reach.	No change.  The hydrological studies identified these two reaches as hydraulically sufficient, but without the capacity for any additional vegetation. The maintenance plan has been fully implemented and there are no outstanding issues.
7	Bull Creek M.C.O.	Pending	Sensitive					Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)	May affect not likely to adversely affect	NA	N/A	2007 - least Bell's vireo (negative) and southwestern willow flycatcher (negative)	The work will involve hand clearing of vegetation and debris from the invert to ensure unimpeded flow within the reach. This work will be done only in the first 275 feet (between the outlet and the pedestrian bridge) of the reach downstream from the concrete reach outlet to ensure that flow does not back up into the concrete reach upstream of Victory Boulevard.	The overall character of this reach has changed due to the USACE restoration project in Balboa Park that covered the earthen banks of this reach with riprap. Note that the area and length of the work are has been reduced to 275 feet due to the installation of the restoration project. The vegetation on the invert was not allowed to remain prior to the restoration project, so the updated maintenance activities do not represent a change.  This reach has nuisance flows on a continuous basis (making it a "wet reach"), and additional vegetation on the bank may interfere with mosquito abatement activities of the Los Angeles County Vector Control District. Note that the ACOE USACE Bull Creek Channel Ecosystem Restoration Project initiated in 2008 removed the 1.45 acres of "protected" vegetation in this reach.  Focused surveys not conducted since 2007 as Bull Creek including the Reach 7 segment became a riparian restoration site managed by the Army Corps of Engineers. The LACFCO also suspended clearing activities at that time. The pre-clearing habitat assessments conducted in 2014 indicated potentially suitable habitat for the LBV is once again present at Reach 7 and a resumption of these focused surveys is warranted.  The hydrological studies identified this reach as able to contain more vegetation. The BTR recommended allowing willows to grow at the toe of both levees.	



Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
8	Hayvenhurst Drain - Project 470 Outlet	Approved	Non-sensitive								N/A	N/A	N/A	N/A	All vegetation in this reach will be cleared annually using mechanical or manual methods.	No change.  The hydrological studies identified this reach as hydraulically sufficient, but without the capacity for any additional vegetation. The maintenance plan has been fully implemented and there are no outstanding issues. Since the dry season in southern California overlaps the breeding season for birds, the phrase "cleared annually" is preferred.
9	Project 106 Outlet	Approved	Non-sensitive								N/A	NA	N/A	N/A	Brush and tree trimming will be performed where needed to keep growth at the levels that were left in November 1997.  Brush and tree trimming will be performed annually to keep the invert free of vegetation.	The hydrological studies identified this reach as able to contain more native vegetation. The BTR recommended replacing the non-native ash trees with native trees on both banks of this channel reach. Based on the physical parameters of this channel reach and its location, the BTR recommended that native sycamore trees be planted on both banks instead of willows. This recommendation would result in a net gain of native vegetation in this channel reach (approx. 0.12 acre).
10	Project No. 469	Approved	Non-sensitive								N/A	NA	N/A	N/A	Vegetation will be cleared annually to the extent necessary to prevent restricting flows in the storm drain upstream of Victory Boulevard. This will require mechanical clearing of vegetation in the reach for approximately 4,000 feet downstream of Victory Boulevard. Reach work will also include mechanical grading to train flows to centerline of reach.	The vegetation in this reach consists almost entirely of non-native ruderal (weedy) vegetation. The maintenance plan has not been fully implemented for this reach because of a conflict between the maintenance plan and the permits. Issuance of the 1997 CDFW permit coincided with a toxic spill in this reach and resulted in the incorrect conclusion that "no work was done in 1997." Since that time, the monitoring biologist has worked with LACFCO personnel to implement partial clearing strategies designed to meet flood-control concerns and to retain as much vegetation as possible. A rotating pattern of clearing was implemented that allowed ruderal vegetation to remain on one bank each year. As a result, the ruderal vegetation cleared each year was two years old. After several years, however, the monitoring biologist found that the bank of mowed ruderal vegetation responded favorably to the mowing and provided more "biological value" than the older (two year old) ruderal vegetation. Therefore, the monitoring biologist discontinued the rotating clearing pattern at this reach and full clearing was resumed.  The hydrological studies identified this reach as hydraulically sufficient, but without the capacity for any additional vegetation. The BTR identified less than 0.06 acre of native cattail wetland in this channel reach.
12	Haines Canyon M.C.O.	Pending	Sensitive			Potential for Santa Ana sucker (FT)		Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A (near SAS but not within)	N/A	2013 - Santa Ana sucker (negative), least Bell's vireo (negative), and southwestern willow flycatcher (negative)	Hand clearing of all vegetation will be used to keep the reach clear of vegetation, except for the vegetation that was allowed to remain in 1997. This process will be repeated annually to prevent growth from restricting flows at the outlet to the reach.	No change.  Hydrological studies identified this reach as hydraulically deficient and requiring an additional 0.14 acre of vegetation to be removed. The additional vegetation to be removed has not been identified, but most of the additional vegetation within this reach would be native and require mitigation.
13	Project No. 5215 Unit 1	Approved	Non-sensitive			2013 USACE lists potential for Santa Ana sucker (FT)					N/A	N/A	N/A	N/A	The reach clearing work involves mechanically clearing the earthen outlet reach with a backhoe and hand cutting all vegetation from the first 250 feet of the reach bottom (12-foot wide) downstream at the end of Christie Avenue. Bank vegetation and the remaining 300 feet of the reach will not be cleared.  The channel clearing work involves mechanical (backhoe) and hand clearing of a 12-foot wide path throughout its length (537 ft).	Identified as a potential SAS reach during initial informal consultation with the USFWS, but surveys by Dr. Baskin and Dr. Haglund determined that this reach has no potentially suitable habitat for SAS.  Hydrological studies identified this reach as hydraulically deficient and requiring an additional 0.29 acre of vegetation to be removed. The additional vegetation to be removed has not been identified, but most of the additional vegetation within this reach would be native and require mitigation.
14	May Channel (M.C.O. Into Pacoima Canyon)	Pending	Sensitive					Known occupation by least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)	Known occupation by least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013 - least Bell's vireo (positive) and southwestern willow flycatcher (negative)	Hand clearing work will be performed to keep the reach invert clear of all vegetation.	This updated language reflects the actual maintenance activities that have been conducted at this reach, which have always been confined to the invert. The riparian vegetation that was allowed to remain on the banks had been the "protected" vegetation in this reach. The surveys then determined that this vegetation is occupied by the least Bell's vireo.  Hydrological studies identified this reach as hydraulically deficient and requiring an additional 0.44 acre of vegetation to be removed.
15	Pacoima Wash	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Mechanical equipment and hand cutting will be used to keep the reach cleared of all vegetation.	No change.  The hydrological studies identified this reach as hydraulically sufficient, but without the capacity for any additional vegetation. The maintenance plan has been fully implemented and there are no outstanding issues. The 0.01 acre of vegetation allowed to remain in the channel was upstream of the pedestrian bridge. This 0.01 acre consisted of cattails that was taken over by invasive species (e.g., ornamental trees and Washingtonia palms) and was relocated, at the direction of the monitoring biologist, to the downstream terminus of the channel reach.
16	Verdugo Wash - Las Barras Canyon (channel inlet)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Hand clearing work will be used to keep the reach clear of all vegetation.	No change.  The hydrological studies identified this reach as hydraulically sufficient, but without the capacity for any additional vegetation. The maintenance plan has been fully implemented and there are no outstanding issues.

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
18	Englehard Channel	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Hand clearing work will only involve dead vegetation and tree branches from the area between the pipe and wire revetments. All vegetation will be cleared by manual methods during the dry season.	The hydrological studies identified this reach as hydraulically deficient and additional vegetation needs to be removed. No vegetation, however, within the LACFCD's right-of-way is allowed to remain.
19	Pickens Canyon	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV (FE/SE)	2013 USACE NWP lists potential for LBV (FE/SE)		N/A	N/A	N/A	N/A	All vegetation will be cleared annually by manual methods. Manual removal of all vegetation adjacent to or growing out of the crib structures will be performed.	No change.  Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels determined no potential habitat for this species existed at the reach and focused LBV surveys were not warranted.  The hydrological studies identified this reach as able to contain more native vegetation. The BTR recommended allowing native shrubs to grow on the invert of the reach from the upstream end to the pedestrian bridge at Mountain Avenue. Furthermore, the BTR recommended protecting the native shrubs by removing non-natives species. No native trees would be allowed to grow on the invert. The maintenance plan has been fully implemented and there are no outstanding issues.
20	Webber Channel (Storm @ Private Bridge)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Mechanical equipment will be used to keep the reach clear of all vegetation.	Hydrological studies identified this reach as able to contain more native vegetation. The new maintenance plan allows for additional native vegetation to grow on the right bank (looking downstream).
21	Webber Channel (Main Channel Inlet d/s Bridge)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Mechanical equipment will be used to keep the channel clear of all vegetation except for the native species on the left bank (looking downstream). Under the guidance of the monitoring biologist, native shrubs will be allowed to grow on the right bank and non-native species will be selectively removed.	Identified as a potential LBV reach; results of focused surveys have been negative to date. The hydrological studies identified this reach as able to contain more native vegetation. The BTR recommended allowing native herbaceous and shrub species to grow on the left bank looking downstream and to selectively protect the native species by removing non-native species. No native trees would be allowed to grow on the right bank. The maintenance plan has been fully implemented and there are no outstanding issues.
22	Halls Canyon	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Manual removal of all vegetation adjacent to or growing out of the crib structures will be performed.	No change.  The hydrological studies identified this reach as able to contain more native vegetation. The BTR recommended allowing native shrubs (but not trees) to grow on the invert of the entire reach except for on the crib structures. The native species would be protected by selective removal of non-native species. The maintenance plan has been fully implemented and there are no outstanding issues.
24	Compton Creek	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Removal of all vegetation from reach and/or restore hydraulic conveyance capacity of channel by driving tracked equipment over vegetated areas.	No change.  Years of scraping the vegetation has resulted in small amounts of the soil on the invert being removed. As this minor removal happened year after year, it resulted in the invert being lower than intended and beginning to expose the toe of the grouted rip rap slopes. To compensate for this, the proposed maintenance activity will leave the "tracked" vegetation in place (which will eventually break down naturally and turn into soil). The slight roughness of the vegetation and root systems allow some sediment flowing downstream to be trapped. All invasive plants are removed before tracking to reduce them from spreading.  The hydrological studies identified this reach as hydraulically sufficient, but without the capacity for any additional vegetation. The maintenance plan has been fully implemented and there are no outstanding issues.
25	(a) Los Angeles River - Willow to PCH (East/Left Bank)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Using mechanical equipment, all exotic vegetation will be removed throughout this reach. Riparian vegetation will be kept in place at the level that was left in November 1997.	No change.  Reach has been split into (a) and (b) components.
25	(b) Los Angeles River - Willow to PCH (West/Right Bank)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Using mechanical equipment, all exotic vegetation will be removed throughout this reach. Riparian vegetation will be kept in place at the level that was left in November 1997.	No change.  Reach has been split into (a) and (b) components.  Hydrological studies identified this reach as able to contain more native vegetation. The new maintenance plan allows for additional native vegetation to grow on the left bank (looking downstream).
26	Project 740	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The reach will be cleared using hand clearing only. Hand labor will be used to trim the vegetation which has been allowed to remain since 1997. New growth will not be allowed to become established and will be removed annually by manual methods.	No change.

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
27	Wilmington Drain	Pending	Sensitive					Known territory for least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)	Known territory for least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013- least Bell's vireo (positive) and southwestern willow flycatcher (negative)	All vegetation from the reach in the area upstream of Lomita Boulevard will be kept cleared. Between Lomita Boulevard and Pacific Coast Highway, vegetation will be kept clear from the two channels on either side of the island, but vegetation on the island and on the reach banks will remain. Clearing work in the reach invert will be done with mechanical equipment; vegetation on the banks will be trimmed with hand tools so that it does not impede flow on the invert.	Construction for the City of Los Angeles's Wilmington Drain Multi-Use Project (Proposition O Clean Water Bond) began in spring 2013. Construction included the removal of sediment and non-native vegetation throughout the length of this reach. The channel reach provides potential habitat for the least Bell's vireo and southwestern willow flycatcher and surveys have determined that it is occupied by the vireo. The City of Los Angeles obtained the necessary "take" permits under FESA and CESA. A solitary male vireo was present during the 2013 breeding season. Construction activities were allowed to continue under the terms and conditions of the permits. Prior to this year, the maintenance plan had been fully implemented and the vireo was protected by terms and conditions under permits held by the LACFCD.
28	Triunfo Creek (PD T2200)	Pending	Sensitive					Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)	Potential for western pond turtle	May affect not likely to adversely affect	N/A	N/A	2013- least Bell's vireo (negative) and southwestern willow flycatcher (negative)	The reach clearing work will involve removing all vegetation from the ungrouted rock levee and hand clearing of all vegetation along the levee from the base to an outward distance of 20 feet.	No change.  Previous CDFW comments have indicated a concern for the western pond turtle ( <i>Emys marmorata</i> ) at this reach. The monitoring biologist has not yet detected any western pond turtles during annual pre-clearing visits to this reach; however, these pre-clearing visits are not performed in conjunction with the actual clearing activities.  Identified as a potential LBV reach; results of focused surveys have been negative to date.  The maintenance plan has been fully implemented.
29	Las Virgenes Creek (PD T1684) M.C.I.	Approved	Non-sensitive							Potential for western pond turtle	N/A	N/A (near SAS but not within)	N/A	N/A	The reach clearing work will involve hand clearing a 30-foot-wide strip along the watercourse low flow reach from the debris posts to the right-of-way boundary.	No change.  Previous CDFW comments have indicated a concern for the western pond turtle at this reach. The monitoring biologist has not yet detected any western pond turtles during annual pre-clearing visits to this reach; however, these pre-clearing visits are not performed in conjunction with the actual clearing activities. In order to comply with the HACCP plan developed by the LACFCD for the WDR and adopted on February 4, 2010, by the Los Angeles RWQCB, pre-clearing aquatic invasive species surveys will be conducted in the reaches of the Malibu Creek Watershed.  The maintenance plan has been fully implemented.
32	Stokes Canyon Channel (PD T043)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The work will involve hand clearing of all vegetation between the pipe and wire. Embankment vegetation outside the pipe and wire channel will be left in place.	No change.  In order to comply with the HACCP plan developed by the LACFCD for the WDR and adopted on February 4, 2010, by the Los Angeles RWQCB, pre-clearing aquatic invasive species surveys will be conducted in the reaches of the Malibu Creek Watershed.  The maintenance plan has been fully implemented.
33	Medea Creek (PD T1378 U.2)	Approved	Non-sensitive							Potential for western pond turtle	N/A	N/A	N/A	N/A	The work will involve mechanical or manual clearing of all vegetation in the concrete-lined part of the reach.	The maintenance plan has not been implemented in this reach since 1999 due to sensitive resources and expected mitigation requirements. The western pond turtle potentially occurs at this reach. The cattails in this reach were cleared in 1998 and were included in the overall mitigation under the agreement signed in 1997. As a result, the cattails and other vegetation in the concrete-lined part of this reach can be cleared without any additional mitigation. However, the willow dominated riparian vegetation upstream has not been cleared post-1997.  A one-time vegetation clearing and repair project is in the process of approval under CDFW Streambed Alteration Agreement Number 1600-2012-0193-R5. A special condition of this agreement includes a qualified biologist conducting trapping surveys for the western pond turtle, a California special species of concern potentially present in the reach, prior to the commencement of maintenance activities in the reach. Blocking nets shall be utilized upstream to prevent wildlife from entering the project site.
34	Medea Creek (PD T1005) Main Channel Outlet (Chumasa Park)	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV (FE/SE)	2013 USACE NWP lists potential for LBV (FE/SE)		N/A	N/A	N/A	N/A	Hand clearing work will be performed to keep the reach clear of all vegetation.	No change.  Identified as a potential LBV reach during initial informal consultation with the USFWS. Focused surveys conducted with negative results in 2002 and 2003. Private development outside the reach eliminated upland habitats necessary at this location to provide potential habitat for LBV. BonTerra biologist Brian E. Daniels therefore determined potential habitat for LBV no longer existed at this reach and further focused LBV surveys were not warranted.  In order to comply with the HACCP plan developed by the LACFCD for the WDR and adopted on February 4, 2010, by the Los Angeles RWQCB, pre-clearing aquatic invasive species surveys will be conducted in the reaches of the Malibu Creek Watershed.  Maintenance plan has been fully implemented.
35	Medea Creek M.C.I. - Under Route 101	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Hand clearing will be performed to keep the reach clear of all vegetation.	No change.  In order to comply with the HACCP plan developed by the LACFCD for the WDR and adopted on February 4, 2010, by the Los Angeles RWQCB, pre-clearing aquatic invasive species surveys will be conducted in the reaches of the Malibu Creek Watershed.  Maintenance plan has been fully implemented.

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
36	Cheseboro Main Channel Inlet	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The clearing work will involve clearing dead vegetation and trimming riparian vegetation that would obstruct flows. Tree canopy will remain, but with a clear "tunnel" path to convey flows. New vegetation will be cleared annually to prevent blockage of the Inlet.	Language changed to reflect current on-site conditions.  In order to comply with the HACCP plan developed by the LACFCD for the WDR and adopted on February 4, 2010, by the Los Angeles RWQCB, pre-clearing aquatic invasive species surveys will be conducted in the reaches of the Malibu Creek Watershed.
37	Medea Creek/Cheseboro Creek Outlet	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Hand clearing work will be performed to keep the reach clear of all vegetation.	Maintenance plan has been fully implemented.  No change.
38	Lindero M.C.O.	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Hand clearing work will be performed to keep the reach clear of all vegetation.	In order to comply with the HACCP plan developed by the LACFCD for the WDR and adopted on February 4, 2010, by the Los Angeles RWQCB, pre-clearing aquatic invasive species surveys will be conducted in the reaches of the Malibu Creek Watershed.  No change.
39	Beatty Channel Outlet @ SGR 25+99.00	Pending	Sensitive			Potential for Santa Ana sucker (FT)		Known territory for least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)	Known territory for least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	SWFL	Not likely to destroy or adversely modify	2013- Santa Ana sucker (negative), least Bell's vireo (positive) and southwestern willow flycatcher (negative)	Mechanical equipment will be used to keep the reach outlet clear of all vegetation.	Maintenance plan has been fully implemented.  No change.  Maintenance plan has been fully implemented. This reach provides potential habitat for the Santa Ana sucker, but it has not been found in annual pre-clearing surveys conducted since 2002. This reach also provides potential habitat for the least Bell's vireo and southwestern willow flycatcher and the surveys have determined that it is occupied by the vireo.
40	(a) San Gabriel River - Santa Fe Dam to I-10 Freeway	Approved	Non-sensitive								N/A	N/A	N/A	N/A	From Santa Fe Dam to the San Bernardino Freeway (Reach 40a), most of the vegetation consists of mule fat interspersed with various exotic species. In this reach, 10-foot-wide strips were hand cleared along the toe of each levee to provide room to maintain and inspect the levee. The 10-foot-wide strips along the levee toes will be kept clear of all vegetation annually using a combination of mechanical equipment and hand labor. In the center of the reach, the mule fat was mowed using various types of mowing equipment. The root structures of the plants were not disturbed. Two strips of vegetation, 50 and 75 feet in width, were allowed to remain along each side of the reach invert. In subsequent years, mowing will be accomplished in alternate cycles between the center portion of the reach and the two strips of vegetation. Grading to reestablish baseline conditions will be performed on an as-needed basis to maintain access ramps and low-flow reaches from side outlets.	No change.  Reach is split into (a) and (b) components.  40a does not contain potential habitat for LBV.  The maintenance plan has been fully implemented.
40	(b) San Gabriel River - I-10 Freeway to Thienes Avenue	Pending	Sensitive					Known territory for least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)	Known territory for least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013- least Bell's vireo (positive) and southwestern willow flycatcher (negative)	From San Bernardino Freeway to Thienes Avenue (Reach 40b), this portion of the reach will be kept clear of all vegetation using mechanical equipment and hand labor, except for the riparian vegetation allowed to remain in place in November 1997. This process will be repeated annually and will be monitored by a biologist familiar with least Bell's vireo habitat requirements. Grading to reestablish baseline conditions will be performed on an as-needed basis to maintain access ramps and low-flow reaches from side outlets.	No change.  Reach is split into (a) and (b) components.  The maintenance plan has been fully implemented.  The riparian habitats downstream of Valley Boulevard (Reach 40b) have been occupied by the least Bell's vireo since the 2002 focused bird surveys were completed. The vireo is protected by terms and conditions contained in the permits held by the LACFCD that require flagging of "seasonally occupied habitat" to protect it and that a qualified biological monitor be present during clearing activities.
41	Walnut Creek	Approved	Non-sensitive								N/A	N/A	N/A	N/A	Mechanical clearing of vegetation will be used to keep the channel clear of all vegetation, except for the riparian habitat allowed to remain in November 1997. Hand work will be necessary to remove some of the vegetation growing in the rock riprap along the reach sides and on the riprap at the downstream end of the concrete reach. Some trimming of the riparian vegetation may be necessary to reduce the impact on flow in the reach as future growth occurs.	No change.  The maintenance plan has been fully implemented.
42	San Jose Creek d/s 1000' from end of concrete channel	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The vegetation will be cleared using mechanical equipment, except for riparian vegetation allowed to remain in November 1997. Trimming of the riparian vegetation may be necessary in the future as growth occurs. This process will be repeated annually.	No change.  The maintenance plan has been fully implemented.  Some of the riparian vegetation allowed to remain in place in November 1997 has been lost due to natural causes. Due to drought conditions, several willow trees were stressed and became susceptible to a wood borer infestation.
																Some of the riparian vegetation allowed to remain in place in November 1997 has been lost due to natural causes. Willow trees were lost due to high storm flows during the 2004-2005 rainy season. The monitoring biologist in conjunction with LACFCD personnel identified young willow trees within the same "line" for protection. However, the sediment islands had been scoured and these young willow trees did not survive subsequent rainy seasons.

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY	
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER							
43	(a) San Gabriel River-Upper	Pending	Sensitive					Known territory for least Bell's vireo (FE/SE); potential for southwestern willow flycatcher (FE/SE)	Known territory for least Bell's vireo (FE/SE), potential for southwestern willow flycatcher (FE/SE)			May affect not likely to adversely affect	N/A	N/A	2013- least Bell's vireo (positive) and southwestern willow flycatcher (negative)	Mechanical equipment will be used to keep the reach clear of all vegetation, except riparian vegetation allowed to remain in November 1997. Trimming of the riparian vegetation may be necessary in the future as growth occurs.  The vegetation that is seasonally occupied by the least Bell's vireo will be flagged and a qualified biological monitor will be present during clearing activities.	No change.  Reach has been split into (a) and (b) components.  Maintenance plan has been fully implemented.  The riparian habitat in this reach has been occupied by the least Bell's vireo. It is a migratory species that is not present during the fall/winter when the LACFCD's annual clearing activities occur. The vireo is protected by terms and conditions contained in the permits held by the LACFCD that require flagging of "seasonally occupied habitat" to protect it and that a qualified biological monitor be present during clearing activities.
43	(b) San Gabriel River-Lower	Pending	Sensitive					Known territory for least Bell's vireo (FE/SE) and potential for southwestern willow flycatcher (FE/SE)	Known territory for least Bell's vireo (FE/SE) and potential for southwestern willow flycatcher (FE/SE)			May affect not likely to adversely affect	N/A	N/A	2013- least Bell's vireo (negative) and southwestern willow flycatcher (negative)	Mechanical equipment will be used to keep the reach clear of all vegetation, except riparian vegetation allowed to remain in November 1997. Trimming of the riparian vegetation may be necessary in the future as growth occurs.  The vegetation that is seasonally occupied by the least Bell's vireo will be flagged and a qualified biological monitor will be present during clearing activities.	No change.  Reach has been split into (a) and (b) components.  Maintenance plan has been fully implemented.  The riparian habitat in this reach has been occupied by the least Bell's vireo. It is a migratory species that is not present during the fall/winter when the LACFCD's annual clearing activities occur. The vireo is protected by terms and conditions contained in the permits held by the LACFCD that require flagging of "seasonally occupied habitat" to protect it and that a qualified biological monitor be present during clearing activities.
44	San Gabriel River - Rubber Dams	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV (FE/SE)	2013 USACE NWP lists potential for LBV (FE/SE)			N/A	N/A	N/A	N/A	Mechanical equipment will be used to keep the reach clear of all vegetation, except for the riparian vegetation allowed to remain in November 1997. Trimming of the riparian vegetation may be necessary in the future as growth occurs.	No change.  Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels have found a lack of suitable nesting habitat (except for large trees, all vegetation is mowed which removes the dense layer of understory shrubs necessary for nesting LBV); it was therefore determined that focused LBV surveys were not warranted at this reach.
45	Sand Canyon (PD T1307) Main Channel Inlet	Approved	Non-sensitive					2013 USACE NWP lists potential habitat for LBV (FE/SE)	2013 USACE NWP lists potential habitat for LBV (FE/SE)			N/A	N/A	N/A	N/A	Mechanical clearing will be performed to keep reach clear of all vegetation.	No change.  Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels determined no potential habitat for this species existed at the reach and focused LBV surveys were not warranted.
46	Sand Canyon (PD T1307) Main Channel Outlet	Approved	Non-sensitive									N/A	N/A	N/A	N/A	Mechanical clearing will be performed to keep reach clear of all vegetation.	No change.
47	Santa Clara River Main Channel (PD T1733 Unit 1)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)					May affect not likely to adversely affect	N/A	N/A	2013- unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change.
48	Mint Canyon Channel between Sierra Highway & Adon Avenue	Approved	Non-sensitive									N/A	N/A	N/A	N/A	Mechanical and hand clearing work will be performed to keep reach clear of all vegetation.	No change.
49	Mint Canyon Channel between Adon Avenue & Scherzinger Lane	Approved	Non-sensitive									N/A	N/A	N/A	N/A	All vegetation in this reach will be cleared annually using mechanical and manual methods.	No change.
50	Mint Canyon Channel between Solamint Road & Soledad Canyon Road	Approved	Non-sensitive									N/A	N/A	N/A	N/A	Mechanical and hand clearing work will be performed to keep reach clear of all vegetation.	Maintenance plan has been fully implemented and there are no outstanding issues. No change.
51	Mint Canyon M.C.O. (PD 1894)/Santa Clara River - Main Channel	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)					May affect not likely to adversely affect	N/A	N/A	2013- unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change.
52	Sierra Highway Road Drainage (CDR 523.203)	Approved	Non-sensitive									N/A	N/A	N/A	N/A	Mechanical and hand clearing work will be performed to keep reach clear of all vegetation.	No change.
53	Santa Clara River Non-Main Channel (PD 832) Main Channel Inlet	Approved	Non-sensitive			2013 USACE NWP lists potential for UTS, as well as the CDFW (FE/SE)	2013 USACE NWP lists potential for UTS, as well as the CDFW (FE/SE)					N/A	N/A	N/A	N/A	Mechanical and hand clearing work will be performed to keep reach clear of all vegetation.	No change.  Identified as a potential UTS reach during initial informal consultation with the USFWS, but surveys by Dr. Baskin and Dr. Haglund determined that this reach has no potentially suitable habitat for UTS.
54	Santa Clara River Non-Main Channel (PD 832) Main Channel Outlet	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)					May affect not likely to adversely affect	N/A	N/A	2013- unarmored threespine stickleback (negative)	Mechanical and hand clearing work will be performed to keep reach clear of all vegetation.	No change.
55	Santa Clara River Main Channel - Right Bank Reach (PD's 910, 832, 1758, & 1562 Unit 2)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)					May affect not likely to adversely affect	N/A	N/A	2013- unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change.  Reaches 60, 59, and 58 are no longer combined with 55.

(Last updated 10/22/14)

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
56	Santa Clara River Main Channel - Left Bank Reach (PD 832)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change.
57	Whites Canyon (PD T704 M.C.I.)	Approved	Non-sensitive								N/A	N/A	N/A		Mechanical or hand clearing work will be performed to keep reach clear of all vegetation.	No change.
58	Santa Clara River Main Channel - Right Bank Reach (PD 374)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change. Reaches 60, 59, and 58 are no longer combined with 55.
60	Santa Clara River Main Channel - Right Bank Reach (PD's 1339 and 374)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change. Reach 59 is now combined with Reach 58. Reaches 60, 59, and 58 are no longer combined with 55.
61	Santa Clara River Main Channel (PD 659 & 754)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change. Reach 62 is now combined with 61.
63	Oak Ave Road Drainage (CDR 523.081)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve mechanized removal of all vegetation bank to bank.	No change.
64	Soledad Canyon Road Drain (CDR 523.071 D outlet)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical (rubber-tire equipment) and manual methods to clear an 8-foot-wide path along the centerline of the channel.	The use of rubber-tire equipment will be implemented. Maintenance activities revised to allow for additional removal techniques. Maintenance plan has been fully implemented.
66	Santa Clara River Main Channel (PD 1538)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the levee slope lining along the entire reach.	No change.
67	Bouquet Canyon Upper (PD's 1201, 802, 700B, & 625)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)				May affect not likely to adversely affect	N/A	N/A	2013-unarmored threespine stickleback (negative)	The reach clearing work will involve an alternating pattern of mechanical clearing of vegetation. Only one-half of the reach will be cleared each year. The other one-half of the reach will be cleared the following year. Reach clearing work will also include mechanical grading of sediment to train flows to the centerline of the reach. Outlet structures will be graded to drain each year.  The preferred methodology would be to clear the vegetation on the left bank on even years and the right bank on odd years. If water is present on the scheduled bank, however, the work will proceed with the opposite bank.	Reach 67 and 69 are no longer combined. Additional scheduling language added.  The 2002 focused surveys did not find the unarmored threespine stickleback in this reach; however, it was determined that this reach could support the stickleback in subsequent years. Therefore, if suitable habitat is present (i.e. water), stickleback surveys are required prior to clearing activities. The stickleback was found during pre-clearing surveys conducted in 2005, 2006, and 2007, and no clearing activities occurred.  After the October 2007 Buckweed Wildfire in the Bouquet Canyon Watershed, the LACFCO applied for a Regional General Permit (RGP) 63 permit with the USACE to authorize emergency vegetation and sediment clearing in the Bouquet Canyon flood-control reaches. The USACE issued the RGP 63 on January 22, 2008, following consultations with the U.S. Fish and Wildlife Service (USFWS), the CDFW, and the RWQCB. The pre-clearing survey conducted in January 2008 found just one stickleback. This fish was left in the reach during clearing activities, but protected with a buffer of at least 10 feet around the pool that contained it. These survey results show that without annual clearing activities, the habitat in the flood-control reach becomes less suitable for the stickleback. In particular, the annual clearing activities maintain a well-defined low flow reach that provides suitable habitat for the stickleback.  Since 2008, the LACFCO has performed annual clearing activities that use a rotational pattern where half the reach is cleared one year and the other half is cleared the following year. This clearing pattern will consequently clear vegetation that is two years old. This clearing pattern will produce a dense growth of riparian herb vegetation and not allow the tall growth that can become a liability under high flow conditions. This maintenance pattern appears to be optimal for stickleback in this man-made flood-control reach.

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
69	Bouquet Canyon Middle (PD's 722, 773, 1365, 1065, & 451)	Pending	Sensitive			Known occurrence for unarmored threespine stickleback (FE/SE)	Known occurrence for unarmored threespine stickleback (FE/SE)							2013-unarmored threespine stickleback (positive)	The reach clearing work will involve an alternating pattern of mechanical clearing of vegetation. Only one-half of the reach will be cleared each year. The other one-half of the reach will be cleared the following year. Reach clearing work will also include mechanical grading of sediment to train flows to the centerline of the reach. Outlet structures will be graded to drain each year.  The preferred methodology would be to clear the vegetation on the left bank on even years and the right bank on odd years. If water is present on the scheduled bank, however, the work will proceed with the opposite bank.	Reach 67 and 69 are no longer combined.  Additional scheduling language added.  The 2002 focused surveys did not find the unarmored threespine stickleback in this channel reach; however, it was determined that this channel reach could support the stickleback in subsequent years. Therefore, if suitable habitat is present (i.e. water), stickleback surveys are required prior to clearing activities. The stickleback was found during pre-clearing surveys conducted in 2005, 2006, and 2007, and no clearing activities occurred.  After the October 2007 Buckweed Wildfire in the Bouquet Canyon Watershed, the LACFCO applied for a Regional General Permit (RGP) 63 permit with the USACE to authorize emergency vegetation and sediment clearing in the Bouquet Canyon flood-control reaches. The USACE issued the RGP 63 on January 22, 2008, following consultations with the USFWS, CDFW, and the RWQCB. The pre-clearing survey conducted in January 2008 found just one stickleback. This fish was left in reach 67 during clearing activities, but protected with a buffer of at least 10 feet around the pool that contained it. These survey results show that without annual clearing activities, the habitat in the flood-control reach becomes less suitable for the stickleback. In particular, the annual clearing activities maintain a well-defined low flow reach that provides suitable habitat for the stickleback.  Since 2008, the LACFCO has performed annual clearing activities that use a rotational pattern where half the reach is cleared one year and the other half is cleared the following year. This clearing pattern will consequently clear vegetation that is two years old. This clearing pattern will produce a dense growth of riparian herb vegetation and not allow the tall growth that can become a liability under high flow conditions. This maintenance pattern appears to be optimal for stickleback in this man-made flood-control reach.
70	Bouquet Canyon Lower (PD's 544 & 345)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)							2013-unarmored threespine stickleback (negative)	The reach clearing work will involve an alternating pattern of mechanical clearing of vegetation. Only one-half of the reach will be cleared each year. The other one-half of the reach will be cleared the following year. Reach clearing work will also include mechanical grading of sediment to train flows to the centerline of the reach. Outlet structures will be graded to drain each year.  The preferred methodology would be to clear the vegetation on the left bank on even years and the right bank on odd years. If water is present on the scheduled bank, however, the work will proceed with the opposite bank.	Maintenance language revised to account for current conditions post-emergency clearing. Additional scheduling language added.  Reach 70 and 68 are no longer combined, as 68 was removed.  Note that Reach 70 is not concrete-lined but is soft-bottomed.  Maintenance plan has been fully implemented. The 2002 focused surveys did not find the unarmored threespine stickleback in this reach; however, it was determined that the upper end of this channel reach could support the unarmored threespine stickleback in subsequent years (this is a mostly dry channel). Therefore, if suitable habitat is present (i.e. water), unarmored threespine stickleback surveys are required prior to any clearing activities. The upper end of this reach was occupied in 2005, 2006, and 2007 as the water is continuous with Reaches 67 and 69. See those two reaches for further background information.
71	Santa Clara River Main Channel (PD 1946)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)					2013-unarmored threespine stickleback (negative), arroyo toad (negative), least Bell's vireo (negative) and southwestern willow flycatcher (negative)	The reach clearing work will involve mechanized removal of all vegetation within 20 feet from the base of the slope lining along the entire reach.	No change.  Identified as a potential LBV reach by Bonterra Psomas biologists Brian Daniels and focused surveys for this species are conducted biannually. Focused surveys found a transitory male in 2013, but no breeding has yet been documented in this reach.  The 2003 focused surveys found the arroyo toad within one kilometer of this reach. Since the USFWS defines occupied habitat for this species as any suitable habitat within one kilometer of an arroyo toad sighting, this reach was considered to be occupied by the toad.  Maintenance plan has been fully implemented. After the arroyo toad detection in 2003, the USACE did not authorize clearing activities in Reaches 71 and 82 in the permit dated December 9, 2003, because these reaches are considered occupied by the arroyo toad. A formal Biological Opinion dated October 21, 2004, was rendered by the USFWS for the channel clearing activities in Reaches 71 and 82. This Biological Opinion provided "take" to the USACE in order to permit the LACFCO to conduct these clearing activities as long as they were in compliance with the terms and conditions of the incidental take statement. The 2004 BO has since expired, and consultation will be reintiated to determine if maintenance will require a new formal BO.
72	South Fork- SCR (Smizer Ranch M.C.I.)	Approved	Non-sensitive			2013 USACE NWP lists potential for UTS, as well as the CDFW (FE/SE)	2013 USACE NWP lists potential for UTS, as well as the CDFW (FE/SE)							N/A	The reach clearing work will involve hand clearing dead vegetation and cutting invasive and trimming riparian vegetation that would obstruct flows. Tree canopy will be retained, yet a clear "tunnel" path will be provided to convey flows.	No change.  Identified as a potential UTS reach during initial informal consultation with the USFWS, but surveys by Dr. Baskin and Dr. Haglund determined that this reach has no potentially suitable habitat for UTS (the drop structure under the Valencia Bridge prevents UTS from migrating upstream in the South Fork Santa Clara River).
73	Wildwood Canyon Channel (PD T361) Main Channel Inlet	Approved	Non-sensitive											N/A	Mechanical and hand clearing work will be performed to keep reach clear of all vegetation.	No change.
74	Wildwood Canyon Channel (PD T361)	Approved	Non-sensitive											N/A	Mechanical or hand clearing work will be performed to keep reach clear of all vegetation.	No change.

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
75	South Fork - Santa Clara River (PD's 725, 916, 1041, & 1300)	Pending	Sensitive			2013 USACE NWP lists potential for UTS (FE/SE)	2013 USACE NWP lists potential for UTS (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE), and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013- arroyo toad (negative), least Bell's vireo (negative), and southwestern willow flycatcher (negative)	The reach clearing work will involve mechanical clearing and grading of all vegetation bank to bank from Lyons Avenue to Orchard Village Road. Mechanical grading and clearing of invasive vegetation from bank to bank will be performed from Orchard Village Road to the confluence with Newhall Creek. Mechanical clearing of all vegetation will be done along the base of the concrete levee from the confluence with Newhall Creek to Magic Mountain Parkway. A 20-foot-wide strip will be maintained clear along the entire length of the levee and 45 degree grading of low flow channels from side outlets to the center of the watercourse will be maintained clear of all vegetation to minimize ponding and blockage of side outlet flows. A centerline watercourse low flow 12-foot wide will be maintained clear of all vegetation and will be graded along the entire length in this reach. Two island areas supporting mature trees will be left in place as well as the riparian vegetation. Tree pruning of dead branches and limbs that could obstruct flow will be removed by hand labor.	No change. Identified as a potential UTS reach during initial informal consultation with the USFWS, but surveys by Dr. Baskin and Dr. Haglund determined that this reach has no potentially suitable habitat for UTS (the drop structure under the Valencia Bridge prevents UTS from migrating upstream in the South Fork Santa Clara River).
76	Pico Canyon (PD 813)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The reach clearing work will involve bank-to-bank removal of vegetation using mechanical equipment.	No change.
77	Newhall Creek Outlet	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV to occur (FE/SE)	2013 USACE NWP lists potential for LBV to occur (FE/SE)		N/A	N/A	N/A	N/A	Mechanical equipment will be used to maintain the reach clear of all vegetation.	No change. Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels determined no potential habitat for this species existed at the reach and focused LBV surveys were not warranted.
78	Placerita Creek	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV to occur (FE/SE)	2013 USACE NWP lists potential for LBV to occur (FE/SE)		N/A	N/A	N/A	N/A	Mechanical equipment will be used to maintain the reach clear of all vegetation.	No change. Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels determined no potential habitat for this species existed at the reach and focused LBV surveys were not warranted.
79	South Fork - Santa Clara River (Valencia Boulevard Bridge Stabilizer)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE), and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013- unarmored threespine stickleback (negative), arroyo toad (negative), least Bell's vireo (negative) and southwestern willow flycatcher (negative)	Mechanical equipment will be used to maintain the reach clear of all vegetation.	No change. Identified as a potential LBV reach by BonTerra Psomas biologists Brian Daniels and focused surveys for this species are conducted biannually. Focused surveys have been negative through 2013. The unarmored threespine stickleback cannot move upstream past the stabilizer under the Valencia Blvd. bridge. All waters upstream are unoccupied by the stickleback; all of the fish that have been observed occur only up to the base of the stabilizer.
80	South Fork - Santa Clara River (PD's 1947 & 1946)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE), and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013- unarmored threespine stickleback (negative), arroyo toad (negative), least Bell's vireo (negative) and southwestern willow flycatcher (negative)	The reach clearing work will involve mechanical removal of all vegetation within 20 feet from the toe of the concrete levee along the entire length.	No change. Identified as a potential LBV reach by BonTerra Psomas biologists Brian Daniels and focused surveys for this species are conducted biannually. Focused surveys have been negative through 2013.



Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT		FISH		WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER						
82	Santa Clara River Main Channel (PD 2278)	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE), and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013 - unarmored threespine stickleback (negative), arroyo toad (negative), least Bell's vireo (negative) and southwestern willow flycatcher (negative)	The reach clearing work will involve mechanized removal of all vegetation within 20 feet from the base of the slope lining along the entire reach.	No change.  Maintenance plan has been fully implemented.  Identified as a potential LBV reach by BonTerra Psomas biologists Brian Daniels and focused surveys for this species are conducted biannually. Focused surveys have been negative through 2013.  The 2003 focused surveys found the arroyo toad within one kilometer of this reach. Since the USFWS defines occupied habitat for this species as any suitable habitat within one kilometer of an arroyo toad sighting, this reach was considered to be occupied by the toad.  After the arroyo toad detection in 2003, the USACE did not authorize clearing activities in Reaches 71 and 82 in the permit dated December 9, 2003, because these reaches are considered occupied by the arroyo toad. A formal Biological Opinion dated October 21, 2004, was rendered by the USFWS for the channel clearing activities in Reaches 71 and 82. This Biological Opinion provided "take" to the ACOE USACE in order to permit the LACFCD to conduct these clearing activities as long as they were in compliance with the terms and conditions of the incidental take statement. The 2004 BO has since expired, and consultation will be reinitiated to determine if maintenance will require a new formal BO.
86	Violin Canyon Main Channel Outlet	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE), and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	N/A	N/A	2013 - unarmored threespine stickleback (negative) and arroyo toad (negative)	Mechanical equipment will be used to maintain the reach clear of all vegetation.	No change.  Maintenance plan has been fully implemented.  Identified as a potential LBV reach by BonTerra Psomas biologists Brian Daniels and focused surveys for this species are conducted biannually. Focused surveys have been negative through 2013.  The 2002 focused surveys did not find the unarmored threespine stickleback in this reach; however, it was determined that this reach could support the unarmored threespine stickleback in subsequent years. Therefore, if suitable habitat is present (i.e. water), unarmored threespine stickleback surveys are required prior to any clearing activities.
87	Castaic - Old Road Drainage (CDR 525.021D) Outlet	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE), and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	ARTO, SWFL	Not likely to destroy or adversely modify.	2013 - unarmored threespine stickleback (negative), arroyo toad (negative), least Bell's vireo (negative) and southwestern willow flycatcher (negative)	The reach clearing work will involve hand cutting and clearing a 20-foot path from the riprap outlet to the main watercourse, Castaic Creek.	No change.  Identified as a potential LBV reach by BonTerra Psomas biologists Brian Daniels and focused surveys for this species are conducted biannually. Focused surveys have been negative through 2013.
88	Hasley Canyon Upper (PD T1496)	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV to occur (FE/SE)	2013 USACE NWP lists potential for LBV to occur (FE/SE)		N/A	N/A	N/A	N/A	The reach clearing work will involve mechanical equipment to remove all vegetation from bank to bank from Sharp Road to 755 feet upstream. From 330 feet downstream of Sharp Road to Sharp Road, hand clearing will be done.	No change.  Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels determined no potential habitat for this species existed at the reach and focused LBV surveys were not warranted.
89	Hasley Canyon South Fork (PD T1496)	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV to occur (FE/SE)	2013 USACE NWP lists potential for LBV to occur (FE/SE)		N/A	N/A	N/A	N/A	The reach clearing work will involve hand labor clearing of alluvial sage scrub.	No change.  Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels determined no potential habitat for this species existed at the reach and focused LBV surveys were not warranted.
90	Hasley Canyon Lower (North Fork PD T1496)	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The reach clearing work will involve hand clearing and mechanized removal of vegetation. Portions of the reach bottom will be denuded of vegetation while leaving the earthen bank vegetated, clusters of mature growth in the reach bottom will remain to the level it was left in November 1997.	No change.
91	San Martinez Chiquito Canyon Channel u/s of Kennington Road	Approved	Non-sensitive								N/A	N/A	N/A	N/A	The reach clearing work will involve removal of all the vegetation within the pipe and wire reach using hand labor, but the embankment vegetation will be left in place.	No change.
92	San Martinez Chiquito Canyon (North Fork) unnamed	Approved	Non-sensitive					2013 USACE NWP lists potential for LBV to occur (FE/SE)	2013 USACE NWP lists potential for LBV to occur (FE/SE)		N/A	N/A	N/A	N/A	The reach clearing work will involve removal of all the vegetation within the pipe and wire reach using hand labor, but the embankment vegetation will be left in place.	No change.  Identified as a potential LBV reach during initial informal consultation with the USFWS, but surveys by BonTerra biologist Brian E. Daniels determined no potential habitat for this species existed at the reach and focused LBV surveys were not warranted.

Attachment 2. Additional permitting information WDR reaches 1-110 Soft-Bottom Channels Permitting Summary Table Reaches 1-110

(Last updated 10/22/14)

REACH NO.	REACH NAME	PERMIT SUBMITTED/ APPROVED/ PENDING	FEDERALLY SENSITIVE/NON-SENSITIVE REACH (MAY REQUIRE USFWS CONSULTATION)	PLANT			FISH			WILDLIFE			POTENTIAL AFFECT TO SPECIES	CRITICAL HABITAT	POTENTIAL AFFECT ON CRITICAL HABITAT	LAST FOCUSED SURVEY COMPLETED	PREVIOUSLY AUTHORIZED OR PROPOSED 2015 MAINTENANCE ACTIVITIES BY REACH; PERMIT CONDITIONS FROM AGENCIES TO BE INCLUDED	EXPLANATION OF CHANGES TO PROPOSED 2015 ACTIVITY AND/OR BIOLOGICAL RESOURCES SINCE LAST APPROVED MAINTENANCE PLAN AND RESULTS OF LOS ANGELES RIVER FEASIBILITY STUDY
				FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	FEDERALLY LISTED	STATE LISTED	OTHER								
93	San Martinez Chiquito Canyon between Kenington Road and Val Verde Park	Approved	Non-sensitive														The reach clearing work will involve removal of all the vegetation within the pipe and wire reach using hand labor, but the embankment vegetation will be left in place.	No change.
94	San Martinez Chiquito Canyon between Val Verde Park to d/s of Madison Street	Approved	Non-sensitive														The reach clearing work will involve removal of all the vegetation within the pipe and wire reach using hand labor, but the embankment vegetation will be left in place.	No change.
95	Project No. 1224	Approved	Non-sensitive														The reach clearing work will involve removal of all the vegetation within the pipe and wire reach using mechanical equipment, but the embankment vegetation will be left in place.	No change.
96	PD 1591, Calabasas	Approved	Non-sensitive														The reach clearing will involve removing all the vegetation from the inlet and outlet approaches to the box culvert under Vicasa Drive. Clearing work will be done by hand labor and only within the dedicated right of way.	No change.
97	PD T1982, Castaic Creek	Pending	Sensitive			Potential for unarmored threespine stickleback (FE/SE)	Potential for unarmored threespine stickleback (FE/SE)	Potential for arroyo toad (FE), least Bell's vireo (FE/SE), and southwestern willow flycatcher (FE/SE)	Potential for least Bell's vireo (FE/SE) and southwestern willow flycatcher (FE/SE)		May affect not likely to adversely affect	ARTO, SWFL	Not likely to destroy or adversely modify	2013- unarmored threespine stickleback (negative), arroyo toad (negative), least Bell's vireo (negative) and southwestern willow flycatcher (negative)		The reach clearing work will involve hand cutting and mechanized removal of all vegetation and trees along the entire length of the levee at a width of 20 feet and clearing and grading 45-degree, 12-foot-wide low flows from the side outlets to the center of the main watercourse.	No change. Identified as a potential LBV reach by BonTerra Psomas biologists Brian Daniels and focused surveys for this species are conducted biannually. Focused surveys have been negative through 2013.	
98	Walnut Creek - Channel Inlet	Approved	Non-sensitive														To the extent that storm flows do not keep the inlet free of vegetation, mechanical equipment will be used to keep the inlet clear of all vegetation. No regrowth will be allowed to remain.	No change.
99	Kegel Canyon - Tujunga Wash	Approved	Non-sensitive														Hand clearing work will be performed to keep all the vegetation clear in this reach.	No change.
100	Dry Canyon, Calabasas Creek Inlet	Approved	Non-sensitive														The reach clearing work will involve hand clearing all the vegetation at the reach inlet. Bank vegetation will be left in place.	No change.
101	Violin Canyon (PD 2312)	Pending	Sensitive	Potential for slender-horned spinesflower (CRPR List 1B.1/FE/SE)	Potential for slender-horned spinesflower (CRPR List 1B.1/FE/SE), and San Fernando Valley spinesflower (CRPR List 1B.1/SE)						May affect not likely to adversely affect	N/A	N/A	2003 - plant surveys (negative) 2007 - arroyo toad (negative) 2014- Santa Clara River feasibility Study plant surveys (negative)		LACFCO will mechanically remove vegetation along a 12-foot wide path along the toe of the reach slope lining and clear a 12-foot training channel at 45 degree angles from the outlet to the centerline of the reach.	The proposed 2015 maintenance activities affect less area than the proposed 2005 maintenance activities. All of the reach was proposed for clearing in 2005, in alternating halves, but in 2015 the clearing is limited to 12-foot wide path at toe of the reach slope lining on both banks.	