Response to Comments

Waste Discharge Requirements (WDRs) for Los Angeles Flood Control District, Proposed Maintenance Clearing of Engineered Earth-Bottom Flood Control Channels, Los Angeles County

Table 1. List of Commenters

Comment No.	Commenter
1	Heal the Bay (January 20, 2015)

Table 2. Response to Comments

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1.1	***No Remedy for past Non-Compliance*** In reviewing this WDR, there was no information in the permit on remedies for non-compliance with permit or certification conditions related to this project. As stated in this WDR, the County was required to complete additional hydrological analysis and assessment of biological functions and values for each reach. (page 3, point 21; page 7, point 32) in 2008 and 2011. The WDR goes on to state that the information was never submitted. In the 1999, 2003, and 2009 401-certifications issued to the LACDPW, there were a number of conditions that required monitoring and or baseline assessments to be conducted prior to and after any channel maintenance work, such as sediment, trash, and vegetation loads. The intent of those WDR's was to develop data for trends analysis. Was this data component completed? Water quality monitoring was required as part of the 2010 WDR. If certain criteria standards were exceeded then additional water quality analytes and BMP actions were required. However, there was little to no action taken by the LACDPW when channel maintenance activities in the Pacoima Wash and Walnut Creek exceeded	The tentative Waste Discharge Requirements for Proposed Maintenance Clearing of Engineered Earth-Bottom Flood Control Channels, Los Angeles County (tentative 2015 WDR) includes information on remedies for non-compliance in Provision 69. a – c. The Los Angeles County Flood Control District (LACFCD) has been in compliance with the WDR issued in February 2010 (2010 WDR). Regarding the commenter's reference to Finding 21, in 2008, the Regional Board amended a 2003 Clean Water Act Section 401 Water Quality Certification for LACFCD with a requirement to conduct a reach by reach hydrologic analysis. While the analysis was not completed by the deadline identified in the 2008 amendment to the 2003 Certification, these reach by reach analyses are being completed as the "Feasibility Studies" required by the 2010 WDR (Provisions 44-51) and this tentative 2015 WDR (Provisions 16-24). Regarding the commenter's reference to Finding 32, in 2011, the Regional Board approved the Feasibility Study Workplan for the Los Angeles River, which included the reach by reach hydrologic analyses per Provision 48 of the 2010 WDR. However, the approval

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	TSS/Turbidity standards Without this critical monitoring and reporting information, how can the RWQCB continue to issue permits for this discharge that are protective of receiving waters and beneficial uses? Further, how can the public determine the extent of impact over time, if no requirements for data analysis of past practices compared to current practices are stated? In addition, even if such data collection and analysis are required, what remedies does the public have if the data requirements are 1) insufficient, 2) incomplete, or 3) ignored?	was conditional upon LACFCD conducting some additional hydraulic analyses for each reach including an evaluation of design flow using multiple years of data. While this additional analysis was not conducted, through continued discussion with LACFCD, the Regional Board determined that the additional analyses were not necessary at this time. The approvals of the San Gabriel River Feasibility Study Workplan and the Malibu Creek and Dominguez Channel Feasibility Study Workplan do not require the additional hydraulic analyses described above. Water quality monitoring and data collection and annual reporting occurred as required under the 2010 WDR. This data reporting included documentation of estimates of vegetation, trash and sediment removed from the project areas. However, inter-annual trend analysis of sediment, trash, and vegetation loads was not a requirement under the 2010 WDR and, therefore, has not been completed. A requirement for LACFCD to present an analysis of inter-annual trends in sediment, trash and vegetation loads in LACFCD's Annual Report has been added to the revised tentative WDRs. Regarding the specific comments on actions taken in Pacoima Wash, the Regional Board assumes the commenter is referring to the high turbidity and TSS readings from Pacoima Wash in September of 2011. Clearance activities in Pacoima Wash in 2011 were

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		extensive due to the need to reduce conditions for breeding mosquitoes carrying the West Nile Virus. Water quality monitoring conducted during clearing activities in Pacoima Wash showed significantly elevated turbidity and TSS. The installed downstream BMPs, which consisted of at least five rows of straw waddles, about 10 feet apart, across the full width of the reach, were not sufficient to mitigate impacts from the clearing. When LACFCD field personnel became aware of the downstream turbidity, the field BMPs were modified and turbidity levels decreased. Because of the high sediment disturbance required to complete this type of work, LACFCD will construct a stream water diversion project when similar work is done in this reach in the future to prevent exceedances of turbidity. The Regional Board does not know to which Walnut Creek turbidity results the commenter refers. Turbidity measurements taken in Walnut Creek in October 2012 and September 2013 were not elevated. Lastly, to the extent there has been non-compliance by LACFCD of its previous WDRs or water quality certifications, the Regional Board has enforcement authority under the California Water Code to address any violations, including, but not limited to, civil liability, cleanup and abatement orders, and cease and desist orders. In addition, Provision 74 of the tentative WDRs states that "Regional Board Order R4-2010-0021,

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		adopted by the Regional Board on February 4, 2010, is hereby terminated, *except for enforcement purposes*." (emphasis added.)
1.2	This "channel maintenance" practice has been taking place under the RWQCB regulatory jurisdiction for nearly 20 years, yet so little trends assessment has been completed over that same time period. The lack of any trends assessment (sedimentation rates, flow volumes, trash accumulation, sediment chemistry, biomass, plant speciation (percent cover, density, and diversity) makes it impossible to determine if we are actually meeting beneficial-uses associated with habitat. With all of the County's channel maintenance activities, how is the RWQCB protecting existing stream and river beneficial uses, ensuring progress towards TMDL compliance, MS4, or ensuring other Basin Plan objectives are met if no water quality, flow volumes, or biological monitoring are not regularly collected and then analyzed. For example, given that the grading work requires the denuding of large amounts of acreage prior to the rainy season, sedimentation through erosion of disturbed soils will occur. The WDR as drafted does not provide assurance that sediments (contaminated or not) do not enter the receiving water and impact downstream resources during and after construction. This is especially concerning for those reaches with identified impairments or developed TMDLs. There are a number of current and	The commenter is correct that trend assessment is possible and it would be of value to include a requirement for LACFCD to include an assessment of the trends. As noted in response to Comment No. 1.1, a requirement for LACFCD to present the trends in sediment, trash and vegetation loads in LACFCD's Annual Report has been added to the revised tentative WDRs. The WDRs provide assurance that sediments will not enter waterways and impact downstream resources by the requirement of BMPs, biological monitors, and under certain circumstances, water quality monitoring. The WDRs require that activities regulated by this WDR meet water quality standards through implementation of BMPs in a similar manner to other regulated dredge and fill type activities. Channel clearing will take place primarily during the dry season. Water, if present where clearing is to take place, will be diverted. In addition, the effectiveness of the employed BMPs will be evaluated by the water quality monitoring, which is required during the Feasibility Studies.

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	future TMDL requirements in place for the LA River (Bacteria, Metals, Toxicity, and Trash) and Malibu Creek (Sediment, Bacteria, Metals, and Nutrients). As such, waste load allocations and load allocations are required for each pollution source that has a reasonable potential to cause or contribute to a water quality standard exceedance. Maintenance and grading activities meet the reasonable potential standard for these water bodies because sediments often are repositories for fecal bacteria, nutrients and metals. Yet the WDR fails to detail how this will happen without required monitoring. Maintenance activities need to be part of TMDL implementation and compliance assurance programs. What is the Regional Board doing to ensure that maintenance impacts are covered under pertinent water quality policies?	See also response to Comment No. 1.6 regarding monitoring.
1.3	***No Discussion of Relevant Policies*** Similar to past Los Angeles County's Department of Public Work's (LACDPW) 401-certification applications for the proposed maintenance clearing of engineered earth-bottom flood control channels project, there is little to no discussion of water quality or water resource management policies or strategies of the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), or Los Angeles County that are relevant to this WDR permit. The only water resource management policy discussed in this WDR is LACDPW's FEMA Levee Certification (page11; points 50 through 55) and the USACE's Engineers Levee Requirements (page	These WDRs address only a subset of the channel clearing conducted by LACFCD, and those policies addressing managing and reducing runoff flows to receiving waters are addressed in other permits issued to LACFCD, such as the Los Angeles County MS4 Permit. The amount of required clearing is driven by flood control requirements and, as such, the FEMA and U.S. Army Corps of Engineer requirements are highly relevant. The strategies and policies that deal with the input component of hydrologic capacity are critical to the long-term control of flooding and management of

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	12; 56 and 57). And similar to past applications, absent from this WDR is any dialogue on water resource/watershed management strategies to deal with flow reductions or habitat enhancement policies to these waterbodies requiring 'channel maintenance'. For example, the following should have be considered in the context of these WDRs: the RWQCB's Standard Urban Stormwater Mitigation Plan (SUSMP) requirements, the RWQCB's many TMDL Basin Plan Amendments, the RWQCB's Enhanced Watershed management Plans and Watershed Management Plans, the County's and municipalities Low Impact Development Ordinances, the Integrated Regional Water Management Plan (IRWMP), the County's Watershed Management Division 2008 Strategic Plan, the Los Angeles River Revitalization Plan, the Los Angeles Basin Stormwater Conservation Study, and the City and County's Drought Management Plans. All of these policies or planning documents discuss best management practices and tools for managing and reducing runoff flows to receiving waterbodies. Highlighting strategies and policies that deal with the 'input' component of hydrologic capacity is critical to this WDR because 'Lost hydrologic capacity' is often cited as a reason to remove vegetation and sediment, and therefore destroy habitat, from these earthen bottom creeks, streams, or rivers. Yet, there is never a discussion regarding these policies or mechanisms, some already in place, to reduce runoff	waters in Los Angeles County; however, the activities regulated by this WDR need to manage the potential for flooding. As the strategies and policies that deal with the input component of hydrologic capacity are strengthened and begin to have real effect, Los Angeles County and other flood control managers will have to respond to the changed conditions. Continued evaluations over this and subsequent WDRs will be required. Indeed, while infiltration requirements in these plans are expected to be effective in reducing stream flows during storm events that occur multiple times during a year, the purpose of such requirements is to improve water quality and conserve water, not to significantly reduce the risk of flooding. Flood control channels are designed to handle very high stream flows that occur during very large storm events even though those events are infrequent. Such storm events will produce large volumes of runoff, quickly overwhelming these water quality infiltration facilities and rendering them insignificant in their ability to effectively reduce flow rates during the most intense part of a storm.

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	amounts entering these receiving waterbodies. In other words, if these many plans and policies are being implemented appropriately, then the public should see a subsequent reduction over-time for the need to remove vegetation from these channels and destroy habitat. As for ecosystem restoration and habitat protection, those elements are "main features" in the County's Watershed Management Division's 2008 Strategic Plan. Yet, the WDR fails to score the relevancy of these projects to the proposed channel maintenance.	
1.4	In sum, the RWQCB needs to take an integrated watershed management approach, where water resource management, water quality requirements, watershed hydromodifications, and ecological protection, are all taken into consideration for regulatory actions. Ultimately, this means that the RWQCB needs to integrate Clean Water Act Policies, such as 303, 305, 319, 401, 402, and 404, into an overarching program that enables Basin Plan water quality standards to be met in each of the watersheds. Unfortunately, that data and policy integration in this WDR is completely absent. Again, does the RWQCB have any goals or objectives for: □ Reducing the frequency of disturbance in earthen-bottom creeks, streams or rivers? □ Reducing the number of reaches needing "maintenance"? □ Reducing the hydromodification impacts (downstream scour, sedimentation, and erosion) of increasing peak flow	The Regional Board does take an integrated watershed management approach to ensure that water quality standards are met and the Basin Plan, itself, is the "overarching program". Provision 45 of the tentative WDRs states "The 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 Clean Water Act." These WDRs are just one subset of requirements in the Regional Board's integrated watershed management approach. For instance, the County of Los Angeles has prepared a 2014 Low Impact Development (LID)

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	velocities through channelization and maintenance? □ Reducing the continued loss of earthen-bottom creeks, streams, or rivers to complete channelization? □ Promoting restorative best management practices with native plants to reduce sediment and or contaminant loading after "maintenance"? As written, this WDR continues the piece-meal, singular approach to watershed management that makes it impossible to assess the level of protection needed to ensure receiving water beneficial uses for water quality and habitat are met.	Standards Manual to comply with the requirements of the Los Angeles County MS4 Permit (Order No. R4-2012-0175). The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. The LID Standards Manual is an update and compilation of several documents including the Development Planning for Storm Water Management: A Manual for the Standard Urban Storm Water Mitigation Plan (SUSMP Manual, September 2002) and others. Furthermore, the required Feasibility Studies in the WDRs are intended to promote an integrated watershed management approach, by considering biological functions and values within the watershed and affected reaches, monitoring water quality to prevent impacts from clearing activities, while providing necessary flood protection. The Regional Board shares and implements through its actions, the goals of the California Wetlands Conservation Policy, which ensues "no overall loss" and achieving a "…long-term net gain in the quantity, quality, and permanence of wetland acreage and values...", as well as California Water Code section

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		13142.5, which requires that the "[h]ighest priority shall be given to improving or eliminating discharges that adversely affect…wetlands, estuaries, and other biologically sensitive areas." Furthermore, the Regional Board supports the State's development of the Wetlands and Riparian Area Protection Policy (State Board Resolution 2008-0026), which is underway, and has, itself, identified reducing impacts from hydro-modification as a priority (Regional Board Resolution No. R05-002). Reducing the frequency of disturbance due to the proposed clearing activities, the number of reaches disturbed, and related impacts, while maintaining necessary flood control, requires improved understanding of the hydraulic capacity and existing conditions of all reaches covered by these WDRs. However, the WDRs do not replace the Integrated Regional Water Management Plan (IRWMP), or the relevant watershed master plans. The Los Angeles River Feasibility Study identified seven reaches as having the capacity to retain additional vegetation and to have non-native replaced with native vegetation. As the Maintenance Plan and the Fish and Wildlife Streambed Alteration Agreement and Army Corps of Engineers CWA Section 404 permit are updated, these modifications can be incorporated into the WDRs and/or certification.

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1.5	***Updating Outdated Reference Material*** Heal the Bay is excited that 1999 Maintenance Plan is being updated and scheduled to be completed in 2017. Unfortunately, this WDR will have already been adopted and in effect for another 5-years based on outdated data. As such, it is quite feasible that the 2017 maintenance Plan won't be implemented until the 2020 WDR is adopted.	Provision 73 of the tentative WDRs states, "[t]his Order shall expire 5 years from the date of issuance of this Order or upon such time it is replaced coincident with a renewed ACOE CWA Section 404 permit, *whichever is sooner*" (emphasis added). The Regional Board's intention is to align the issuance of the WDRs (including the Clean Water Act Section 401 water quality certification) with the Army Corps of Engineer's issuance of the Clean Water Act Section 404 permit, which is anticipated in 2017 or 2018. The Maintenance Plan update, with the coordination of LACFCD and all three permitting agencies, the Regional Board, the Army Corps of Engineer and the California Department of Fish and Wildlife, will improve clarity.
1.6	***Monitoring*** The WDR requires a very limited, one-time monitoring program to be implemented as part of the Feasibility Study. The required monitoring is to take place before, after, and during maintenance clearing for each reach impacted. There are a number of issues with this approach, namely: □ A one-time grab sample for each reach over the next five or more years is not statistically significant to make any determination about the impacts from the maintenance activity at specific reaches, other than indicating what is happening at that moment. Heal the Bay recommends that sampling take place every year the LACDPW conducts maintenance activities within any of	Typically, for dredge and fill activities, water quality monitoring is only required when a stream is diverted to ensure that water quality is not affected by diversion activities. Prevention of other potential impacts is ensured by use of appropriate BMPs identified in the WDRs. The maintenance activities proposed by LACFCD and addressed in the WDRs are on-going rather than a one-time activity; thus, the Regional Board will need to regulate in a manner consistent with other dredge and fill activities or justify a different approach and requirements based on the nature of the activity. In this case, although not required for most dredge and fill activities, due to the extent and on-going nature of the maintenance and clearing activities, water quality

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	the reaches. □ There is no wet weather sampling event. An additional wet weather sample needs to be added to the monitoring program, which would mean that four (4) samples must be collected from each site. Most of the water quality impacts from the LACDPW maintenance activity to receiving waterbodies are likely to occur during the first rain event. □ There are no upstream (reference condition) or downstream (off-site impacts) sampling stations of the impacted reach. These monitoring data points help determine water quality changes relative to reference conditions and downstream impacts to receiving waterbodies. As such, two additional monitoring locations need to be added to the monitoring program for each reach. The monitoring program for each reach where LACDPW maintenance activities take place should have at least three (3) sampling stations: above project site, at the project site, and below the project site. □ The water quality assessment treats all reaches the same, in terms of waterbody length and width, and overall area impacted. In reality, the geographic area impacted differs, and therefore the amount work, type of machinery, and volume of sediment removed differs from reach to reach. As such, the smaller reaches may be appropriately sampled with a single monitoring event (12 total samples collected). However, one monitoring station may not be sufficient for larger reaches, such as the Compton Creek reach—approximately 2.1 miles long. One sampling	monitoring is justified to ensure the effectiveness of maintenance and clearing techniques and BMPs. However, because the maintenance and clearing techniques and BMPs for a specific reach are generally constant from year to year, the Regional Board has determined that aligning the reach-specific water quality monitoring with the Feasibility Study for the watershed, and conducting such monitoring once for each reach during the term of the WDRs, is appropriate. While the Feasibility Study Report for the Los Angeles River watershed concludes that the BMPs were generally effective in addressing the impacts of maintenance activities, in some cases, monitoring resulted in modified BMPs. In the case of Pacoima Wash in 2011, as discussed in response to Comment No. 1.1, water quality monitoring revealed that the BMPs were inadequate for the extensive work in that reach and LACFCD adjusted the BMPs and will implement a water diversion BMP for that sort of clearing in that reach in the future. In addition, in Reach 6, Caballero Creek, on the first day of work on October 19, 2011, LACFCD field personnel were notified of elevated turbidity at the downstream sampling location. Consequently, field personnel adjusted the field BMPs, which resulted in lower downstream turbidity and TSS levels during the remainder of the work in the reach. This indicated that the BMPs were effective at addressing the sediment and debris created during

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	station for this reach would be completely inadequate. As such, Heal the Bay recommends that for those reaches greater than half a mile in length, multiple monitoring stations be required—one additional location for every additional half mile. Therefore, a reach such as Compton Creek would require five (5) sampling stations. The proposed monitoring program in the WDR requires monitoring for dissolved oxygen, pH, turbidity, total suspended solids, and temperature. We recommend that additional constituents be added to this list, such as nutrients, metals, and trash. There are a number of current TMDL requirements in place for the LA River (Bacteria, Metals, Toxicity, and Trash) and Malibu Creek (Sediment, Bacteria, Metals, and Nutrients). In addition, there are many TMDLs yet to be adopted. As such, waste load allocations and load allocations are required for each pollution source that has a reasonable potential to cause or contribute to a water quality standard exceedance. While a discharge of material does not take place immediately after the clearing and dredging, a discharge of sediment (contaminated or not) does take place subsequent to the first large rain event. Maintenance and grading activities have met the reasonable potential standard for these water bodies because sediments often are repositories for fecal bacteria, nutrients and metals. Therefore, the LACDPW maintenance action constitutes a possible source. Yet the WDR fails to detail how WLA and LAs will be met and how monitoring will be sufficient to understand the	clearance activities.

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	pollutant contribution. Therefore, Heal the Bay recommends the following constituent monitoring program: □ Basic monitoring: • Dissolved Oxygen; pH; turbidity; temperature; Total Suspended Solids (TSS); and Nutrients (Ammonia and Nitrite/Nitrate) through the use of field techniques such as meters. □ Additional monitoring: • When turbidity levels exceed the stated thresholds in the WDR, then additional constituents to be monitored will be required. • Additional constituents to be monitored will include: Hardness and Metals. In addition, Heal the Bay believes that these water quality monitoring requirements should apply to all reaches where LACDPW conducts maintenance, not just the watershed where the feasibility study is implemented during a given year.	
1.7	***Permitted Activities*** **Condition Maintenance of All Existing Invert Access Ramps#13 and Additional Findings#43:** Given the limited riparian habitat in Los Angeles County, why would flow and water quality monitoring systems be placed in such critical habitat areas? What was the rationale? There are plenty of upstream and downstream concreted sections associated with the receiving	There are three stream gauges in earth-bottom reaches in the San Gabriel River and four stream gauges in the Santa Clara River. The stream gauges provide vital information on flow and volume vital to integrated water management. A finding has been added to the revised tentative WDRs to describe these gauges. The WDRs do not permit installation or placement of stream gauges only the maintenance of the gauges to ensure

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	waterbodies listed in this WDR where such equipment should have been placed. Is there a list of waterbodies where the gauges require a "3-foot" vegetated and sediment buffer?	they are able to provide accurate data.