

Responses to Regional Board Comments on the Draft Calleguas Creek Watershed Monitoring and Reporting Plan and Quality Assurance Project Plan for the Nitrogen, OC and PCBs, and Toxicity TMDLs dated September 26, 2006

Prepared by Larry Walker Associates June 18, 2007

Comment		Response
Los Angeles Regional Water Quality Control Board - Letter dated April 24, 2007		
RB-1	Table 2, Page 11 - Sediment testing for selenium should be added to the list of metals to be tested in Mugu Lagoon.	The current version of the QAPP is not intended to address the Metals and Selenium TMDLs. The metals presented in Table 2 were selected as they have been found in previous sediment studies conducted in Mugu Lagoon to exceed guideline values used to interpret the relationship between sediment chemistry and biological impacts (e.g., toxicity). Selenium was not found to exceed SQUIRT guideline values and as such is not included. Additional metals and/or selenium may be added in the future to address the needs of the Metals and Selenium TMDLs. Language was added to the footnote in Table 2 to clarify why the metals presented were selected for analysis.
RB-2	Special Studies section, Page 13 - The underlined language below should be added: "...No specific special studies are incorporated into the QAPP at this time; however, a summary of special studies that may be incorporated at a later date are provided below. <u>Work plan for specific special study shall be submitted to the Regional Board for approval.</u> Additional special studies may be added as other TMDLs are completed (e.g., metals, salts, and bacteria) or developed through other processes."	Revised per comment.
RB-3	Page 15 - Include the CAS No. for each sample as part of the analytical data reports	Revised per comment.

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<p>RB-4 Two additional wet weather sampling events should be done at all sites except for POTW's discharges as they were not identified as major sources of constituents identified in the TMDLs. If the changes cannot be made please provide an explanation why additional wet weather samples events are not included for these specific sites</p>	<p>A primary goal of the CCWTMP is to determine compliance with targets and allocations. A total of six events, which includes two wet weather events, over the course of the year is sufficient, at this time, to evaluate compliance with targets and allocations. Given the implementation schedules for the Nutrients, Toxicity, and OCs TMDLs are 7, 10, and 20 years, respectively, the frequency of monitoring outlined in the CCWTMP, and the additional monitoring conducted by other programs in the watershed, it is expected that a range of wet weather conditions will be evaluated and sufficient data will be available to answer the monitoring questions posed in Element 5 (Problem Definition/Background) without collection of two additional wet weather samples at this time. If the wet weather data generated through the two wet weather events conducted by this program each year and the two and four conducted annually by the Irrigated Lands Group and the County Stormwater Program, respectively, are determined to be insufficient to attain the goals of the monitoring program additional wet events can be added.</p> <p>Additional sites were added as part of a Nutrient Investigation component of the CCWTMP. Sampling in support of nutrient investigation monitoring will focus on evaluating urban land use and open space contributions of nutrients and nutrient loads in receiving waters during wet weather. The urban land use component of nutrient investigation monitoring is addressed through the land use discharge investigation discussed above. An open space site was selected at a location in the watershed where flows are present throughout the year from a drainage that is open space. Evaluation of nutrient loading during wet weather will be addressed through collecting samples at compliance monitoring sites and urban, agricultural, and open space land use monitoring sites.</p> <p>Nutrient investigation monitoring is intended to occur during the first year of the CCWTMP, unless results suggest continuing at one or more sites. Several changes were made to the QAPP regarding sites and frequency to address nutrient investigation monitoring. Site 07T_LL_RC replaced 08_WALNU as a representative open space site to evaluate loads from this land use. Additionally, two wet weather events were added to evaluate nutrient loadings to the following sites: 05_CENTR, 10_GATE, and 07_MADER. Nutrient sampling will also occur during wet weather at the following sites: 01_RR_BR, 03_UNVI, 04_WOOD, 9B_ADOLF, 06_SOMIS, and 07_HITCH.</p>

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RB-5	Toxicity testing should be monitored for Beardsley Wash (Reach 5) as it is impaired for toxicity.	<p>As discussed in the QAPP, the process for selection of sites was based on including sites on reaches or in a subwatershed for which waste loads and loads were allocated, not necessarily where impairments are listed. Allocations were assigned to each 303(d) listed reach in the Nutrients TMDL. Accordingly, at least one Nutrients TMDL compliance monitoring site is located in each 303(d) listed reach. Allocations were assigned by modeling subwatersheds in the Toxicity and OCs TMDLs. Accordingly, at least one compliance monitoring site is located in each modeling subwatershed that received an allocation.</p> <p>The compliance monitoring site for the Revolon Slough/Beardsley Wash subwatershed was established on Revolon Slough at Wood Rd (Site 04_WOOD) and is intended to address toxicity in this subwatershed. The number and location of sites may be revised if it is determined that alternative locations are needed. For example, at such a time as numeric targets are consistently met at a compliance monitoring site, an additional site or sites within the subwatershed will be considered for monitoring to ensure allocations are met throughout the subwatershed.</p> <p>Additionally, the Ventura County Agricultural Irrigated Lands Group (VCAILG) under the Conditional Waiver for Irrigated Agricultural Lands program (Ag Waiver) will be monitoring two locations within the Beardsley Wash area for toxicity. These data will be incorporated into the TMDL analysis conducted in the Annual Report as outlined in the QAPP. A note was added to the QAPP indicating data collected in the Beardsley Wash area are available and will be considered.</p>
RB-6	Reaches 9A and 10 have various tissue impairments. Therefore, tissue testing should be included for Reaches 9A and 10.	<p>As discussed in the previous response, the compliance monitoring site for the Calleguas subwatershed, which includes Reach 9A, is located on Calleguas Creek at University Drive (03_UNIV) and the compliance monitoring site for the Conejo subwatershed, which includes Reach 10, was set on Conejo Creek at Adolfo Road (9B_ADOLF). These two sites are intended to address fish tissue concentrations in these subwatersheds, among other allocations. The number and location of sites may be revised if it is determined that alternative locations are needed. For example, at such a time as numeric targets are consistently met at a compliance monitoring site, an additional site or sites within the subwatershed will be considered for monitoring to ensure allocations are met throughout the subwatershed.</p> <p>Additionally, the City of Thousand Oaks Hill Canyon Wastewater Treatment Plant collects water samples for constituents with wasteload allocations identified in the OC pesticides and PCBs TMDL at receiving water locations in Conejo Creek on Reaches 10 and 12. These data will be incorporated into the TMDL analysis conducted in the Annual Report as outlined in the QAPP. A note was added to the QAPP indicating data collected in Conejo Creek are available and will be considered.</p>
RB-7	Page 45 - Under bullet one, it is suggested to put the bubbled wrapped bottles and/or containers into re-sealable bags before placing them in the ice chest.	Comment noted, re-sealable bags will be used if available.

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<p>RB-8 Table 13 - The project reporting limits listed for total suspended solids, and Nitrate - N are higher than those listed in the SWAMP QAPP. Please provide an explanation or change the reporting limits to reflect those listed in the SWAMP QAPP template of *Total Suspended Solids - 0.5 mg/L and *Nitrate N - 0.01mg/L</p>	<p>Of the 1690 nitrate as N data available in the watershed 98% were detected data with less than 1% detected below the RL of 0.1 mg/L proposed in the QAPP. Of the 15065 TSS data available in the watershed 99% were detected data with 2% detected below the RL of 1 mg/L proposed in the QAPP. Less than 0.1% of all TSS data were non-detect at an RL of 1 mg/L. A review of the available data does not suggest that the reporting limits presented in the QAPP will lead to a significant number of non-detect values. This information was added to the QAPP.</p>
<p>RB-9 Table 13, Pages 49-51 - The analytical methods for pyrethroid pesticides are not listed. Please specify these methods and /or provide detailed information the GCMS alternate test procedure.</p>	<p>The analytical method that will be used for pyrethroid pesticides will be 8270C (NCI), where NCI is negative chemical ionization as allowed under the method. A footnote was added to the table.</p>
<p>RB-10 Table 9 Aldrin - The following pesticides listed, alpha-BHC, Chlordane-alpha, Chlordane-gamma, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin and Toxaphene have the MDL or RL higher than the assigned WLAs and Las, please provide an explanation for this.</p>	<p>The following explanation was added: "The MDLs and/or RLs listed for several organochlorine pesticides in water (aldrin, alpha-BHC, chlordane, DDTs, dieldrin and toxaphene) are higher than targets/allocations specified in the BPAs. However, the MDLs and/or RLs listed herein are significantly lower than levels currently attainable by commercial laboratories using standard analytical test methods and are consistent with the lowest detection limits reported for NPDES monitoring programs."</p>
<p>RB-11 Paragraph 6, Page 68 - Assessments and Response Action should be revised to read as follows: If a coordinated and comprehensive monitoring plan that address multiple regulatory requirements (i.e., TMDL, NPDES, Ag Waiver, etc.) is developed, and meet the goals of this monitoring plan, and <u>approved by the Executive Officer</u>, that plan should be considered as replacement for the CCWTMP.</p>	<p>Revised per comment as follows: "If a coordinated and comprehensive monitoring plan that addresses multiple regulatory requirements (i.e., TMDL, NPDES, Ag Waiver, etc.) is developed and meets the goals of this monitoring plan, that plan should be considered as a replacement for the CCWTMP. <u>Any such plan would require the approval of the Executive Officer.</u>"</p>
<p>RB-12 In reviewing the Toxicity Testing and Toxicity Identification Evaluations section of the QAPP it was noted that the procedures described differ from the procedures proposed in the conditional Waiver for Agricultural Dischargers. Please provide rationale demonstrating that the procedures proposed in the CCWMP QAPP are equivalent to the procedures specified in the Conditional Waiver.</p>	<p>The following text was added to clarify why the test species were chosen: "The test species selected are standard USEPA test species considered to be among the most sensitive species to many different types of pollutants. The test species are particularly sensitive to constituents previously identified as contributing to toxicity in water and/or sediment in the CCW. C. dubia is a water flea known to be extremely sensitive to organophosphate pesticides and some metals and also is used as an indicator of ammonia toxicity. H. azteca is a sediment dwelling invertebrate that is sensitive to ammonia and organochlorine pesticides. E. estuarius is a burrowing amphipod that is sensitive to organochlorine and organophosphate pesticides. A. bahia is a shrimp known to be sensitive to organophosphate pesticides. At such a time as toxicity numeric targets are consistently met, alternative species may be considered if it is determined the aforementioned species are not completely assessing toxicity in the CCW."</p>

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<p>RB-13 Regional Board Staff is specifically concerned that the 50% mortality endpoint for TIE initiation, which is based on acute toxicity methods, does not reflect the same endpoint sensitivity as established in the waiver by the use of TU_c units. This unit of the toxicity water quality benchmark set in the Conditional Waiver integrates chronic toxicity endpoints; it is important that the sensitivity of this endpoint be conserved.</p>	<p>Chronic tests will be used to assess both survival and reproductive/growth endpoints for each species to allow for an evaluation of compliance with the 1 TU_c endpoint in water established in the TMDL BPAs and in the Conditional Waiver. Therefore, the sensitivity of this endpoint is conserved. Similar to the Conditional Waiver TIE approach, the 50% mortality endpoint is for TIE initiation only not for assessing compliance with the TMDL. As discussed in the QAPP, the 50% mortality endpoint for TIE initiation is based on USEPA guidance and extensive experience conducting TIEs in the CCW. TIE initiation is not based on "acute toxicity methods" as the QAPP utilizes chronic toxicity tests.</p> <p>For clarification, a toxic effect (mortality or reduced reproduction/growth) observed in 96 hours or less is typically considered acute. A chronic toxic effect (which can include mortality or reduced reproduction/growth), would be the effect observed over the portion of the test beyond the test duration of an acute test. The test duration for chronic tests are based on the life span of the species. In the case of <i>Ceriodaphnia Dubia</i>, the chronic test duration is 7 days. Text similar to the response to this comment was added to the QAPP.</p>
<p>RB-14 The approach section of the MRP states an effort to coordinate monitoring between the Calleguas Creek Watershed TMDL monitoring and the Conditional Waiver monitoring in the Calleguas Creek Watershed. Please clarify how data will be used and/or shared between these two monitoring programs and specifically identify sites that correspond between the two programs.</p>	<p>Revised text in Element 18 (Non-Direct Measurements) to indicate data from other programs (including the VCAILG) will be incorporated and the data from other programs will be used to supplement land use data to evaluate loading to the receiving water as well as to evaluate receiving water quality. Additionally, Table 8 was revised to specifically identify sites that correspond between the two programs.</p>
<p>RB-15 Paragraph 6, Page 53 - Discusses the decision to initiate TIE procedures. Please state that Regional Board Staff will participate in consultation with the Project Manager and the toxicity laboratory on the decision to initiate TIE procedures.</p>	<p>Revised to state Regional Board staff will be consulted in making the determination of whether to initiate TIE procedures.</p>