

Regional Board Staff Response to Comments
USEPA Letter signed by Jane Hashimoto, Region 9, Dated July 8, 2011

E1. Clarification that not all existing EPA-Established TMDLs will be superseded by the Regional Board OC TMDLs

Resolution 18 (pg. 4) does not explicitly, nor accurately characterize how these RB TMDLs will replace the existing EPA-established TMDLs. Here is language similar to our previous letter (Jan. 2007) that should be used to modify the proposed Resolution language.

Once these Regional Board OC TMDLs are finalized and adopted by State procedures and subsequently receive EPA approval, the TMDLs will supersede the EPA-established TMDLs for corresponding water body-pollutant combinations. Any EPA-established TMDL will remain in effect unless it is included in the proposed Regional Board OC TMDLs. Table A [attached] explains which TMDLs will be in effect upon approval of these TMDLs by EPA.

Waterbody	TMDLs Currently in Place	TMDLs that will be in Place upon Approval of these State OC Pesticide TMDLs	
		USEPA	Regional Board
San Diego Creek and tributaries (includes San Diego Creek Reaches 1 and 2 and Peter's Canyon Channel)	Chlordane, Dieldrin, DDT, PCBs, Toxaphene	Dieldrin	DDT, Toxaphene, PCBs (informational), Chlordane (informational)
Upper Newport Bay	Chlordane, DDT, PCBs,	--	Chlordane, DDT, PCBs,
Lower Newport Bay	Chlordane, Dieldrin, DDT, PCBs	Dieldrin	Chlordane, DDT, PCBs,
Rhine Channel	Chlordane, Dieldrin, DDT, PCBs	Chlordane, Dieldrin, DDT, PCBs	--

Response to Comment E1:

Revisions to tentative Resolution No. R8-2011-0037 are proposed in an errata sheet as part of the Regional Board's consideration of this matter on July 15, 2011. The proposed revisions reflect the information provided by USEPA regarding withdrawal of promulgated TMDLs. This errata sheet was transmitted to USEPA on July 12, 2011. Please see the proposed revisions to finding 18, the new finding 19, and the added paragraph (#7) that would direct the Executive Officer to request that USEPA take appropriate action to withdraw their TMDLs.

We anticipate that USEPA may request additional information to support the withdrawal of the Dieldrin TMDLs. Accordingly, we wish to take this opportunity to provide the following information:

Regional Board staffs' impairment assessment for the organochlorine compounds (OCs) TMDLs for the Newport Bay watershed was conducted in accordance with the State's 2004 Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy). The 2004 State Listing Policy was adopted subsequent to USEPA's 2002 promulgation of OCs TMDLs but prior to adoption of the OCs TMDL Basin Plan Amendment (BPA) by the Regional Board in 2007. USEPA approved the State's 2004 Listing Policy and Regional Board staff are required to follow this policy in determining impairment. Therefore, staff reassessed impairment in the fresh and saltwater water bodies in the Newport Bay watershed to ensure conformance with the State Listing Policy.

For the freshwater tributaries in the Newport Bay watershed (San Diego Creek and Peter's Canyon Channel) USEPA's impairment assessment compared whole body fish (skin on) collected by the Toxic Substances Monitoring Program (TSMP) from 1983 through 1998 and compared the OC concentrations, including Dieldrin, in the whole body fish to OEHHA's 1999 screening values (SVs). However, since OEHHA's SVs were developed to protect human consumers of sport fish, they are only applicable to fish fillets (muscle tissue) from sport fish. The fish sampled in the freshwater tributaries by the TSMP consisted primarily of red shiners (*Cyprinella lutrensis*), a non-sport fish. Therefore, USEPA staff did not appropriately apply OEHHA's SVs in their assessment of impairment due to OCs in freshwater fish collected from Peters Canyon Channel or San Diego Creek.

Regional Board staffs' impairment assessment compared Dieldrin concentrations in the whole fish tissue collected by the TSMP to the National Academy of Sciences (NAS) 1972 guidelines, as recommended by the State Listing Policy. The NAS guidelines were developed for the protection of aquatic organisms and wildlife that feed on those organisms and are more appropriately applied to prey fish such as red shiners. A finding of impairment could not be made using the NAS guideline for Dieldrin in freshwater fish of 100 nanograms per gram (ng/g) wet weight. A finding of impairment for the protection of human health using OEHHA's SV for Dieldrin (2 ng/g ww) also could not be made due to lack of sufficient sport fish fillet samples from either Peters Canyon Channel or San Diego Creek. There is no beneficial use designation for either sport fishing (COMM) or shellfish harvesting (SHELL) in either Peters Canyon Channel or San Diego Creek. Neither USEPA nor Regional Board staff was able to make a finding of impairment based on Dieldrin concentrations in sediment or water collected from these two water bodies.

In addition, the 2008-2010 Clean Water Act Section 303(d) List of impaired waters in the Santa Ana Region approved by USEPA does not identify Dieldrin as a source of impairment in San Diego Creek or its tributaries. The list also does not identify Dieldrin as a source of impairment in Upper Newport Bay and clearly states "Do Not List" for Dieldrin in Lower Newport Bay. It is therefore appropriate to request that USEPA retract its Dieldrin TMDLs for San Diego Creek and its tributaries and for Lower Newport Bay.

E2. Wasteload Allocations

EPA expects all wasteload allocations (WLAs) identified in TMDLs to be implemented through corresponding permits; i.e., MS4, construction general permit and Caltrans permit. The proposed TMDLs contain WLAs expressed in two ways - annual average and daily average loads. We recommend the Regional Board provide guidance to future permit writers who will need to thoughtfully translate these WLAs into effluent limitations and associated monitoring requirements...We are providing recommendations to address WLA implementation in various types of permits below.

Response to Comment E2:

We appreciate USEPA's recommendations regarding WLA implementation in permits. These recommendations will be shared with the Board's permit-writing staff.

E2.A. MS4 WLAs

The current Orange County MS4 permit contains annual average effluent limits. We recommend that when this permit is renewed TMDL and permit staff ensure that the method used to express WLA-based numeric limits is consistent with both the daily and annual average WLAs. The Regional Board should consider incorporating concentration based numeric effluent limits for the MS4 discharges to assist in evaluating compliance. We also recommend the permit include specific provisions including where and how compliance will be measured, including statistical procedures for evaluating compliance with WLA-based limits based on required monitoring data. Data from both existing in-stream and representative end-of-pipe monitoring locations within the areas covered by the MS4 permit should be used to evaluate compliance. The permit should explain how in-stream and end-of-pipe data will be used to associate pollutant levels measured in-stream with those measured in stormwater discharges.

Response to Comment E2.A:

Recommendations noted. As indicated above, these recommendations will be considered by Region 8 staff responsible for TMDL implementation in permits.

We note the following. As acknowledged by USEPA staff in their TMDLs for OCs in the Newport Bay watershed,

“In some cases, it is necessary to interpret a numeric standard in terms other than the method through which the standard is expressed as long as the target(s) can be shown to relate back to achieving the water quality standard(s). For some pollutants (e.g., bioaccumulative toxins) or receiving water settings (e.g. embayments), it often makes more sense from the standpoint of source control and impact assessment to focus the TMDL on reductions of pollutant mass loads than solely on avoidance of exceedences of concentration-based standards. Moreover, use of sediment and/or fish tissue endpoints may provide more discriminating indicators of the beneficial use impacts of concern in a TMDL.”

“...there are technological challenges accompanied with sampling and accurately detecting these [OCs] compounds in water column samples. Therefore, these

pollutants are unlikely to be detected in the water column in dissolved form even in waters where they may be present at levels of concern.”

As organochlorine compounds are highly hydrophobic, they are rarely detectable in water using standard collection procedures and laboratory analytical methods. Therefore, the use of concentration-based discharge limits for OCs by the MS4 permittees would not adequately ensure compliance with the WLAs, as water column sampling and analysis would result in underreporting of OC concentrations.

However, the current (2009) MS4 permit for Orange County also acknowledges the inherent difficulties in measuring and determining compliance with OCs WLAs that are measured at less than 1 gram per day (less than 150 grams per year). The MS4 permit therefore uses the CTR criterion for OCs in water as numeric targets that can be used to evaluate the monitoring results and determine the need for any additional control measures.

The MS4 permit also states that:

“Monitoring shall be conducted at representative locations within San Diego Creek and Newport Bay and include water column, sediment and fish tissue monitoring. The permittees may use current monitoring locations [established in their 2003 Monitoring Plan].”

As provided by USEPA’s I TMDLs for OCs and as included in the Regional Board’s OCs TMDLs for the Newport Bay watershed, end-of-pipe compliance determinations for OCs is difficult and it is more important to determine overall reductions in mass pollutant loadings than avoidance of exceedences of concentration-based standards. The primary sediment and alternate fish tissue targets recommended in both TMDLs, and the required monitoring of these media in the MS4 permit, are expected to provide the data necessary to determine if OC pollutant reductions are being met.

E2.B. Construction and Caltrans WLAs

The construction WLAs will need to be implemented pursuant to the TMDL implementation provisions in the applicable statewide construction general and Caltrans permits. Solely mass-based allocations would be difficult to implement through these permits because flow data is (*sic*) not likely to be collected and mass loadings are therefore difficult to measure. Thus for these types of permits EPA encourages numeric effluent limits that are concentration based as compliance can be more easily measured. Compliance is optimally evaluated via samples collected at end-of-pipe compared against a concentration based effluent limit.

Response to Comment E2.B:

Regarding concentration-based effluent limits and end-of-pipe compliance determinations for construction and Caltrans WLAs, please see response to Comment E2A.

E2.C. Nurseries WLAs

These TMDLs have identified WLAs for nurseries as pollutant sources within San Diego Creek watershed. The Regional Board has appropriately issued Waste Discharge Requirements (WDRs) to these nurseries. Similar to the general permits described above, we encourage concentration-based numeric effluent limits for these sources when these WLAs are incorporated into WDRs. Compliance may be optimally evaluated via samples collected at end of pipe for these permits.

Response to Comment E2.C:

Regarding concentration-based effluent limits and end-of-pipe compliance determinations for nurseries WLAs, please see response to Comment E2A.

E3. Monitoring

The proposed TMDLs Implementation Tasks and Schedule (Table NB-OCs-13) describes revising the regional monitoring program. Given the extended delays associated with Regional Board adoption of these TMDLs, EPA wishes to remind the Regional Board and relevant stakeholders that we expect continued collection of organochlorine monitoring results, without being contingent on selenium monitoring or adoption of the selenium TMDLs. See Newport Bay Watershed Executive Committee Staff Report from April 21, 2010 which states that the Toxicity Reduction and Investigation Program (TRIP) activities for organochlorine compounds will resume once the Selenium TMDL is adopted by Regional Board (2010, pp.13).

Response to Comment E3:

Comment noted. It has never been the Regional Board's intention to tie OCs monitoring in any way to selenium monitoring or the selenium TMDLs. Current permits (e.g. Orange County MS4 permit) require monitoring of OC constituents and selenium, as well as other pollutants.

One of the implementation tasks in the Regional Board's OCs TMDLs (8.3.7) is to "Develop a Workplan to Meet TMDL Implementation Requirements, Consistent with an Adaptive Management Approach". The Regional Board's OCs TMDLs states that the purpose of the workplan is to meet the TMDL implementation requirements (not monitoring). The implementation plan states that:

"The purpose of the workplan would be to (1) review implementation requirements and integrate TMDL implementation tasks with those already being conducted in response to other programs (e.g., permits, TMDLs); (2) prioritize implementation tasks; (3) develop a framework for implementing the tasks, including a schedule and funding mechanism; (4) implement tasks; and (5) make recommendations regarding needed revisions to the TMDLs."

The stakeholders formed the Toxicity Reduction and Investigation Program (TRIP) in response to this task, even though the TMDLs were not yet effective.

The purpose of TRIP is two-fold:

- (1) To convene an Independent Advisory Panel to review and comment on the targets set in the OCs TMDLs; and
- (2) To develop a workplan to implement the OCs TMDLs.

The IAP was convened on April 7 and 8 in 2010 and a final report has been issued and distributed (*Final Report of the April 7-8, 2009 Meeting of the Independent Advisory Panel for the Assessment of TMDL Targets for Organochlorine Compounds for the Newport Bay*) even though the Regional Board's OCs TMDLs have not received final approval.

Only the development of the TRIP workplan is being delayed due to stakeholder commitments to assist with the selenium TMDLs, not monitoring. Monitoring of OC pollutants continues under the programs that are already in place, including Orange County's stormwater quality monitoring program. In addition, the State has been monitoring OC pollutants in sediment and fish tissue in Peters Canyon Channel, San Diego Creek, and Upper and Lower Newport Bay as part of their annual TMDL trend monitoring program. Five years of data on OCs, selenium, metals, pyrethroids, and polybrominated dipheyl ethers (PBDEs) in fish tissue and sediment have been collected despite continuing reductions in program funding.

E4. Final TMDL Attainment Date

This proposed BPA has modified the final date to be "achieved no later than (seven years from the date of OAL approval for this BPA)." EPA notes that this language is not consistent with other TMDLs going through the State approval process. Typically the "EPA Approval Date" is used as the starting point for implementation plan timelines.

Response to Comment E4:

Taking into consideration comments provided by Orange County Coastkeeper (letter dated July 8, 2011), Board staff will recommend a change in the final TMDL compliance date to no later than December 31, 2020. This change is reflected in the errata sheet that will be presented as part of the Regional Board's consideration of this item.

"The TMDLs are to be achieved as soon as possible but no later than December 31, 2020."