

**California Regional Water Quality Control Board
Santa Ana Region**

July 15, 2011

ITEM: 8

**SUBJECT: Public Hearing on Revisions to the Basin Plan Amendment
Establishing Total Maximum Daily Loads (TMDLs) for
Organochlorine Compounds for San Diego Creek, Upper Newport
Bay and Lower Newport Bay - Staff Report; Resolution No. R8-2011-
0037**

SUMMARY

On September 7, 2007, the Regional Board adopted Resolution No. R8-2007-0024, approving a Basin Plan Amendment (BPA, or amendment) to incorporate TMDLs for organochlorine compounds (OCs) for San Diego Creek, Upper Newport Bay and Lower Newport Bay. The adopted amendment, shown in Attachment 2 to Resolution No. R8-2007-0024, is attached to this staff report as Exhibit 1.

Revisions to the adopted amendment are now being proposed to: (1) extend the final compliance date of the TMDLs to a date certain seven years from the date of approval of the TMDLs by the Office of Administrative Law; and, (2) make minor, non-substantive modifications to the amendment. The proposed modifications are shown in strikeout (for deletions) and underline (for additions) format in the draft revised BPA that is shown in Attachment 1 to Tentative Resolution No. R8-2011-0037.

Extending the TMDL compliance date is appropriate in light of the significant, unavoidable delay in consideration and approval of the Regional Board TMDLs by all requisite agencies. The schedules for completion of the individual implementation tasks expected to lead to TMDL compliance are contingent on the date of approval of the amendment by the Office of Administrative Law. Given the delay in consideration of approval, the completion of the individual implementation tasks will likely extend beyond the current final TMDL compliance date. The minor modifications recommended would correct grammatical and other inadvertent, non-substantive errors and clarify terms employed in the amendment.

If the Regional Board approves the recommended changes, the revised amendment will be forwarded to the State Water Resources Control Board (State Board), the State Office of Administrative Law (OAL) and the U.S. Environmental Protection Agency (USEPA) for approval.

DISCUSSION

Background

On June 14, 2002, USEPA promulgated toxics TMDLs for San Diego Creek, Upper Newport Bay and Lower Newport Bay that included TMDLs for organochlorine compounds (OCs). The organochlorine compounds (OCs) addressed by the USEPA TMDLs included polychlorinated biphenyl (PCBs) and the legacy pesticides 1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane [DDT], chlordane, dieldrin and toxaphene.

Regional Board staff subsequently reassessed USEPA's impairment decisions for San Diego Creek, Upper Newport Bay and Lower Newport Bay (or, collectively, the 'Newport Bay watershed') and, in turn, USEPA's OCs TMDLs. Board staff recommended revised TMDLs for the waterbody-pollutant combinations shown in Table 1, below. The waterbody-pollutant combinations differ from those identified by USEPA.

The technical staff report prepared by Regional Board staff, "Total Maximum Daily Loads for Organochlorine Compounds, San Diego Creek: Total DDT and Toxaphene, Upper and Lower Newport Bay: Total DDT, Chlordane, Total PCBs, Orange County, California", November 17, 2006 (Ref. 1) contains a comprehensive discussion of the basis for determining those OCs for which TMDLs needed to be established, and the technical basis for those TMDLs. Further, the technical staff report, and the supplemental staff reports (January 7, 2007, April 20, 2007 and September 7, 2007) prepared by Board staff, delineate and explain the implementation plan recommended to achieve the revised TMDLs. USEPA's TMDLs did not include an implementation plan since this is the responsibility of the State.

The Regional Board approved the recommended TMDLs, including the implementation plan, on September 7, 2007 (Resolution No. R8-2007-0024). The approved amendment is shown in Exhibit 1 of this staff report.

Table 1. Waterbody-Pollutant combinations: Regional Board OCs TMDLs

<i>Waterbody</i>	<i>Pollutant</i>
San Diego Creek and tributaries	Toxaphene, DDT Chlordane, PCBs (informational TMDLs only) *
Upper Newport Bay	DDT, PCBs, Chlordane
Lower Newport Bay	DDT, PCBs, Chlordane

* No impairment due to chlordane or PCBs was found for San Diego Creek and its tributaries. Informational TMDLs were developed in light of findings of impairment due to these substances in Upper and Lower Newport Bay, the fact that San Diego Creek is the major tributary to the Bay, and concerns regarding the paucity of relevant data for the Creek. Informational TMDLs are not enforceable but may guide future TMDL development, if necessary.

The Regional Board-adopted TMDL implementation plan (see Exhibit 1, Section 4.b.3., pp.8 of 33 *et seq.*) employs an adaptive management, phased approach, with final TMDL compliance to be achieved as soon as possible but no later than December 31, 2015. The plan of implementation focuses on actions to accelerate the decline in organochlorine compound concentrations in the watershed, and to augment their natural attenuation. As such, the implementation plan is focused to a large extent on the monitoring and, where necessary, enhanced implementation of Best Management Practices (BMPs) to reduce the erosion and transport to surface waters of fine sediment to which the organochlorine compounds tend to adhere. Many of these BMPs are already in place as the result of existing permits issued by the Regional Board or State Board for storm water and construction activities, and/or in response to sediment and nutrient TMDLs already established and being implemented in the Newport Bay watershed. The goal is to assure that source control activities are implemented to reduce any active sources of the organochlorine compounds, and in other areas where such actions will be most effective in meeting the TMDL goals. Monitoring and special study requirements are included in the implementation plan to provide for TMDL compliance assessment and refinement.

The phased implementation approach and TMDL compliance schedule also recognize that monitoring and special studies will be necessary to address data limitations and uncertainties regarding the impairment assessment and calculation of the TMDLs and allocations. During the public participation process associated with Regional Board consideration of the revised TMDLs, a number of watershed stakeholders expressed concerns regarding the technical and scientific basis of the TMDLs and, in particular, the recommended numeric targets that formed the basis for calculating the TMDLs. The Implementation Plan was revised to address these concerns. Specifically, the Implementation Plan was revised to include an option for regulated stakeholders in the Newport Bay watershed to convene a Working Group to develop and implement a comprehensive Work Plan to address, as an early action item, the technical uncertainties in the TMDLs and to make recommendations for revisions, as appropriate. It was expected that the Working Group would work with an Independent Advisory Panel to conduct this review and formulate TMDL-related recommendations. The comprehensive Work Plan is also expected to identify and prioritize tasks necessary to implement the TMDLs, integrate TMDL implementation tasks with those already being conducted in response to other programs (e.g., permits, other TMDLs), and, investigate other pollutants of concern in the watershed.

Completion of the Work Plan is expected to result, in part, in recommendations for revisions to the Regional Board's TMDLs based on review by the Independent Advisory Panel and the results of ongoing or requisite monitoring and investigations. Further, completion of the Work Plan will result in the development of a comprehensive plan for BMPs and other actions needed to assure compliance with the TMDLs, wasteload allocations and load allocations in accordance with the schedule specified in the TMDLs, i.e., as soon as possible after completion of execution of the Work Plan but no later than December 31, 2015. The Implementation Plan also specifies that dischargers who elect not to participate in the Work Plan approach are required to execute

applicable implementation tasks independently. In either case, the established final TMDL compliance date is as soon as possible but no later than December 31, 2015.

The table summarizing implementation tasks and schedules, Table NB-OCs-13, is shown in Exhibit 1, pp. 14 and 15. As noted, the completion date for each of the tasks is contingent on the date of Office of Administrative Law (OAL) approval (at the time of Regional Board consideration of the TMDLs, Board staff considered that these TMDLs would be effective for regulatory purposes upon OAL approval). The final TMDL compliance date was established based on the assumption that OAL approval would occur in 2008, and that no more than seven years after that approval would be required to achieve the TMDLs.

Recommended Change in Final TMDL Compliance Date

Before OAL approval can be considered, approval of the BPA by the State Board must be obtained. Accordingly, in July 2009, Regional Board staff submitted the Regional Board approved OCs TMDLs, including the implementation plan, and the administrative record to the State Board for their consideration. Clearly, there was a significant delay (from September 2007 to July 2009) in the submittal of the Regional Board approved amendment to the State Board. This delay was occasioned by the loss of the staff person responsible for development of the OCs TMDLs, other staff resource limitations and the demands of other high priority work.

In light of the delay in the approval process, Board staff determined that it would be appropriate to consider revising the final TMDL compliance date. Accordingly, the Basin Plan amendment was withdrawn from State Board consideration in July 2010.

The final compliance date (as soon as possible but no later than December 31, 2015) specified in the TMDL implementation plan did not anticipate the period of time that has lapsed since Regional Board adoption of the BPA on September 7, 2007, and its presentation for State Board and other agency approval. The TMDLs/implementation plan adopted by the Regional Board in 2007 specify schedules for completion of the individual implementation tasks that extend for specific periods *after* the date of OAL approval, and the final compliance date was based on the date anticipated for OAL approval. The Regional Board adopted this approach recognizing that early implementation efforts might prove inappropriate and wasteful if, for some reason, the TMDLs/implementation plan were to be revised as the amendment proceeded through the approval process. An extended compliance date, as now being proposed, would be consistent with the Regional Board's original intent to provide a specific time period to achieve the TMDLs once the TMDLs are approved by OAL.

The approval process for a revised BPA, if adopted by the Regional Board, is expected to require on the order of one to two years. It is reasonable to provide an additional period of time for implementation of measures to achieve compliance with the TMDLs once the approval process is complete. Given uncertainties in the schedule for other agency approvals, Board staff recommends that the date to achieve final compliance with the TMDLs be revised from "as soon as possible but no later than December 31,

2015” to “as soon as possible but no later than seven years from the date of OAL approval”. The date certain for final compliance would be established based on the date of OAL approval, and inserted in the Basin Plan amendment after OAL approval. Proposed changes to the final compliance date are shown in Attachment 1 to Tentative Resolution No R8-2011-0037.

Other Recommendations

In addition to the recommendation to revise the final TMDL compliance date, Board staff recommends the minor modifications shown in underline/strikeout format in the draft revised amendment shown in Attachment 1 to Resolution No. R8-2011-0037. These modifications will correct grammatical and other non-substantive errors in the text, and provide clarification regarding acronyms employed.

In comments provided to the State Board, USEPA has indicated support of the Regional Board’s OCs TMDLs BPA, based on the technical approach and adaptive implementation plan, and urged the approval of the TMDLs. USEPA also suggested the inclusion of language, in the adopting resolution or elsewhere, to make clear that the approved TMDLs would replace those promulgated by USEPA. USEPA’s recommendation is reflected in Resolution No. R8-2011-0037, Finding 18.

Alternatives

The Regional Board could elect not to revise the final compliance date (as soon as possible but no later than December 31, 2015) that is specified in the TMDLs adopted in 2007. This would not be consistent with the Regional Board’s intent to allow a compliance period with a specific timeframe once the TMDLs are approved by OAL. Nor would it provide adequate time to implement and complete the measures to achieve compliance.

The Regional Board could also consider revising the final compliance date to an alternative time certain, based on more or less than the seven years from OAL approval recommended by Board staff. The seven year time period would be consistent with the Regional Board’s original schedule for final compliance beyond OAL approval. A shorter time frame would likely not provide sufficient time to complete and implement the Work Plan and other tasks specified in the Implementation Plan to achieve TMDL compliance. A longer time frame may delay compliance with the TMDLs and thus prolong impairment of surface waters within the Newport Bay watershed due to the organochlorine compounds.

Additional CEQA Consideration

The Regional Board is required to comply with the California Environmental Quality Act (CEQA)¹ when considering an amendment to the Basin Plan². The Regional Board was

¹ Public Resources Code Sec. 21000 *et seq*

² Public Resources Code Sec. 21080

the Lead Agency responsible to evaluate the potential environmental impacts of the OCs TMDL Basin Plan amendment (Attachment 2 to Resolution No. R8-2007-0024)(Exhibit 1), and, in particular, the potential effects of reasonably foreseeable methods of compliance with the adopted organochlorine compounds TMDLs. The State Resources Agency has certified the Water Quality Control (Basin) Planning Program of the State and Regional Boards as exempt from the requirement to prepare an Environmental Impact Report (EIR), Negative Declaration (ND) or Initial Study³. In lieu of preparing these documents, the Regional Board, in compliance with State Board regulations on exempt regulatory programs, prepared two written reports: the Substitute Environmental Document (SED) dated July 25, 2007 and the November 17, 2006 TMDL technical staff report ("Total Maximum Daily Loads for Organochlorine Compounds - San Diego Creek: Total DDT and Toxaphene; Upper and Lower Newport Bay: Total DDT, Chlordane, Total PCBs, Orange County, California"). These reports describe the Basin Plan amendment and its technical basis and an implementation plan, and identified reasonable alternatives and mitigation measures. Regional Board staff also prepared supplemental staff reports (January 7, 2007, April 20, 2007 and September 7, 2007) to describe changes to the amendment initially proposed.

To fulfill its obligations pursuant to CEQA, the Regional Board completed the requisite environmental and economic analysis, including an environmental checklist. These analyses took into account possible alternative final TMDL compliance dates and whether there would be any different environmental effect associated with a longer or shorter compliance period. The conclusion was that a longer compliance date might result in reduced environmental impact if the result of the extended compliance period was a reduction in the number of BMPs necessary to achieve compliance, or a change in the type of BMPs needed to those with less environmental impact. In contrast, it was concluded that a shorter TMDL compliance time frame could result in greater environmental impact if the shorter compliance period limited the opportunity to evaluate and refine BMPs to optimize their efficacy while minimizing their environmental effect (SED, Section 7)(Ref. 2).

Taking these analyses into account, in approving Resolution No. R8-2007-0024, the Regional Board adopted "Findings of Fact and Statement of Overriding Considerations" (Attachment 1 to Resolution No. R8-2007-0024) (Exhibit 2). Regional Board staff has reviewed the SED, the technical staff report, and Findings of Fact/Statement of Overriding Considerations to determine whether and in what manner, if any, the extension of the final compliance date for the OCs TMDLs now proposed would modify the Regional Board's previously approved CEQA determinations, necessitating reconsideration of the SED, Environmental Checklist and/or the Findings of Fact/Statement of Overriding Considerations. Regional Board staff concludes that changing the TMDL compliance date would have no effect on the environmental analysis. Therefore, as part of the approval of Resolution No. R8-2011-0037, Regional Board staff recommends that the Regional Board reaffirm the Findings of Fact and Statement of Overriding Considerations approved on September 7, 2007.

³ California Code of Regulations, Title 14, Sec. 15251(g)

Economics

Section 9.0 of the TMDL technical staff report, "Total Maximum Daily Loads for Organochlorine Compounds - San Diego Creek: Total DDT and Toxaphene; Upper and Lower Newport Bay: Total DDT, Chlordane, Total PCBs, Orange County, California" prepared by Regional Board staff and dated November 17, 2006, discussed the costs of reasonably foreseeable methods of compliance with the OCs TMDLs. The 2006 cost information was estimated using information obtained from handbooks compiled by the U.S. Natural Resources Conservation Service (NRCS) and California Stormwater Quality Association (CASQA). It is likely that the costs for some or all of the BMPs have increased over time. Delays in consideration of approval of the TMDLs and their implementation may have resulted in cost savings to the responsible parties during the period of delay.

While economics must be considered, there is no statutory requirement for a formal cost-benefit analysis.

Peer Review

Scientific peer review of the proposed OCs TMDLs was conducted prior to their approval by the Regional Board in September 7, 2007. The proposed changes to the Regional Board-approved OCs TMDLs do not raise any scientific issues that would necessitate additional scientific peer review.

STAFF RECOMMENDATION

Regional Board staff recommends that the Regional Board approve Resolution No. R8-2011-0037, amending the organochlorine compounds TMDLs Basin Plan amendment approved by the Regional Board on September 7, 2007 (Resolution No. R8-2007-0024) as set forth in Attachment 1 to Resolution No. R8-2011-0037. The revised Basin Plan amendment that would be presented to the State Board for consideration of approval is shown in Attachment 2 to Resolution No. R8-2011-0037.

ATTACHMENTS TO STAFF REPORT

ATTACHMENT	TITLE
Exhibit 1	Attachment 2 to Resolution No. R8-2007-0024: San Diego Creek and Upper and Lower Newport Bay Organochlorine Compounds TMDLs Basin Plan amendment
Exhibit 2	Findings of Fact and Statement of Overriding Considerations (Attachment 1 to Resolution No. R8-2007-0024)
Tentative Resolution No. R8-2011-0037	
	Attachment 1: Draft Revised Organochlorine Compounds TMDLs Basin Plan amendment "Underline/Strikeout Version"

	Attachment 2: Revised San Diego Creek and Upper and Lower Newport Bay Organochlorine Compounds TMDLs Basin Plan amendment
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REFERENCES

1. Total Maximum Daily Loads for Organochlorine Compounds; San Diego Creek: Total DDT and Toxaphene; Upper and Lower Newport Bay: Total DDT, Chlordane, Total PCBs, Orange County, California. Santa Ana Regional Water Quality Control Board. Prepared by Kathy Rose. November 17, 2006.
2. Environmental Checklist and Analysis; Substitute Environmental Document for the Organochlorine Compounds Total Maximum Daily Loads, San Diego Creek, Upper Newport Bay and Lower Newport Bay, Orange County, CA. California Regional Water Quality Control Board, Santa Ana Region. July 25, 2007.