

STATE WATER RESOURCES CONTROL BOARD  
BOARD MEETING SESSION—DIVISION OF WATER QUALITY  
OCTOBER 20, 2005

**ITEM 6**

**SUBJECT**

CONSIDERATION OF A RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES REGION TO INCORPORATE A TOTAL MAXIMUM DAILY LOAD FOR TOXIC POLLUTANTS IN SEDIMENT IN BALLONA CREEK ESTUARY

**DISCUSSION**

The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted the revised Water Quality Control Plan for the Los Angeles Region (Basin Plan) under Resolution No. 94-07 on June 13, 1994. The revised Basin Plan was approved by the State Water Resources Control Board (State Water Board) on November 17, 1994 and by the Office of Administrative Law (OAL) on February 23, 1995.

The Basin Plan sets standards to protect all waters in the Los Angeles Region and prescribes programs to implement these standards. The standards consist of the designated beneficial uses of the waters, narrative and numeric objectives to protect these uses, and the State's Antidegradation Policy.

Ballona Creek Estuary was identified as impaired for toxic pollutants in sediment under section 303(d) of the Clean Water Act (CWA) in 1996, 1998, and again in 2002. In making this finding, the Los Angeles Water Board determined that some of the designated water quality objectives and beneficial uses for Ballona Creek Estuary are not being attained. The Basin Plan contains several narrative objectives applicable to pollutants in sediment but no numeric sediment objectives. Los Angeles Water Board staff therefore applied best professional judgment to define what constituted impairment.

For the 2002 listing cycle, Los Angeles Water Board staff evaluated sediment contamination using sediment quality guidelines developed by the National Oceanic and Atmospheric Administration (NOAA) and the State of Florida. The guidelines are based on empirical data that correlate chemical concentrations in the sediment with adverse effects on aquatic biota at various life stages. Ballona Creek Estuary was determined to have levels of lead, zinc, chlordane, dichlorodiphenyltrichloroethane (DDT) isomers and metabolites, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs) in the sediment that exceeded these guidelines. Additionally, the Estuary was listed for sediment toxicity.

The U.S. Environmental Protection Agency (USEPA) and the State and Los Angeles Water Boards found that the sediment listing for Ballona Creek (main tributary to the Estuary) for toxic pollutants in the sediment was erroneous, and the listing should be applied to Ballona Creek

Estuary instead. Thus, Ballona Creek Estuary should additionally have been listed on the 2002-303(d) list for excess levels of cadmium, copper, and silver in the sediment.

The Los Angeles Water Board has identified the following designated beneficial uses of the Estuary as impaired due to contaminants in the sediment: water contact recreation (REC1); non-contact water recreation (REC2); estuarine habitat (EST); marine habitat (MAR); wildlife habitat (WILD); rare and threatened or endangered species (RARE); migration of aquatic organisms (MIGR); reproduction and early development of fish (SPWN); commercial and sport fishing (COMM); and shellfish harvesting (SHELL).

Because Ballona Creek Estuary was listed as impaired under section 303(d), the CWA requires that a Total Maximum Daily Load (TMDL) be established for this water body. A TMDL specifies load allocations for nonpoint sources and wasteload allocations for point sources that, when implemented, are expected to result in the attainment of applicable water quality standards. This TMDL is subject to a federal Consent Decree (Heal the Bay, Inc; Santa Monica BayKeeper, Inc. v. Browner) that originally required a TMDL be established, or approved, by USEPA by March 22, 2005 to address the listed impairments. However, this deadline was extended to December 22, 2005.

On July 7, 2005, the Los Angeles Water Board adopted Resolution No. R05-008 ([Attachment](#)), amending the Basin Plan by establishing a TMDL for cadmium, copper, lead, silver, zinc, chlordane, total DDTs (the sum of 4,4' DDT; 2,4' DDT; 4,4' DDE; 2,4' DDE; 4,4' DDD; and 2,4' DDD), total PCBs, and total PAHs in the sediment for Ballona Creek Estuary.

The TMDL specifies concentration-based, numeric targets (measured as amount of pollutant per kilogram of sediment) for all of the listed sediment contaminants. The Effects Range-Low (ERL) values from NOAA sediment quality guidelines were chosen as conservative targets because they were the lowest screening thresholds applied in the 2002 listing cycle based on nation-wide data and thus provide an implicit margin of safety. The ERL values represent the point below which no adverse biological effects are expected to occur and correspond to the tenth percentile of NOAA data correlating pollutant concentrations with biological effects.

The pollutants being addressed have a high affinity for soil particles and persist in the environment. Chlordane and DDT were once widely used insecticides but have been banned for many years. PCBs are synthetic oils that were used in transformers and capacitors, and as heat transfer fluids, and lubricants. Manufacture of PCBs has been banned since 1976. PAHs are generated as (often airborne) byproducts when burning organic material and through certain industrial processes. Cadmium, copper, lead, silver, and zinc are metals that are still used extensively in a variety of applications.

The numeric targets will be achieved primarily by limiting the amount of pollutants associated with suspended sediment in storm water runoff. Storm water runoff has been determined to be the main source of these pollutants, with minor contributions from urban runoff and atmospheric deposition. The sediment toxicity listing will be addressed by limiting the individually listed sediment pollutants. Numeric targets are required to be met fifteen years after the effective date of the TMDL.

Wasteload allocations (WLAs) are assigned to major and minor point sources in the Ballona Creek Watershed. Annual, mass-based WLAs were developed for the four major storm water permittees (Los Angeles County Municipal Separate Storm Sewer Systems (MS4), California Department of Transportation (Caltrans), general construction, and general industry permittees) by multiplying the numeric targets by the annual average deposition of fine sediment in the Estuary and apportioned using an areal weighting approach. It is expected that permit writers will translate WLAs into Best Management Practices (BMPs) when incorporating them into the permits. The general industrial storm water permittees are allowed up to seven years from the effective date of the TMDL to achieve WLAs. General construction permittees must implement approved BMPs within nine years of the effective date of the TMDL. The implementation schedule for the MS4 and Caltrans permittees consists of a phased approach, with compliance to be achieved in prescribed percentages of the watershed, with total compliance to be achieved within fifteen years.

Minor, permitted point sources in the watershed are assigned concentration-based WLAs equal to the numeric targets. These WLAs must be achieved seven years from the effective date of the TMDL.

Load allocations were developed for open space and direct atmospheric deposition by multiplying the numeric targets by the annual average deposition of fine sediment and the watershed area covered by Ballona Wetlands (considered open space) and water, respectively. Nonpoint sources will be regulated through the authority contained in sections 13263 and 13269 of the Water Code, in conformance with the State Water Board's Nonpoint Source Implementation and Enforcement Policy.

Water and sediment quality monitoring will be required to assess the effectiveness of efforts by dischargers to reduce toxic pollutant loading to the Ballona Creek Estuary, and possibly to refine the numeric targets and WLAs. In addition, multi-species sediment toxicity testing must be conducted and fish and mussel tissue data collected.

The State Water Board is in the process of developing sediment quality objectives for enclosed bays and estuaries, such as Ballona Creek Estuary. This TMDL stipulates that the Los Angeles Water Board will re-assess the TMDL within six months after the effective date of State Water Board adopted sediment quality objectives and implementation policy. The Los Angeles Water Board shall furthermore reconsider this TMDL in six years after the effective date of the TMDL, based on additional data obtained from special studies.

~~Resolution No. R05-008 authorizes the Regional Board Executive Officer to make minor, non-substantive corrections to the language of the amendment, if needed, for clarity or consistency. State Water Board staff's review of the proposed amendment identified items in the amendment that needed clarification.~~

## **POLICY ISSUE**

Should the State Water Board approve the amendment to the Basin Plan in accordance with the Staff Recommendation below?

## **FISCAL IMPACT**

Los Angeles Water Board and State Water Board staff work associated with or resulting from this action can be accommodated within budgeted resources.

## **REGIONAL WATER BOARD IMPACT**

Yes, Los Angeles Water Board.

## **STAFF RECOMMENDATION**

That the State Water Board:

1. Approves the amendment to the Basin Plan as adopted under Los Angeles Water Board Resolution No. R05-008, ~~and as corrected by the Regional Board Executive Officer.~~
2. Authorizes the Executive Director to submit the amendment adopted under Los Angeles Water Board Resolution No. R05-008, as approved, and the administrative record for this action to OAL and the TMDL to USEPA for approval.

# DRAFT

August 22, 2005  
Revised October 17, 2005

## STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2005-

### APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES REGION TO INCORPORATE A TOTAL MAXIMUM DAILY LOAD FOR TOXIC POLLUTANTS IN SEDIMENT IN BALLONA CREEK ESTUARY

#### WHEREAS:

1. The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted the revised Water Quality Control Plan for the Los Angeles Region (Basin Plan) under Resolution No. 94-07 on June 13, 1994. The revised Basin Plan was approved by the State Water Resources Control Board (State Water Board) on November 17, 1994 and by the Office of Administrative Law (OAL) on February 23, 1995.
2. On July 7, 2005, the Los Angeles Water Board adopted Resolution No. R05-008 (Attachment) amending Chapter 7 of the Basin Plan by establishing a Total Maximum Daily Load (TMDL) for cadmium, copper, lead, silver, zinc, chlordane, total isomers and metabolites of dichlorodiphenyl-trichloroethane (DDT), total polychlorinated biphenyls (PCBs), and total polynuclear aromatic hydrocarbons (PAHs) in sediment in Ballona Creek Estuary.
3. ~~Los Angeles Water Board Resolution No. R05-008 delegated to its Executive Officer authority to make minor, non-substantive corrections to the adopted amendment if needed for clarity or consistency. The State Water Board staff determined that provisions of the amendment, as adopted, warranted minor, non-substantive clarification of the language of various provisions. The State Water Board finds that the Los Angeles Water Board prepared documents and followed procedures satisfying environmental documentation requirements in accordance with the California Environmental Quality Act and all other applicable State laws and regulations.~~
4. The State Water Board finds that the amendment is in conformance with the requirements for TMDL development specified in section 303(d) of the federal Clean Water Act and State Water Board Resolution No. 68-16.
5. The State Water Board finds that the Basin Plan amendment is in conformance with the requirements of Water Code section 13240, which specifies that Regional Water Quality Control Boards shall periodically review and may revise Basin Plans, and section 13242 which requires a program of implementation of water quality objectives.
6. Basin Plan amendments do not become effective until approved by the State Water Board and until the regulatory provisions are approved by OAL. In addition, TMDLs must be approved by the U.S. Environmental Protection Agency (USEPA).

# D R A F T

~~August 22, 2005~~  
Revised October 17, 2005

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan as adopted under Los Angeles Water Board Resolution No. R05-008, ~~and as corrected by the Regional Board Executive Officer.~~
2. Authorizes the Executive Director to submit the amendment adopted under Los Angeles Water Board Resolution No. R05-008, as approved, and the administrative record for this action to OAL and the TMDL to USEPA for approval.

## CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 20, 2005.

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Debbie Irvin  
Clerk to the Board