DRAFT

September 29, **2006**

STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION - DIVISION OF WATER QUALITY
DATE: TO BE DETERMINED

ITEM #

SUBJECT

CONSIDERATION OF A RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES REGION INCORPORATING THE SAN GABRIEL RIVER AND IMPAIRED TRIBUTARIES METALS AND SELENIUM TOTAL MAXIMUM DAILY LOAD (TMDL)

DISCUSSION

Segments of the San Gabriel River and its tributaries are on the Clean Water Act section 303(d) list because they do not meet water quality standards for copper, lead, zinc, and selenium. The beneficial uses most affected by metals and selenium loadings into the San Gabriel River and its tributaries include those associated with aquatic life; water supply; wildlife habitat; rare, threatened or endangered species; warm freshwater habitat; wetlands; and groundwater recharge. Metals and selenium listings are all subject to a consent decree between the U.S. Environmental Protection Agency (USEPA) and Heal the Bay, et. al. USEPA must approve this TMDL by March 22, 2007, or USEPA will be required to establish a TMDL itself. During wet weather, urban runoff is a significant source of metals and selenium. During dry weather, both urban runoff through storm drains, as well as discharges from water reclamation plants (WRPs), power plants, and other point sources are major sources. Power plants are the dominant sources of flow and copper loading to the San Gabriel River Estuary (Estuary) during dry weather. Indirect atmospheric deposition on the land surface, washed off during storms, is a large source. The TMDL Implementation Plan includes special studies to address atmospheric deposition and open space sources. Storm water runoff during wet weather is the dominant source of annual metals loading to the San Gabriel River.

On July 13, 2006, the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted Resolution No. R06-014, which amended the Water Quality Control Plan for the Los Angeles Region (Basin Plan), incorporating the San Gabriel River and impaired tributaries metals and selenium TMDL. The Basin Plan amendment specifies wet-weather and dry-weather numeric targets for metals and selenium in San Gabriel River Reach 2, Coyote Creek, San Jose Creek Reach 1, and the Estuary; establishes wasteload allocations for point source discharges and load allocations for nonpoint source discharges of metals and selenium; provides a compliance schedule for permittees; and provides for ambient water quality monitoring and TMDL effectiveness monitoring programs to assess compliance with wasteload allocations.

<u>Numeric Targets</u>

The amendment establishes wet- and dry-weather numeric targets, from which load allocations and wasteload allocations were calculated. The targets include wet-weather and dry-weather water quality targets for copper, lead, zinc, and selenium, which are based on the California Toxics Rule (40 C.F. R. section 131.38) criteria. Saltwater targets were developed for the Estuary, and freshwater targets were developed for all other reaches. Freshwater numeric targets (except selenium) were adjusted for water hardness in each reach.

TMDL

The amendment establishes wasteload allocations and load allocations for copper, lead, zinc, and selenium. Metals and selenium allocations were developed for upstream reaches and tributaries that drain to impaired reaches to ensure that they do not contribute to impairments elsewhere in the San Gabriel River Watershed. The scientific basis for the TMDL was subjected to external scientific peer review, and TMDL was revised as appropriate. Copper, lead, zinc, and selenium have wet-weather and dry-weather wasteload allocations and load allocations that will be applied to non-storm water program National Pollutant Discharge Elimination System (NPDES) permittees (including WRPs, publically owned treatment works, and power plants) and to storm water permittees. Under dry-weather conditions, when point source discharges are the primary sources of stream flows, non-storm water program point sources (including WRPs and power plants) and storm water permittees are assigned concentration-base wasteload allocations. Under wet-weather conditions, non-storm water program point sources are assigned concentration-based wasteload allocations equal to wet-weather numeric targets. The combined wet-weather wasteload allocations for storm water permittees are equal to the loading capacities minus the load allocations for open space and direct air deposition. Nonpoint sources may include tributaries that drain the open space areas of the watershed and direct atmospheric deposition of metals on water and indirect atmospheric deposition on land that is washed off during storms. These sources are assigned load allocations for copper, lead, zinc, and selenium.

Implementation

For non-storm water permittees (including general permits, minor permits, power plant and publicly owned treatment works permits, and other major permits) wasteload allocations become permit limits at the time of permit issuance, renewal, or re-opener, and permittees have up to four years to implement compliance measures. General industrial permittees have four years to comply with interim wet-weather wasteload allocations and have nine years to comply with final wet-weather wasteload allocations. These permittees will conduct annual monitoring and reporting of best management practices (BMP) performance and progress toward meeting the interim and final wasteload allocations. General construction storm water permittees will conduct BMP effectiveness studies and submit results six years after the TMDL effective date. Then, those premittees must adopt approved BMPs by eight years after the TMDL. Municipal separate storm sewer system (MS4) and California Department of Transportation (Caltrans) storm water permittees must achieve wet-weather and dry-weather wasteload allocations in increasing percentages of the watershed at six and eight years, with 100 percent compliance with dry-weather wasteload allocations in ten years, and with wet-weather wasteload allocations in 15 years. The MS4 and Caltrans implementation schedule may be extended, upon Los Angeles Water Board approval, if an integrated resources approach is employed. For point sources, the TMDL will be implemented through NPDES permits. For nonpoint sources, the TMDL will be implemented through Water Code sections 13263 and 13269 and in conformance with the State Water Board's Nonpoint Source Implementation and Enforcement Policy and the Los Angeles Water Board's Conditional Waiver for Discharges from Irrigated Lands. Structural and non-structural management measures and BMPs may be used to achieve compliance with the wasteload allocations.

Monitoring

The proposed TMDL assesses compliance with wasteload allocations by requiring MS4 and Caltrans NPDES permittees to conduct ambient water quality monitoring and collect sediment samples in the Estuary. Storm water permittees will be required to evaluate the effectiveness of

BMPs undertaken to meet wasteload allocations. In addition, WRPs, power plants, and other non-storm water NPDES permittees will monitor effluent discharges for compliance with wasteload allocations. The monitoring program also requires the collection of additional data to evaluate the uncertainties and assumptions made in development of the TMDL.

Costs

The Los Angeles Water Board determined that storm water permittees and power plants are the two types of permitted discharges reasonably expected to incur additional costs as a result of this TMDL. Cost estimates for storm water permittees is based on a combination of structural and non-structural BMPs that would likely be used to achieve compliance using a phased implementation approach. Cost estimates were derived using USEPA data for urban storm water BMPs, Caltrans' BMP Retrofit Pilot Program, and Federal Highway Administration data. The total estimated cost ranges from $1.4 to $1.9 billion dollars with an estimated $205 million per year for maintenance. For the Haynes and Alamitos power plants, the cost estimate assumes relocation of their discharges from the Estuary, a reasonably foreseeable means of compliance, though not a requirement of the TMDL. Costs for this compliance scenario range from $304 to $385 million dollars.

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 will be addressed with existing and future 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 to incorporate the San Gabriel River and impaired tributaries metals and selenium TMDL as adopted in Los Angeles Water Board Resolution No. R06-014.

2. Authorizes the Executive Director or designee to transmit the amendment and administrative record for this action to the Office of Administrative Law and the TMDL to USEPA for approval.

DRAFT

September 29, **2006**

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2006-

APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES REGION INCORPORATING THE SAN GABRIEL RIVER AND IMPAIRED TRIBUTARIES METALS AND SELENIUM TOTAL MAXIMUM DAILY LOAD (TMDL)

WHEREAS:

1. On July 13, 2006, the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted Resolution No. R06-014 (Attachment) amending the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to incorporate the San Gabriel River and impaired tributaries metals and selenium TMDL.

2. The Los Angeles Water Board found that the technical staff report, responses to comments, the resolution, and the environmental checklist comply with the requirements of the Certified Regulatory Program for the California Environmental Quality Act as specified in Public Resources Code, section 21000 et seq.

3. The Los Angeles Water Board found the proposed amendment could have a significant adverse effect on water, public services, and utilities. However, there are feasible alternatives, mitigation measures, or both that would substantially lessen any significant adverse impact. To the extent the alternatives, mitigation measures, or both are not deemed feasible by responsible public agencies, the necessity of implementing the federally required TMDL and reducing the elevated metals and selenium from San Gabriel River and its impaired tributaries outweigh the unavoidable adverse environmental effects.

4. The Los Angeles Water Board found that the additions of this proposed amendment would result in no adverse effect on wildlife, and the proposed amendment would be consistent with the State Antidegradation Policy (State Water Resources Control Board [State Water Board] Resolution No. 68-16) and federal antidegradation requirements.

5. The San Gabriel River and its tributaries have been identified under the federal Clean Water Act section 303(d) because they do not meet water quality standards due to elevated concentrations of copper, lead, selenium, and zinc in water.

6. The proposed amendment establishes numeric targets for copper, lead, zinc, and selenium in water.

7. The proposed amendment establishes an implementation program to reduce metals and selenium loads into the San Gabriel River and its tributaries including the loading capacity and allocation requirements of a TMDL.

8. The proposed amendment includes a water and sediment monitoring program that allows the Los Angeles Water Board to assess progress in reducing metals and selenium concentrations.

9. To the extent that pollutant loadings from indirect atmospheric deposition over land are being conveyed to storm water discharges, these loadings are included in the storm water wasteload allocations. Recent studies have shown that atmospheric deposition of particulates containing trace metals in the urban areas of the Los Angeles Region is a substantial source of metals contaminants on land surfaces. (Sabin et al., 2005)[1]. The Los Angeles Water Board met with the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB) to discuss the findings of recent studies. It appears that larger particulates are responsible for the highest loadings of metals in atmospheric deposition and, therefore, pose the greatest risk to water quality. The two agencies have identified the need to (1) expand monitoring of larger particulates in atmospheric deposition to better gage the potential impact to water quality; and (2) investigate the sources of these metals in order to design a control strategy. The Los Angeles Water Board and the State Water Board will continue to meet with the SCAQMD and CARB to pursue these studies and to assist in developing control strategies.

10. The State Water Board encourages local municipalities within the urban watersheds in the Los Angeles Region and Los Angeles County also to work with the SCAQMD and CARB to further the identification and control of sources of trace metals in atmospheric deposition.

11. The Los Angeles Water Board will work with municipalities and Los Angeles County to encourage building designs and best management practices that will retain pollutants on site and prevent the conveyance of pollutants from atmospheric deposition and other sources from being washed off into storm water and discharged to the San Gabriel River and its tributaries, and to other urban water bodies.

12. The State Water Board finds that the proposed Basin Plan amendment is in conformance with Water Code section 13240, which specifies that Regional Water Quality Control Boards may revise Basin Plans; section 13241, which specifies the requirement to adopt water quality objectives; and section 13242, which requires a program of implementation of water quality standards. The State Water Board also finds that the TMDL as reflected in the Basin Plan amendment is consistent with the requirements of federal Clean Water Act section 303(d).

13. A Basin Plan amendment does not become effective until approved by the State Water Board and until the regulatory provisions are approved by the Office of Administrative Law (OAL). The U.S. Environmental Protection Agency (USEPA) must also approve the TMDL.

[1] Sabin et al. "Contribution of trace metals from atmospheric deposition to stormwater runoff in small impervious urban catchment." Water Research 39 (2005) 3939-3937.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan to incorporate the San Gabriel River and impaired tributaries metals and selenium TMDL as adopted in Los Angeles Water Board Resolution No. R06-014

2. Authorizes the Executive Director or designee to transmit the amendment and 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 Board +- held on TBD.

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Song Her
Clerk to the Board