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**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 COLORADO RIVER BASIN REGION (BASIN PLAN) TO ESTABLISH A TOTAL MAXIMUM DAILY LOAD AND IMPLEMENTATION PLAN FOR BACTERIAL INDICATORS IN THE COACHELLA VALLEY STORM WATER CHANNEL

DISCUSSION

On May 16, 2007, the Colorado River Basin Regional Water Quality Control Board (Colorado River Basin Water Board) adopted Resolution No. R7-2007-0039 ([Attachment 1](#)) amending the Basin Plan to establish a Total Maximum Daily Load (TMDL) and implementation plan for bacterial indicators in the Coachella Valley Storm Water Channel CV. The Coachella Valley Storm Water Channel stretches from approximately Indio to the Salton Sea and is listed on the federal Clean Water Act (CWA) 303(d) list as not meeting water quality standards due to elevated pathogen levels. The beneficial uses most sensitive to pathogen impairment in the Coachella Valley Storm Water Channel are the contact (REC 1) and non-contact water recreation uses. Potential pathogen sources include urban runoff, natural background, agricultural runoff, bacteria regrowth, and septic system discharges.

Because the Coachella Valley Storm Water Channel is listed as not meeting water quality standards, CWA section 303(d) requires that a TMDL be established. A TMDL specifies load allocations for nonpoint sources and waste load allocations for point sources that, when implemented, are expected to result in attainment of applicable water quality standards. State law requires an implementation plan and schedule to ensure that the TMDL is met.

Water Quality Objectives and TMDL Targets

The proposed amendment uses the existing water quality standards for bacterial indicators of E. coli in the Basin Plan. Because the REC 1 beneficial use is the most sensitive to pathogen impairment, it has the most stringent water quality objectives for pathogens. These objectives were developed based on the U.S. Environmental Protection Agency (USEPA) recommended water quality criteria for bathing in fresh water, and are based on a risk of eight gastrointestinal illnesses per 1,000 swimmers in fresh water. The TMDL targets are set equal to the Basin Plan's water quality objectives for E. coli of a geometric mean of 126 most probable number (MPN) per 100 milliliters (ml) (based on a minimum of not less than five samples during a 30-day period), or 400 MPN per 100 ml for a single sample.

TMDL Allocations

The TMDL sets the allocations equal to the numeric targets. The load and waste load allocations for E. coli in the Coachella Valley Storm Water Channel for both point and nonpoint sources (including National Pollutant Discharge Elimination System [NPDES] permitted facilities, Municipal Separate Storm Sewer Systems [MS4] storm water permittees, agricultural dischargers, and discharges from tribal lands) are based on the log mean of samples collected which shall not exceed 126 MPN per 100 ml (based on a minimum of not less than five samples

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during a 30-day period), or a single sample of 400 MPN per 100 ml. Septic system discharges are given a 0 MPN per 100 ml allocation. This TMDL uses an implicit margin of safety, based on conservative assumptions, to account for uncertainties in the analysis.

Implementation

The implementation plan is divided into two phases with Phase I beginning 90 days following approval of the TMDL by USEPA. Phase I actions will take three years to complete and will focus on monitoring and addressing pathogens associated with wastewater discharges from NPDES facilities, and agricultural, urban, and storm water runoff. Phase I requirements include:

- Revising Kent SeaTech Corporation Fish Farm's NPDES permit to include E. coli limitations and monitoring. Currently, Kent SeaTech Corporation Fish Farm has an NPDES permit to discharge to Coachella Valley Storm Water Channel, but monitoring for bacteria is not required;
- Monitoring the Coachella Valley Storm Water Channel for bacteria loading from irrigated agriculture, the California Department of Transportation, federal lands, and tribal lands;
- Identifying significant agricultural, federal, and tribal dischargers to Coachella Valley Storm Water Channel and notifying them of their role in TMDL implementation;
- Receiving a written report from each tribal entity, or from USEPA, describing measures to ensure waste discharges from tribal property do not violate or contribute to a violation of this TMDL;
- Revising MS4 permits to include monitoring and reporting for E. coli, and issue similar storm water permits or other directives to other entities/municipalities discharging to Coachella Valley Storm Water Channel (if any);
- Preparing an amendment to the Basin Plan that rectifies current limitations of having three bacteria indicator organisms, clarifies which indicators apply to which surface waters of the Region, and as necessary, develops site-specific objectives; and
- Monitoring, tracking, and surveying the Coachella Valley Storm Water Channel to determine if Phase I activities achieve bacteria water quality objectives.

Although preliminary surveys by Colorado River Basin Water Board staff indicate that the threat posed by septic systems is minor, a study to define the number and location of improperly functioning systems in the Coachella Valley Storm Water Channel area of influence may determine if and how bacteria from septic systems reach the channel. Such a study is unwarranted until more threatening contaminant sources are evaluated, such as urban and storm water runoff, which have demonstrated high levels of bacteria in discharges to the Coachella Valley Storm Water Channel on numerous occasions.

If monitoring and assessment in Phase I indicate that waste discharges to Coachella Valley Storm Water Channel from anthropogenic activities violate this TMDL, and that violations persist despite recommended operation and maintenance procedures and control measures in their existing permits, the Colorado River Basin Water Board will require the implementation of additional actions to control pathogenic sources in Phase II. The Colorado River Basin Water Board will require responsible parties to select and implement new/additional management

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practices (MPs) for Phase II following characterization of sources and whether these sources can be controlled based on issues such as natural background conditions and cost of compliance.

Monitoring

Monitoring data will be provided to Colorado River Basin Water Board staff on a quarterly basis and will be used to: (1) assess the potential to de-list the Coachella Valley Storm Water Channel for pathogens from the federal 303(d) list based on the requirements of the State Water Resources Control Board (State Water Board) Water Quality Control Policy for developing California's Clean Water Act section 303(d) List; and (2) assess contributions of bacteria to the Coachella Valley Storm Water Channel from anthropogenic or municipal sources (storm water, agricultural drains, urban runoff, septic systems, and others). If Phase I monitoring results do not identify sources of bacteria indicator pollution, a DNA study to characterize human-controlled contributions, a bacteria regrowth study, a wildlife inventory, and a domestic pet census may be conducted during Phase II of TMDL implementation.

The first review of this TMDL is scheduled for completion three years after USEPA approves the TMDL in order to provide adequate time for implementation and data collection. Subsequent reviews will be conducted concurrently with the Triennial Review of the Basin Plan. If TMDL progress is insufficient, Colorado River Basin Water Board staff will recommend to the Colorado River Basin Water Board additional MPs to control pollutant sources, enforcement action, TMDL revision, or other means to achieve water quality objectives.

During review of this Basin Plan amendment, State Water Board staff found that it was necessary to make several minor, non-substantive corrections to the language for clarity and consistency. Colorado River Basin Water Board Resolution No. R7-2007-0039 ([Attachment 1](#)), adopted on May 16, 2007, allows its Executive Officer to make such corrections to the amendment language as needed. The Executive Officer submitted the corrections in a memorandum dated October 23, 2007. The memorandum includes the underline/strikeout version of the Basin Plan amendment showing these non-substantive corrections ([Attachment 2](#)).

POLICY ISSUE

Should the State Water Board approve the amendment to the Basin Plan to establish a TMDL and implementation plan for bacterial indicators in the Coachella Valley Storm Water Channel?

FISCAL IMPACT

Colorado River Basin 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, approval of this resolution will amend the Colorado River Basin Water Board's Basin Plan.

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STAFF RECOMMENDATION

That the State Water Board:

1. Approves the amendment to the Basin Plan adopted under Colorado River Basin Water Board Resolution No. R7-2007-0039 ([Attachment 1](#)) with minor, non-substantive changes submitted by the Executive Officer.
2. Authorizes the Executive Director or designee to submit the amendment, as approved, and the administrative record for this action to the Office of Administrative Law and the TMDL to USEPA for approval.

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STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2008-

APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE COLORADO RIVER BASIN REGION (BASIN PLAN) TO ESTABLISH A TOTAL MAXIMUM DAILY LOAD AND IMPLEMENTATION PLAN FOR BACTERIAL INDICATORS IN THE COACHELLA VALLEY STORM WATER CHANNEL

WHEREAS:

1. The Colorado River Basin Regional Water Quality Control Board (Colorado River Basin Water Board) adopted a revised Basin Plan on November 17, 1993, which was approved by the State Water Resources Control Board (State Water Board) on February 17, 1994 and by the Office of Administrative Law (OAL) on August 3, 1994.
2. On May 16, 2007, the Colorado River Basin Water Board adopted Resolution No. R7-2007-0039 ([Attachment 1](#)) amending the Basin Plan to establish a Total Maximum Daily Load (TMDL) and implementation plan for bacterial indicators in the Coachella Valley Storm Water Channel.
3. State Water Board staff determined that minor, non-substantive changes to the language of the Basin Plan amendment were necessary to correct minor clerical errors, to improve clarity, and to ensure that the amendment is consistent with the Basin Plan update adopted under Resolution No. R7-2007-0039 ([Attachment 1](#)). The Colorado River Basin Water Board's Executive Officer submitted these minor changes in a memorandum dated October 23, 2007 ([Attachment 2](#)).
4. The Colorado River Basin Water Board found that the analysis contained in the Final Project Report, the California Environmental Quality Act (CEQA) "Substitute Documentation" for the proposed Basin Plan amendment, including the CEQA Checklist, the staff report, and the responses to comments complies with the requirements of the State Water Board's certified regulatory CEQA process, as set forth in the California Code of Regulations, Title 23, section 3775 et seq.
5. The Colorado River Basin Water Board found the Basin Plan amendment would not have a significant adverse effect on the environment and is consistent with the Statement of Policy with Respect to Maintaining High Quality of Waters in California ([State Water Board Resolution No. 68-16](#)) and the federal Antidegradation Policy (40 CFR part 131.12).
6. The State Water Board finds that the Basin Plan amendment is in conformance with Water Code section 13240, which specifies that Regional Water Quality Control Boards may revise Basin Plans, and section 13242, which requires a program of implementation of water quality objectives. 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).
7. A Basin Plan amendment does not become effective until approved by the State Water Board and until the regulatory provisions are approved by OAL. The TMDL must also receive approval from the U.S. Environmental Protection Agency (USEPA).

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THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan adopted under Colorado River Basin Water Board Resolution No. R7-2007-0039 ([Attachment 1](#)) with minor, non-substantive changes submitted by the Executive Officer.
2. Authorizes the Executive Director or designee to submit the amendment, as approved, and the administrative record for this action to OAL and the TMDL to USEPA for approval.

CERTIFICATION

The undersigned, Acting 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 _____ TBA _____.

Jeanine Townsend
Acting Clerk to the Board