

**STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION - DIVISION OF WATER QUALITY
APRIL 20, 2010**

ITEM 10

SUBJECT

CONSIDERATION OF A RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE CENTRAL COAST REGION (BASIN PLAN) TO: (1) ADD TOTAL MAXIMUM DAILY LOADS FOR FECAL COLIFORM IN THE PAJARO RIVER WATERSHED (INCLUDING PAJARO RIVER, SAN BENITO RIVER, LLAGAS CREEK, TEQUISQUITA SLOUGH, SAN JUAN CREEK, CARNADERO/UVAS CREEK, BIRD CREEK, PESCADERO CREEK, TRES PINOS CREEK, FURLONG (JONES) CREEK, SANTA ANA CREEK, AND PACHECHO CREEK); (2) ADD A DOMESTIC ANIMAL WASTE DISCHARGE PROHIBITION; AND (3) ADD A HUMAN FECAL MATERIAL DISCHARGE PROHIBITION

DISCUSSION

On March 20, 2009, the Central Coast Regional Water Quality Control Board (Central Coast Water Board) adopted Resolution No. R3-2009-0008 ([Attachment I](#)) amending the Basin Plan to: (1) add Total Maximum Daily Loads (TMDLs) for fecal coliform in the Pajaro River Watershed; (2) add a domestic animal waste discharge prohibition; and (3) add a human fecal material discharge prohibition. The Pajaro River Watershed includes the Pajaro River, San Benito River, Llagas Creek, Tequisquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pachecho Creek.

Impairment

The Parjaro River, San Benito River, Llagas Creek, and Tequisquita Slough are listed on the federal Clean Water Act (CWA) 303(d) list because they do not meet water quality standards for fecal coliform. San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pachecho Creek are not on the 303(d) list because of data limitations at the time of the listing but are also impaired due to fecal coliform concentrations exceeding water quality objectives. Because the Parjaro River, San Benito River, Llagas Creek, and Tequisquita are listed as not meeting water quality standards, CWA section 303(d) requires that a TMDL be established. TMDLs are also allowed under CWA section 303(d)(3) for waters not listed on the 303(d) list, and they can constitute a plan of implementation under Water Code section 13242. Therefore TMDLs were also developed for San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pachecho Creek. A TMDL specifies load allocations for nonpoint sources and wasteload 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 achieved.

The amendment addresses the impairment of the Parjaro River Watershed due to pathogens by establishing TMDLs and two prohibitions. The water quality objectives in the Basin Plan are set at established levels of indicator bacteria, in this case fecal coliform, that demonstrate the presence of fecal pollution. Indicator organisms such as these have long been used to protect bathers from illnesses that may be contracted during recreational activities in surface waters contaminated by fecal pollution. These organisms often do not cause illnesses directly, but are

good indicators of harmful pathogens. Current fecal coliform concentrations in the Pajaro River Watershed exceed the existing Basin Plan numeric water quality objectives protecting the Water Contact Recreation beneficial use.

Sources

The relative order of controllable sources contributing pathogens (indicated by fecal coliform) in the Pajaro River Watershed, in decreasing order of contribution are: (1) storm drain discharges to municipally owned and operated separate storm sewer systems (MS4s), which must be covered by a National Pollutant Discharge Elimination System (NPDES) permit; (2) domestic animal discharges that do not discharge to MS4s; (3) spills and leaks from Sanitary Sewer Collection and Treatment Systems; and (4) leaks and spills from private sewer laterals connected to municipal sanitary sewer collection systems. Natural, uncontrollable sources also contribute fecal coliform in the Pajaro River Watershed.

Targets and TMDL Allocations

The amendment establishes a numeric target equal to the Basin Plan water quality objectives for the protection of the water contact recreation beneficial use. The numeric target used to develop the TMDLs is:

Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 most probable number (MPN) per 100 milliliters (mL), nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.

The load and waste load allocations for all sources are set equal to the numeric target. These responsible parties include MS4s covered by NPDES permits and owners/operators of land used for/containing domestic animals. The responsible party for each source shall not discharge or release a load of fecal coliform that will increase the load above the assimilative capacity of a water body. All responsible parties for sources of fecal coliform to the Pajaro River Watershed will be accountable to attain these allocations. The parties responsible for the allocations to controllable sources are not responsible for the allocation to natural (uncontrollable) sources. Responsible parties that must comply with the Human Fecal Material Discharge Prohibition are assigned a waste load allocation of zero; no fecal coliform bacteria load originating from human sources of fecal material is allowed. These responsible parties include cities and counties for sources from spills or leaks of sewer collection and treatment systems as well as owners of private laterals responsible for sources from spills or leaks. The parties responsible for the allocations to controllable sources are not responsible for the allocation to natural sources. An implicit margin of safety is incorporated in the TMDLs through conservative assumptions.

Prohibitions

Two prohibitions are established as part of this amendment, the domestic animal waste discharge prohibition and the human fecal material discharge prohibition. The domestic animal waste discharge prohibition will address domestic animal discharges in areas that do not drain to MS4s. Central Coast Water Board staff estimated that domestic animal discharges in areas that do not drain to MS4s are the second largest contributor of fecal coliform. Domestic animals include cattle within grazing lands and farm animals such as horses, cattle, chickens, goats, dogs, and cats within rural residential areas of the watershed. The human fecal material discharge prohibition is intended to address spills and leaks from sanitary sewer collection and treatment systems and private sewer lateral leaks. Central Coast Water Board concluded that

spills and leaks from both collection systems and private sewer lateral leaks contributed fecal coliform to surface waters in the watershed.

Implementation

The purpose of the implementation plan is to describe the steps necessary to reduce fecal coliform loads to achieve these TMDLs. The Central Coast Water Board will address fecal indicator bacteria discharged from the Counties of Santa Cruz, Santa Clara, and Monterey, and the Cities of Hollister, Gilroy, Morgan Hill, and Watsonville MS4 entities by regulating them under the provisions of the State Water Resource Control Board's General Permit for the Discharges of Storm Water from Small MS4s (General Permit) (NPDES No. CAS000004). As enrollees under the General Permit, the MS4 entities must develop and implement Storm Water Management Plans (SWMPs) that control urban runoff discharges into and from their MS4s. To address the MS4 entities' TMDL wasteload allocations, the Central Coast Water Board will require the MS4 entities to specifically target fecal indicator bacteria in urban runoff through incorporation of wasteload allocation attainment plans in their SWMPs.

The Central Coast Water Board will use the Domestic Animal Waste Discharge Prohibition to address sources of fecal material from domestic animals that do not drain to the MS4s. Owners and/or operators of lands containing domestic animals in the Pajaro River Watershed must comply with the Domestic Animal Waste Discharge Prohibition. Compliance with the Domestic Animal Waste Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Entities with jurisdiction over sewer collection systems in the Pajaro River Watershed must comply with the Human Fecal Material Discharge Prohibition; compliance with the Human Fecal Material Discharge Prohibition implies compliance with the load allocations for these TMDLs. To comply with the Human Fecal Material Discharge Prohibition, the entities with jurisdiction over sewer collection systems must continue to implement their Collection System Management Plans, as required by their Waste Discharge Requirements and NPDES permits. In addition, the sanitary collection system jurisdictions are required to improve maintenance of their sewage collection systems, including identification, correction, and prevention of sewage leaks in portions of the collection systems that run through or adjacent to, impaired surface waters within the Pajaro River Watershed.

Individual owners and operators of private laterals to sanitary sewer collection systems are ultimately responsible for maintenance of their private laterals and are, therefore, responsible for complying with the Human Fecal Material Discharge Prohibition; compliance with the prohibition implies compliance with applicable load allocations for these TMDLs.

Evaluation

Every three years, beginning three years after TMDLs are approved by the Office of Administrative Law (OAL), the Central Coast Water Board has committed to perform a review of implementation actions, monitoring results, and evaluations submitted by responsible parties of progress toward achieving applicable allocations. The Central Coast Water Board plans to use annual reports, nonpoint source pollution control implementation programs, evaluations submitted by responsible parties, and other available information to determine progress toward implementing required actions and achieving the allocations and the numeric target. The Central Coast Water Board plans to continue three-year reviews until the TMDLs are achieved. The target date to achieve the TMDLs is 13 years after the date of approval by the OAL.

Cost Estimate

Most of the implementation actions, monitoring, and reporting costs are currently required under existing Water Board permits and requirements. However, costs for additional measures that may be required as a result of these TMDLs have been estimated. Additional pathogen-specific management measures for local agencies responsible for stormwater management ranges from an estimated 2 to 15 percent increase to their annual program budget. Additional annual monitoring costs are estimated to be about \$5,600. Estimated costs associated with repair of a leaking private lateral is estimated to be \$5,000 with the cost to test for leaking private laterals at approximately \$1,000. For the control of livestock and domesticated animals the measures could include barriers, bunkers, corral, and professional stabling with estimates of \$2,500-\$4,000 per mile, \$3,000-\$15,000 per structure, \$3,000-\$4,000 per gate, and \$50-\$550 per month per horse respectively. Central Coast Water Board staff concluded that these costs are reasonable relative to the water quality benefits to be derived from adopting these TMDLs.

POLICY ISSUE

Should the State Water Board approve the amendment to the Basin Plan to: (1) add Total Maximum Daily Loads for fecal coliform in the Pajaro River Watershed (including Pajaro River, San Benito River, Llagas Creek, Tequisquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pachecho Creek); (2) add a domestic animal waste discharge prohibition; and (3) add a human fecal material discharge prohibition.

FISCAL IMPACT

Central Coast 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 Central Coast Water Board's Basin Plan.

STAFF RECOMMENDATION

That the State Water Board:

1. Approves the amendment to the Basin Plan adopted under Central Coast Water Board Resolution No. R3-2009-0008.

Authorizes the Executive Director or designee to submit the amendment adopted under Central Coast Water Board Resolution No. R3-2009-0008, as approved, and the administrative record for this action to the OAL and the TMDLs to the U.S. Environmental Protection Agency for approval.

State Water Board action on this item will assist the Water Boards in reaching Goal 1 of the Strategic Plan Update: 2008-2012 to implement strategies to fully support the beneficial uses for all 2006-listed water bodies by 2030. In particular, approval of this item will assist in fulfilling Action 1 to prepare, adopt, and take steps to carry out Total Maximum Daily Loads (TMDLs), designed to meet water quality standards, for all impaired water bodies on the 2006 list.

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STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2010-

APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE CENTRAL COAST REGION (BASIN PLAN) TO (1) ADD TOTAL MAXIMUM DAILY LOADS FOR FECAL COLIFORM IN THE PAJARO RIVER WATERSHED (INCLUDING PAJARO RIVER, SAN BENITO RIVER, LLAGAS CREEK, TEQUISQUITA SLOUGH, SAN JUAN CREEK, CARNADERO/UVAS CREEK, BIRD CREEK, PESCADERO CREEK, TRES PINOS CREEK, FURLONG (JONES) CREEK, SANTA ANA CREEK, AND PACHECHO CREEK); (2) ADD A DOMESTIC ANIMAL WASTE DISCHARGE PROHIBITION; AND (3) ADD A HUMAN FECAL MATERIAL DISCHARGE PROHIBITION

WHEREAS:

1. On March 20, 2009, the Central Coast Regional Water Quality Control Board (Central Coast Water Board) adopted Resolution No. R3-2009-0008 ([Attachment I](#)) amending the Basin Plan to: (1) add Total Maximum Daily Loads (TMDLs) for fecal coliform in the Pajaro River Watershed; (2) add a domestic animal waste discharge prohibition; and (3) add a human fecal material discharge prohibition.
2. The Central Coast Water Board may prohibit certain types of waste discharge pursuant to California Water Code section 13243. The implementation plan for the TMDLs for the Pajaro River Watershed requires compliance with two prohibitions for fecal material pollution discharges. Supporting documentation for creation of the domestic animal waste discharge prohibition and human fecal material discharge prohibition is provided in the Final Project Reports for Total Maximum Daily Load for fecal coliform in Pajaro River, San Benito River, Llagas Creek, Tequisquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pachecho Creek. Consistent with California Water Code section 13244, the Central Coast Water Board complied with public notice and hearing requirements for the prohibitions.
3. The Central Coast Water Board found that the adoption of these TMDLs for the Pajaro River Watershed were consistent with the provisions of State Water Board [Resolution No. 68-16](#), "Statement of Policy with Respect to Maintaining High Quality of Waters in California" and 40 CFR 131.12.
4. The elements of a TMDL are described in 40 CFR 130.2 and 130.7, section 303(d) of the Clean Water Act, and USEPA guidance documents. A TMDL is defined as "the sum of individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2). The Central Coast Water Board determined that the TMDLs for fecal coliform in the Pajaro River Watershed are set at levels necessary to attain and maintain the applicable numeric water quality objectives taking into account seasonal variations and any lack of knowledge or uncertainty concerning the relationship between effluent limitations and water quality (40 CFR 130.7 (c) (1)). The regulations in 40 CFR 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters. TMDLs are often expressed as a mass load of the pollutant but can be expressed as a unit of concentration if appropriate (40 CFR 130.2(i)). Expressing these TMDLs as units of concentration is

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appropriate because an existing concentration-based water quality objective is used as the basis for the TMDLs numeric target.

5. The Central Coast Water Board concurred with the analysis contained in the Final Project Report, the California Environmental Quality Act (CEQA) "Substitute Environmental Document" for the Basin Plan Amendments, including the CEQA Checklist, the staff report and the responses to comments, and found that these analyses comply with the requirements of the State Water Board's certified regulatory CEQA process, as set forth in California Code of Regulations, Title 23, section 3775 et seq. Furthermore, the Central Coast Water Board found that these analyses fulfill the Central Coast Water Board's obligations attendant with the adoption of regulations "requiring the installation of pollution control equipment, or a performance standard or treatment requirement," as set forth in section 21159 of the Public Resources Code. The Central Coast Water Board's environmental analysis has taken into account a reasonable range of environmental, economic, and technical factors.
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; section 13242, which requires a program of implementation to achieve water quality objectives; and section 13243 which authorizes Regional Water Quality Control Boards to specify certain conditions or areas where the discharges of certain types of waste will not be permitted. The State Water Board also finds that the TMDLs, as reflected in the Basin Plan amendment, are consistent with the requirements of federal Clean Water Act (CWA) section 303(d).
7. The regulatory action meets the "Necessity" standard of the Administrative Procedure Act, Government Code, section 11353, subdivision (b). The necessity of developing a TMDL is established in the TMDLs project report, the section 303(d) list, and the data contained in the administrative record documenting the pathogen impairments of the Pajaro River Watershed.
8. 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 TMDLs must also receive approval from the U.S. Environmental Protection Agency.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan adopted under Central Coast Water Board Resolution No. R3-2009-0008.

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2. Authorizes the Executive Director or designee to submit the amendment adopted under Central Coast Water Board Resolution No. R3-2009-0008, as approved, and the administrative record for this action to the OAL and the TMDLs to the U.S. Environmental Protection Agency 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 April 20, 2010.

Jeanine Townsend
Clerk to the Board