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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 CENTRAL COAST REGION (BASIN PLAN) TO: (1) REMOVE THE SHELLFISH HARVESTING BENEFICIAL USE FOR SAN LORENZO RIVER ESTUARY, (2) ADD THE SAN LORENZO RIVER WATERSHED TO THE HUMAN FECAL MATERIAL DISCHARGE PROHIBITION AND THE DOMESTIC ANIMAL WASTE DISCHARGE PROHIBITION, AND (3) ADOPT TOTAL MAXIMUM DAILY LOADS FOR PATHOGENS IN SAN LORENZO RIVER ESTUARY, SAN LORENZO RIVER, BRANCIFORTE CREEK, CAMP EVERS CREEK, CARBONERA CREEK, AND LOMPICO CREEK

DISCUSSION

On May 8, 2009, the Central Coast Regional Water Quality Control Board (Central Coast Water Board) adopted Resolution No. R3-2009-0023 ([Attachment I](#)) amending the Basin Plan to: (1) remove the Shellfish Harvesting (SHELL) beneficial use for San Lorenzo River Estuary, (2) add the San Lorenzo River Watershed to the Human Fecal Material Discharge Prohibition and the Domestic Animal Waste Discharge Prohibition, and (3) adopt Total Maximum Daily Loads for pathogens in San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek.

SHELL Removal

The first part of this amendment removes the SHELL beneficial use for the San Lorenzo River Estuary. Central Coast Water Board staff completed a Use Attainability Analysis in which they determined that the SHELL beneficial use designation for the San Lorenzo River Estuary is not attainable. Factors that preclude the attainment of the use include hydrological modifications, natural flow conditions, and physical conditions related to the natural features of the water body as well as evidence that neither historic (since 1975) nor current shellfish harvesting has occurred. Central Coast Water Board staff emphasize that, in addition to the factors that preclude attainment of the SHELL beneficial use, the Estuary appears to have been originally designated inappropriately without a thorough scientific basis. The SHELL removal was scientifically peer reviewed with the reviewer in agreement with the Central Coast Water Board staff's assessment.

Impairment

The San Lorenzo Estuary (referred to on the 303(d) list as the "San Lorenzo River Lagoon"), San Lorenzo River, Carbonera Creek, and Lompico Creek are listed on the federal Clean Water Act (CWA) 303(d) list because they do not meet water quality standards due to elevated pathogen indicator levels. Branciforte Creek and Camp Evers Creek are not on the 303(d) list but are also impaired due to fecal coliform concentrations exceeding water quality objectives. Because San Lorenzo Estuary, San Lorenzo River, Carbonera Creek, and Lompico Creek are listed as not meeting water quality standards, CWA section 303(d) requires that a TMDL be

DRAFT

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 San Lorenzo River Watershed due to pathogens by establishing TMDLs and applying two prohibitions to the watershed. 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 San Lorenzo River Watershed exceed the existing Basin Plan numeric water quality objectives protecting the Water Contact Recreation beneficial use.

Sources

Pathogen indicator organism sources include natural sources; sanitary sewer collection system leaks and spills (including but not limited to discharges from municipal sanitary sewer collection systems and private laterals connected to municipal sanitary sewer collection systems); storm drain discharges to municipally owned and operated separate storm sewer systems (MS4s) which must be covered by an National Pollutant Discharge Elimination System (NPDES) permit; onsite wastewater treatment system discharges; pet waste in areas that do not drain to MS4s; homeless person/encampment discharges in areas that do not drain to MS4s; and farm animals/livestock discharges.

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 with the exception of sewage spills and leaks, onsite wastewater disposal system discharges, and discharges from homeless persons/encampments. The responsible parties given the allocations equal to the TMDLs' target include the MS4s covered by an NPDES permit, owners/operators of land used for/containing pets, and owners/operators of land used for/containing farm animals and livestock. The responsible party for each source shall not discharge or release a load of fecal coliform that will increase the concentration above the assimilative capacity of a water body. All responsible parties for sources of fecal coliform to the San Lorenzo River Watershed will be accountable to attain these allocations. The parties responsible for the allocations to controllable sources are not responsible for natural

DRAFT

(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 the City of Santa Cruz and the City of Scotts Valley for sources from spills or leaks of the sewer collection and treatment system, owners of private laterals responsible for sources from spills or leaks, owners/operators of land that include homeless persons/encampments, and onsite wastewater treatment system discharges. An implicit margin of safety is incorporated in the TMDLs through conservative assumptions.

Prohibitions

The amendment adds the San Lorenzo River Watershed onto the list of effected areas of two Basin Plan prohibitions pending State Water Resources Control Board (State Water Board) approval. The two Basin Plan prohibitions are the domestic animal waste discharge prohibition and the human fecal material discharge prohibition. The domestic animal waste discharge prohibition is intended to address pet, farm animal, and livestock discharges in areas that do not drain to MS4s. 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 the sanitary sewer collection and treatment systems, private sewer lateral leaks, onsite wastewater disposal system discharges, and discharges from land that includes homeless persons/encampments.

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 County of Santa Cruz and the Cities of Santa Cruz and Scotts Valley MS4 entities by regulating them under the provisions of the State Water 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 MS4s must develop and implement a Storm Water Management Plan (SWMP) that controls urban runoff discharges into and from their storm water system. To address the MS4 entities TMDL wasteload allocations, the Central Coast Water Board will require the County of Santa Cruz and the Cities of Santa Cruz and Scotts Valley MS4 entities to specifically target fecal indicator bacteria in urban runoff through incorporation of a Wasteload Allocation Attainment Plan 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 MS4. Owners and/or operators of lands containing domestic animals in the San Lorenzo 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.

The entities with jurisdiction over the sewer collection systems in the San Lorenzo River Watershed are the Cities of Santa Cruz and Scotts Valley (Cities). The Cities must comply with the Human Fecal Material Discharge Prohibition and thus their wasteload allocation for sewer system spills and leaks which is zero. To comply with the Human Fecal Material Discharge Prohibition, the Cities must continue to implement their Collection System Management Plans, as required by their respective NPDES permits and Waste Discharge Requirements. In addition, the City of Santa Cruz is required to improve maintenance of its sewage collection

DRAFT

system, including identification, correction, and prevention of sewage leaks in portions of the collection system that run through or adjacent to, impaired surface waters within the San Lorenzo River Watershed. Compliance with their NPDES permits and/or Waste Discharge Requirements will demonstrate compliance with their wasteload allocation and the Human Fecal Material Discharge Prohibition.

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 the applicable load allocations for these TMDLs. However, because leaks from private laterals located in the City of Santa Cruz results in a source of fecal indicator bacteria in the City of Santa Cruz storm water systems, the MS4 entity will address fecal indicator bacteria from private lateral leaks in its Wasteload Allocation Attainment Program as required in its SWMP.

The Central Coast Water Board will address discharges from homeless persons/encampments that do not drain to the MS4s with the Human Fecal Material Discharge Prohibition. Owners of land with homeless persons must demonstrate to the satisfaction of the Executive Officer or the Water Board that they are in compliance with the Human Fecal Material Discharge Prohibition; compliance with the prohibition implies compliance with the load allocation for these TMDLs. The Central Coast Water Board will identify possible properties with homeless encampments. Identified responsible parties are required to submit reports to the Central Coast Water Board. These responsible parties shall submit a report documenting that measures are in place and effectively minimizing discharges or demonstrating that no discharge is occurring from homeless encampments.

The Central Coast Water Board will address onsite wastewater disposal system discharges with the Human Fecal Material Discharge Prohibition. Owners of onsite wastewater disposal systems must demonstrate to the satisfaction of the Executive Officer or the Central Coast Water Board that they are in compliance with the prohibition, unless it is determined that the County of Santa Cruz is making adequate progress towards implementing an approved Wastewater Management Plan, or similar, implementation program as it pertains to controlling the waste loads from onsite wastewater disposal systems in the San Lorenzo River Watershed. Compliance with the Human Fecal Material Discharge Prohibition implies compliance with the load allocation for these TMDLs.

Evaluation

Central Coast Water Board has committed to perform a review of implementation actions and monitoring results every three years beginning three years after the TMDLs are approved by the Office of Administrative Law (OAL). Central Coast Water Board plans to use annual reports, nonpoint source pollution control implementation programs, and other available information, to review implementation progress toward 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

DRAFT

management measures for local agencies (City of Santa Cruz, Scotts Valley, and County of Santa Cruz) responsible for stormwater management ranges from an estimated 2 to 15 percent increase to their annual program budget. Additional monitoring costs are estimated to be about \$8,000. 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. The costs estimated for control of homeless person and encampment discharges include security guards at a wage of \$20-45 per hour, portable waste facilities at \$95 per month, and security fencing at a cost of \$1500-1800 per 100ft. For the control of livestock and domesticated animals the measures could include barriers, bunkers, corrals, and professional stabling with upper estimates of \$4,000 per mile, \$15,000 per structure, \$4000 per gate, and \$550 per month respectively. Central Coast Water Board staff concluded existing actions appear to adequately address correcting failing system discharges. 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) remove the Shellfish Harvesting (SHELL) beneficial use for San Lorenzo River Estuary, (2) add the San Lorenzo River Watershed to the Human Fecal Material Discharge Prohibition and the Domestic Animal Waste Discharge Prohibition, and (3) adopt Total Maximum Daily Loads for pathogens in San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek?

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. R3-2009-0023.
2. Authorizes the Executive Director or designee to submit the amendment adopted under Central Coast Water Board Resolution No. R3-2009-0023, as approved, and the administrative record for this action to the OAL and the TMDLs and shellfish harvesting dedesignation 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.

DRAFT

STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2011-

APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE CENTRAL COAST REGION (BASIN PLAN) (1) REMOVE THE SHELLFISH HARVESTING BENEFICIAL USE FOR SAN LORENZO RIVER ESTUARY, (2) ADD THE SAN LORENZO RIVER WATERSHED TO THE HUMAN FECAL MATERIAL DISCHARGE PROHIBITION AND THE DOMESTIC ANIMAL WASTE DISCHARGE PROHIBITION, AND (3) ADOPT TOTAL MAXIMUM DAILY LOADS FOR PATHOGENS IN SAN LORENZO RIVER ESTUARY, SAN LORENZO RIVER, BRANCIFORTE CREEK, CAMP EVERS CREEK, CARBONERA CREEK, AND LOMPICO CREEK

WHEREAS:

1. On May 8, 2009, the Central Coast Regional Water Quality Control Board (Central Coast Water Board) adopted Resolution No. R3-2009-0023 ([Attachment I](#)) amending the Basin Plan to: (1) remove the Shellfish Harvesting (SHELL) beneficial use for San Lorenzo River Estuary, (2) add the San Lorenzo River Watershed to the Human Fecal Material Discharge Prohibition and the Domestic Animal Waste Discharge Prohibition, and (3) adopt Total Maximum Daily Loads for pathogens in San Lorenzo River Watershed.
2. The federal regulations at 40 CFR 131.10(g) allow the Central Coast Water Board to remove a designated use, which is not an "existing" use, if the state can demonstrate that achieving the use is not feasible based on the factors set forth in 40 CFR 131.10(g). Shellfish harvesting is not an "existing use" as that term is defined in 40 CFR 131.3 because shellfish harvesting use has not been attained in the water body on or after November 28, 1975. The removal of the SHELL beneficial use is based on the results of a Use Attainability Analysis (UAA) in the San Lorenzo River Estuary. Central Coast Water Board staff developed the UAA in 2004 and 2005 to determine the historic, actual, and potential shell fishing activities in the San Lorenzo River Estuary. The UAA is necessary to conform to Title 40 of the Code of Federal Regulations (CFR), §131.10(j) because the action involves a designated use specified in Clean Water Act section 101(a)(2). The amendment and the UAA only addresses the fishable goal ("protection and propagation of fish, shellfish, and wildlife") as it pertains to shellfish harvesting and does not address other fishable goals or the swimmable goal included in the water contact recreation designation contained in section 101(a)(2) of the Clean Water Act. The fishable goal of the Clean Water Act is also protected under other beneficial uses (including cold fresh water habitat) designated in the Basin Plan for the San Lorenzo River Estuary.
3. Central Coast Water Board found that the removal of the shellfish harvesting beneficial use from the San Lorenzo River Estuary, the modification of the prohibition for the San Lorenzo River Subbasin and Aptos-Soquel Subbasin, and the adoption of these TMDLs for the San Lorenzo 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. Modification of the existing prohibition and adoption of these TMDLs will result in improved water quality throughout the region and maintain the level of water quality necessary to protect present and potential beneficial uses. As concluded in the Use Attainability Analysis, shellfish harvesting is not

DRAFT

an existing use, and removal of the beneficial use from the Basin Plan will not result in degradation of water quality.

4. The Central Coast Water Board may, pursuant to California Water Code section 13243, specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted (i.e., prohibitions). The Implementation Plan for the TMDLs for the San Lorenzo River Watershed requires compliance with the human fecal material discharge prohibition and the domestic animal waste discharge prohibition (proposed Amendment No. 2 contained herein) for discharges in the San Lorenzo River Watershed. Supporting documentation for adding the San Lorenzo River Watershed to the above-named prohibitions is provided in the Final Project Report for Total Maximum Daily Load for Pathogens in San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek. Consistent with California Water Code section 13244, the Central Coast Water Board complied with public notice and hearing requirements for adding the San Lorenzo River Watershed to the human fecal material discharge and the domestic animal waste discharge prohibitions.
5. The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and section 303(d) of the CWA, 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 has determined that the TMDLs for pathogens in the San Lorenzo 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 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 appropriate because an existing concentration-based water quality objective is used as the basis for the TMDLs numeric target.
6. The Central Coast Water Board concurred with the Use Attainability Analysis, rationale for modifying the prohibition, and the analysis contained in the Final Project Report, the California Environmental Quality Act “Substitute Environmental Document” for the Basin Plan Amendments (including the CEQA Checklist), the staff report, 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.
7. 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 three TMDLs, as

DRAFT

reflected in the Basin Plan amendment, are consistent with the requirements of federal Clean Water Act (CWA) section 303(d).

8. The regulatory action meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b). The necessity of developing a TMDL is established in the TMDLs staff report, the section 303(d) list, and the data contained in the administrative record documenting the pathogen impairments of the San Lorenzo River Watershed.
9. 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 and SHELL dedesignation 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. R3-2009-0023.
2. Authorizes the Executive Director or designee to submit the amendment adopted under Central Coast Water Board Resolution No. R3-2009-0023, as approved, and the administrative record for this action to the OAL and the TMDLs and shellfish harvesting dedesignation 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 TBA .

Jeanine Townsend
Clerk to the Board