

**California Regional Water Quality Control Board
North Coast Region**

**Resolution No. R1-2019-0038
August 14, 2019**

**Amendment to the Water Quality Control Plan for the North Coast Region to
Incorporate an Action Plan for the Russian River Watershed Pathogen Total
Maximum Daily Load and a Discharge Prohibition**

WHEREAS, the California Regional Water Quality Control Board, North Coast Region (Regional Water Board), finds that:

1. The Federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) to establish water quality standards for each waterbody within its region. The Water Quality Control Plan for the North Coast Region (Basin Plan) designates the beneficial uses of waterbodies within the North Coast Region. The Basin Plan also establishes water quality objectives in the North Coast Region. The beneficial uses of waterbodies, water quality objectives, and the state and federal antidegradation policies, together, constitute water quality standards. Waterbodies that do not meet water quality standards are considered impaired.
2. Section 303(d) of the Clean Water Act requires each state to identify the waters within its boundaries that do not meet water quality standards. Those waters are placed on the state's "Section 303(d) List" "Impaired Waters List". For each listed water, the state is required to establish the Total Maximum Daily Load (TMDL) of each pollutant impairing the water quality and preventing attainment of the water quality standards in that waterbody. Both the identification of impaired waters and TMDLs established for those waters must be submitted to the United States Environmental Protection Agency (U.S. EPA) for approval pursuant to CWA section 303(d)(2).
3. The Russian River is listed on the 2012 Section 303(d) List of Impaired Waters which was approved by U.S. EPA on July 30, 2015. The List identifies six waterbody-pollutant pairs in the Russian River Watershed as not attaining the bacteria water quality objective and therefore, not supporting the REC-1 beneficial use. These waterbodies are the Russian River at Veterans Memorial Beach, Russian River between the confluences of Fife Creek in Guerneville and Dutch Bill Creek in Monte Rio, an unnamed stream near Healdsburg at Fitch Mountain, Laguna de Santa Rosa, Santa Rosa Creek, Green Valley Creek, and Dutch Bill Creek.
4. Water quality monitoring studies have been conducted using multiple fecal indicator bacteria, which provide evidence of seasonal and episodic fecal waste pollution at locations throughout the watershed. These data have been assessed

based on subwatershed boundaries defined by the U.S. Geological Survey as hydrologic unit code 12, also known as HUC-12 subwatersheds. HUC-12 subwatersheds with direct evidence of pollution and impairment include: Oat Valley Creek-Russian River, Brooks Creek-Russian River, West Slough-Dry Creek, Upper Laguna de Santa Rosa, Lower Laguna de Santa Rosa, Upper Santa Rosa Creek, Lower Santa Rosa Creek, Porter Creek-Mark West Creek, Green Valley Creek, Porter Creek-Russian River, Dutch Bill Creek-Russian River, and Willow Creek-Russian River. The elements of a TMDL are described in 40 Code of Federal Regulations (CFR) sections 130.2 and 130.7 and section 303(d)(1)(C) and (D) of the CWA, as well as in U.S. EPA guidance documents (Report No. EPA/440/4-91/001). A TMDL is defined as the sum of the individual waste load allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, and natural background (40 CFR §130.2). TMDLs must be set at levels necessary to attain and maintain the applicable water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality (40 CFR §130.7(c)(1)). Section 130.7 of Title 40 of the CFR also dictates that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters. TMDLs typically include one or more numeric “targets” (i.e., numerical translations of the existing water quality standards), which represent attainment of those standards, contemplating the TMDL elements described above. Since a TMDL must represent the “total” load, TMDLs must account for all sources of the relevant pollutants, irrespective of whether the pollutant is discharged to impaired or unimpaired upstream reaches.

5. Upon establishment of TMDLs by the State or U.S. EPA, the State is required to incorporate, or reference, TMDLs into the State Water Quality Management Plan (40 CFR §130.6(c)(1), 130.7). The Basin Plan and applicable statewide plans serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Water Board. Federal regulations also require that National Pollutant Discharge Elimination System (NPDES) permits contain requirements necessary to achieve water quality standards and that permit effluent limitations are consistent with the assumptions and requirements of available WLAs (40 CFR §122.44(d)(1)).
6. The Russian River Watershed is hydrologically and geomorphologically diverse, containing 238 streams, 23 named springs, 14 natural lakes, 15 named reservoirs, all or portions of 10 groundwater basins, steep ridges, ephemeral streams, rolling hills, and wide alluvial valleys. The Russian River, in conjunction with Lake Mendocino and Lake Sonoma, serves as the primary water source for more than 500,000 residents in Mendocino, Sonoma and Marin counties, and for agricultural production in Mendocino and Sonoma counties. Lake Mendocino, located on the East Fork of the Russian River, has a capacity of 118,900 acre-feet and captures a drainage area of about 105 square miles. Lake Sonoma, located at the confluence of Warm Springs Creek and Dry Creek, about 14 miles northwest of the city of Healdsburg, has a capacity of 381,000 acre-feet and captures a drainage area of about 130 square miles.

7. The Action Plan for the Russian River Watershed Pathogen TMDL (Action Plan, TMDL, TMDL Action Plan) proposes discrete and identifiable implementation measures that will bring the waterbody into compliance with water quality standards and identifies the parties responsible for implementing those measures. The plan sets time schedules by which the responsible parties will implement compliance measures and includes a monitoring plan to track progress towards compliance.
8. The implementation actions included in the Action Plan address pathogens from specific controllable pathogen sources, including human and domesticated animals. Potential sources of human fecal waste material include:
 - Treated Municipal Wastewater to Surface Waters, including discharges from holding ponds;
 - Untreated Sewage from Sanitary Sewer Systems;
 - Wastewater from Percolation Ponds and through Spray Irrigation;
 - Runoff from Land Application of Municipal Biosolids and Biosolids Storage Areas;
 - Runoff from Irrigation of Recycled Water;
 - Runoff from sites that receive discharges of waste to land;
 - Onsite Wastewater Treatment Systems, including individual systems and large or multi-user systems;
 - Recreational Water Uses and Users;
 - Homeless and Illegal Camping; and
 - Stormwater Runoff entering Municipal Separate Storm Sewer Systems (MS4s) and entering water bodies outside of established MS4 boundaries, including CalTrans stormwater runoff.

Potential sources of domestic animal and farm animal waste include:

- Pet Waste;
 - Manure from Non-Dairy Livestock and Farm Animals; and
 - Manure from Dairy Cows.
9. The purpose of the Action Plan is to describe the steps necessary to reduce pathogen concentrations and achieve the TMDLs. The Action Plan includes the following measures to achieve this goal:
 - Prohibition against discharges of waste containing fecal waste materials from humans or domestic animals that violate water quality standards.
 - Incorporation of TMDL requirements into point and nonpoint source permits as appropriate.
 - Compliance with applicable Waste Discharge Requirements or NPDES permits for Municipal wastewater, Municipal Storm Water, Caltrans, Dairies and CAFOs, Percolation Pond and Irrigation Discharges, Sanitary

Sewer Systems, Land Application of Treated Municipal Sewage Sludge (Biosolids), and Recycled Water Irrigation dischargers.

- The Regional Water Board will require a reasonable potential analysis for entities that discharge wastewater from wastewater holding ponds to surface water. For discharges with reasonable potential to cause or contribute to an exceedance of the WLAs, water quality-based effluent limitations will be established in the applicable waste discharge requirements that will ensure compliance with WLAs for bacteria.
- Implementation of a Pathogen Reduction Plan for Municipal Storm Water dischargers.
- Implementation of an Advanced Protection Management Program for Onsite Wastewater Treatment Systems. OWTS within the APMP are required to perform an assessment of their system within five years of Action Plan adoption. In addition, OWTS within the APMP that do not meet an exception criteria, are required to provide supplemental treatment components to their OWTS to remove pathogens.
- Development of individual WDRs or Waivers of WDRS for OWTS not covered by the Conditional Waiver of the Basin Plan's OWTS Policy.
- Implementation of Best Management Practices by non-dairy livestock and farm animal facility dischargers and the development and adoption of waste discharge requirements or waivers of WDRs for non-dairy livestock and farm animal waste by the Regional Water Board.
- Implementation of a Memorandum of Understanding (MOU) between Sonoma County, the Sonoma County Community Services District, and the Regional Water Board to address water quality impacts relative to recreational water use, homeless encampments and illegal camping. Development of a similar MOU or equivalent agreement with Mendocino County.

10. In accordance with Water Code section 13243, to protect present and future beneficial uses of water, and to prevent nuisance, this amendments sets forth the following discharge prohibition: *Discharges of waste containing fecal waste material from humans or domestic animals to waters of the state within the Russian River Watershed are prohibited.*

11. The Amendment also sets forth editorial changes to the Policy on the Control of Water Quality with Respect to On-Site Waste Treatment and Disposal Practices in Section 4 of the Basin Plan. In accordance with Section 4.2.1 of the OWTS Policy, OWTS systems within the Russian River Watershed shall continue to follow the existing Basin Plan requirements, until the Regional Water Board adopts the Russian River Watershed Pathogen TMDL. The Amendment sets forth editorial changes removing the existing Basin Plan requirements that no longer apply with the adoption of the TMDL.

12. The Regional Water Board's goal in establishing the TMDL for pathogens in the Russian River Watershed is to protect the water contact recreation (REC-1). The U.S. EPA 2012 Recreational Criteria recommends the use of either enterococci

or *Escherichia coli* (*E. coli*) as indicators of fecal or pathogen contamination in fresh waters and recommends the use of only enterococci as an indicator in marine waters. These recommendations are based on two estimated illness rates (36 illnesses per 1,000 recreators or 32 illnesses per 1,000 recreators), and state that either rate is protective of the primary contact recreation (REC-1) beneficial use.

13. U.S. EPA 2012 Recreational Criteria is intended as guidance to states and tribes in developing criteria to protect swimmers from exposure to water that contains organisms indicating the presence of fecal contamination and includes beach action values that can be used by local health officials, regional water boards, and authorized tribes as a tool for beach management actions in freshwaters, estuarine waters, and ocean waters.
14. In 2018, the State Water Resources Control Board (State Water Board) adopted statewide Bacteria Water Quality Objectives that correspond with the risk protection level of 32 illnesses per 1,000 recreators and uses *E. coli* as the indicator of pathogens in freshwaters and enterococci as the indicator of pathogens in estuarine waters and ocean waters. These objectives are applicable statewide, replacing existing bacteria objectives in individual basin plans.
15. Full implementation of the TMDL Action Plan is designed to control fecal waste discharges for the attainment of bacteria water quality objectives to protect water contact recreation and is likely to have benefits to other downstream beneficial uses.
16. The Regional Water Board has prepared a detailed technical document, including an addendum, that analyzes and describes the specific necessity and rationale for the development of this TMDL. The technical document entitled "Staff Report for the Action Plan for the Russian River Watershed Pathogen Total Maximum Daily Load" (Staff Report or TMDL Staff Report) is an integral part of this Regional Water Board action and was reviewed, considered, and accepted by the Regional Water Board before acting. Further, the technical document provides the detailed factual basis and analysis supporting the problem statement, numeric targets (interpretation of the narrative and numeric water quality objectives, used to calculate the waste load and load allocations), source analysis, linkage analysis, waste load allocations (for point sources), load allocations (for nonpoint sources), margin of safety, and seasonal variations and critical conditions of this TMDL.
17. As envisioned by California Water Code section 13242, the TMDL contains a "description of surveillance to be undertaken to determine compliance with objectives." The Monitoring element of the TMDL recognizes that monitoring will be necessary to assess the progress of pollutant load reductions and improvements in water quality in the Russian River including its estuary and tributaries. Monitoring will be conducted to provide information regarding the

effectiveness of the Action Plan, including: 1) compliance with the Fecal Waste Discharge Prohibition; 2) achievement of WLAs and LAs; 3) attainment of the numeric targets; and 4) attainment of bacteria objectives and protection of beneficial uses. The Regional Water Board's Executive Officer will ensure that appropriate entities develop and submit monitoring programs and technical reports necessary to achieve the purposes of the TMDL. The Executive Officer will determine the scope of these programs and reports, considering any legal requirements, including this TMDL, and if necessary, issue appropriate orders to appropriate entities.

18. The Regional Water Board is participating with the Russian River Watershed Association and other partners in the development of a regional monitoring program for the Russian River Watershed called the Russian River Regional Monitoring Program (R3MP). As appropriate, implementing parties under this Action Plan are encouraged to participate in the R3MP once it is developed.
19. The Regional Water Board has directed staff to engage in a sustained coordinated effort with federal, state and local agencies to identify and secure funding to assist the public in complying with the program of implementation.
20. In amending the Basin Plan to establish this TMDL, the Regional Water Board considered the requirements set forth in Sections 13240, 13242, and 13243 of the California Water Code.
21. The scientific bases of the Action Plan has been reviewed by external peer reviewers in accordance with section 57004 of the California Health and Safety Code. Regional Water Board staff submitted a peer-review draft Staff Report on January 16, 2015 to two external peer reviewers: Dr. Patricia Holden and Dr. Nicholas J. Ashbolt. Regional Water board staff revised the Action Plan and the Staff Report in response or provided a written response that explained the basis for not making the suggested revisions.
22. The public has had a reasonable opportunity to participate in the review of the amendment to the Basin Plan. On January 30, 2015, the Regional Water Board held a California Environmental Quality Act (CEQA) scoping meeting to solicit input from the interested public and stakeholders on the appropriate scope, content and implementation options of the proposed TMDL for pathogens in the Russian River Watershed. A draft of the Action Plan, Staff Report, and substitute environmental documents were available for review on August 21, 2015. The public comment period closed on October 8, 2015, allowing a 48-day review and comment period. On September 22, 23, and 24, 2015, the Regional Water Board held three staff led workshops on the development of the TMDL. A public hearing was postponed until public comments could be fully addressed. On August 7, 2017, a new Action Plan and Staff Report were released for public review, which represented a revision of the proposed project based on public comments received in 2015. The proposed amendment to revise the existing basin plan language regarding Onsite Wastewater Treatment System (OWTS) requirements

for the Russian River Watershed, pending TMDL adoption, was also released for public review. The public comment period closed on September 29, 2017 allowing for a 52-day review and comment period. On August 17, 2017, the Regional Water Board held a public workshop at a regularly scheduled Regional Water Board meeting on the development of the TMDL.

23. On May 9, 2019, a revised Action Plan and Staff Report were released for public review, which addressed the public comments received in 2017 and accounted for the new statewide water quality objective for bacteria adopted by the State Water Board on August 7, 2018. The proposed amendment to revise the existing basin plan language regarding OWTS requirements for the Russian River Watershed, pending TMDL adoption, was not released for additional public comment, having made no revisions following public review in 2017. The public comment period closed on June 24, 2019 allowing for a 45-day review and comment period. On June 13, 2019, the Regional Water Board held a staff-led workshop on the development of the TMDL.
24. On August 14, 2019, a public hearing was conducted to consider adoption of the Action Plan, including the substitute environmental documents and the comments received during the Basin Plan amendment process. In accordance with Water Code, section 13244, notice of the Public Hearing was given to all interested parties and published three times in the Press Democrat on May 9, 10 and 11, 2019.
25. The amendment is consistent with the State Antidegradation Policy (State Water Board Resolution No. 68-16), and the federal Antidegradation Policy (40 CFR 131.12), in that it does not allow degradation of water quality, but requires restoration of water quality and attainment of water quality standards to fully protect beneficial uses.
26. Pursuant to Public Resources Code section 21080.5, the Resources Agency has approved the Regional Water Board's basin planning process as a "certified regulatory program" that adequately satisfies the California Environmental Quality Act (CEQA) (Public Resources Code, § 21000 et seq.) requirements for preparing environmental documents (14 Cal. Code Regs. § 15251(g); 23 Cal. Code Regs. § 3782). The Regional Water Board staff has prepared "substitute environmental documents" for this project that contain the required environmental documentation under the State Water Board's CEQA regulations (23 Cal. Code Regs. § 3777.) The substitute environmental documents include the TMDL staff report entitled "Staff Report for the Action Plan for the Russian River Watershed Pathogen Total Maximum Daily Load", including the environmental checklist, the comments and responses to comments, the Basin Plan amendment language, and this resolution.
27. A CEQA Scoping meeting was conducted on January 30, 2015 at the Regional Water Board's office to solicit input from the public and interested stakeholders in determining the appropriate scope, content and implementation options of the

proposed TMDL. This meeting fulfilled the requirements under CEQA (Public Resources Code, Section 21083.9). A notice of the CEQA Scoping meeting was sent to interested persons on January 14, 2015.

28. In preparing the accompanying substitute environmental documents, the Regional Water Board has considered the requirements of Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187. This analysis is not intended to be an exhaustive analysis of every conceivable impact, but an analysis of the reasonably foreseeable consequences of the adoption of this regulation, from a programmatic perspective. Project level impacts will need to be considered in any subsequent environmental analysis performed by other public agencies, pursuant to Public Resources Code section 21159.2.
29. Consistent with the Regional Water Board's substantive obligations under CEQA, the substitute environmental documents do not engage in speculation or conjecture, and only consider the reasonably foreseeable environmental impacts, including those relating to the methods of compliance, reasonably foreseeable feasible mitigation measures to reduce those impacts, and the reasonably foreseeable alternative means of compliance, which would avoid or reduce the identified impacts.

The reasonably foreseeable methods of compliance with the TMDL could have a potentially significant adverse effect on the environment. The substitute environmental documents identify potentially significant effects to the following: agriculture and forest resources, noise, population and housing, and utilities and service systems. They also identify potentially significant cumulative impacts to the environment. The substitute environmental documents set forth the basis for the Regional Water Board findings that mitigation measures or alternatives to reduce all impacts to a less than significant level are infeasible. The Regional Water Board finds, however, that in many cases, project level alternatives, mitigation measures, or both, if employed, would substantially lessen the potentially significant adverse impacts identified in the substitute environmental documents. These feasible alternatives and mitigation measures are described in more detail in the Staff Report and incorporated environmental checklist. Further, to the extent that alternatives or mitigation measures will be analyzed for project-level approvals, and where those approvals are within the responsibility and jurisdiction of other public agencies and not the Regional Water Board, the Regional Water Board anticipates such measures can and should be incorporated into any subsequent projects or project approvals. (Cal. Code Regs., tit. 14, § 15091(a)(2).)¹

1. California Water Code section 13360 can create limitations to the Regional Water Board dictating the manner in which responsible parties comply with Regional Water Board regulations or orders.

30. To the extent significant adverse environmental effects could occur despite incorporation of feasible mitigation measures, consistent with Public Resources Code section 21081(b) the Regional Water Board has balanced the economic, legal, social, technological, and other benefits of the TMDL against the unavoidable environmental risks and finds that specific economic, legal, social, technological, and other benefits of the TMDL outweigh the unavoidable adverse environmental effects, such that those effects are considered acceptable. The Regional Water Board makes this statement concerning the TMDL's unavoidable environmental impacts to explain why the benefits outweigh the impacts. These benefits include: utilizing local agency flexibility, expertise, and knowledge and allowing for consideration of local and site specific planning requirements in the approval of supplemental treatment systems, allowing for an affordable means of wastewater disposal in communities where centralized systems are unavailable and infeasible to construct, and reducing public health hazards in surface waters where there is known pathogen impairment and a high level of recreational and domestic use. This Statement of Overriding Considerations and additional support for this statement is further described in Chapter 11 of the Staff Report.
31. Consistent with the California Code of Regulations, title 23, sections 3778-80, Regional Water Board consulted stakeholders in the Region, and other potentially affected parties about the proposed action, and considered and addressed all comments.
32. The Regional Water Board's environmental analysis has considered a reasonable range of economic factors in evaluating the methods of compliance with the TMDL Action Plan. The CEQA checklist and other portions of the substitute environmental documents contain the analysis and findings to support this consideration.
33. The regulatory action meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b). As specified above, federal law and regulations require that TMDLs be incorporated, or referenced, in the state's water quality management plan. The necessity of developing a TMDL is established in the TMDL Staff Report, and the data contained in the administrative record documenting the pathogen impairments in the Russian River Watershed.
34. The Basin Plan amendment incorporating a TMDL for pathogens in the Russian River Watershed must be submitted for review and approval by the State Water Board, the State Office of Administrative Law (OAL), and the U.S. EPA. The Basin Plan amendment will become effective upon approval by OAL and U.S. EPA. A Notice of Decision will be filed with the Resources Agency.
35. If during the approval process Regional Water Board staff, the State Water Board or State Water Board staff, or OAL determine that minor, non-substantive modifications to the language of the amendment are needed for clarity or consistency, the Executive Officer should make such changes consistent with the

Regional Water Board's intent in adopting this TMDL, and should inform the Board of any such changes.

THEREFORE, be it resolved that pursuant to sections 13240 and 13242 of the California Water Code, the Regional Water Board hereby amends the Basin Plan as follows:

1. The Regional Water Board hereby approves and adopts the CEQA substitute environmental documentation, which was prepared in accordance with Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187.
2. Pursuant to sections 13240 and 13242 of the California Water Code, the Regional Water Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendments to Chapter 4 of the Water Quality Control Plan for the North Coast Region, as set forth in Attachments A and B hereto, to incorporate the elements and implementation schedule of the TMDL for pathogens in the Russian River Watershed, the discharge prohibition, and editorial changes to the Policy on the Control of Water Quality with Respect to On-Site Waste Treatment and Disposal Practices.
3. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Water Board in accordance with the requirements of section 13245 of the California Water Code.
4. The Regional Water Board requests that the State Water Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to OAL and the U.S. EPA.
5. If during the approval process, the Regional Water Board staff, State Water Board or State Water Board staff, or OAL determine that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.
6. The Executive Officer is authorized to request a "No Effect Determination" from the Department of Fish and Wildlife or transmit payment of the applicable fee as may be required to the Department of Fish and Wildlife.

CERTIFICATION

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, North Coast Region, on August 14, 2019.

Matthias St. John
Executive Officer

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