

Final Staff Report 2023 Triennial Review of the Water Quality Control Plan for the North Coast Region



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1.0 Executive Summary

This Staff Report presents the results of the 2023 Triennial Review of the *Water Quality Control Plan for the North Coast Region* (Basin Plan). The report includes a listing of proposed projects investigated by the North Coast Regional Water Quality Control Board (Regional Water Board) staff that could require amendment of the Basin Plan. Proposals for amendment to the Basin Plan are accepted at any time. However, during the triennial review, staff actively solicit input from Tribes, interested parties and the public. All projects proposed for consideration since the 2018 Triennial Review are summarized herein and are accompanied by staff recommendations for each.

2.0 Triennial Review Process

The 2023 Triennial Review of the Basin Plan was initiated in early 2023 and will conclude in a hearing before the Regional Water Board. During the hearing, the Regional Water Board will decide whether or not to adopt a proposed Planning Program Workplan, which identifies priority planning projects and the staff resources estimated to complete them. The proposed Planning Program Workplan covers the period of Fiscal Year (FY) 2024-2025 (beginning July 1, 2024) through FY 2026-2027 (ending June 30, 2027).

This report, entitled *Final Staff Report 2023 Triennial Review of the Water Quality Control Plan for the North Coast Region* (Final Staff Report), documents the 2023 Triennial Review of the Basin Plan and describes the basis for staff's recommendations to the Regional Water Board with respect to the proposed Planning Program Workplan (Appendix A). A description of each of the potential Basin Plan Amendment projects is provided, as well as an estimate of personnel time needed and staff's recommendation for each project.

The draft Staff Report and draft Planning Program Workplan for FY 2024 through 2027 (FY 2024-2027 Workplan) was released for public review and comment on September 15, 2023 for a 45 day comment period. Twelve comment letters were received, expressing concerns about water quality protection, climate change, protection of tribal water uses, and regulatory compliance. Several letters provided comments requesting Outstanding National Resource Waters (ONRW) designations as a tool to protect waters of exceptional quality. Other comment topics included Total Maximum Daily Load (TMDL)/watershed reconciliation projects, instream flow objectives, implementation of Regional Water Board policies and programs, Trinity River temperature objectives, and Tribal Beneficial Use designations. Staff has reviewed and carefully considered all comments, and has prepared a response to comments document (Appendix B).

The draft Staff Report was revised to be identified now as final, reflecting changes to staff recommendations, the rationale for those changes, updates to the FY 2024-2027 Workplan, and incorporating minor editorial changes for clarity. The Regional Water Board will adopt a resolution and a Planning Program Workplan, after considering the recommendations of staff and public input, and in accordance with its own deliberations and vote.

2.1 Changes Incorporated Since Public Review Draft

The FY 2024-2027 Workplan (Appendix A) has been revised to include two additional projects including limited planning staff time to support an ONRW project and Trinity River Temperature Objectives project, both dependent on external resources. The completion deadlines for both pathogen projects, the Russian River Pathogen TMDL Action Plan and the Coastal Pathogen Project, have been extended to provide for revisions and presentation of work efforts before the Regional Water Board. The addition of these four project efforts has resulted in staffing reductions to three planning projects including the Laguna de Santa Rosa Watershed Sediment, Phosphorus, Nitrogen, and Temperature TMDLs, the Gualala Sediment TMDL Action Plan, and the Basin Plan Remediation projects. Small increases are proposed for both the Native American Culture Beneficial Uses and Narrative Flow Objective projects. A summary of changes to recommended staffing for the FY 2024-2027 Workplan between the public review draft of the 2023 Triennial Review Staff Report and this Final Staff Report is displayed in Table 1 below. Further description of changes is provided under individual project descriptions and detailed PY allocations by fiscal year are shown in Appendix A.

Table 1. Recommended Changes to the FY 2024-2027 Workplan

Project Description	Total Public Review Draft FY24-27 Planning Staff Resources	Final Proposed Total FY24-27 Planning Staff Resources	Total Change FY24-27 Planning Staff Resources
Russian River Pathogen TMDL Action Plan	0	0.7	+0.7
Coastal Pathogen Project	0	0.5	+0.5
Gualala Sediment TMDL Action Plan	4.3	2.7	-1.6
Laguna de Santa Rosa Watershed Sediment, Phosphorus, Nitrogen, and Temperature TMDLs	5.0	4.7	-0.3
Native American Culture Beneficial Uses	2.4	2.5	+0.1
2027 Triennial Review	1.0	1.0	No change
Narrative Flow Objective	1.6	1.7	+0.1
Lower Eel River Exception to Seasonal Discharge Prohibition	0.4	0.3	-0.1
Outstanding National Resource Waters	0	0.5	+0.5
Trinity Temperature Objectives	0	0.3	+0.3
Basin Plan Remediation	0.3	0.1	-0.2

2.2 The Water Quality Control Plan (Basin Plan)

The Basin Plan contains the water quality standards and regulations adopted by the Regional Water Board to control the discharge of waste and other factors affecting the quality of waters of the State within the boundaries of the North Coast Region. It is amended from time to time to incorporate new beneficial uses, water quality objectives, and programs of implementation, including monitoring programs, and to conduct substantive and non-substantive revisions of existing language. By resolution, the Regional Water Board approves a list of basin plan amendment projects during Triennial Review of the Basin Plan, generally every three years. The project list then denotes the Planning Program Workplan for the following period.

2.3 Triennial Review

Section 13240 of the Porter Cologne Water Quality Control Act and section 303 (c)(1) of the federal Clean Water Act require a review of basin plans once each three-year period to keep pace with changes in regulation, new technologies, policies, and physical changes within the region. The Regional Water Board is responsible for reviewing the Basin Plan, and is required to: 1) identify those portions of the Basin Plan in need of modification or new additions; 2) adopt standards as appropriate; and 3) recognize those portions of the Basin Plan which are appropriate as written.

In early 2023, Regional Water Board Planning Unit staff (Planning staff) began the 2023 Triennial Review process by soliciting input from Regional Water Board staff across all programs and reviewed available information to determine where updates may be needed. A public solicitation was then conducted in March 2023, as detailed in section 2.3 below. Following a review of all submittals, Planning staff considered the candidate project proposals in light of the section 2.4 factors below. A draft Staff Report and accompanying draft FY 2024-2027 Workplan summarized that work and were made available for public review and comment.

The Regional Water Board will take both written and oral public input into account during a future, properly noticed, public hearing prior to adopting by resolution, this *Final Staff Report 2023 Triennial Review of the Water Quality Control Plan for the North Coast Region* and the FY 2024-2027 Workplan (Appendix A).

2.4 Public Participation

On March 7, 2023, the public process for the Triennial Review formally began with the distribution of an announcement of the Triennial Review, a schedule for the process, and an invitation for basin plan amendment proposals and public comment. This is typically done using applicable email subscription lists. Staff performed direct outreach to California Native American Tribes and disadvantaged communities through State and Regional Water Boards contact lists.

An online form was created to collect proposals for basin plan amendments. A link to this form was shared widely through our website, emails, and outreach meetings. Over 50 responses were received through the online form, including repeat requests, editorial amendment requests, and requests that would not require a basin plan amendment. Proposals were received from Regional Water Board staff, other government agencies, tribes, non-profit organizations, and individuals.

All proposals received since 2018 were reviewed and organized, and follow-up meetings were held with project proponents where additional information was needed by Regional Water Board staff to fully understand the proposal. Proposals that would

require a basin plan amendment are described in this staff report. The draft Staff Report, including staff's recommendations for the FY 2024-2027 Workplan, was circulated for public review in a 45-day comment period, with targeted outreach to North Coast Tribes, disadvantaged communities, and interested parties on the Basin Planning email subscription list. Staff reviewed all written comments and have included a response to comments document (Appendix B) attached to this Final Staff Report. These documents are released prior to the duly noticed hearing to be held during a regularly scheduled Regional Water Board meeting.

2.5 Project Prioritization

TMDL projects are identified and assessed as a separate category from non-TMDL projects.

The proposed list of priority projects for the 2023 Triennial Review is based on best professional judgement and includes consideration of several factors. Those factors are:

- Relevance to human health protection
- Relevance to threatened and endangered species protection
- Stated priorities of the Regional Water Board, State Water Resources Control Board, or the U.S. Environmental Protection Agency, including:
 - Tribal interests
 - Disadvantaged community interests
 - Climate change adaptation
- Importance to the implementation of other Regional Water Board programs
- Availability of necessary expertise, funding, and other resources
- Ongoing projects with allocated resources

A workplan for the Planning Program is developed by assessing the amount of time each project is estimated to take and the staff resources available during the next triennial period (FY 2024-25 through 2026-27).

As a general matter, projects from the previous Planning Program Workplan (2018 Triennial Review list) that are already underway, remain on the 2023 proposed project list, unless otherwise indicated. Many of the projects identified in the 2018 Triennial Review are still underway and staff resources are committed to complete those projects.

3.0 Status of 2018 Triennial Review Planning Program Workplan Projects (Previously Termed “High Priority Projects”)

3.1 TMDL Projects

Where waters are impaired, Clean Water Act (CWA) section 303(d) requires states to identify waters that do not meet, or are not soon expected to meet, applicable water quality standards, after the application of certain technology-based controls, and schedule such waters for development of TMDLs [40 Code of Federal Regulations (CFR) 130.7(c) and (d)]. This requirement has, in numerous places across the country, resulted in technical TMDLs, with no accompanying implementation plan. In California, the Porter Cologne Water Quality Control Act (Porter Cologne) not only provides authority to the waterboards to implement TMDLs; but it also requires implementation of adopted water quality objectives in the Basin Plan. It is under this authority that TMDL Action Plans are developed, amended into the Basin Plan as regulation and implemented.

U.S. EPA’s 2022 – 2032 Vision for the Clean Water Act section 303(d) Program¹ allows for approaches other than the standard TMDL as a mechanism to address water quality impairments. Such an approach has sometimes been referred to in U.S. EPA literature as a TMDL Alternative, but the 2022 – 2032 Vision refines this terminology and describes the approach as an Advance Restoration Plan (ARP). An Advance Restoration Plan is an approach in which the implementation measures presumed necessary to restore an impaired waterbody are identified, scientifically supported, and contained in a documented plan for implementation. A wasteload allocation, load allocation, and defined margin of safety are not strictly required while advance actions are underway to restore water quality.

Porter Cologne provides authority to the waterboards to include geographically-based Action Plans in the Basin Plan. Under Porter Cologne, Action Plans need not be preceded by a TMDL; but can be developed based on any robust science that supports an action or set of actions likely to lead to the protection or achievement of water quality standards. An Advance Restoration Plan does not replace the Regional Water Board’s obligation to complete a TMDL to address a 303(d) listing. But, if an Advance Restoration Plan shows water quality improvement, with an anticipated achievement of objectives, then the 303(d) listing can be resolved by this means.

¹ [CWA Section 303d Vision September 2022.pdf](https://www.epa.gov/system/files/documents/2022-09/CWA%20Section%20303d%20Vision_September%202022.pdf)
(https://www.epa.gov/system/files/documents/2022-09/CWA%20Section%20303d%20Vision_September%202022.pdf)

The 2018 Triennial Review Staff Report described the following five TMDL projects (impaired waters projects) as high priority for the Planning Program Workplan:

1. Russian River Pathogen TMDL and Action Plan
2. Laguna de Santa Rosa Nutrient, Dissolved Oxygen, Temperature and Sediment TMDL Action Plan or TMDL Alternative.
3. Ocean Beaches and Freshwater Streams Pathogen TMDL Action Plan or TMDL Alternative (Coastal Pathogen Project)
4. TMDL Program Retrospective Review
5. Russian River Watershed TMDL Alternative

A description of these five projects, the status of each project and staff recommendations for the 2023 priority project list are provided in the following sections 3.1.1 through 3.1.5.

3.1.1 Russian River Pathogen TMDL Action Plan

High concentrations of fecal indicator bacteria (FIB) may indicate the presence of pathogenic organisms that are found in warm blooded animal waste, including human waste. Pathogens pose a potential health risk to people who recreate in contaminated waters. Reaches of the Russian River watershed are listed on the Clean Water Act 303(d) list of impaired waters due to the presence of FIB.

Based upon these listings, development of a Russian River Pathogen TMDL has been on the Triennial Review project list since 2011. The Regional Water Board directed staff to pursue the development of a pathogen TMDL for the Russian River on the basis that human health protection is a high priority of the Board.

The Russian River Pathogen TMDL project has been underway since 2015. Water quality monitoring and land use studies conducted as part of the project identified a variety of fecal waste sources and confirmed the presence of elevated FIB in locations associated with those source categories, which occur throughout the watershed. This information was used to establish a program of implementation (Action Plan) for amendment into the Basin Plan that would address fecal waste sources. As adopted by the Regional Water Board in December 2021, the Russian River Pathogen TMDL Action Plan built upon management measures required by existing regional and statewide regulations and orders that are designed to reduce or eliminate fecal waste discharges from numerous potential sources. The TMDL and Action Plan address fecal waste discharges associated with wastewater treatment facilities, sanitary sewer systems, recycled water, land application of biosolids, municipal stormwater runoff, onsite wastewater treatment systems (OWTS), dairies, and unpermitted sources such as ranches, hobby farms, and homeless encampments.

Implementation of the TMDL Action Plan will reduce risk of illness to users of the Russian River by reducing sources of pathogenic contamination and meeting recommended recreational criteria established by the statewide bacteria objectives.

Once adopted by the Regional Water Board, Basin Plan amendments undergo further public review and comment prior to consideration by the State Water Resources Control Board (State Water Board). Numerous comments were received through this process pertaining to elements of the OWTS implementation program. As a result of the State Water Board and Regional Water Board staffs' coordinated review, Regional Board staff have reconsidered options for OWTS implementation within the Action Plan. As a result, prior to bringing this item before the State Water Board for consideration, Regional Water Board staff have decided to make targeted amendments to the Action Plan, specifically focused on the OWTS implementation sections of the Action Plan. No other changes are planned or anticipated.

Staff has concluded that there could be multiple benefits of adjusting the OWTS program of implementation with the following goals: 1) greater reliance upon and consistency with the statewide OWTS Policy; and 2) a focus upon OWTS across the watershed that are not authorized under the OWTS Policy, such as cesspools, pit-privies, and outhouses. This shift in approach would continue to provide a mechanism for OWTS compliance with the Action Plan's fecal waste discharge prohibition, while focusing resources on the categories of OWTS with the highest risk of pathogen discharge across the watershed.

The staffing needs to revise and complete this project are related to staff report and Action Plan updates followed by the TMDL approval process, including recirculation of revised sections for public review and comment, a hearing before the Regional Water Board, the State Water Board's process for consideration of approval, Office of Administrative Law (OAL) approval, and U.S. EPA approval. Regional Water Board staff are currently working to identify and develop targeted changes to the staff report and Action Plan and this work will continue into the next planning period.

Status: Underway

Recommendation: The decision to modify the OWTS implementation program in the TMDL Action Plan was identified after publication of the draft 2023 Triennial Review staff report. Based upon this new information, the recommendation to retain this project on the Planning Program Workplan, for tracking purposes only has been revised to reflect additional work efforts that will be necessary during the FY 2024-2027 Workplan period.

Staffing: Apply 0.3 PY in FY 2024-2025 and 0.4 PY in FY 2025-2026 of Planning Unit staff resources for project lead and technical support necessary to bring this project for

public comment, Regional Water Board, State Water Board, OAL consideration, and U.S. EPA approval.

3.1.2 Laguna de Santa Rosa Watershed Sediment, Phosphorus, Nitrogen, and Temperature a TMDLs

The Laguna de Santa Rosa is a subwatershed of the larger Russian River watershed. It is listed on the Clean Water Act 303(d) list of impaired waterbodies due to water quality impairments associated with elevated nutrients, elevated temperature, and excess sediment, which cause biostimulation, and result in low dissolved oxygen. Development of a Laguna de Santa Rosa TMDL Action Plan (Project) has been on the Triennial Review project list since 2011.

Staff are currently weighing the benefits of identifying the Project as an Advance Restoration Plan (ARP), a standard TMDL, or a combination of those approaches. ARPs are near-term plans that allow for implementation actions to be carried out prior to the development of a TMDL. If it can be demonstrated that an ARP in the Laguna de Santa Rosa watershed will lead to more immediate and/or more consequential progress toward recovery than a standard TMDL, staff may prioritize this approach for part or all of the project. A standard TMDL would still be developed at a later date unless it is shown that water quality standards have been attained through the ARP.

Recent work on the Project has included completion of a peer review draft staff report and continued coordination with key watershed partners. Critical to completion of the peer review draft staff report has been the development of sediment and nutrient budgets by contracted experts and watershed-wide shade modeling conducted by Regional Water Board staff. Scientific peer review of the staff report was completed in late 2022. Staff are currently working to complete a comprehensive technical memorandum responding to peer review comments. Staff are also engaged in ongoing coordination with key partners in early implementation efforts through the development of a regional monitoring program and the implementation of a water quality trading framework for phosphorus.

Next steps for the Project include updates to the peer review draft staff report, as necessary, based upon scientific peer reviewer comments and California Environmental Quality Act (CEQA) scoping in preparation for release of a public review draft staff report and Action Plan. CEQA scoping will conclude by the end of FY 2023-2024. The development of an action plan will be informed by the findings of the CEQA scoping process and close coordination with key watershed partners. Development and internal review of the action plan will take place through 2024 and into 2025. Drafts of the staff report and action plan are expected to be available for public review in 2026. Expanded outreach efforts will occur concurrently with CEQA scoping and public draft documents development.

Status: Underway

Recommendation: Staff recommend retaining this ongoing work in the FY 2024-2027 Workplan, dedicating staff time to support this project.

Staffing: Apply 1.3- 1.8 PY for project lead and technical support each year throughout the FY 2024-2027 Workplan period.

3.1.3 Coastal Pathogen TMDL (Coastal Pathogen Project)

The Coastal Pathogen Project was placed on the Planning Program Workplan during the 2014 Triennial Review of the Basin Plan. Since placement on the Planning Program Workplan, staff have collected dry and wet season ambient water quality data from 303(d) listed ocean beaches and freshwater streams over two calendar years. In conjunction with receiving water sampling, staff collected water quality data at locations immediately downstream from suspected fecal waste source land use categories. These data will help inform the range of control measures that may be necessary to address or prevent pathogen contamination in the various freshwater streams and ocean beaches.

Additionally, a 2020 analysis of streams data identified elevated levels of fecal indicator bacteria (FIB) in Jolly Giant Creek which appeared to be of human origin. These findings led to development of a monitoring plan specific to Jolly Giant Creek to determine the current status of pollution, identify potential source(s) and support development of control strategies if needed. All datasets have been evaluated and staff are finalizing reports detailing the findings of the analyses.

Control of fecal waste contamination will reduce the risk of illness to recreational use in the waterbodies now impaired. Implementation of a pollutant control strategy will require close collaboration with local planning, permitting, and public health agencies to ensure appropriate waste treatment and control measures are in place. The various source controls identified through the Coastal Pathogen Project may lend themselves to targeted implementation actions.

Status: Underway, near completion

Recommendation: Retain on the FY 2024-2027 Workplan.

Staffing: Apply 0.5PY for FY 2024-2025, when this project is anticipated to be complete.

3.1.4 TMDL Program Retrospective Review

This project was initially brought to the Board and placed on the Planning Program Workplan during the 2018 Triennial Review. The TMDL Program in the North Coast Region has produced dozens of TMDLs addressing multiple pollutants, but primarily

focused on sediment, temperature, and nutrients. To carry out these TMDLs, the Basin Plan includes the following TMDL Action Plans and pollutant control implementation policies.

- Action Plan for the Garcia River Sediment TMDL
- Action Plan for the Shasta River Temperature and Dissolved Oxygen TMDLs
- Action Plan for the Scott River Sediment and Temperature TMDLs
- Action Plan for the Klamath River Temperature, Dissolved Oxygen, Nutrient, and Microcystin TMDLs
- Action Plan for the Upper Elk River Sediment TMDL
- Sediment TMDL Implementation Policy
- Policy for the Implementation of the Water Quality Objectives for Temperature (Temperature Implementation Policy)

The Sediment TMDL Implementation Policy and Temperature Implementation Policy direct staff to use existing regulatory authority and tools to control the discharge of sediment and protect stream flows and riparian shade to restore water quality conditions in impaired waters and protect waters throughout the region. Complimentary to these pollutant control implementation policies, the Regional Water Board has also developed a watershed stewardship approach, which endeavors to extend the Regional Water Board's usual tools by coordinating with watershed partners and applying all available natural resource protection tools towards the attainment of common goals.

A TMDL Program Retrospective Review was intended to assess the requirements of each TMDL, evaluate how those requirements have been implemented, assess existing data to identify water quality trends, and develop recommendations to inform the future of the TMDL program. Staff resources have been reallocated to increase the pace of other project work already underway from the 2018 Triennial Review Planning Program Workplan.

Status: Deferred

Recommendation: Staff recommend this project be removed from the Planning Program Workplan to allow continued focus of staff resources upon other projects. Staff further recommend that this project be considered again during the 2027 Triennial Review in light of the Planning Program resources that may or may not be available at that time to execute the necessary work.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

3.1.5 Russian River Watershed TMDL Alternative

The Russian River is listed under section 303(d) of the Clean Water Act as impaired due to sediment and sedimentation. Several tributaries of the Russian River were subjected to water right curtailments during the most recent drought. The wildfires of

October 2017 also brought attention to the Russian River, with concerns about its recovery from those fires and the potential long-term effects on water quality for both habitat and human uses. The fires also brought local and State partners to the table, first to address immediate fire recovery actions and now to consider long-term assessment and management needs.

Flow conditions in the Russian River are regulated by the biological opinion for protection of endangered salmonids. The Russian River watershed is also a focus area for multiple agencies and entities, with the purpose of establishing a shared, watershed-scale resource protection plan. Such current and past enterprises include but are not limited to:

- Russian River Confluence
- Department of Water Resources Russian River Watershed Pilot
- Russian River Independent Scientific Review Panel
- Vital Lands Initiative
- Russian River Regional Monitoring Program (R3MP)
- Russian River Water Forum

Several current Regional Water Board planning and regulatory programs within the Russian River watershed directly or indirectly address sediment and erosion control. These include, but are not limited to: development of the Laguna de Santa Rosa Watershed Sediment, Nitrogen, Phosphorus, and Temperature TMDLs; development of a Vineyard Permit; and the existing [Dairy Program](https://www.waterboards.ca.gov/northcoast/water_issues/programs/dairies/) (https://www.waterboards.ca.gov/northcoast/water_issues/programs/dairies/), [Forest Activities Program](https://www.waterboards.ca.gov/northcoast/water_issues/programs/forest_activities/) (https://www.waterboards.ca.gov/northcoast/water_issues/programs/forest_activities/), [Construction Stormwater General Permit](https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html) (https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html), and [Industrial General Permit](https://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.html) (https://www.waterboards.ca.gov/water_issues/programs/stormwater/industrial.html). Given these ongoing regulatory programs aimed at controlling sediment discharge, and limited staff resources, Regional Water Board staff recommend deferring a planning project to address the sediment related listings. Additional staffing is needed to support consistent and meaningful engagement with the larger Russian River Watershed community and establish a watershed plan to address the myriad of water quality concerns, including water quality impairments.

Status: Deferred. The staff recommendation in the 2018 Triennial Review was “that the Regional Water Board support pursuing funding for a Russian River Watershed Steward position.” Because funding and authority to support additional staff resources has not been secured, there currently is no staff dedicated to water quality concerns and the

recovery efforts needed in the Russian River. Redirection of current staff would adversely impact other high priority work of the office. Regional Water Board staff from various programs will continue to support the enterprises listed above.

Recommendation: Staff recommend that the Regional Water Board support exploring the creation of an additional position to staff this work. In the absence of an additional position, staff will continue to support the enterprises listed above through our various programs, in addition to their normal workloads, as time allows. Staff further recommend that this project be considered again during the 2027 Triennial Review to explore what Planning Program resources are available at that time to support this work.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

3.2 Standards and Implementation Projects

The 2018 Triennial Review identified six standards and implementation projects (non-TMDL projects) as high priorities, but identified staffing resources for only some of the projects. Status updates and recommendations for all six projects are described below.

3.2.1 Groundwater Protection Strategy

This project was first identified on the Triennial Review in 2007 as part of a larger project to update water quality objectives and develop a groundwater protection policy. The water quality objectives were updated in 2015. The project to develop a groundwater protection policy remained on the project list in the 2014 and 2018 Triennial Reviews. Staffing of this project shifted to the Groundwater Specialist in the Point Source Division in 2020.

The groundwater basin evaluation and prioritization process is a component of the North Coast Groundwater Protection Strategy which was developed and evolved over the last 20 years in response to numerous statewide policies, new data sources, and new laws. The purpose of the Strategy is to: (1) establish water quality objectives, (2) identify priority basins, and (3) identify and implement strategies to protect high groundwater quality in the region and improve groundwater quality in areas where it is degraded. In April 2021 the Board adopted a resolution addressing the following: 1) technical process for evaluating and developing priority basins for salt and nutrient management planning; 2) the proposed groundwater basin priorities for salt and nutrient management planning; and 3) directing staff to prepare a Groundwater Protection Strategy Policy Statement for Board consideration.

The Policy Statement for Groundwater Protection was approved by Resolution R1-2022-0040 in October 2022. The policy statement establishes the need for groundwater protection, describes existing government and management actions, identifies

complexities and challenges in implementing waste discharge requirements to protect groundwater, and seeks Board direction on a staff workplan to develop and implement practices to improve groundwater protection.

Status: Complete

Recommendation: Do not include in FY 2024-2027 Workplan.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

3.2.2 Narrative Flow Objective

Development of a narrative flow objective was first listed as a priority project in the 2014 Triennial Review and included in the Planning Program Workplan in the 2018 Triennial Review. This project was defined as having two objectives: 1) Develop Instream Flow Criteria/Objectives for the Navarro River and evaluate other rivers as candidates for future flow criteria development, as warranted. 2) Develop a regional flow objective (e.g., narrative objective) and corresponding implementation methodology.

Instream Flow Criteria/Objectives for the Navarro River

Phase I:

The Regional Water Board funded a contractor (R2 Resource Consultants, Inc.) to create a work plan for development of instream flow criteria in the Navarro River Watershed. The Navarro instream Flow Needs Study Plan (study plan) was completed in March of 2019. The study plan defines a comprehensive approach to implementing an analytical assessment of in-stream flow needs in the Navarro River watershed. The study plan describes procedures and protocols for all field data collection, surveying, mapping, and modeling necessary for implementation. The estimated cost of implementation is \$1.86 million.

Phase II:

Given the high expense of phase II (Implementation of the study plan) and the limited geographic scope of the project, staff have shifted priority to development of the regionwide narrative flow objective. Implementation of phase II of the project has been paused while staff further progress on developing a narrative flow objective, develop strategies for completing the study plans in house and with support of partners, and seek funding opportunities. Recently, The State Water Board has funded the development of a hydrologic model of the Navarro River watershed in their effort to understand water supply relative to water demands. The same type of model is identified in the Navarro Instream Flow Needs Study Plan and its development will further implementation of the Study Plan.

Phase III:

If and when numeric flow criteria are developed using the tools from Phase I and II, a basin plan amendment process would follow to incorporate water quality objectives for flow into the Basin Plan, with an accompanying implementation plan.

Develop a Narrative Flow Objective

Water quantity can have direct influences on various physical, biological, and chemical parameters of water quality. These parameters include stream temperature, oxygen saturation, suspended sediment concentrations, nutrients, organic matter, and other pollutants. In addition to the biogeochemical parameters of water quality that are influenced by flow, the hydrologic factors of a stream that can be influenced by controllable factors can also have significant impacts on the quality of aquatic habitats. Hydrologic factors such as the magnitude, timing, duration, frequency, and rate of change in flows are the critical components of a stream's hydrograph that directly determines habitat availability.

The purpose of the narrative instream flow objective is to augment the constituent-based water quality objectives contained in the Basin Plan with a clearly articulated characterization of the hydrologic conditions also necessary to support beneficial uses. Staff have developed draft narrative objective language and an implementation strategy summarized in a draft white paper. The white paper was developed to facilitate discussions with our partners at the State Water Board, primarily the Division of Water Rights and Office of Chief Counsel. The white paper also describes a variety of metrics for evaluating and ranking flow impacts in north coast watersheds. The rankings could be the basis of a regionwide prioritization of instream flow concerns impacting water quality and beneficial uses to guide Regional Water Board efforts to address the flow concerns.

Staff are engaged in regular meetings with these State Water Board partners to identify and resolve concerns about proposed basin plan language impacts on the water right permitting process. Future activities include staff report development, CEQA scoping and other elements of the Basin Plan amendment process. A public draft staff report is anticipated in January 2025.

Status: Underway. This ongoing project is led by the Flow and Riparian Specialist with support from Planning Unit staff and others.

Recommendation: Staff recommend retaining this ongoing work in the FY 2024-2027 Workplan, dedicating staff time to support this project.

Staffing: Retain Flow and Riparian Specialist as the project lead, with 0.5-0.6 PY for Planning Unit staff technical support each year until adoption.

3.2.3 Climate Change Adaptation and Resilience Strategic Initiatives

The 2018 Triennial Review Planning Program Workplan adopted by the Regional Water Board included the following:

Assess climate change impacts to water quality predicted in the North Coast Region using a landscape scale assessment tool. Assess the need for a Climate Change Adaptation Strategy to include regulatory (e.g., plans and policies) and non-regulatory approaches to mitigate climate change impacts and improve climate change resilience.

As originally scoped the landscape scale geospatial tool was envisioned to assess the potential water quality impacts arising as a result of various climate change scenarios, including impacts due to sea level rise, more intense winter storm events punctuated with longer periods of drought, alterations in the pH of ocean and bay waters, alteration in floral and faunal species composition and extent, etc. Development of such a comprehensive analytic tool proved to be of interest at a statewide scale and was taken up by the State Water Board, California Water Quality Monitoring Council, and other technical partners through the Healthy Watersheds Partnership in coordination with U.S. EPA's Healthy Watersheds Initiative. As such, the Regional Water Board staff originally assigned to this project shifted their focus to a number of other tasks aimed at advancing development of a Climate Change Adaptation and Resilience Strategy for the North Coast Regional Board, as well as providing key technical support on other Triennial Review projects.

During the April 2024 North Coast Regional Water Board meeting, the Regional Board's Climate Specialist presented an [Update on the Climate Change Adaptation and Resilience Initiatives of the North Coast Regional Water Board](https://www.waterboards.ca.gov/northcoast/board_info/board_meetings/04_2024/pdf/6/6-climate-ssr.pdf) (https://www.waterboards.ca.gov/northcoast/board_info/board_meetings/04_2024/pdf/6/6-climate-ssr.pdf). Staff outlined priority climate change adaptation and resilience strategic initiatives that Regional Water Board staff are currently working on or plan to work on. These initiatives reflect a combination of projects that utilize the Regional Water Board's existing regulatory authorities, projects that explore the development of new regulations aimed at leveraging partnerships to achieve common climate resilience goals, and projects that provide technical and policy support for regional and local planning aimed at promoting climate resilience. These initiatives are informed by and aligned with various strategies and policies of the state of California. The following are some of the priority initiatives Regional Water Board staff are working on to promote climate change adaptation and resilience in the North Coast:

- Develop a Narrative Flow Objective and associated implementation plan.
- Develop a process to define and protect waters of special significance (e.g. designation of Outstanding National Resource Waters).
- Develop a Shoreline Adaptation Atlas for Humboldt Bay, in partnership with Blue Lake Rancheria
- Review and permitting of the Humboldt Bay Offshore Wind Heavy Lift Marine Terminal Project, including beneficial reuse of dredge materials for sea level rise adaptation
- Lower Klamath dams decommissioning and Upper Klamath Basin water quality improvement projects
- Support to State Water Board on the Potter Valley Hydroelectric Decommissioning Project
- Support for Agricultural Lands Discharge Permits
- Develop a Racial Equity Action Plan
- Work with various Regional Water Board programs to develop a strategy to promote the implementation of nature-based solutions that enhance landscape resilience to climate change.

Status: Underway. This ongoing project is led by the Climate Specialist with general support from Planning Unit staff and others.

Recommendation: For the FY 2024-2027 Workplan, staff recommend including only the specific basin plan amendment proposals that are developed under the umbrella of the Climate Change Adaptation and Resilience Strategic Initiatives such as the Narrative Flow Objective and Outstanding National Resource Waters.

Staffing: The Regional Water Board's EPM 1 – Climate Specialist will be the project lead for Climate Change Adaptation and Resilience Strategic Initiatives efforts and will be supported, as needed, by various other Regional Water Board staff. Planning Unit staff time is reflected in support of specific basin plan amendment related projects (e.g., Narrative Flow Objective and ONRW) in the FY 2024-2027 Workplan.

3.2.4 Outstanding National Resource Waters

An Outstanding National Resource Water (ONRW) is a designation defined under the Clean Water Act, which restricts the degradation of high quality waters or waters of exceptional recreational or ecological value. Under federal antidegradation requirements, ONRWs are known as tier 3 waters. The two ONRWs in California include Mono Lake and Lake Tahoe, both in the Lahontan Region. As part of an effort to think ahead to the potential water quality impacts associated with climate change, one potentially important tool to protect high quality waters and promote ecosystem resilience could be the designation of ONRWs or development of a similar designation that could provide a heightened protected status improving our ability to restore and protect ecologically or recreationally exceptional waterbodies.

In 2007, the Environmental Law Foundation and several environmental organizations formally requested, in the form of a petition, that a number of Regional Water Boards designate several river segments as ONRWs. State Water Board responded on behalf of the petitioned regions stating that these requests will be evaluated individually during the region's Triennial Review process. Interested parties again requested the designation of ONRWs in the North Coast Region during the 2014 and 2018 Triennial Review processes. In response, Regional Water Board staff took initial steps in 2016 to consider designation of the Smith River as an ONRW. Interested parties associated with that project highlighted uncertainties, expressing a desire to better understand the process and criteria for undergoing an ONRW designation.

Status: Since adoption of the FY 2018-2021 Planning Program Workplan, Regional Water Board staff conducted a survey of antidegradation policies and water quality standards (WQS) from across the nation and documented findings in a staff memorandum to the project files. While the memorandum advanced staff's understanding of tier 3 waters, the need for a designation process or criteria remains. Following completion of that memorandum, available Planning Unit resources required that staffing be diverted to work on other active planning projects. During this 2023 Triennial Review project solicitation period, a new request was submitted to designate as ONRWs: Reaches of Cedar Creek within the South Fork Eel Wilderness and Little Red Mountain Ecological Preserve and its named and unnamed tributaries including Little Cedar Creek and North Fork Cedar Creek and its associated wetlands; and Elder Creek and its named and unnamed tributaries including Misery Creek and Paralyze Canyon Creek and its associated wetlands. Regional Water Board staff held meetings with the requesters who subsequently offered in their written comments to assist the Regional Board by developing a technical report that could serve as the basis for a future Regional Board staff report. Discussions with these groups are ongoing to develop a written agreement outlining the scope of work, intended work products, and draft document sharing protocols. The final work product(s) provided by these organizations will be made available to the public and inform staff's subsequent work.

Recommendation: Staff recommend the Climate Specialist lead the next steps of this project, with some Planning Unit support. During the 2023 Triennial Review, ONRW project proponents offered external resources to support this project. The pace and progress related to this project will depend on securing outside resources and support. Advancing this ONRW project using outside resources to build a foundation for staff's subsequent work will also be responsive to requests for Smith River ONRW designation in that, criteria for designation and implications of a designation will be further clarified before attempting any similar protections for those waters.

Staffing: Assign Climate Specialist as the project lead, and 0.1-0.2 PY each year for Planning Unit staff support in the FY 2024-2027 Workplan.

3.2.5 Biostimulatory Substances Objective Revisions

This project was included in the 2014 and 2018 Triennial Reviews. The original intent was to evaluate the implications of amending the existing biostimulatory substances objective to be a biostimulatory conditions objective. Section 3.4.2 of the Basin Plan currently contains the following narrative objective for biostimulatory substances: “Water shall not contain substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.” Nuisance aquatic growth includes excessive algae growth generally and harmful algal blooms that produce toxins, such as microcystin. Current scientific understanding indicates that there are complex linkages amongst many controllable factors that promote nuisance aquatic growth. These factors include biostimulatory substances such as nitrogen and phosphorus; but they also include physical habitat, light availability, hydromodification, temperature, and other conditions.

The State Water Board is working on statewide water quality objectives for nutrients, other biostimulatory substances, and cyanotoxins, and a program of implementation under the Biostimulation, Cyanotoxins, and Biological Condition Provisions (Provisions). The Provisions could include statewide numeric or narrative water quality objectives and regulatory control options for point and non-point sources in California’s freshwater wadeable streams and rivers, non-wadeable streams and rivers, lakes, and reservoirs. The Provisions may also establish and implement biological condition assessment methods, scoring tools, and targets aimed at protecting the biological integrity (biointegrity) in California’s wadeable streams. The Provisions will be established as statewide policy for water quality control and will include a water quality control plan component. The completion date for the statewide project is undetermined.

As of 2017, Regional Water Board staff have deferred efforts to modify the biostimulatory substances objective from Basin Plan section 3.4.2 and applied limited staff resources to collaborate with State Water Board staff, on an as needed basis, in developing statewide Biostimulation, Cyanotoxins, and Biological Condition Provisions.

Status: Deferred

Recommendation: Staff recommend removing this project from Triennial Review. Staff further recommend that the Planning Unit Supervisor, their representative, and where appropriate, Freshwater Harmful Algal bloom staff, continue participation in State Water Board project activities in an advisory capacity. If a Biostimulatory Conditions objective is found necessary after the statewide project is complete and incorporated into the North Coast Basin Plan, a new proposal to consider revision of the biostimulatory objective could be initiated during a future Triennial Review.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

3.2.6 Native American Culture Beneficial Uses

In 2003, the Regional Water Board adopted a new beneficial use definition recognizing the traditional and cultural uses of waters by Indigenous people: Native American Cultural (CUL) use. At that time twenty-eight Hydrologic Areas and Hydrologic Sub-areas were designated with the CUL beneficial use based on available information. Regional Water Boards are generally responsible for designating beneficial uses for specific waterbodies where the use applies. Designation of beneficial uses in the region occurs through a Basin Planning process.

In 2017, the State Water Board adopted Resolution 2017-0027, defining three statewide beneficial uses: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB). Of the nine Regional Water Boards, only the North Coast's Basin Plan contained a beneficial use pertaining to the cultural and traditional rights of indigenous people and a subsistence fishing beneficial use. In response to the new statewide beneficial uses, there is a need in the North Coast Region to evaluate whether to update the North Coast Basin Plan CUL definition to comport with statewide definitions for CUL and T-SUB or whether the existing CUL definition provides equivalent or better protections.

This project was included in the Planning Program Workplan adopted with the 2018 Triennial Review. However, due to staffing constraints, only limited efforts ensued. Coyote Valley Band of Pomo Indians, Potter Valley Tribe, and Tolowa Dee-ni' Nation submitted proposals in support of this project and designations of waterbodies during the 2023 Triennial Review request for proposal period.

The first phase of this reinitiated project would prioritize relationship-building and collaboration with tribes to provide input and guidance on which definitions would best reflect instream uses and serve their needs. Regional Water Board staff will produce a white paper summarizing tribal input received and detailing next steps. Collaboration with tribes may provide the information necessary to establish designations for the applicable beneficial use(s). The goal of this project is to reach consensus on beneficial use definitions and to ultimately amend the Basin Plan expanding cultural designations in the North Coast Region where appropriate.

This project previously included the Subsistence Fishing (FISH) beneficial use, which has already been determined equivalent to the statewide SUB beneficial use. While FISH designations are also important and a priority to protect historically disadvantaged communities, there are separate, additional, different steps/studies and outreach needed for the FISH designations. For these reasons, the Regional Water Board staff have identified the FISH designations as a separate project, and will work first on the designation of tribal beneficial uses. There may also be lessons learned from the CUL designations and from the State Water Board as they work on the T-SUB and SUB

designations that Regional Water Board staff may be able to utilize for a future FISH designation process in the North Coast Region.

Status: Underway. Outreach for this project has been initiated and will continue to gain momentum over time. More focused staff efforts will begin once the Triennial Review process and the complementary Basin Plan Remediation updates have been completed.

Recommendation: Staff recommend the Subsistence Fishing (FISH) Beneficial Use project be separated from the Native American Culture Beneficial Uses project, and that the Native American Culture Beneficial Uses project be retained in the FY 2024-2027 Workplan, dedicating staff time to support this project.

Staffing: Beginning in FY 2024-2025, apply 0.5 -1.0 PY Planning Unit staff resources to lead this project until adoption.

3.2.7 Lower Eel River Exception to Seasonal Discharge Prohibition

The Basin Plan includes a point source discharge prohibition, which applies to all surface waters in the North Coast Region, except the Mad, Eel and Russian rivers to which point source discharges are allowed during winter months provided that specific exception criteria are met. Because many point source discharges qualify for the wintertime exception, the prohibition is often referred to as the summertime discharge prohibition.

To comply with the summertime discharge prohibition, the City of Fortuna discharges to a percolation pond in the gravels beside the Eel River. This percolation pond method of discharge has been in place for decades. More recently, information from special studies conducted by the City provide evidence that the existing discharge enters the Eel River via subsurface migration during summer months. The City of Fortuna requested that the Regional Water Board consider developing criteria that would allow an exception to the summertime discharge prohibition for point source waste discharge to the Eel River. The City's request was to develop a mechanism allowing discharge of treated wastewater to the Eel River during all months of the year.

This project considers the improvements in available wastewater treatment technologies and resulting effluent quality, as compared to that of the 1970s when the prohibition was first designed.

The Regional Water Board included the project as a high priority in the 2014 Triennial Review, with direction that flow augmentation benefits resulting from discharge may be reason to allow summer discharges, assuming wastewater treatment otherwise eliminates the risk of pollution. Staff were assigned to the project during the 2014-2017 Triennial Review period. In that time, staff conducted background research and worked

with the City of Fortuna and its consultants to develop a project scope. Staff compared wastewater discharge rates from all of the wastewater treatment plant discharges in the Eel River to determine the potential for flow augmentation during critical low flow summer months. Calculations indicate that even if all the wastewater treatment plants in the Eel River basin were allowed to discharge during the summer, the flow augmentation benefit would be negligible; in fact, there would be no discernable change in riffle crest height as a result. Other environmental benefits that might be derived from an exception from the seasonal discharge prohibition have yet to be explored.

Status: Deferred. This project was put on hold for the 2018-2021 Triennial Review and removed from the 2018 Planning Program Workplan. During the interim, the City has pursued multiple mechanisms, studies, and models searching for a remedy to manage summertime disposal of treated wastewater in a manner that would comply with the summertime prohibition and the City's discharge permit.

During the 2023 Triennial Review proposal period, the City of Fortuna requested that this project be reopened and is offering support to carry out the project. Regional Water Board permitting staff would serve as the project lead, with support from Planning Unit staff.

Recommendation: Staff recommend that this project be added to the FY 2024-2027 Workplan with the acknowledgement that the pace and progress related to this work is wholly dependent upon the dedication of resources and support from the City of Fortuna and Permitting Unit staff. Staff also acknowledge that the City of Fortuna and Permitting Unit staff are evaluating City proposals for the disposal of treated wastewater that do not involve discharge to the Eel River, and working on a potential permitting mechanism that may allow for treated disposal of wastewater to land.

Staffing: Assign staff from the Permitting Unit to act as the project lead each year until adoption, plus an additional ongoing 0.1 PY of Planning Unit staff support throughout the FY 2024-2027 Workplan to assist with project development.

4.0 Status of 2018 Triennial Review Unstaffed Medium and Low Priority Projects

Projects ranked as medium or low priority in the 2018 Triennial Review include projects proposed by Regional Water Board staff or submitted through public comment that were not included on the 2018 Planning Program project list. Some of these projects have been carried over from prior Triennial Reviews and have never been prioritized for inclusion in Planning Program Workplans. The need for and thinking related to these former project proposals may no longer be current or relevant given the ever changing regulatory landscape.

To maintain a list of potential projects that is current and relevant, this staff report focuses on active projects and proposals made during this 2023 Triennial Review. The list of previous Triennial Review low and medium priority projects (2018 and prior) contained in Table 2 below, was circulated to all Regional Water Board staff in order to identify any currently relevant projects on that list. Meetings were held to discuss the goals of some projects, and whether a basin plan amendment would be the appropriate tool that was necessary at this time to meet those underlying goals. No projects were recommended for the 2023 Triennial Review based upon this internal process. The list was included in the draft Staff Report circulated for public comment, and no comments were received on these projects. The following list of low and medium priority projects from 2018 will be carried forward here, for the last time, as a function of this Triennial Review. Details and information related to these projects can be found in the [2018 Triennial Review staff report](https://www.waterboards.ca.gov/northcoast/board_info/board_meetings/09_2018/pdf/7/20180808_final%202018%20TR%20Staff%20Report.pdf).

(https://www.waterboards.ca.gov/northcoast/board_info/board_meetings/09_2018/pdf/7/20180808_final%202018%20TR%20Staff%20Report.pdf)

Table 2. 2018 Triennial Review Low and Medium Priority Project List

Develop a Mixing Zone Policy for human-health based constituents
Develop a Stream and Wetland System Protection Policy
Update the Humboldt Bay Action Plan to Include Consideration of Dioxin and PCB Listings and Sediment Listings in Tributaries
Develop Freshwater Creek, Jacoby Creek and Lower Elk River Sediment TMDLs
Develop a Natural Conditions Clause
Revise Ammonia Objective to Incorporate U.S. EPA's Ammonia Criteria
Develop Numeric Flow Objectives to Address Low Flow Conditions in Impaired Waters
Update DO Objectives for Lakes and Estuaries
Develop Water Quality Objectives for Endocrine Disrupters
Revise Scott TMDL Action Plan
Revise Shasta TMDL Action Plan

Revise Specific Conductance and Total Dissolved Solids Site Specific Objectives for the Upper Russian River
Revise pH Objective to be Consistent with U.S. EPA Criteria
Develop TMDL Action Plans for Other 303(d) Listed Waterbodies
Revise Copper Objective to Consider the Biotic Ligand Model
Location of Estuary, Harbors, Enclosed Bay Boundaries

Status: Deferred

Recommendation: Staff recommend removing these projects from future Triennial Reviews unless and until a new proposal is submitted for consideration.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

5.0 New Projects and Proposals for 2023 Triennial Review

This section describes projects either initiated or proposed since the 2018 Triennial Review. Proposals for Basin Plan amendments can be submitted to the Regional Water Board at any time, and are considered along with proposals received from the formal solicitation process that takes place during Triennial Review. Over 50 responses were received through the online form used for the 2023 Triennial Review proposal solicitation. Not all submittals received by staff represented a unique proposal to amend the Basin Plan. Staff received proposals for basin plan amendment projects as well as comments of support for project proposals, editorial amendment requests, requests for monitoring, and repeat submissions. For the purpose of Triennial Review, amendment proposals have been organized and sorted to evaluate candidate projects. Proposals that share a theme (e.g., numeric flow criteria) have been grouped as the work needed to accomplish them would likely be aligned in a Regional Water Board workplan.

5.1 Gualala Sediment TMDL Action Plan

In the early 2000s, the U.S. EPA established fifteen sediment TMDLs in the North Coast Region under a consent decree. Each of these TMDLs, including the Gualala Sediment TMDL, included a sediment source analysis, TMDL calculation, load allocations, seasonal variations, and a margin of safety. In response to this body of EPA established TMDLs, the Regional Water Board adopted [Resolution R1-2004-0087 Total Maximum Daily Load Implementation Policy](#).

(https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/120204-0087.pdf) Resolution No. R1-2004-0087 required staff to develop the *Staff Work Plan to Control Excess Sediment In Sediment-Impaired Watersheds*, and directed staff to leverage existing resources to reduce sediment discharges and to use best professional judgment in prioritizing tasks. Staff have been operating under this adopted policy and implementation workplan² since 2004 and 2008 respectively.

In 2021, Friends of the Gualala River (FoGR) filed a lawsuit against the Regional Water Board challenging a Timber Harvest Plan (THP) enrolled in the Regional Water Board's General Waste Discharge Requirement Permit for Timber Operations. One contention was that the 2001 Gualala Sediment TMDL had not been incorporated into the Basin Plan as required under sections 303(d)(2) and 303(e)(3) of the Clean Water Act and so the enrollment was improper because it did not account for the loads listed in the 2001 Gualala Sediment TMDL. The Regional Water Board and FoGR came to a stipulated settlement agreement to initiate a project with the goal of incorporating the 2001 Gualala Sediment TMDL into the Basin Plan with an accompanying implementation plan. The agreement was entered as a Stipulated Judgment in Mendocino County Superior Court on April 6, 2023. The stipulated settlement agreement requires, among other things, that by June 2025, the Regional Water Board publish a public review draft staff report that could support incorporation of the Gualala Sediment TMDL and accompanying program of implementation into the Basin Plan. The staff report will also serve as a substitute environmental document to satisfy the California Environmental Quality Act (CEQA).

Proposed by: Regional Water Board Staff, FoGR

Status: Underway. Staff are currently working on outreach and have initiated a public participation strategy including but not limited to CEQA scoping. Staff have begun drafting the staff report that will provide substitute environmental documentation to support the Action Plan. Additionally, staff are analyzing instream aquatic habitat trends and hillslope metrics to assess watershed conditions.

Recommendation: The Regional Water Board is legally obligated to pursue this project in accordance with the stipulated settlement agreement; therefore staff recommends adding the project to the FY 2024-2027 Workplan.

Staffing: Apply 1.5 PY in FY 2024-2025 and 1.0 PY in FY 2025-2026 of Planning Unit staff resources for project lead and technical support necessary to bring this project for public comment and later Regional Water Board consideration. Apply 0.2 PY staff resources in FY 2026-2027 and until the project is completed.

² [Work Plan to Control Excess Sediment in Sediment-Impaired Watersheds](https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/sediment_workplan/080408sedwp/Work_Plan_Final_04-08-08.pdf)
(https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/sediment_workplan/080408sedwp/Work_Plan_Final_04-08-08.pdf)

5.2 Russian River Aluminum TMDL

A request to develop a TMDL for aluminum in the Russian River was submitted by the Pinoleville Pomo Nation during 2023 Triennial Review project solicitation. The 2020-2022 Integrated Report includes five waterbody segment listings for aluminum in the upper, middle, and lower mainstem Russian River.

Aluminum is a natural element and the most common metal in the earth's crust. It is found in most soils and rocks. Aluminum can enter the water via natural processes, like weathering of rocks. Instream concentrations of aluminum can be magnified due to erosional processes, both natural and anthropogenic, that lead to increased suspended sediment concentrations in receiving waters. Other sources that can contribute to exceedances include mining, industrial processes or wastewater treated with alum.

Listings for aluminum in the Russian River are based primarily upon total aluminum concentrations for exceedance of the Basin Plan objective which requires that waters designated for use as domestic or municipal supply (MUN) not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15 (secondary maximum contaminant levels). The secondary maximum contaminant level established for aluminum of 200 ug/L, is based upon taste and odor thresholds. The aluminum level protective of human health is established at 1,000 ug/L which has not been identified on the 303 (d) list as being exceeded for any of the listed segments in the Russian River.

Proposed by: Pinoleville Pomo Nation

Status: New Proposal

Recommendation: Initial staff work to investigate aluminum listings across the North Coast Region point to a strong association between elevated total aluminum concentrations and elevated turbidity (excess sediment). When considering together the current taste and odor based listings in the Russian River for aluminum, the factors in section 2.4 of this report, and the current sediment listings in the Russian River, staff do not recommend development of an aluminum TMDL for the Russian River at this time. However, the linkage between aluminum and excess sediment could be investigated in conjunction with sediment reduction efforts in the Russian River watershed. Staff does not recommend this project for inclusion on the FY 2024-2027 Workplan.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

5.3 Smith River Pesticides TMDL

Staff received a request to develop a TMDL for pesticides in the Smith River Plain from the Tolowa Dee-ni' Nation. The request described concerns with agricultural practices

associated with lily bulb farming, where surface water monitoring results documented the presence of copper and other pesticides above US EPA benchmarks for the protection of aquatic life. The Tribe has been an active participant in the Smith River Plain Watershed Stewardship Team and development of the Water Quality Management Plan described below.

In the 2020-2022 Integrated Report, four water body segments in the Smith River watershed were listed on the 303(d) list of impaired waterbodies:

- Delilah Creek, listed for Copper
- Elk Creek, listed for Dissolved Oxygen
- Martin Ranch, listed for Dissolved Oxygen
- Tilas Slough, listed for Copper

In response to concerns raised prior to the 2020-2022 Integrated Report listings, Regional Water Board staff has worked to conduct monitoring, establish a stewardship framework, and develop a plan to address the Delilah Creek and Tillas Slough listing for copper in the Smith River Plain. A milestone in that string of efforts was the Executive Officer's approval of the Smith River Plain Water Quality Management Plan (Plan) in November 2021. The Plan was developed collaboratively with the Smith River Plain Watershed Stewardship Team. At the time, the team included lily bulb growers, the National Marine Fisheries Service, the California Department of Fish and Wildlife, the Tolowa Dee-ni' Nation, the Del Norte Resource Conservation District, the Del Norte County Agricultural Commissioner, the California Department of Pesticide Regulation, and the Smith River Alliance non-profit.

The Plan addresses the water quality impacts of lily bulb operations in the Smith River Plain (including potential impacts from copper and other pesticides) documented through ongoing surface water sampling by the Regional Water Board. The Plan implements an adaptive management process that includes implementation of Best Management Practices (BMPs), monitoring and reporting, Regional Water Board inspections, annual Watershed Stewardship Team meetings, and engagement with interested parties. Based on data collected and feedback from interested parties, the Watershed Stewardship Team will evaluate the effectiveness of a wide range of best management practices now being implemented by lily bulb growers in the Smith River Plain. As part of adaptive management, growers will make iterative improvements to practices over time as appropriate to address issues raised by the Watershed Stewardship Team.

The Plan also provides a foundation for the development of a permit to regulate discharges associated with lily bulb operations in the Smith River Plain. Development of a new permit to regulate waste discharge from lily bulb operations in the Smith River Plain is underway and includes a timeframe for tribal consultation, and an engagement

process during which interested parties, including the Tribe, can provide input to Regional Water Board staff on water quality practices to control pesticides and other pollutants of concern. Public review of the draft permit is currently planned in early 2026.

Proposed by: Tolowa Dee-ni' Nation

Status: New Proposal

Recommendation: The Smith River Plain Water Quality Management Plan (Plan) was developed in concert with area and resource experts familiar with the pollutants and lily bulb operations in the Smith River Plain and was approved by the Executive Officer in late 2021. The Plan calls for monitoring (already underway) and development of an agricultural lands discharge permit (also underway and planned for public review by early 2026) that will address known sources of copper and other pesticides, as well as other waste discharges to waters of the state. The Plan aligns with the definition of an advanced restoration plan (ARP) as described in US EPA's Vision and section 3.1 above. As with other ARPs, the goal of the Plan and its implementation is to achieve water quality goals in the near term, ideally more quickly than would likely occur if staff were to develop a pesticide TMDL. Until all elements of the existing Plan are fully implemented and receiving waters have reasonable time to recover from past discharges, staff recommend deprioritizing development of a pesticides TMDL for Delilah Creek and Tillas Slough at this time. Therefore, staff does not recommend this project for inclusion on the FY 2024-2027 Workplan.

Staffing: No planning staff resources assigned in the FY 2024-2027 Workplan. Staff from the Agriculture and Enforcement Division will continue to pursue work identified in the Plan, including permitting actions to address non-point sources of pollution associated with Smith River watershed lily bulb operations.

5.4 Numeric Instream Flow Objectives

Multiple requests were submitted for 2023 Triennial Review consideration pertaining to numeric instream flow criteria and regulated environmental flows for various water quality purposes. According to California Department of Fish and Wildlife (CDFW), "Instream flow is used to identify the rate of water flow, measured in cubic feet per second (cfs), required at different times of the year at a specific location in a waterway. Instream flow criteria and implementation of these flows are required to protect aquatic habitat, sustain wildlife, provide recreational opportunities, and support agriculture and domestic uses... Determining instream flows are crucial so that aquatic, riparian, and

terrestrial resources dependent on water will be considered and protected during water distribution activities”³.

CDFW has published instream flow criteria for three watersheds within the North Coast Region: including the Scott River watershed (February 2017), the South Fork Eel River watershed (November 2021), and the Mark West Creek watershed (June 2022)⁴.

These reports have identified specific numeric instream flow criteria based on the needs of fishery resources, including threatened and endangered species, and that could be the basis for numeric water quality objectives in those watersheds.

Two Triennial Review project requests reference the CDFW Instream Flow Criteria developed for specific waterways in the North Coast Region. One of these is Mark West Creek, where assessments have indicated that the low summer and fall stream flows encountered by rearing Coho Salmon and steelhead juveniles is a contributing factor to the species’ decline within the Russian River basin and associated subwatersheds⁵. In addition to watersheds with CDFW published recommendations, numeric flow criteria for the Trinity River were also requested to support pool (aquatic life refugia) temperature stratification in summer and early fall. The Trinity River project would require a higher resolution of temperature monitoring and analysis, which is not currently available.

Proposed by: California Coastkeeper Alliance, Russian Riverkeeper, US Bureau of Reclamation

Status: New Proposals. As evidenced by the following activities that are already completed or underway, instream flow is an important component of water quality protection to be addressed. 1) The scientific basis for protection of instream aquatic organisms has been developed by CDFW for three North Coast watersheds. 2) The State Water Board is currently pursuing processes for instream flow criteria development. 3) Regional Water Board staff contracted development of an instream flow study plan for the Navarro River and continue to seek resources to execute that plan. 4) Regional Water Board staff are pursuing a water quality-based narrative flow objective that would apply to all North Coast watersheds/waterbodies. (For more information on number three and four, see 3.2.2 Narrative Flow Objective, above). 5) The State Water Board has adopted emergency drought regulations with specific

³[Instream Flow Program](https://wildlife.ca.gov/Conservation/Watersheds/Instream-Flow) (https://wildlife.ca.gov/Conservation/Watersheds/Instream-Flow)

⁴[CDFW Instream Flow Studies \(ca.gov\)](https://wildlife.ca.gov/Conservation/Watersheds/Instream-Flow/Studies) (https://wildlife.ca.gov/Conservation/Watersheds/Instream-Flow/Studies)

⁵[Mark West Creek Study \(Sonoma County\) \(ca.gov\)](https://wildlife.ca.gov/Conservation/Watersheds/Instream-Flow/Studies/Mark-West-Creek-Study) (https://wildlife.ca.gov/Conservation/Watersheds/Instream-Flow/Studies/Mark-West-Creek-Study)

instream flow targets twice in the Scott and Shasta Watersheds in response to critically dry conditions. The Regional Water Board's Scott and Shasta Watershed Steward is integrated into the implementation of these regulations and continues to coordinate closely with State Water Board and CDFW staff. All of these efforts are being closely followed or led by the Flow and Riparian Specialist.

Recommendation: Regional Water Board staff will continue to share these requests with the State Water Board's Division of Water Rights, who oversee flow related matters in the State. The Flow and Riparian Specialist will continue tracking State Water Board efforts towards instream flow criteria development. Staff recommend a continued focus of resources to complete the narrative flow objective which would apply to the instream waters identified in these proposals and all others region wide. Staff further recommend that this project be considered again during the 2027 Triennial Review to explore what Planning Program resources are available at that time to support this work.

Staffing: No staff resources assigned in the Planning Program Workplan. Staff resources are dedicated to section 3.2.2 Narrative Flow Objective project.

5.5 Trinity River Temperature Objectives

The Basin Plan establishes waterbody-specific objectives for temperature in the Upper Trinity River (Basin Plan Table 3-1b). Requests to update the waterbody-specific objectives for temperature in the Upper Trinity River have been received from multiple entities. Specifically, to revise the existing 56°F temperature objectives at both Douglas City (September 15 through October 1) and the North Fork (October 1 through December 31) to 53.5°F, and to revise the North Fork temperature objective to 50°F from November 1 through the end of Coho egg incubation.

Trinity River temperature objectives may need to be updated to consider current best available science. Research findings on thermal tolerance of Chinook salmon embryos in the Sacramento River have shown lower temperatures are needed in the wild compared to laboratory study results⁶. Trinity River Hatchery has experienced high levels of coho salmon egg mortality in recent years when low Trinity Reservoir storage resulted in the release of warm water from Lewiston Dam. Trinity River water temperatures are causing concern for Endangered Species Act-listed wild coho salmon eggs⁷.

Diversion of Trinity River water to the Sacramento River through Water Rights Order (WRO) 90-5 informs much of the management in this area. WRO 90-5 establishes

⁶ Martin, Benjamin T., et al. Phenomenological vs. Biophysical Models of Thermal Stress in Aquatic Eggs. *Ecology Letters*, 2017. Volume 20, Issue 1. Pages 50-59.

⁷ Ly, Justin, NOAA Fisheries. "Comments on Bureau of Reclamation's Draft Temperature Management Plan." April 27, 2022.

water right requirements on the Bureau of Reclamation's operations of Keswick Dam, Shasta Dam, the Spring Creek Power Plant, and the Trinity River Diversion. WRO 90-5 contains a provision requiring that "the Permittee shall not operate its Trinity River Diversion for water temperature control on the Sacramento River in such a manner as to adversely affect salmonid spawning and egg incubation in the Trinity River⁸." The Order's protections, however, are stated as adult salmonid temperature requirements of 56°F at specific locations during the salmon spawning periods starting September 15.

Should further exploration of temperature needs in the Upper Trinity River indicate a need for revised waterbody-specific objectives for temperature, this project could require not only a Basin Plan amendment to revise Basin Plan Table 3-1b, but also coordination with State Water Board staff regarding implementation of temperature requirements and appropriate protections.

Proposed by: Yurok Tribe, NOAA Fisheries, Save California Salmon

Supporting Commenters: U.S. EPA, California Department of Fish and Wildlife, Pacific Coast Federation of Fishermen's Associations and Institute for Fisheries Resources, Alliance of Communities for Sustainable Fisheries, Trinity River Rafting, Environmental Protection Information Center, Mount Shasta Bioregional Ecology Center, California Sportfishing Protection Alliance, and 13 additional members of the public.

Status: New Proposal

Recommendation: This project is relevant to threatened and endangered species protection; however, the Planning Unit is unable to lead this work at this time. Staff recommend the Regional Water Board's Flow and Riparian Specialist lead this project with support from the Planning Unit. The pace and progress of this project will depend on the ability to secure external resources, which has been discussed with project proponents. Regional Water Board staff will be tracking the ongoing relevant research of fisheries agencies as new science continues to emerge, and continuing conversations initiated in early 2023 with State Water Board staff related to WRO 90-5, Trinity River temperature objectives, and regulatory options available to the Regional Water Board to protect temperature sensitive beneficial uses in the Upper Trinity River.

Staffing: Assign the Flow and Riparian Specialist to act as the project lead, with 0.1 PY Planning Unit staff support in each year of the FY 2024-2027 Workplan.

⁸ [State Water Resources Control Board, "WR Order 90-5,"](https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/1990/wro90-05.pdf) pages 61, 62, accessed at: (https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/1990/wro90-05.pdf)

5.6 Shasta River Temperature Objectives

A request was received to develop numeric temperature standards for the Shasta River to be protective of beneficial uses COLD, WILD, MUN, RARE, MIGR, SPWN, CUL, and FISH. The Shasta River watershed was listed as impaired for organic enrichment/dissolved oxygen in 1992 and temperature in 1994, pursuant to section 303(d) of the Clean Water Act.

Low dissolved oxygen and elevated water temperatures have resulted in degraded water quality conditions in the watershed, decreasing salmonid habitat and survival. Beneficial uses associated with the cold water fishery are not fully supported. The Shasta River TMDL Action Plan was developed to address the causes of impairment and includes a temperature source analysis and load allocations.

Project proponents request the Basin Plan be amended to include the following waterbody-specific temperature standards in the Shasta River:

“At no time during critical migration and spawning for cold freshwater fish shall the temperature of the Shasta River exceed 16 degrees Celsius.

During times when no migration or spawning is occurring, the Shasta River shall not exceed 18 degree Celsius.

Delivery of Municipal water shall be via pumped groundwater discharged to the Shasta River and not exceeding 16 degrees Celsius.

Flow volume and temperature are closely related in the Shasta River, but flow alone shall not be a proxy for numeric temperature values. Instream flow volumes, or minimum instream flow regulations, must be paired with numeric temperature values to assure that temperature gains in downstream reaches are minimized and the Canyon reach is hospitable to cold freshwater fish.”

Proposed by: Friends of the Shasta River

Supporting Commenter: One member of the public

Status: New Proposal. The Regional Water Board has developed the Shasta River TMDL Conditional Waiver of Waste Discharge Requirements ([Shasta TMDL Conditional Waiver](#))

(https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2018/18_0019_Shasta_Waiver.pdf) to improve temperature and dissolved oxygen conditions in the Shasta River and its tributaries. The existing Shasta River TMDL Conditional Waiver was approved by the Regional Water Board in April 2018 and requires, among other things, the following be met for waiver coverage: 1) Implement measures to control human-caused elevated stream temperatures, such as those recommended in the Action Plan for the Shasta River Temperature and Dissolved Oxygen Total Maximum Daily Loads ([Shasta TMDL Action Plan](#))

(https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/shasta_river/060707/finalshastatmdlactionplan.pdf); and 2) Employ best management practices and activities that minimize, control, and preferably prevent elevated solar radiation loads from affecting waters of the Shasta River and tributaries. Although requirements under the Shasta TMDL conditional Waiver and Action Plan do not equate to site specific temperature objectives, these do represent activities underway to protect beneficial uses from anthropogenic temperature impacts. Renewal of the 2018 Conditional Waiver is under development and may be a vehicle to further the existing temperature protections going forward.

Recommendation: This project is relevant to threatened and endangered species protection; however, the Planning Unit is unable to staff related work at this time. Staff recommend tracking the ongoing relevant research of fisheries agencies, continued consultation with the Shasta Watershed Steward and the Flow and Temperature Specialist as new science emerges. Staff further recommend that this project be considered again during the 2027 Triennial Review to explore what Planning Program resources are available at that time to support this work.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

5.7 Groundwater Bacteria Objectives

Section 3.4.1 of the Basin Plan states, “In groundwaters used for domestic and municipal supply (MUN), the median most probable number of coliform organisms over any 7-day period shall be less than 1.1 MPN/100 mL, less than 1 colony/100 mL, or absent (State Department of Health Services).” This groundwater bacteria objective was first included in the 1994 Basin Plan, updating a previous objective at that time.

The North Coast Region has abundant groundwater resources with 62 groundwater basins identified by the Department of Water Resources. Groundwater is used widely throughout the North Coast Region for municipal, domestic, agricultural, urban, and industrial water supply.

Regional Water Board staff look to update the water quality objectives for bacteria in ground water, utilizing the Triennial Review period to keep pace with changes in regulation, new technologies, policies, and physical changes within the region. Updated water quality objectives may or should include other public health-related microorganisms such as *E. coli*, enterococci, salmonella, viruses, and (maybe) protozoa like giardia and cryptosporidium. None of these organisms should be detectable in groundwater used as domestic or municipal supply. Updated bacteria objectives for groundwater would be more protective of the MUN beneficial use and public health. In addition, more stringent objectives could result in dischargers having to provide disinfection for waste discharges to land or to the subsurface as well as potential increased monitoring costs.

Proposed by: Regional Water Board Staff

Status: New Proposal

Recommendation: Staff does not recommend this project for inclusion on the FY 2024-2027 Workplan due to insufficient staff resources available to support the necessary work. Staff further recommend that this project be considered again during the 2027 Triennial Review to explore what Planning Program resources are available at that time to support this work.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

5.8 Clean Water Act Section 304(a) Criteria (Objectives)

On August 21, 2015, revisions to the federal Water Quality Standards (WQS) regulations at 40 C.F.R. Part 131 went into effect. The final rule addressed certain WQS program areas including triennial reviews pursuant to Clean Water Act (CWA) section 303l(1). Per the final rule, during their next triennial review, states and authorized tribes were to consider for adoption as WQS new or updated CWA section 304(a) water quality criteria recommendations⁹ published by the U.S. EPA since May 30, 2000.

Many of the 304(a) criteria were promulgated in the statewide California Toxics Rule, and revising such criteria involves considerable time and effort. Regional Water Board staff concur with the Los Angeles Regional Water Board and the San Francisco Bay Regional Water Board determinations that consideration of the bulk of the remaining 304(a) criteria could also apply statewide. Therefore, once adopted as amendments to existing statewide water quality control plans, the water quality objectives would apply to all waters in the State.

Proposed by: Regional Water Board

Status: Re-proposed

Recommendation: Given the number of new and updated U.S. EPA recommendations, the limited resources of the Planning Program, ongoing and planned efforts to update statewide water quality objectives, Regional Water Board staff have considered options for adopting new or updated CWA 304(a) criteria and believe work

⁹ Section 304(a) of the Clean Water Act (CWA) requires U.S. EPA to develop and publish, and from time to time revise, recommended criteria for the protection of water quality criteria for the protection of water quality that accurately reflect the latest scientific knowledge. U.S. EPA's recommended section 304(a) criteria provide technical information for states and authorized tribes to consider and use in adopting water quality standards that ultimately provide the basis for assessing water body health and controlling discharges of pollutants into waters of the United States.

at the regional level should not be pursued. Staff does not recommend this project for inclusion on the FY 2024-2027 Workplan due to insufficient staff resources available to support the necessary work at a regional level.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

5.9 Logging, Construction, and Associated Activities Action Plan Revision

Regional Water Board staff have identified an inconsistent definition for “stream or watercourse” in Chapter 4 of the Basin Plan. Currently, the Action Plan For Logging, Construction, And Associated Activities, subsection 4.2.1, includes prohibitions against discharges to any “stream or watercourse” which it defines as a “natural watercourse as designated by a solid line or dash and three dots symbol shown in blue on the largest scale United States Geological Survey Topographic Map most recently published.” However, the standard used across the industries regulated by the Regional Water Board is to define streams and watercourses by the classifications described in Table 4-3 of the Basin Plan (i.e., Class I-III stream system). The inconsistency in how they are defined in the Basin Plan has mislead the regulated community in some instances into thinking that those waters not mapped by the United States Geological Survey are outside of the jurisdiction of the Regional Water Board.

Regional Water Board staff propose replacing the definition for “stream or watercourse” In Chapter 4.2. with a definition that is consistent with the industry standards as are used in Table 4-3 of the Basin Plan or replace the term “stream or watercourse” with “water of the State” or a broader term that captures our full jurisdiction as defined in Porter Cologne section13050.

Proposed by: Regional Water Board Staff

Status: New Proposal

Recommendation: Staff recommend the Enforcement Unit conduct the initial work to develop further clarity around the proposed Basin Plan amendment, with consultation from Planning Unit staff. A more developed Basin Plan amendment proposal could be included for consideration in the next Triennial Review.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

5.10 Hatchery Policy Revisions

Basin Plan Chapter 4.1.16 describes the *Policy On The Regulation Of Discharge From Fish Hatcheries, Fish Rearing Facilities, And Aquaculture Operations*. The Policy establishes narrative criteria and prohibitions regarding beneficial use impact, discharge from cleaning activities, and discharge of detectable levels of chemicals used for the

treatment and control of disease. The Basin Plan establishes that the discharge will be subject to review for the issuance of Waste Discharge Requirements (permit), and that the Regional Water Board may waive Waste Discharge Requirements, provided the discharge complies with Basin Plan requirements and satisfies Basin Plan established conditions for the waiver. The Basin Plan establishes a requirement that public interest is served by the fish hatchery, rearing facility, or aquaculture operation.

California Department of Fish and Wildlife (CDFW) staff have requested that the Regional Water Board establish effluent and receiving water limitations, based on the science of bioassays and toxicology studies as the Central Valley and Lahontan Regional Water Quality Control Boards have, in lieu of the prohibition (criteria number 3, no detection of drugs and chemicals) identified within the Hatchery Policy.

CDFW's request for chemical-specific water quality-based effluent limitations (WQBELs) and receiving water limitations in lieu of the prohibition was first addressed during the 2015 renewal of the Cold Water Concentrated Aquatic Animal Production Facility Discharges To Surface Waters NPDES Permit (general Hatchery Permit). At that time, the Regional Water Board decided that, in lieu of establishing numeric effluent limitations or detection levels, to ensure compliance with the U.S. EPA effluent guidelines (ELGs), and to demonstrate that discharges are protective of aquatic life and other beneficial uses, the 2015 general Hatchery Permit and the Notice of Intent for coverage would require chronic toxicity test information and calculation of effluent concentrations for all chemicals and drugs applied in solution for immersive treatment. These requirements were determined to be consistent with the Hatchery Policy (including the prohibition against discharges of detectable chemical constituents), final ELGs, and ongoing practices at existing hatchery facilities.

During the 2021 renewal of the general Hatchery Permit, Regional Water Board staff again confirmed, in the Response to Comments document, that the toxicity test information and the calculation of effluent concentrations applied in immersive treatment complied with criteria number 3 of the Hatchery Policy. This approach was once again affirmed by the Regional Water Board via the adoption of the 2021 general Hatchery Permit.

The 2021 general Hatchery Permit includes requirements to comply with criteria number 3 of the Hatchery Policy in sections 1.2.2.1, 1.2.2.2, 4.7, 10.3.2.1, 10.3.3.2 and Attachment C. The NOI includes requirements to comply with number 3 of the Hatchery Policy in Section 8 and Section 1.2.2.1 states that all discharges, except those constituents for which compliance with water quality-based effluent limitations are required, pollutant concentrations in the discharge do not cause violations of discharge prohibitions. Including the discharge prohibition associated with number 3 of the

Hatchery Policy. Section 1.2.2.2 states, “The discharge does not cause acute or chronic toxicity in the receiving water.”

Discharge Prohibition 4.7 includes the language related to number 3 of the Hatchery Policy. “The discharge of detectable levels of chemicals used for the treatment and control of disease, other than salt (NaCl), is prohibited. This provision on treatment waste, is intended to prevent discharge of chemicals at levels that would cause toxicity, exceed water quality objectives, or otherwise impair beneficial uses.”

Section 10.3.2.1 (New Chemical and Aquaculture Drug Use Reporting) includes submittal of chronic toxicity test information on any new chemical or drug applied in solution for immersive treatment. Section 10.3.3.2 requires new or existing non-verified Permittees to submit a Chemical Controls, Monitoring and Reporting Plan to minimize the need for disease control chemicals and characterize effluent associated with disease control activities. Attachment C (Chemical Use Report) requires submittal of the date of application, chemical name, purpose of application, amount applied, units, treatment duration, treatment type (Immersion, Feed, Injection), flow treated (MGD), total effluent flow (MGD) and the calculated effluent concentration.

Proposed by: California Department of Fish and Wildlife

Status: Re-proposed

Recommendation: Based upon current permitting requirements and the Regional Water Board’s application of toxicity monitoring plus effluent concentration calculations to serve as the mechanism for compliance with the Hatchery Policy, staff does not recommend amendments to the Hatchery Policy that establish numeric effluent criteria for these facilities. As has already occurred since establishing the Hatchery Policy in 1988, chemicals used in these facilities will not likely be stagnant in the coming years. The existing application of calculations plus aquatic toxicity monitoring allows for adaptive management within the permitting context that remains consistent with adopted regulation. Staff recommend that this project not be included on the FY 2024-2027 Workplan as a working solution for permitted facilities consistent with regulatory requirements has already been identified.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

5.11 Basin Plan Remediation, Editorial Revisions and Non-substantive Amendments

Basin Plan editorial changes have been requested by both Regional Water Board staff and the public during the 2023 Triennial Review process. The Planning Unit has a responsibility to ensure the Basin Plan is kept up-to-date and accurate by making changes that clarify or update information to be consistent with new laws, plans, and

regulations or to correct minor errors. These changes are sometimes needed for clarity and to ensure that the public is informed about the latest requirements to protect water quality.

New objectives, plans, and policies adopted by the State Water Board are considered editorial amendments when brought into the Basin Plan as they have already been through the regulatory process at the State level, including scientific peer review, CEQA and public comment. New statewide requirements that override existing Basin Plan language are in full effect once passed by the State Water Board and received approval from the Office of Administrative Law as well as U.S. EPA. These regulatory requirements are then later amended into the Basin Plan to improve clarity and consistency.

Changes identified for the upcoming 2025 Basin Plan revision identified under this project include, but are not limited to:

- **General Basin Plan Maintenance**
 - Remediate the Basin Plan to comply with the Americans with Disabilities Act (ADA).
 - Make references to the Basin Plan and State Water Board consistent with the Regional Water Board's style guide.
 - Capitalize Action Plan when referring to a specific plan.
 - Replace "section" with "chapter," and correct typographical errors in section numbering and footnote font size.
- **Chapter 1, Introduction:** Improve descriptions in Setting of North Coast Region. During the 2023 Triennial Review proposal solicitation, staff received a request to update language in this section to include North Coast Native American tribes. The suggested language is an appropriate addition to the overview of the environmental and socioeconomic setting of the North Coast Region.
- **Chapter 2, Beneficial Uses:**
 - Ensure consistent use of the term "beneficial uses" in the Basin Plan. The term beneficial uses will replace instances described as "designated uses," and "existing" beneficial uses will replace "present" beneficial uses. The beneficial use definitions will be presented in alphabetical order.
 - Relocate lengthy descriptions of wetland policies to Chapter 4 (Implementation Plans).
- **Chapter 3, Water Quality Objectives:**

- Incorporate the statewide Bacteria Provisions into the Basin Plan. Effective February 4, 2019, Part 3 of the Inland Surface Waters, Enclosed Bays, and Estuaries (ISWEBE) Plan establishes numeric bacteria water quality objectives for the contact recreation beneficial use (REC-1) , for reasonable protection of people that recreate within all surface waters, enclosed bays, and estuaries of the State where the REC-1 beneficial use applies. Two bacteria water quality objectives applicable to waters with the REC-1 beneficial use, depending on the salinity level, will be added to Chapter 3 of the Basin Plan, Water Quality Objectives. These objective supersede the existing REC-1 coliform objective, which will be removed from Chapter 3.
- Incorporate statewide mercury objectives into the Basin Plan. In 2017 the State Water Board adopted Resolution 2017-0027, which approved “Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE)—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions.” The Provisions establish water quality objectives for the reasonable protection of people and wildlife that consume fish and apply to all the inland surface waters, enclosed bays and estuaries of the State that have the applicable beneficial uses. The water quality objectives that protect people who consume fish apply to waters with the COMM, CUL, T-SUB, and SUB¹⁰ beneficial uses.
- **Chapter 4, Implementation, Prohibitions, Plans and Policies:**
 - Rename Chapter 4 from its current title (“Implementation”) to the above, clarifying the breadth of its content which includes implementation, prohibitions, region wide plans and policies
 - Move attainment strategies, TMDLs, and waterbody specific action plans to a new Chapter 5, Water Quality Attainment Strategies including TMDLs and Action Plans.
 - Bring in wetlands descriptions and State and federal implementation summaries into Chapter 4 as described for Chapter 2 above.
 - Addition of explanatory language to Section 4.1.10 that has no regulatory effect.
 - Add a section to Chapter 4 which lists statewide plans and policies. List State plans and policies out individually (in Chapter 4) to improve understanding. The new list in Chapter 4 will replace the link, currently found in Chapter 5, directing the reader to a State Water Board web page listing all

¹⁰ The water quality objective applicable to the SUB beneficial use also applies to the Subsistence Fishing (FISH) beneficial use contained in the North Coast Regional Water Quality Control Board’s water quality control plan.

plans and policies of the State Water Board. In addition to listing the general link to State plans and policies, listing each State Water Board plan and policy affirms relevance to the North Coast Region within the Basin Plan, provides clarity, and ease of access to applicable regulatory framework necessary for implementation.

- **Chapter 5, (New) Water Quality Attainment Strategies including TMDLs and Action Plans:**
 - Move existing title and content of Chapter 4 to new Chapter 5, section titled Plans and Policies.
 - Create a newly defined Chapter 5 by updating the introduction describing all North Coast Region TMDLs and outlining implementation. Moving existing attainment strategies, TMDLs and waterbody specific action plans out of Chapter 4 implementation into the newly defined chapter. Staff will evaluate incorporating all US EPA established TMDLs into the Basin Plan.
 - List TMDLs and water quality attainment strategies in alphabetic order based upon waterbody name.
- **Chapter 6 Surveillance and Monitoring:**
 - No changes or revisions during the 2024 Basin Plan updates.
- **Appendix 1**, update to include all basin plan amendments in effect.

Proposed by: Regional Water Board Staff

Status: New Proposal. Parts of this project had been initiated during previous Triennial Reviews, but are not reflected in the 2018 Basin Plan. Other editorial amendments have been newly proposed or identified during the 2023 Triennial Review. This project would ensure all editorial amendments are made to a 2025 version of the Basin Plan and carried through all approval processes.

Recommendation: It is important to provide thorough, accurate, and timely updates to the Basin Plan. This activity requires adequate staffing to be accomplished, and Planning Unit staff are working with Executive and Administrative staff to allocate appropriate resources. To meet these goals, staff recommend including this work in the FY 2024-2027 Workplan.

Staffing: Apply 0.1 PY during FY 2024-2025 to complete this project, with support from Administrative staff.

5.12 Triennial Review, 2027

As described above in section 2.2 of this report, section 13240 of Porter Cologne and section 303 (c)(1) of the federal Clean Water Act require a review of basin plans once

each three-year period to keep pace with changes in regulation, new technologies, policies, and physical changes within the region. The next Triennial Review is scheduled to begin in FY2026-2027, for adoption in FY2027-2028.

Proposed by: Regional Water Board

Status: New Proposal

Recommendation: It is important to recognize that conducting a thorough and timely review of the Basin Plan requires planning and adequate staffing to be accomplished. To meet these goals, staff recommend including the 2027 Triennial Review in the FY 2024-2027 Workplan to initiate the next triennial review project in FY 2026-2027.

Staffing: Apply 1.0 PY of Planning Unit resources in FY 2026-2027 to support the next Triennial Review process.

6.0 North Coast Region Impaired Waterbodies Summary

Clean Water Act section 303(d) requires the State to establish a list of waterbodies which are impaired because they do not meet water quality standards. In California, water quality assessments and establishment of the 303(d) list happens during the Integrated Report process. The most recent integrated report, including methodologies used during assessment can be found on the [2020-2022 California Integrated Report | California State Water Resources Control Board](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html) website.

(https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html)

Waterbodies that are prioritized from the 303(d) list trigger an impaired waters planning process for recovery. Impaired waters studies can be used to examine a water quality problem, identify pollutant sources, and specify actions necessary to create solutions. Impaired waters studies and planning processes often result in the development of a TMDL or an ARP, as described in section 3.1, to achieve and protect water quality standards. Implementation and TMDL Action Plans derived from impaired waters studies may be adopted by the Regional Water Board as amendments to the Basin Plan; thus an overview of existing impaired waters within the North Coast Region is appropriate for inclusion during the Triennial Review.

The following table provides a summary of impaired waterbody listings in the North Coast Region from the 2020-2022 listing cycle. Listings are reported in stream miles for creeks and rivers, and in waterbody acres for bays, lakes, and reservoirs. These listings represent waterbodies or waterbody segments where impairments are not

currently being addressed by a watershed or waterbody specific recovery plan (ARP or TMDL).

Table 3: Summary of 2020-2022 Impaired Waterbody Listings in the North Coast Region

Pollutant	Number of listings	Impacted stream miles and/or acres	Percent stream miles or acres in Region 1	Number of Beneficial Uses Impacted	Section 2.4 prioritization factors (see Table Notes)
Aluminum	23	16,762.8 mi	40%	8	HHP & ESA
Arsenic	1	1.57 mi	0.004%	11	HHP & ESA
Boron	1	4,201 mi	10%	4	HHP & ESA
Copper	2	3.8 mi	0.01%	11	HHP & ESA
Manganese	3	86.5 mi	0.2%	6	HHP & ESA
Mercury	14	349.29 mi 54,523.9 ac	0.8% mi 75.9% ac	14	HHP & ESA
Nickel	1	786.1 mi	1.9%	4	HHP & ESA
Diazinon	1	434.8 mi	1%	4	HHP & ESA
Dioxin Toxic Equivalents	1	16,075 ac	22.4% ac	3	HHP & ESA
PCBs	1	16,075 ac	22.4% ac	6	HHP & ESA
Biostimulatory Conditions	1	2.3 mi	0.01%	1	HHP & ESA
Invasive Species	1	810 ac	1.1% ac	1	HHP & ESA
Nutrients	3	5,154.3 mi 199 ac	12.3% mi 0.3% ac	5	HHP & ESA
Phosphorus	2	21.76 mi	0.1%	1	HHP & ESA
Temperature	27	25,458.2 mi	60.8%	5	HHP & ESA
Dissolved Oxygen	12	1,248.4 mi	3%	4	HHP & ESA

Pollutant	Number of listings	Impacted stream miles and/or acres	Percent stream miles or acres in Region 1	Number of Beneficial Uses Impacted	Section 2.4 prioritization factors (see Table Notes)
pH	3	608.1 mi 26,998 ac	1.5% mi 37.6% ac	3	HHP & ESA
Sediment	4	4,205.6 mi	10%	2	HHP & ESA
Sedimentation /Siltation	21	23,438.8 mi 246.8 ac	56% mi 0.3% ac	1	ESA
Indicator Bacteria	32	954.11 mi	2.3%	3	HHP

Table Notes: Listings for creeks and rivers are in miles (mi), and bays, lakes, and reservoirs in acres (ac). Section 2.4 Prioritization Factors refers to section 2.4 of this staff report. HHP= human health protection, ESA= threatened and endangered species.

Status: Not Started

Recommendation: Staff recommend that the most recent 303(d) list be considered for impaired waters studies and planning projects during the 2027 Triennial Review to explore what Planning Program resources are available at that time to support this work.

Staffing: No staff resources assigned in the FY 2024-2027 Workplan.

7.0 Available Planning Unit Resources and Staff Recommendations

Planning Program resources for the North Coast Region consist of 5 personnel-years (PYs), meaning there are 5 full-time staff available to conduct the unit's work. The Planning Unit has 2 dedicated TMDL staff and 2 dedicated water quality standards (WQS) development staff, as well as 1 person whose time is split evenly between WQS and TMDL work. Available Planning Unit staff time over the next three years is estimated at 5 PYs per year for a total of 15 PYs. Planning Program projects vary in staffing needs based on their complexity and whether outside support (e.g. contract funds, staff PYs from outside the Planning Unit, interested parties driven) is available. It is common for the project lead on one project to also serve as a team member or

technical support on other projects. Similarly, it is not uncommon for project teams to include staff from other programs in the office (e.g., enforcement or permitting staff).

Several of the proposed projects incorporate staffing and support resources from other sections or divisions, or technical support from external sources. Of the eleven projects included in the proposed FY 2024-2027 Workplan (Appendix A), six would be led by the Planning Unit staff. These Planning Program led projects require 12.1 PY of the available 15 PY during the workplan period. Five additional projects are included in the FY 2024-2027 Workplan with the understanding that they are dependent on other program staff and outside resources, with 2.9 PY of Planning Unit staff time applied to support the work. The projects led and managed outside of the Planning Unit include: the Narrative Flow Objective led by the Flow and Riparian Protection Specialist, the Lower Eel River Exception to Seasonal Discharge Prohibition led by NPDES Wastewater and Storm Water Unit staff, the ONRW project led by the Climate Specialist, the Trinity Temperature Objectives project led by the Flow and Riparian Specialist, and the Basin Plan Remediation project. Staffing is described in each project summary, and the proposed FY 2024-2027 Workplan shows the amount of Planning Unit resources proposed for each project.

Appendix A to this staff report summarizes staff's recommendations for the projects to be pursued during FYs 2024-2027 using existing Planning Program resources and other support as noted. The proposed staffing of projects resulting from this 2023 Triennial Review is based on best professional judgement, and includes consideration of several factors, including the amount of time each project is estimated to take and the staff resources available during the next triennial period (FY 2024-25 through 2026-27). It is important to note that while all efforts are made to effectively plan for project work projected for fiscal years 2024-2027, sometimes staff reorganization, new project related information, or unforeseen projects arise that result in an alteration of the workplan. The Gualala TMDL Action Plan is an example of an unforeseen project from the previous triennial review period.

All candidate projects identified through this Triennial Review have value, and a determination that results in no staff resource allocation for a given project during this review does not imply that the project should not, at some point, be pursued. The proposed work plan accompanying the Triennial Review must account for available resources to do the work, and highlights the fact that there are not sufficient staff resources to accomplish every project in the near term. The Planning Unit constantly seeks additional resources to support additional project work, and the proposed FY 2024-2027 Workplan may be amended if additional resources are secured. Conversely, the Workplan may be amended if resources are transferred away from the Planning Unit. New basin plan amendment proposals may be submitted at any time; however, a formal proposal solicitation will occur again in 2026 for the 2027 Triennial Review.