Fiscal Year (FY) 2020-2021 WORK PLAN

Planning and Stewardship Division

Programs:

Basin Planning
TMDL Development
SWAMP
303(d)/305(b) Integrated Report
Grants Administration and Management
CyanoHAB Monitoring & Response Program
Flow and Riparian Protection
Watershed Stewardship

Division Chief: Alydda Mangelsdorf

Contents

1.0 BACKGROUND

The Planning and Stewardship Division (Division) plays a unique role at the North Coast Regional Water Quality Control Board (Regional Water Board). The Division is responsible for developing and maintaining the planning, monitoring, assessment, and stewardship functions of the office. These activities serve as the bedrock upon which the Regional Water Board implements its vision of **Healthy Watersheds, Effective Regulation, and Strong Partnerships.** The Planning and Stewardship Division is divided into two units: the Planning Unit and the Watershed Adaptive Management Unit; and includes the support of a Flow and Riparian Protection Specialist. The Planning and Stewardship Division also works closely with the Watershed Stewardship Coordinator who helps to guide and manage the watershed stewardship activities of the Division. This Division Workplan includes 4 sections that describe the tasks and milestones of the: Planning Unit, Watershed Adaptive Management Unit, Flow and Riparian Protection Program, and Watershed Stewardship Program.

1.1 Planning Unit

The Planning Unit is responsible for maintaining the *Water Quality Control Plan for the North Coast Region* otherwise known as the Basin Plan. The Basin Plan includes information regarding the North Coast Region, as well as the regulations by which the Regional Water Board implements the Porter-Cologne Water Quality Control Act and Clean Water Act. The regulations include designation of beneficial uses; water quality objectives to protect those uses; an antidegradation policy; and prohibitions, action plans, and policies by which the water quality standards are implemented, including Total Maximum Daily Load (TMDL) Action Plans. The Basin Plan provides the regulatory basis for the permitting and enforcement activities of the office.

1.1.1 Triennial Review of the Basin Plan

Both the Planning and TMDL programs are guided by a workplan adopted by the Regional Water Board, which identifies the priorities of the Planning Unit for a 3-year period, as established during the triennial review of the basin plan. The Planning Program Workplan for FY 2018-2021 was adopted by the Regional Water Board in September 2018. The projects include:

- Russian River Pathogen TMDL Action Plan
- Laguna de Santa Rosa Nutrient, DO, Temperature and Sediment TMDL Action Plan/TMDL Alternative
- Ocean Beaches and Freshwater Creeks Pathogen TMDL Action Plan/TMDL Alternative
- TMDL Program Retrospective Review
- Groundwater Protection Strategy

- Instream Flow Criteria/Objectives for the Navarro River and Regionwide Narrative Flow Objective
- Climate Change Adaptation Strategy, including identification/development of landscape scale assessment tools to identify climate change vulnerabilities and locations of potential resilience (ONRWs)
- Revision to Chapter 3 of the Basin Plan to include language on Outstanding National Resource Waters (ONRWs)
- Revision to Chapter 3 of the Basin Plan to modify the biostimulatory substances objective to address biostimulatory conditions
- Revision to Chapter 2 to update cultural and subsistence fishing beneficial uses to be consistent with statewide beneficial uses

1.1.2 Watershed Stewardship

Watershed stewardship uses the principles of partnership, coordinated science and monitoring, and adaptive management to leverage the resources of entities with shared environmental goals, to maximize environmental benefit. There are two Watershed Stewards in the Planning Unit, one working on the Elk River and the other working on the Scott and Shasta Rivers. A Watershed Stewardship Coordinator works directly for the Executive Officer and is responsible for managing the work priorities of the two Watershed Stewards. Watershed stewardship projects have been targeted to several other watersheds requiring a comprehensive approach and more intentional coordination across Regional Water Board programs and external partners. In addition, there are also special projects, such as the regional compliance strategy for the TMDL requirements of the Caltrans Statewide Stormwater permit, that require cross-program coordination. Finally, the Stewardship Coordinator is working on internal Regional Board capabilities to more broadly and effectively implement a watershed approach.

1.2 Watershed Adaptive Management Unit

The general function of the Watershed Adaptive Management Unit is to: 1) monitor and assess surface water quality conditions and 2) implement stewardship activities, including the administration of grants, to restore waters identified as impaired. There are many individual programs managed within the Watershed Adaptive Management Unit, which are coordinated to accomplish these general functions. They include:

- Surface Water Ambient Monitoring Program (SWAMP)
- Water Quality Assessment and 303(d)/305(b) Integrated Report
- Grants Administration and Management
- CyanoHAB Monitoring & Response Program

1.3 Flow and Riparian Protection Specialist

The Planning and Stewardship Division is supported by a Flow and Riparian Specialist who is a technical expert in those areas. The Flow and Riparian Specialist generally works to provide technical and policy support to advance inter- and intra-agency

coordination on flow and riparian issues and develops tools to further the agency's mission on these topics.

1.4 Unplanned Work Activities

The Planning and Stewardship Division periodically is tasked with special projects, which are unplanned. Recent projects in this category include: coordination with Smith River stakeholders to develop the Smith River Plain Water Quality Management Plan; fire response, including coordination with other emergency response agencies, water quality monitoring, emergency grant support, and communication support; and collaboration with the Region Board Stormwater staff, State Board staff and Caltrans to develop a new program for TMDL compliance for Caltrans in the North Coast Region. These special projects are important but require that Planning and Stewardship staff be redirected from other planned work activities.

Because of the nature of the work, staff in the Planning and Stewardship Division are rarely involved in enforcement activities. An exception is in the Scott and Shasta watersheds, where Stewardship staff implement Waivers of WDRs to reduce pollutant discharge in conformance with the TMDLs adopted by the Regional Water Board for those watersheds. When a complaint is received by the office that is not directly related to a permit program implemented by another division, Planning and Stewardship staff are sometimes asked to investigate the complaint, with the further potential need to develop an enforcement case, if warranted. These duties, too, are unplanned and when they happen require that staff be redirected from other planned work activities.

Finally, directives from the State Board sometimes require staff reassignment. The need to convert website documents to an ADA compliant form is a recent example. The Planning and Stewardship Division has produced a significant number of large, complex documents, in addition to the basin plan, basin plan amendments, and adopting resolutions that are required to be posted on the website. Much of the material the Planning and Stewardship Division produces is critical for its educational and outreach value, but not required for posting. Staff will be redirected periodically from assigned duties to convert important documents for posting, as time allows over the next couple of years.

2.0 DIVISION RESOURCES

2.1 Staff Resources

The staff resources of the Division are listed in Table 1. Table 1 includes the technical, specialist, and management staff dedicated to the Division, including the individuals, their position, classification and time base. Table 1 does not include the portion of the Administrative Unit's time that is dedicated to supporting the Division. Due to two current vacancies within the Division, staffing is down 15% and our ability to rehire those position is currently uncertain given state budget implications from the Covid-19 pandemic. A new position to support our growing CyanoHAB Response program has been funded in the FY20/21 state budget, but filling the position is currently uncertain, as well.

Table 2.1: Planning and Stewardship Division Staff

Position	Name	Classification	PYs
Division Chief	Alydda Mangelsdorf	EPM I	1.0
Flow and Riparian Specialist	Bryan McFadin	Senior WRCE	1.0
Watershed Adaptive Management Unit Senior	Katharine Carter	Senior ES	1.0
SWAMP Program	Richard Fadness	EG	1.0
Grants Program	Michele Fortner	ES	1.0
Grants Program	Carrieann Lopez	ES	1.0
Integrated Report Program	Mary Bartholomew	ES	1.0
Planning Unit Senior	Lisa Bernard	Senior ES	1.0
Planning/TMDL Development	Lance Le	WRCE	1.0
Planning/TMDL Development	Kelsey Cody	ES	1.0
Planning/TMDL Development	Prachi Kulkarni	WRCE	1.0
Planning/TMDL Development	VACANT	EG	1.0
Planning/TMDL Development	VACANT	ES	0.7
Watershed Steward	Elias Scott	ES	1.0
Watershed Steward	Chuck Striplen	ES	1.0
Administrative Support	As assigned		Variable
Technical and Specialist Staff Total			11.7
Division Total			14.7

The allocation of PYs identified in Table 2.1 is described in Sections 3, 4 and 5. The Division Chief's 1.0 PY is divided up as follows:

- 0.15 PY to supervision of the Flow and Riparian Specialist and his projects and activities
- 0.15 PY to supervision of the Planning Unit Supervisor and her projects and activities
- 0.15 PY to supervision of the Watershed Adaptive Management Unit Supervisor and her projects and activities
- 0.15 to coordination with the Watershed Stewardship Coordinator and the development and management of the Watershed Stewardship Program
- 0.4 PY to development of a Climate Change Adaptation Strategy for the North Coast Region

2.2 Other Resources

The Planning and Stewardship Division also relies on non-staff resources to accomplish its work. These other resources can be divided into two categories: contracts and grants.

2.2.1 Discretionary Contract Funds

Contract funds are generally made available through discretionary contract funds. These funds are awarded on a competitive basis for professional services to the Regional Water Board to conduct technical or other work, which requires special expertise.

Project Name	Contract Number	Amount
Laguna de Santa Rosa Watershed TMDL	18-077-110	$150,000
Phase 2: Russian River R3MP	20-022-270	$150,000

2.2.2 SWAMP Contract Funds

To support the statewide SWAMP Program, the State Water Board allots a portion of the statewide program contract funds to each region to budget for region-specific monitoring and analytical needs. The Office of Information Management and Analysis (OIMA) manages several multi-year contracts that provide a variety of analytical and support services to SWAMP both for statewide and regional projects. Each region establishes a 3-year workplan in which it identifies its highest priority projects and the portion of its overall allotment, which is budgeted for those projects. A FY 2020-23 Workplan is currently under development (see Section 4.2 activity 1.a).

2.2.3 Nonpoint Source Grant Funds

The North Coast Board implements a nonpoint source grant program that manages a competitive process to disperses grant funds originating through federal U.S. EPA under 319(h) of the Clean Water Act and the State's Timber Regulation and Forest Restoration Fund. Grants are awarded to entities implementing projects to control

nonpoint sources of pollution, which support the mission and vision of the agency, such as restoration projects, BMP installations, and other similar projects.

The number and value of contracts and grants managed and implemented within the Planning and Stewardship Division varies from fiscal year to fiscal year (see Section 4.2 activity 1.d).

2.2.4 Americorps Members

The Planning and Watershed Stewardship Division often hosts 2 Americorps members who begin their tenure in October and complete their service the following August. The Americorps Program is administered by the California Conservation Corps (CCC) who recruits each year's members, conducts their initial interviews and places them at host sites. A contract with the CCC to cover some of the costs of each member, including stipend and travel expenses, is administered by the San Francisco Regional Water Quality Control Board on our behalf, with 2 members placed at the Oakland office and 2 members placed at the Santa Rosa office. The members typically work with Planning staff and the Flow and Riparian Specialist to learn data collection, data analysis and watershed stewardship skills.

3.0 PLANNING PROGRAM

The Planning Unit carries out both core activities and special projects to forward programmatic and officewide goals. Core Activities are those fundamental to the success of Planning Unit work, implementation of the Basin Plan and Total Maximum Daily Loads (TMDL), and to the priorities of the office as a whole. As such Core Activities are of the highest priority and no Core Activity is prioritized above another; rather priorities are assigned based upon general frequency of occurrence. Core Activity work is described in more detail in Section 3.2, including the PYs allocated to individual activities where applicable.

Planning Staff also engages in special Project activities such as Triennial Review of the Basin Plan, TMDL and Action Plan development, and Water Quality Standards Development. Whereas Core Activities are performed on an adhoc or ongoing basis, the special Projects and activities receive staff support with a discrete beginning and end. Special Project work is described in more detail in Section 3.3, including the PYs allocated to individual programs, activities, and/or Projects. Performance Targets required by the State Board are reported in Section 3.4. Unplanned Work Activities were outlined in section 1.4.

3.1 Prioritized Planning Program Projects and Core Activities

This section summarizes both core activities and special Projects work of the Planning Unit assigned to the Division Chief, the Flow and Riparian Specialist, and 5.9 PYs of Planning and TMDL Development staff. Of the 5.9 PYs, 1.7 PYs represents the two currently vacant positions and 0.2 PY of this work to be supported by one of the Watershed Stewards. The work of the remaining 1.8 PYs for Watershed Stewardship staff is described in Section 6.0, Watershed Stewardship Program.

Table 3.1 – FY 2020-2021 Prioritized Planning Program Projects and Core Activities

Priority	Activity/Project	Category	Target Date
1	a. Planning and TMDL Program Management/Supervision	Core	Ongoing
1	b. Expert Technical Support to the Office and Division	Core	Ongoing
1	c. Adopt Russian River Pathogen TMDL Action Plan	Special	Jun-21

1	d. Laguna de Santa Rosa Nutrient, DO, Sediment, and Temperature TMDLs and Restoration Action Plan	Special	Dec-22
1	e. Coastal Pathogen TMDL	Special	FY 2022-23
1	f. R3MP	Core	Workplan in development
1	g. Climate Change Adaptation Strategy	Special	Workplan in development
1	h. Instream Flow Criteria/Objectives for the Navarro River Phase II and Regionwide Narrative Flow Objective	Special	FY 2024-25
2	a. Tribal and Subsistence Fishing Beneficial Uses Revision	Special	FY 2021-22
3	a. Technical Support to Permit Programs	Core	Currently Unstaffed
3	b. 2021 Triennial Review	Special	Currently Unstaffed
3	c. TMDL Program Retrospective Review	Special	Currently Unstaffed
3	d. CEQA	Core	Currently Unstaffed
3	e. Outstanding Natural Resource Waters Amendment	Special	Currently Unstaffed
3	f. Groundwater Protection Strategy	Special	Currently Unstaffed by Planning Division
3	g. Biostimulatory Conditions Amendment	Special	Currently Unstaffed

Priority 1 Programs/Projects are ones that barring unusual circumstances, are top priorities. Priority 2 Programs/Projects are ones that may be put on hold if staff are diverted to Priority 1 Projects/Programs. Priority 3 Programs/Projects are ones that are currently unstaffed.

3.2 Core Activity Descriptions

The Core Activities listed below are identified by the priority (1, 2, 3, etc.) and the letter (a, b, c, etc.) listed in Table 3.1 (section 3.3 below). Each Core Activity assigned priority 1 will be pursued during FY 20-21. No Core Activities have been assigned as priority 2. Priority 3 Core Activities, where possible will be addressed in combination with priority 1 and 2 work described in sections 3.1 and 3.2. Where priority 3 Core Activities cannot be readily absorbed into other work, the Planning Unit Supervisor will work with Executive Management to determine a path forward.

1.a. Program Management/Supervision

Summary: Management of the Basin Planning and TMDL Programs is handled by the Planning Unit Supervisor. In addition to hiring, staff oversight and allocation of work, the Unit Supervisor reviews and edits all documents produced in the unit, provides guidance and assistance to technical staff related to project and core activities, and strives to provide collaboration and consistency among Planning Unit projects and work across other Regional Water Board programs. The Unit Supervisor participates in key project stakeholder meetings, statewide programmatic roundtables, develops Planning Unit work planning documents and is responsible for tracking and reporting work progress to Executive Management, the State Water Board, and U.S EPA.

Key Issues to Resolve: None

PY Allocation for FY 20/21: The Senior Supervisor is assigned 0.8 PY for tasks related to this to this ongoing Core Activity. The remainder of her time is allocated to ushering the Russian River Pathogen TMDL Action Plan through the State Water Board, OAL, and EPA approval processes.

1.b. Expert Technical Support

Summary: Planning and Stewardship Division Projects as well as technical projects of other Divisions sometimes require a unique skill set calling for complex geospatial analysis, complex statistical computation, computer programming, coding, modeling and similar fields of expertise. With the accelerated availability of high level computer technology and access to innumerable data sets and web-based platforms, the Planning Unit and others throughout the office need reliable in-house expertise to develop tools, data display, computer models and other complex interfaces used to plan and make water quality protection decisions. Further, Planning Unit Projects are long term multifaceted efforts requiring among other tasks, research, monitoring, data analysis, technical writing, stakeholder outreach and engagement. In order to effectively develop and execute these multi-year Projects, the Planning Unit uses a team approach. This approach leverages the variety of professional skills within the unit

augmenting the Project lead staff's skill set to accomplish the high priority work of the unit.

As an example of Expert Technical Support to other Divisions, Planning staff is supporting the Cannabis Division by revising and developing a functional version of the CannaVision model that would develop key statistics, effectively summarizing the state of cannabis cultivation in the North Coast and applicable to the state as a whole. This is a very high priority for Water Rights and Regional Water Board Cannabis staff alike. Results from this Project will provide a count of cannabis growing operations in the North Coast and assist in determining how many unenrolled parcels may be eligible to get a license to cultivate and how much cultivation was occurring in areas that are not eligible.

As an example of Expert Technical Support to a Planning Project, Planning staff have developed a riparian shade model that is spatially explicit to estimate solar irradiance at a point on a stream using surface elevation, vegetation height, and canopy density data. The model calculates the attenuation of solar radiation through vegetation canopy and expresses the attenuation as shade. Once calibrated using actual solar irradiance monitoring data, the model will be used to aid development of load allocations or recovery actions for temperature impairment in the Laguna de Santa Rosa and may be useful to the broader implementation of the Regional Water Board's Temperature Policy, which addresses excess thermal loading in fish habitats that rely on cold temperatures for survival. The model development process is in its validation phase, which is the final stage before deployment in an official or otherwise regulatory setting.

Additional Expert Technical Support underway and continuing into FY 20-21, is data reanalysis for the 2018 Integrated Report where public comments have focused on data related to the Russian River TMDL. Work done in response to 2018 Integrated Report project is also anticipated to further to support the Russian River TMDL project as Planning staff prepare to bring both items before he State Water Board for consideration in FY 20-21.

Key Issues to Resolve: None.

PY Allocation for FY 20/21: Planning staff is assigned 1.2 PY for tasks related to this to this ongoing Core Activity, which includes 1.0 PY as full-time technical support and 0.2 PY for Planning staff who contribute to project teams within their areas of expertise.

1.f. Russian River Regional Monitoring Program (R3MP)

Summary: The Russian River Regional Monitoring Program (R3MP) Project represents a high priority initiative spearheaded by the Regional Water Board staff and supported by discretionary contract funds. R3MP is a science-based planning effort convened by public agencies and watershed stakeholders to develop a coordinated regional

monitoring program for the Russian River watershed. This 'project' is described here under Core Activities because it does not have an anticipated end or culmination.

A framework for R3MP was completed in Spring 2019 via discretionary contract with Aquatic Sciences Center. Under a new contract to be executed around the end of August 2020, Aquatic Sciences Center will assist the Regional Board with R3MP phase II development during FY 20-21; forming a technical advisory committee, identifying monitoring needs, and continuing coordination among participating entities.

Key Issues to Resolve: None

PY Allocation for FY 20/21: Planning staff is assigned 0.2 PY for tasks related to ongoing core activity for R3MP.

3.a. Technical Support to Permit Programs

Summary: Multiple point and non-point sources within the North Coast contribute to nutrients, low dissolved oxygen, elevated temperature and excess sediment impairments. In concert with development of TMDLs as well as ongoing support for implementation of TMDL Action Plans, the Sediment Workplan, and the Temperature Policy Planning, staff will work with program implementation staff to develop the technical basis for permit criteria to address watershed impairments.

On an ongoing basis, Planning staff will provide technical support to:

- NPDES Unit on renewal/implementation of NPDES permits
- Groundwater Permitting Unit on development of a Vineyard permit and other WDRs
- Nonpoint Source & Forestry Units on renewal/implementation Waivers and WDRs
- 401 Certification and Restoration Staff on certification conditions and identification of high priority restoration Projects identified through planning processes.

Key Issues to Resolve: This Core Activity represents 0.5 PY of the Vacant Engineering Geologist position. Until this vacancy can be filled, Staff diverted to assist Implementation Programs with Basin Plan and TMDL implementation will result in delayed milestones on other high priority Projects.

PY Allocation for FY 20/21: This 0.5 PY core activity is unstaffed due to Planning Unit vacancies.

3.d. California Environmental Quality Act (CEQA) and General Plan Review and Comment Technical Support to Permit Programs

Summary: In accordance with CEQA Guidelines, where the Regional Water Board has discretionary approval over a given Project Staff often review and comment on the

water quality protection aspects of Environmental Impact Reports (EIR), Notices of Preparation (NOP), and other CEQA documents applicable to the North Coast Region. Time needed to conduct this work is highly varied as these documents may be simple or complex depending on the Project being addressed. Routine CEQA review is conducted in accordance with program management responsibilities on an adhoc basis. In addition, to CEQA reviews, also on an adhoc basis, Planning staff may review and comment on General Plan updates and other area-wide planning documents with a nexus to water quality.

Various Planning staff will be assigned to this Core Activity as need arises based upon staff's pending high priority milestones and other individual factors assessed when need arises.

Key Issues to Resolve: Staff diverted to review and comment on particularly complex planning documents could result in delayed milestones on other high priority Projects.

Core Activities are fundamental to the success of Planning Unit work, implementation of the Basin Plan and TMDLs, and to the priorities of the office as a whole. As such Core Activities are of the highest priority and no Core Activity is prioritized above another; rather priority designations A. through D. are assigned based upon general frequency of occurrence. Core Activity work is described in more detail in Section 3.4, including the PYs allocated to individual activities where applicable.

PY Allocations for FY 2020-21: None

3.3 Project Descriptions

The Projects listed below are identified by the priority (1, 2, 3, etc.) and the letter (a, b, c, etc.) listed in Table 3.1 (section 3.3 above). Each Project assigned priority 1 or 2 will be pursued during FY 20-21 in accordance with an approved individual Project workplan. For those projects without an individual project workplan, the workplans shall be submitted to the Planning Unit Supervisor and Division Chief for approval during the First Quarter of FY 20-21. They will be updated in the future, as necessary and reflected in updates to the Division workplan.

1.c Russian River Pathogen TMDL Action Plan

Summary: Reaches of the Russian River watershed are listed on the Clean Water Act 303(d) list of impaired waters due to the presence of fecal indicator bacteria (FIB). High concentrations of FIBs 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. The Project results in a pollutant control strategy designed to control fecal waste contamination and reduce the risk of illness to recreational use in watersheds now impaired. The pollutant control strategy takes the form of a TMDL Action Plan, proposed for adoption into the Basin Plan to accomplish fecal waste discharge control. The TMDL Action Plan includes a waste discharge prohibition, which is the basis for the actions identified in the program

of implementation. The waste discharge prohibition applies to the Russian River Watershed and is specifically focused on the discharge of fecal waste material. The Russian River Pathogen TMDL Action Plan was adopted by the Regional Water Board in August 2019.

The Administrative Record for this Project is complete. Staff identified minor revisions to the staff report table which shows frequency of REC-1 standards exceedance. The revised exceedance frequencies continue to support the conclusions of the Action Plan adopted by the Regional Board in August 2019. The next steps for completion of this project include bringing the adopted Russian River Pathogen TMDL Action Plan to the State Water Board, Office of Administrative Law, and USEPA for approval.

Key Issues to Resolve: None.

PY Allocation for FY 20/21: The Senior Supervisor is assigned 0.2 PY for tasks related to this Project.

Milestones	Target Date
Project Workplan	Complete
State Water Board Approval	March 2021
OAL Approval	June 2021
USEPA Approval	June 2021

1.d Laguna de Santa Rosa Nutrient, DO, Sediment and Temperature TMDL Action Plan/Alternative Restoration Plan

Summary: 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 nutrients, low dissolved oxygen, elevated temperature and excess sediment. Planning Unit staff are developing a TMDL Action Plan/Alternative Restoration Plan to address these impairments. Fundamental to the impairments in the Laguna is the underlying altered hydrology of the watershed due to urbanization and other anthropogenic causes, demanding a multifaceted and multidimensional solution set. The Laguna Project will take multiple agencies and landowner cooperation to restore the Laguna will necessarily be composed of pollutant allocations to multiple sectors, landscape wide modifications, and active restoration. The fundamental technical analysis for this Project is scheduled to be complete in the second quarter of FY 20-21.

Key Issues to Resolve: None.

PY Allocation for FY 20/21: Planning Unit staff is assigned 0.8 PY for tasks related to this Project.

Milestones	Target Date
Project Workplan	September 2020
Peer Review Staff Report	December 2020

Milestones	Target Date
Stakeholder Workshop	March 2021
Draft Staff Report	June 2021
Technical Memo for Riparian Shade Model	September 2021

1.e Coastal Pathogen TMDL and Action Plans

Summary: The Ocean Beaches and Freshwater Creeks Pathogen TMDL Projects (Coastal Pathogen Project) was adopted as a high priority TMDL Project during the 2014 triennial review of the Basin Plan. Since 2014, staff collected dry and wet season ambient water quality data from listed ocean beaches and freshwater streams over two calendar years. These datasets are now complete, and staff have begun statistical analysis.

The Coastal Pathogen Project will result in pollutant control strategies designed to control fecal waste contamination and reduce the risk of illness associated with recreational use and shellfish consumption in watersheds now impacted by fecal pollution. The pollutant control strategy(ies) may take the form of a TMDL Action Plan, other Action Plan, or policy proposed for adoption into the Basin Plan. It may be an alternative TMDL and rely on mechanisms other than a Basin Plan Amendment to accomplish fecal waste discharge control. For example, the proposed control strategy may rely on Local Area Management Plans (LAMPs) and/or enhanced requirements under existing Waste Discharges Requirements for Sanitary Sewers, depending on their status at the time these Projects conclude. In any event, implementation of pollutant control strategies will require close collaboration with local planning, permitting, and public health agencies to ensure the repair and installation of appropriate waste treatment and control measures.

Key Issues to Resolve: None.

PY Allocation for FY 20/21: Planning Unit staff is assigned 0.8 PY for tasks related to this Project.

Milestones	Target Date FY 2020-2021
Project Workplan	September 2020
Data Analysis: Total Coliform, *E. Coli*, Enterococcus, Bacteroides	December 2020
Technical Memorandum: Reference Stream Numeric Thresholds	December 2020
Technical Memorandum: Pathogen Pollution Status All Lines of Evidence for Ocean Beaches	December 2020
Technical Memorandum: Pathogen Pollution Status All Lines of Evidence for Freshwater Streams	March 2021

Milestones	Target Date FY 2020-2021
Technical Memorandum: Relationship Between Pathogen Sources and Potential to Cause Impairment	March 2021
Data Analysis: Fecal Coliform	June 2021
Board Update	June 2021

1.g Climate Change Adaptation Strategy

Summary: The 2018 Triennial Review planning priorities adopted by the Regional Water Board included as a high priority, the development of a Climate Change Adaptation Policy. The original scope of this project included the development of a landscape scale geospatial tool 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 tool proved to be of interest at a statewide scale and has been taken up by the State Board, Department of Fish and Wildlife, and other technical partners via an update to the Healthy Watersheds Initiative. As such, technical staff originally assigned to this project have now been permanently assigned to provide expert technical assistance on this and many other complex scientific projects within the Planning Unit and throughout the office. (See Section 3.4.A). The development of a Climate Change Adaptation Strategy is now under the leadership of the Division Chief and will involve a substantial internal and external outreach effort to identify the proper scope of the Regional Water Board's efforts relative to climate change adaptation. Project scoping will include consideration of Strategy products, such as policy statements, basin plan amendment, permit language, mitigation requirements and/or technical guidance.

Key Issues to Resolve: The management of this project is assigned to the Division Chief for the Planning and Stewardship Division, who periodically may be diverted to other high priority tasks.

PY Allocation for FY 2020-21: 0.4 PY of Division Chief time

Milestones	Target Date FY 2020-2021
Interview Executive Team on Strategy Scope	September 2020
Interview Regional Board Members on Strategy Scope	December 2020
Draft Scoping Document/Workplan	March 2021
Draft Outreach Plan	June 2021

1.h Instream Flow Criteria/Objectives for the Navarro River Phase II and Regionwide Narrative Flow Objective

Summary: Originally established by the 2014 Triennial Review as a priority, the development of instream flow criteria/objectives for the Navarro River also calls for staff to evaluate other rivers as candidates for future flow criteria development, as warranted. Further, this project calls for staff to develop a regional narrative flow objective and corresponding implementation methodology.

This project is managed by the Flow and Riparian Specialist, a 1.0 PY position that is contained within the Planning and Watershed Stewardship Division. The Flow and Riparian Specialist reports directly to the Division Chief, but coordinates with the Planning Unit Supervisor to ensure consistency with Basin Planning scientific and policy principles.

Task 1: Implement Phase 2 of 3 on the Navarro Flow Objective Development Project

Summary: Phase 2 of 3 requires the development of a hydrodynamic model and data to populate it. The estimated cost for implementation of Phase 2 is well beyond what is currently available as discretionary contract money. Staff is coordinating with Division of Water Rights and Department of Fish and Wildlife staff to develop a joint effort to implement the Navarro Study Plan. This may involve modelling support provided by the Division, and field efforts by the Department. These discussions are ongoing.

Key Issues to Resolve: Negotiate a cooperative approach to data collection and modelling and seek funding.

Milestones	Target Date FY 2020-2021
Develop memo documenting strategy for Navarro Cooperative Interagency Approach	September 2020

Task 2: Develop Narrative Flow Objective and Implementation Procedures

Summary: The Flow and Riparian Specialist in conjunction with the Narrative Flow Objective Planning Committee is developing draft narrative flow objective language and implementation procedures as a white paper for review and discussion with the State Water Board Division of Water Rights. Once full agreement on the approach is accomplished the white paper will be revised and a draft basin plan amendment, including a staff report, will be developed.

Key Issues to Resolve: None

Milestones	Target Date FY 2020-2021
Revised white paper, based on discussions with Division staff	December 2020

Milestones	Target Date FY 2020-2021
CEQA Scoping meetings	March 2021
Outline and Executive Summary of Narrative Objective staff report	June 2021

PY Allocation for FY 2020-21: 0.5 PY for Flow and Riparian Specialist for this Planning activity.

2.a. Tribal and Subsistence Fishing Beneficial Uses Revision

In May 2017, the State Water Board adopted new statewide beneficial uses for Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB). These statewide beneficial uses are similar, but not identical to, the tribal and subsistence fishing beneficial uses developed by the North Coast Board in 2003. This basin planning Project involves: 1) assessing existing CUL beneficial use designations for consistency with the new definitions, 2) stakeholder outreach, coordination, and information gathering, 3) amending the beneficial uses to be consistent with the statewide definitions where appropriate, and 4) soliciting information to consider additional CUL, T-SUB, and SUB designations.

Key Issues to Resolve: Staff working on this assignment have other high priority Projects. This Project is viewed as important, but less critical than the other assignments. As issues arise on the other more critical Projects, the Tribal and Subsistence Fishing Beneficial Uses Revision Project may be delayed.

PY Allocation for FY 20/21: The Elk River Steward is assigned 0.2 PY for tasks related to this Project. The Elk River Steward is also assigned 0.05 PY of his time to support other staff on issues related to tribal engagement as the North Coast Region's Tribal Liaison.

Milestones	Target Date
Workplan	September 2020
Internal Scoping meeting	September 2020
Memorandum Documenting Key Alignment and Distinctions Between Existing Basin Plan Beneficial Use Definitions and Definitions Adopted by State Board	Pending Finalization of Workplan
Memorandum Documenting Initial Outreach Activities and Key Outcomes	Pending Finalization of Workplan

3.a 2021 Triennial Review

Summary: Section 13240 of the Porter-Cologne and Section 303(c)(1) of the Clean Water Act require a review of basin plans at least 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, which are 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. The Regional Water Board solicits written and oral public input, which it considers prior to adopting by resolution a prioritized list of basin planning Projects. The highest priority Projects establish the workplan of the Regional Water Board's Planning Program for the next three-year period.

The most recent Triennial Review was adopted by the Regional Water Board in September 2018. Assessment of the Basin Plan, solicitation of public input, and prioritization of Projects and resources for Board consideration will be initiated in FY 2020-2021 to facilitate timely process.

Key Issues to Resolve: Until the Vacant 0.7 PY Environmental Scientist position is filled, this Project is on hold.

PY Allocation for FY 2020-21: None

3.b TMDL Program Retrospective Review

Summary: Since its inception in the 1980s, the TMDL Program in the North Coast Region has produced dozens of TMDLs addressing multiple pollutants, but primarily focused on sediment, temperature, and nutrients. In order to implement the 28 TMDLs adopted for the North Coast Region, the Basin Plan includes the following TMDL Action Plans and 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
- Temperature Implementation Policy

The Sediment TMDL Implementation Policy and Temperature Implementation Policy direct staff to use existing tools to control the discharge of sediment and protect stream flows and riparian shade to restore water quality conditions in impaired waters.

The North Coast's TMDL Program has matured to such a degree that it is time to assess its efficacy not just on the individual watershed scale, but on a programmatic scale. A TMDL Program Retrospective Review is intended to assess the requirements of each TMDL, evaluate how those requirements have been implemented, assess

existing data to determine if implementation is showing success, and develop recommendations to inform the future of the TMDL program.

Key Issues to Resolve: Until the Vacant 1.0 PY Engineering Geologist position is filled, this Project is on hold.

PY Allocation for FY 2020-21: None

3.c Outstanding National Resource Waters Amendment

Summary: An Outstanding National Resource Water (ONRW) is a designation under the Clean Water Act, which restricts the degradation of high-quality waters or waters of exceptional recreational or ecological value. 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. A heightened protected status may improve our ability to restore and protect ecologically or recreationally exceptional waterbodies.

During FY 19-20, Staff conducted a national survey which evaluates how California and various other states have applied antidegradation authorities to protect outstanding waters. The memorandum is currently under senior review. Memorandum review and final edits will be completed in August 2020. At present it is unclear how to best apply ONRW designations to protect beneficial uses. Planning staff resources will be diverted to other high priority Projects..

This Project may be re-initiated if determined key to climate change policy implementation.

Key Issues to Resolve: None

PY Allocation for FY 2020-21: None

3.d Groundwater Protection Strategy

Summary: This Project is described within the Point Source Control and Groundwater Protection Division's FY 2019-2020 Work Plan. This was originally to be staff by the Groundwater Protection Specialist.

Key Issues to Resolve: Given the number of high and medium priority Projects already underway, the Planning Unit does not currently have staffing resources necessary to pursue this Project. Coordination with the Groundwater Specialist and the Point Source Division related to this Project could result in delays to milestones on other high priority Planning projects.

PY Allocation for FY 2020-21: None

3.e Biostimulatory Conditions Amendment

Summary: 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. This proposed triennial review Project would evaluate the implications of amending the existing biostimulatory substances objective in the Basin Plan to redefine it as a biostimulatory conditions objective. This change will better support the effort of program staff to require relevant control of controllable factors associated with biostimulatory conditions, especially harmful algal blooms. The increase in incidences of toxic algae blooms, especially during drought years, highlights the need for additional tools to address this growing issue.

The State Water Board has been working for several years on the development of a statewide biostimulatory substances objective, as well as a biological integrity assessment implementation plan. As of 2017, these efforts have been combined, with the goal of amending the Water Quality Control Plan for the Inland Surface Waters, Enclosed Bays and Estuaries of California (ISWEBE Plan) for statewide applicability. The ISWEBE Amendment could include a statewide numeric objective (with a numeric translator), and various regulatory control options for point and non-point sources. The completion date for the statewide Project is unknown.

Key Issues to Resolve: Given the number of high and medium priority Projects already underway, the Planning Unit does not currently have staffing resources necessary to pursue this Project.

PY Allocation for FY 2020-21: None

3.4 Performance Targets

Planning and TMDL Projects tend to be complex and therefore lengthy to complete. Due to the long-term nature of these Projects Performance Targets should be reviewed and considered over the course of three to four-year periods. Performance Targets for the Planning Program reported to the State Water Board are based upon three key elements 1) the number of pollutant/waterbody combinations that are addressed 2) adopted TMDLs, and 3) adopted Basin Plan amendments. There are no performance targets identified for FY 2020-21.

4.0 WATERSHED ADAPTIVE MANAGEMENT PROGRAM

4.1 Core Activities and Projects by Priorities

The primary responsibilities of Watershed Adaptive Management Program staff are listed in Table 4.1 and categorized based on the priorities. Each priority is described in more detail in Section 4.2, including the PYs allocated to individual programs, activities, and/or projects. The SWMAMP program has Performance Targets required by the State Board, however there are no targets associated with the other programs, activities, and/or projects listed below.

Described in this section is the work of:

- 1.0 PY SWAMP Program staff
- 1.0 PY Grants Program (Grant Administration and Management) staff
- 1.0 PY Grants Program (Grant Administration, Management, and Cultivation) staff
- 1.0 PY Integrated Report Program staff
- 1.0 PY Senior Supervisor (Supervision and Program Management)

Table 4.1 – FY 2020-21 Adaptive Management Program Core Activities and Projects by Priority

Priority Level	Activity/Project	Category	Target Date
1	a. SWAMP Program	Core	On-going
1	b. 303(d)/305(b) Integrated Report Program	Core	On-going
1	c. CyanoHAB Monitoring and Response Program	Core	On-going
1	d. Grant Administration and Management	Core	On-going
1	e. Program Management/Supervision	Core	Variable
2	Unplanned Work Activities	Special	Variable
3	No priority 3 Activity/Project		

Priority 1 Programs/Projects are ones that barring unusual circumstances, are top priorities. Priority 2 Programs/Projects are ones that may be put on hold if staff are diverted to other higher priorities. Priority 3 Programs/Projects are ones that are currently unstaffed.

4.2 Core Activity and Project Descriptions

Activities and projects are listed below. Activities and projects are organized based on program. They are also identified by the priority (1, 2, 3, etc.) and the letter (a, b, c, etc.) listed in Table 4.1 above.

1.a SWAMP Program

The Surface Water Ambient Monitoring Program, or SWAMP, is a statewide monitoring effort designed to assess the conditions of surface waters throughout the state of California. The program is administered by the State Water Board. The responsibility for implementation of monitoring activities resides with the nine Regional Water Quality Control Boards that have jurisdiction over their specific geographical areas of the state. To support the regions' monitoring activities, the statewide SWAMP Program has created a Quality Assurance (QA) program, developed a standardized data storage system, created Standard Operating Procedures (SOPs) for sampling, generate peer reviewed monitoring plans for each project, and regularly updates a water quality indicator list to work from.

Summary: Region 1's Planning and Stewardship Division includes a SWAMP Coordinator at 1.0 PYs. The SWAMP Coordinator implements the regional monitoring program for the North Coast Region and coordinates with the State Water Board and other regions on statewide monitoring efforts.

With input from staff and management, the SWAMP Coordinator develops a 3-year workplan to direct SWAMP monitoring resources to the highest surface water monitoring priorities. The last workplan developed was for FY 2017-2020. The FY 2020-23 workplan currently identifies projects to be funded in FY 2020-21 and lists those projects that have requested additional funding in subsequent years. It is a living document that will be updated each fiscal year as new year-2 and year-3 projects are identified and the current list of projects are more thoroughly developed.

Implementation of the SWAMP Workplan is an on-going activity with field work conducted both during the summer season (e.g., CyanoHAB) and winter season (e.g., stormwater runoff). The SWAMP Coordinator assists program staff with the development of monitoring plans and data assessment. The SWAMP Coordinator and other program staff conduct field sampling activities with assistance from Scientific Aids and Americorp members. The SWAMP Coordinator provides field equipment and guidance to program staff who conduct monitoring activities to support their own project work. The SWAMP Coordinator oversees contract work, as necessary.

The SWAMP Coordinator is responsible for managing the data as received from the labs and assisting other program staff with assessment of the data to support programs, policy decisions, and watershed stewardship. Data management and assessment is an on-going activity. The State Board expects 95% of the lab data to be entered into the SWAMP database and have quality assurance checks performed within 2 years of sample collection and 50% of the lab data available within 1 year of sample collection.

Once the data quality assurance process has been conducted the data are imminently transferred to the California Environmental Data Exchange Network (CEDEN) database where they are available to members of the public. The SWAMP Program processes ensure these performance targets are met, with lab data being entered into the SWAMP database directly following their analysis at the lab. The SWAMP coordinator is responsible for entering SWAMP field data into the SWAMP database.

On a periodic basis, the SWAMP Coordinator produces monitoring reports, assesses data, and produces technical memorandums. The SWAMP Coordinator also assists other program staff with these tasks. For example, the SWAMP Coordinator assists program staff with data assessments using standard statistical and assessment procedures. The SWAMP Coordinator produces data tables and charts illustrating water quality violations, exceedance of thresholds, and water quality trends. These data assessments and summaries are a key way to share the results of publicly funded ambient water quality monitoring with interested stakeholders and the general public.

Key Issues to Resolve: The SWAMP Workplan for FY 2020-23 must be finalized before all of the milestones of the SWAMP Program for FY 2020-21 can be identified.

PY Allocation FY 2020-21: 1.0 PY SWAMP Program staff. Please see 1.c. SWAMP Program staff will respond to CyanoHAB issues on an ad hoc basis, until State Water Board authorizes a new position for CyanoHAB Response.

Milestones	Target Date FY 2020-2021
Finalize FY 2020-23 SWAMP Workplan[1]	September 2020
Draft Data Report for Summer 2016- 2019 Cyanobacteria Monitoring	September 2020
Draft Eel and Russian River Nutrient Study Report (to be completed by Grant Program staff)	September 2020
Final Data Report for Summer 2016- 2019 Cyanobacteria Monitoring	December 2020
Final Eel and Russian River Nutrient Study Report (to be completed by Grant Program staff)	December 2020
Complete entry of all FY 20-21 SWAMP field data into the SWAMP database and CEDEN	June 2021

[1]Upon completion of the FY 2020-23 SWAMP Workplan, specific projects to be funded for FY 2020-21 will be identified. This table of SWAMP Program milestones will be updated to include specific obligations of the SWAMP Coordinator with respect to the identified projects. For projects implemented by staff in other divisions, the milestones associated with those projects will have to be included in those division workplans.

1.b 303(d)/305(b) Integrated Report Program

Section 305(b) of the federal Clean Water Act requires states to assess the condition of its waters and report its findings. Section 303(d) of the federal Clean Water Act requires states to identify water bodies that do not meet water quality standards and are not supporting their beneficial uses. These waters are placed on the Section 303(d) List of Water Quality Limited Segments (also known as the list of Impaired water bodies or 303(d) List).

California has integrated the 303(d) List of Impaired Waters and the 305(b) Water Quality Assessment Report into a single report (Integrated Report). This Integrated Report satisfies the requirements of both Clean Water Act Sections 303(d) and 305(b). The State Water Board is responsible for producing an Integrated Report every 2 years. Each report compiles and assesses data for 3 regions at a time. Region 1 is on a 6-year cycle for inclusion in the 2012, 2018, and 2026 Integrated Reports (the 2020 cycle is being re-named to the 2022 cycle).

Summary: The Planning and Watershed Stewardship Division includes an Integrated Report Coordinator at 1.0 PYs. The Integrated Report Coordinator works with State and Regional Water Board staff, federal and state agencies, tribes, non-governmental organizations, and the public to collect, assemble, and assess water quality data from which to determine the water quality status of North Coast waters for both the 303(d) List of Impaired Waters and the 305(b) Water Quality Assessment Report. The Coordinator implements the program in accordance with the direction, priorities, and schedule set forth by the State Water Board.

In the fall of 2019, the State Water Board began administering the public process for the North Coast Water Board's 2018 cycle as part of the State Water Board's plan to meet Integrated Report submittal targets following the August 30, 2019 final ruling for the Earth Law Center, San Diego Coastkeeper, and Los Angeles Waterkeeper v. State Water Resources Control Board lawsuit (Super. Ct. Sacramento County, No. 34-2017-80002726). However, the Regional Water Board's Integrated Report Coordinator is fulfilling many of the tasks necessary for the State Water Board's approval process for the North Coast Regional Board's 2018 Integrated Report. As part of the settlement agreement, the State Water Board is also administering the public process for the 2020/2022 Integrated Report cycle to ensure it is completed on time. The State Water Board has not yet determined if future cycles will be administered by the Regions or by the State. One known task of the Integrated Report Coordinator during the 2024 Integrated Report Program cycle will be the need to update all pesticide decisions to comply with the program requirement that each pesticide be evaluated in its own decision.

Between Integrated Report cycles, the Coordinator can perform a number of tasks designed to update and streamline the agency's ability to receive, manage and interpret water quality data. For example, the Coordinator could review waterbodies to determine if there are opportunities to re-segment them in a manner that would allow for a clearer analysis in the future. For FY 2020-21, the Integrated Report Coordinator has

specifically planned to review the fact sheets from the 2018 Integrated Report and meet with various program staff to determine areas where further investigation to determine the health of the waterbody is warranted. Those specific waterbody-pollutant pairs that appear ripe for further investigation include:

- HUC-12 subwatersheds in the Russian River watershed where gaps in indicator bacteria data were identified in the Russian River Watershed Pathogen TMDL
- Diazinon in Foss Creek
- Various metals listings based upon small data sets
- Various conventional pollutant listings (e.g. dissolved oxygen, pH) based upon small grab sample data sets

Key Issues to Resolve: None

PY Allocation for FY 2020-21: 1.0 PY for Integrated Report staff Please see 1.c. Integrated Report Program staff will respond to CyanoHAB issues on an ad hoc basis, until State Water Board authorizes a new position for CyanoHAB Response.

Milestones	Target Date FY 2020-2021
2018 Integrated Report: Produce document that provides agency responses to public comments on proposed 303(d) listings for the North Coast Region	September 2020
2018 Integrated Report: Update Fact Sheets & Staff Report in accordance with responses to public comments	September 2020
2018 Integrated Report: Bring proposed North Coast Integrated Report to State Water Board for adoption	December 2020
Identify project(s) and develop a Monitoring Plan to collect additional data for those waterbodies that warrant further investigation	December 2020
Implement Monitoring Plan	June 2021
Input Data in CEDEN	June 2021

1.c CyanoHAB Monitoring and Response Program

In recent years, there has been an increased frequency and severity of cyanobacteria harmful algal blooms (CyanoHAB) around the world, including the North Coast Region. The Regional Water Board has received reports of freshwater nuisance blooms and algal scums, animal illnesses, and on occasion, human health impacts within the North Coast.

The risk factors that contribute to freshwater CyanoHAB and nuisance blooms include nutrient (phosphorus and nitrogen) enriched waters, warming climate, reduced riparian

shade, channel aggradation, and lower flows. The Regional Water Board is working to reduce risk factors through its water quality improvement programs.

Summary: There is a current need to manage freshwater CyanoHAB blooms through improved monitoring, assessment, and increased educational outreach. Regional Water Board staff are collaborating with county public and environmental health officials and other federal, state, county, and non-governmental organizations to address these needs. The role of CyanoHAB Coordinator has been played by various staff over the years, not as a defined position, but as assigned duties due to the high priority. A new position to support our growing CyanoHAB Response program has been funded in the FY20/21 state budget, but the State has not yet authorized the Regional Board to fill the position.

Due to the lack of a funded and staffed position, CyanoHAB program work is a shared duty of the SWAMP Coordinator (CyanoHAB Program Lead, Russian River contact), Integrated Report Coordinator (Eel River contact), and Grant Program staff (Klamath River contact). The SWAMP Coordinator is currently the lead staff for the program and participates in state-wide program development efforts and manages the region's outreach and response to toxic cyanobacteria blooms, primarily during the summer months when blooms are most abundant. The program is supported by the water quality monitoring efforts of the SWAMP program and special studies conducted in collaboration with multiple other external entities, including research organizations.

Each of the Division staff assigned to the CyanoHAB Program coordinate with regional partners to ensure CyanoHAB monitoring, review data, and post warnings, as warranted. They collaborate to host and manage the agency's website and attend and/or host coordination meetings and educational forums. The SWAMP Coordinator is lead on efforts to further the knowledge of CyanoHAB, monitoring techniques, and public health risks. He participates in statewide roundtables and provides updates to the public and Regional Water Board. Beyond the implementation of these core duties, there are no other specific milestones associated with this program for FY 2020-21.

Key Issues to Resolve: The timing of the State Water Board providing authorization to the Regional Water Board to staff the CyanoHAB position is unknown. Due to the lack of a funded and staffed position, work on the CyanoHAB program results in diverting SWAMP, Integrated Report, and Grants staff time away from the workplan tasks for these funded programs and often results in delays to milestones in these programs.

PY Allocation for FY 2020-21: Staff PYs necessary for CyanoHAB response are variable and are shared among 3 staff as described above. A CyanoHAB Response position for FY 2020-21, if authorized will be advertised and hired. Otherwise, staff from the SWAMP, Integrated Report and Grant Administration programs will be diverted as necessary until that time.

1.d Grant Administration and Management

California implements a Nonpoint Source Grant Program (NPS Grant Program), which is comprised of funds from a U.S. EPA Clean Water Act (CWA) section 319(h) grant to the State Water Board (CWA 319 grant)[1] and from the Timber Regulation and Forest Restoration Fund (Timber Fund) established by the State. These funds are allocated to third party grantees on a competitive basis, to implement projects associated with nonpoint source pollution control, remediation, and restoration.

For the 2020 grant cycle, the state declared that there were no Timber Fund dollars available. The lack of funding was announced after the solicitation had ended and therefore any applicant applying to implement a project under the Timber Fund was not eligible for consideration. Due to the struggling California economy the state has again declared that there will no Timber Fund dollars available for the upcoming 2021 grant cycle and it is possible that there could be a lack of Timber Funds in future years as well. This significantly reduces the available funding sources to implement NPS grant projects that will restore water quality, and the mission of the agency suffers.

The Planning and Stewardship Division includes two staff at 2.0 PYs, who administer and manage the 319(h) and Timber Fund grants awarded for projects in the North Coast Region. Staff in the Planning and Stewardship Division coordinate with staff in the Nonpoint Source and Surface Water Protection Division to align program preferences, solicit projects meeting the preferences, and develop the 5-year Nonpoint Source Plan, which the Nonpoint Source and Surface Water Protection Division generates. The agency is currently implementing the FY 2020-2025 Nonpoint Source Plan.

In addition to work associated with the tasks summarized below, the Grants Administration, Management, and Cultivation staff will also be assisting in the process of identifying projects to address recovery of sediment and temperature impaired waters in those watersheds where Caltrans has been identified as a responsible party in a TMDL Action Plan.

Task 1: Manage Existing Grant Projects/Closeout Completed Grant Projects

Summary: Existing Grant Projects active in FY 2020-21 are listed below. Grant management activities are ongoing and involve reviewing and approving invoices, reviewing technical deliverables and providing comment, amending grants as needed, and approving final deliverables.

[1] U.S. EPA has final approval authority of all projects funded with CWA section 319 funds.

Table 4.2: Existing Grant Projects

Grant Agreement Name	Amount	End date	Grant Manager
BMP's on Kincade Fire Impacted Lands in Sonoma County	$353,727	2/28/2021	Grants Staff
Scott River Watershed Stewardship Implementation Project	$333,623	3/30/2021	Grants Staff
Eel River Road Sediment Treatment and Inventory Project	$693,047	12/31/2021	Grants Staff
Trinity River Watershed Roadside Fuel Reduction Project	$250,503	11/30/2021	Grant Staff
Post-Fire Best Management Practices in the Mark West Creek, Maacama Creek, and Laguna de Santa Rosa	$500,000	6/30/2022	Grant Staff
Post-Fire Recovery from the Redwood Fire	$749,507	12/31/2022	Grant Staff
Large Wood Augmentation, Phase II	$421,223	4/30/2022	401 Staff
Mendocino Coast TMDL Implementation, Phase II	$717,134	3/31/2022	401 Staff
Parks Creek Riparian Improvement	$609,262	TBD	Scott & Shasta River Steward

Key Issues to Resolve: Covid-19 shelter in place requirement are impacting the work conducted by both grant recipients and grant managers. It is expected that some grantees will not be able to complete the work required under the grant agreement or meet the timeframe for deliverables due to shelter in place. This will result in the need for grant amendments and deviations. It may also result in the canceling of some grants. Delays in payment of grant invoices due to Fi$CAL continue to cause some grantees significant financial hardship. Some grantees find the requirements associated with the 319(h) Program overly burdensome, declaring they are unlikely to be applying for these funds in the future. Where one or both issues have affected otherwise successful and dependable grantees who conduct valuable nonpoint source pollution control and abatement work, the mission of the agency significantly suffers.

The lack of Timber Fund dollars significantly reduces the available funding sources to implement NPS grant projects that will restore water quality, and the mission of the agency suffers.

Task 2: Develop Grant Agreements for New Grant Projects

Summary: Projects that will be funded by FY 2020-21 funds will begin implementation in FY 2021-22. The development of a grant agreement requires facilitation between the grantee, the grant manager, and the State Water Board. Once a grant agreement is finalized and the project begins, it is added to the Existing Grant Projects table above and ongoing grant management activities ensue.

Key Issues to Resolve: None

Milestones	Target Date FY 2020-2021
Complete a grant agreement for the Tenmile Creek Streambank Erosion Prevention & Riparian Restoration Project - $435,500	March 2021
Complete a grant agreement for the Post-Fire Recovery & Sediment Reduction in Mark West Creek Project - $331,377	March 2021
Complete a grant agreement for the Hart Ranch Stock Watering and Riparian Fencing Project - $674,129	March 2021

Task 3: Cultivate Grant Projects to Address the High Priority Nonpoint Source-Related Water Quality Impairments

Summary: Successful watershed stewardship relies on our ability to cultivate external partners with whom we share environmental goals. Specific to the Grants Administration and Management Program is the cultivation of successful grantees who can implement on-the-ground nonpoint source remediation and restoration projects necessary to returning impaired watersheds to a trajectory of recovery. A portion of the Grants Administration, Management, and Cultivation position is devoted to this task. The cultivation of successful grantees is particularly important given the competitive nature of the nonpoint source grant funding, the high administrative burden associated with the 319(h)-grant program in particular, and the long delays in state payment given Fi$CAL. The duties associated with this activity are ongoing. There are no specific milestones for FY 2020-21.

The Nonpoint Source Program preferences for FY 20120-21 are listed below and are updated each fiscal year. The work of Grants staff cultivating new potential grant projects will help inform future FY program preferences. The FY 20/21 Program Preferences are shown below:

- Elk River- Implement management measures to address sediment
- Scott River- Implement management measures to address sediment and increase effective shade
- Shasta River – Implement management measures to address low dissolved oxygen and elevated temperatures
- Eel River – Implement management measures or practices to reduce sediment discharges, restore riparian vegetation, reconnect floodplains to stream channels, reduce instream temperatures, and increase groundwater recharge
- Salmon River – Implement management measures to reduce instream waterer temperature and increase groundwater recharge
- Russian River – Implement management measures to reduce pathogen and fecal indicator bacteria waste discharges

- Trinity River – Implement management measures to reduce sediment discharges

Key Issues to Resolve: Grants staff are assigned completion of the Russian/Eel nutrients report, which is delaying implementation of our efforts to reach out to potential grantees and cultivate projects and implementors that further our watershed stewardship goals.

PY Allocation for FY 2020-21: 2.0 PY Grant Program staff. Please see 1.c. Grant Program staff will respond to CyanoHAB issues on an ad hoc basis, until State Water Board authorizes a new position for CyanoHAB Response.

1.e Program Management/Supervision

Summary: The Senior Supervisor is responsible for overseeing the programs associated with her unit, including the SWAMP Program, Grants Program, Integrated Report Program, and CyanoHAB Program. She also coordinates with the Non Point Source and Surface Water Protection Division Chief on the development and management of the 5-Year Nonpoint Source Plan.

Key Issues to Resolve: None

PY Allocation for FY 2020-21: 1.0 PY Senior Supervisor.

5.0 FLOW AND RIPARIAN PROTECTION PROGRAM

5.1 Core Activities and Project Priorities

The core responsibilities of the Flow and Riparian Specialist are described below but include Planning Projects categorized based on priority in Table 3.1. Specifically, the Flow and Riparian Specialist is the lead staff for the Instream Flow Criteria/Objectives for the Navarro River and Regionwide Narrative Flow Objective project, which are described in Section 3.0. The tasks associated with other Core Activities of the Flow and Riparian Protection Program are described in Section 5.2. There are no Performance Targets required by the State Board for the activities presented in this section.

Table 5.1 – FY 2020-21 Flow and Riparian Protection Program Core Activities and Projects by Priority

Priority	Activity/Project	Category	Target Date
1	a. Provide Expert Technical Guidance to Internal and External Partners in the areas of Flow and Riparian Protection	Core	Ongoing
2	No Priority 2 Projects		
3	No Priority 3 Projects		

Priority 1 Programs/Projects are ones that barring unusual circumstances, are top priorities. Priority 2 Programs/Projects are ones that may be put on hold if staff are diverted to other higher priorities. Priority 3 Programs/Projects are ones that are currently unstaffed.

5.2 Core Activity and Project Descriptions

Activities and projects are listed below. Activities and projects are organized based on program category. They are also identified by the priority (1, 2, 3, etc.) and the letter (a, b, c, etc.) listed in Table 5.1 above. Some project/activity groupings may be identified with multiple priorities, depending on the subtasks associated with the project/activity.

1.a Provide Expert Technical Guidance to Internal and External Partners in the areas of Flow and Riparian Protection

Summary: The Flow and Riparian Protection Specialist provides expert technical guidance to internal and external partners in the areas of flow and riparian protection. He participates in external coordination meetings (e.g., Division of Water Rights, Department of Fish and Wildlife, Potter Valley Project). He provides in-house technical

and policy support to programs attempting to address riparian protection and water withdrawal and storage. He provides the agencies formal review and comment on flow and/or water rights projects (e.g., water rights permits, Biological Opinion on the Russian River). He coordinates special studies to investigate the water quantity-related impacts to water quality, as well as the development of flow criteria and objectives. As an expert on temperature TMDLs he provides guidance, historical perspective, and data to staff working to assess the effectiveness of past TMDLs and develop appropriate implementation approached for the future.

The Flow and Riparian Specialist is a 1.0 PY position. His time is divided between the duties described below and the narrative flow objective and Navarro River flow objective planning projects described in Section 3 above.

Task 1: Interagency Coordination of Flow and Riparian Management

Summary: The Flow and Riparian Specialist represents the Region in numerous interagency venues on the topics of flow and riparian management. These venues include: the California Water Quality Monitoring Council eFlow Workgroup, the Interagency Flow Coordination Committee, and the California Water Action Plan coordination committees. Meetings of these groups are generally quarterly meetings.

The California Water Quality Monitoring Council eFlow workgroup has contracted with UC Davis to develop a modeling tool and site-specific studies to produce estimates of unimpaired flows and ecological flow criteria in streams across the state. This effort will develop approaches and products intended to support a wide array of assessments including permit development and stormwater management through use of desktop tools.

The Interagency Flow Coordination Committee discusses ongoing or planned flow assessments and flow-related regulatory matters. The committee includes representatives from State and Federal agencies.

Coordination on the California Water Action Plan is to address flow criteria development for Mark West Creek, South Fork Eel River, and Shasta River. Most of the coordination for these efforts is directly with Division of Water Rights staff, in addition to quarterly planning meetings for Mark West Creek efforts.

Key Issues to Resolve: None

Task 2: Flow Monitoring and Assessment

Summary: The Flow and Riparian Specialist is instrumental in flow monitoring and assessment efforts throughout the Region. These include flow monitoring projects in:

- Russian River tributaries, in coordination with the California Department of Fish and Wildlife (CDFW) and SeaGrant, to establish the relationship between flow and dissolved oxygen.

- Trinity River to assess effects of cannabis grows on summer flows.
- South Fork Eel to support the California Water Action Plan.
- Cannabis-impacted watersheds to support regulatory prioritization.
- Navarro River to implement monitoring identified in a study plan developed by R2 under contract to the Regional water Board to support the development of flow objectives for the Navarro River watershed.

These efforts are also projects of the Americorps Watershed Stewards Program members in the office. The specialist is their primary mentor and oversees their work on these topics. The Americorps members are the lead authors of reports documenting the site conditions and data collected at each of the sites monitored in 2019. The specialist works closely with the members on the analysis and writing in these reports.

Key Issues to Resolve: None

Milestones	Target Date FY 2020-2021
2019 Streamflow Monitoring Summary Reports	September 2020

Task 3: Consultation and Technical Review

Summary: The Flow and Riparian Specialist is the agency's subject matter expert. He consults with staff in all programs on issues related to flow, temperature, and riparian management. Similarly, he is the agency's contact for members of the public, non-governmental organizations, and other agencies on these same topics. The Flow and Riparian Specialist provides technical review on projects requiring his expertise, including grants and water rights permits, EIRs, FERC license applications, and others.

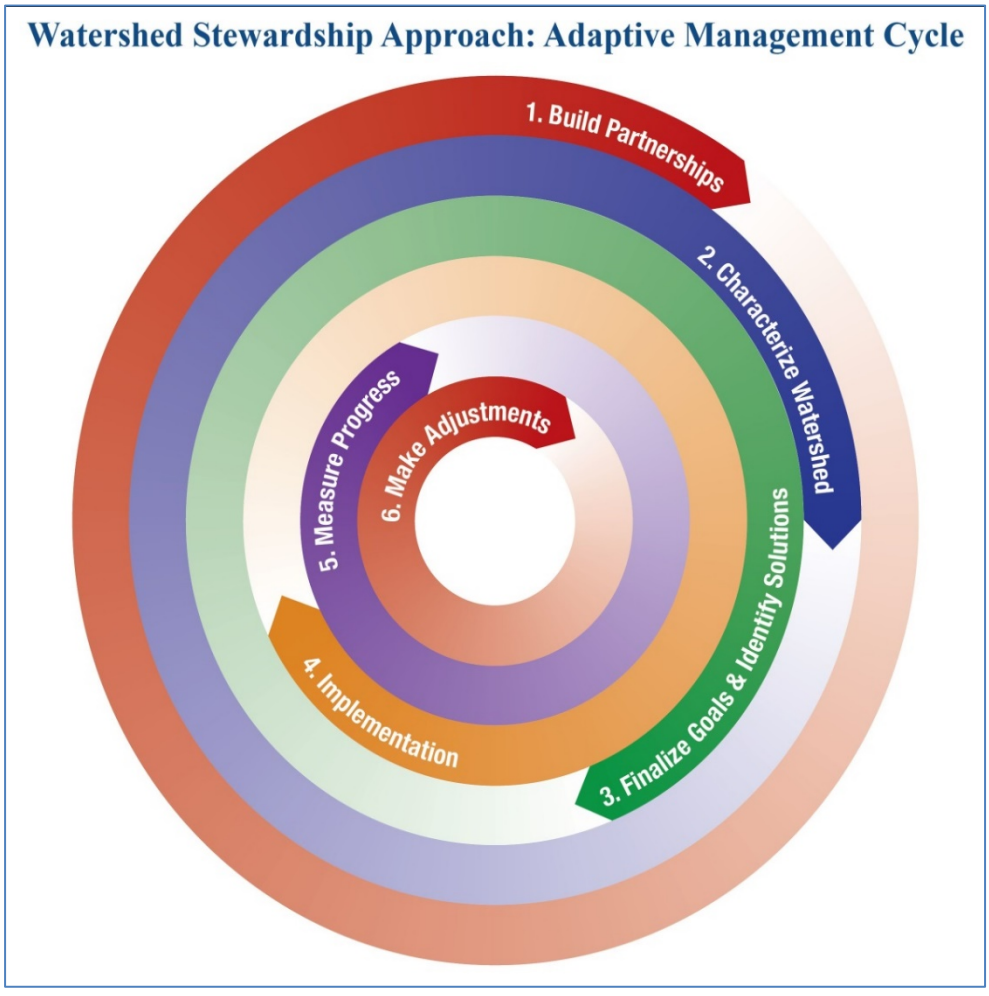
Key Issues to Resolve: None

PY Allocation for FY 2020-21: 0.5 PY Flow and Riparian Specialist

6.0 WATERSHED STEWARDSHIP PROGRAM

6.1 Core Activities and Project Priorities

The Watershed Stewardship Program is building enhanced capabilities for the Regional Water Board to work with other agencies and organizations to develop comprehensive and collaborative water quality improvement measures that support desired environmental outcomes through an increased level of coordination. The Watershed Stewardship Program augments and complements our regulatory programs. The Watershed Stewardship Initiative is based on defined watershed management areas and a cycle of steps intended to promote collaboration among participants. The initiative involves identifying stewardship leads within targeted watersheds and actively working with these leads to develop the watershed stewardship frameworks. The steps associated with the watershed stewardship approach management cycle are illustrated in the Watershed Stewardship Adaptive Management Cycle.



The Watershed Stewardship Coordinator is a 1.0 PY position with direct report to the Executive Officer. The Watershed Stewards are housed in the Planning Unit, within the Planning and Stewardship Division (2.0 PYs). Their project work is included below. Watershed Adaptive Management Unit and Groundwater Permitting Unit staff has also been focused on stewardship activities associated with the Smith River. The Watershed Stewardship Coordinator works directly on Klamath River stewardship activities, as described below. There are no Performance Targets required by the State Board for any of the projects and activities described in this section.

Table 6.1 – FY 2020-21 Watershed Stewardship Program Core Activities and Projects by Priority

Priority Level	Activity/Project	Category	Target Date
1	a. Watershed Stewardship – Program Coordination	Core	Ongoing
1	b. Watershed Stewardship – Scott and Shasta TMDL Action Plans/WDR Waivers Implementation	Core	Ongoing
1	c. Watershed Stewardship – Elk River TMDL Action Plan Implementation	Core	Ongoing
1	d. Klamath Basin TMDL Action Plan and Stewardship Implementation	Core	Ongoing
1	e. Statewide Caltrans Stormwater Permit – RB1 TMDL Implementation Strategy	Special	Ongoing
2	There are no Priority 2 projects		
3	Watershed Stewardship – Russian River Watershed Stewardship	Special	On-hold

Priority 1 Programs/Projects are ones that barring unusual circumstances, are top priorities. Priority 2 Programs/Projects are ones that may be put on hold if staff are diverted to other higher priorities. Priority 3 Programs/Projects are ones that are currently unstaffed.

6.2 Core Activity and Project Descriptions

1.a Watershed Stewardship – Program Coordination

The Watershed Stewardship Coordinator works on a regionwide scale to build the partnerships, funding, and implementation tools necessary to support the region's Watershed Stewardship Program. In addition, the Coordinator builds capability within our own organization, through training, cross-program coordination, and oversight of the activities of the watershed stewards. Similarly, the Coordinator mentors the agency's four specialists (Ecological Restoration, Flow and Riparian Protection, Groundwater Protection, and Enforcement) with the purpose of promoting the development of new or expanded tools to complement water quality protection regulation. Each of the

Specialists is housed within a separate division, reporting directly to their division chiefs (4.0 PYs spread across 4 divisions).

Task 1: Build Partnerships, Funding, and Implementation Tools to Support Stewardship

Summary: On an ongoing basis, the Coordinator will build partnerships with other federal, state, and local agencies. To maximize the stewardship benefits, the Coordinator provides oversight of regionwide implementation activities such as Caltrans Stormwater, CDFW Cutting the Green / Bigger, Faster Stronger initiatives, and other TMDL Implementation activities.

Key Issues to Resolve: None

Task 2: Cross-Program Coordination

Summary: On an ongoing basis, manage and guide the work of the Watershed Stewards, coordinate the activities of the Specialists, and mentor the Americorps Watershed Stewardship Participants (WSP). Establish regular coordination meetings. Provide technical support, as necessary.

Key Issues to Resolve: None

Milestones	Target Date FY 2020-2021
Complete Project Workplan	September 2020
Memorandum describing the RB1 Engagement Strategy for CDFW Cutting the Green and Bigger, Faster, Stronger initiatives	March 2021
RB1 Database of potential stewardship partners and TMDL projects	June 2021

Task 3: Technical Resource

Summary: Providing upon request technical review and support for various tasks such as development of monitoring plans, watershed stewardship assessments, and organizational support for new initiatives.

Key Issues to Resolve: None

PY Allocation for FY 2020-21: 0.4 PY of Watershed Stewardship Coordinator

1.b Watershed Stewardship – Scott and Shasta TMDL Action Plans/WDR Waivers Implementation

The Scott and Shasta Watershed Steward (1.0 PY) is responsible for developing and implementing a strategy for returning the Scott and Shasta Rivers to a trajectory of recovery, as defined by the TMDL Action Plans. Tools used to accomplish this goal, include WDR Waivers, grants, ambient water quality monitoring, and partnerships.

Task 1: Implement WDR Waivers

Summary: Conduct ranch assessments, determine Waiver compliance, request the development of Management Plans and Monitoring Plans to address water quality protection needs, as necessary. For FY 2020-21 conduct at least 3 ranch assessments in each watershed. Follow up on ranch assessments from FY 2019-20 to ensure development of necessary ranch plans.

Key Issues to Resolve: None.

Milestones	Target Date FY 2020-2021
Complete Project Annual Workplan	September 2020
Conduct three Shasta Watershed Ranch Assessments	June 2021
Conduct three Scott Watershed Ranch Assessments	June 2021

Task 2: Coordinate with Partners on Restoration

Summary: Coordinate with partners to support restoration activities in key tributaries, including Parks Creek, Big Spring Creek, Moffett Creek, Big Slough/Kidder Creek, Sugar Creek, French Creek, and East Fork Scott. Manage contracts, 319(h) and Timber Fund grant projects, as necessary. Active grants:

- D1613102 Shasta Riparian Fencing and Stewardship (GM Eli Scott): Work complete, grant is on track to close out in 2020 on time.
- D1613103 Scott Bank Restoration (GM Michele Fortner): Work continuing through 2020 for final construction phase. Eli and Michele working together on logistics with Bryan McFadin providing technical assistance as needed.
- D1913111 Parks Creek Riparian Improvement (GM Eli Scott): First year of work in 2020. First critical due dates:
    - Detailed Project Schedule: 90 Days After Execution.
    - Map of stream reach and list of relevant HUC-12s affected by the project: 60 days after execution.
    - Landowner Site Access and Maintenance Agreements: October 31, 2020.

Pending Approval: Little Shasta River Stock Water Construction, Instream Flow Enhancement, and Riparian Restoration.

Key Issues to Resolve: Implementation feasibility at D1613103 dependent on spring flow volumes. Grantee for D1613103 needs to ensure adequate riparian planting is conducted.

Task 3: Monitoring and Assessment

Summary: Conduct monitoring activities in coordination with landowners, grantees, and other partners. Assess data to establish the status and trends associated with water quality conditions. Goals for FY 2020/2021:

- Conduct Scott River Biostimulatory Assessment if COVID permits, including (Plan proposed in results memo:
    - Temperature logging at 10 locations.
    - DO logging at 10 locations.
    - CRAM assessment at 10 locations in July.
    - Monthly water quality grab samples for TN, TP, DOC at 10 locations.
- Support Shasta Valley RCD as needed with monitoring network in the Shasta.
- Collect monthly E. Coli samples from key locations on the Shasta within the bounds of CDFW's Big Springs Ranch.
- Conduct photo point monitoring at all Scott Valley bridges in July to expand visual dataset of riparian conditions.

Key Issues to Resolve: Monitoring resources generally include a combination of those available from landowners, grantees, agency/NGO/Tribal partners, and the SWAMP Program. Developed a monitoring approach for the Scott in 2019, which can be implemented in 2020 pending upon COVID-19 shelter in place orders.

Task 4: Build Partnerships

Summary: Coordinate with other agency/NGO/Tribal partners in overlapping regulatory and non-regulatory processes to maximize environmental benefits. Key initiatives include: USFS grazing allotment management, safe harbor agreements, groundwater resource management, road maintenance, 401 certification, water rights, and others. Coordinate groups as needed for high priority, high risk, and high reward actions (e.g. flow strategy for critically dry years, geomorphic restoration approaches, etc.). Key outreach events and meetings are outlined below.

- Mid-Klamath Agency Coordination Meetings (quarterly)
- Scott River Flow Enhancement Group (bi-weekly or as needed)
- Shasta River Fall Flow Group (bi-weekly starting in July)
- Klamath Basin Monitoring Program (biannually)
- Moffett Creek Working Group (biannually)
- Little Shasta Projects Group (monthly)
- Klamath Fish Health Assessment Team (monthly or as frequent as conditions require)

Key Issues to Resolve: Coordinate agencies to ensure adequate flows are present in the Scott to support salmonid rearing and outmigration in 2020.

Task 5: Additional Ad-hoc Duties

Summary: In addition to the above, the Scott and Shasta Watershed Steward occasionally fills roles that fall outside the Planning and Stewardship Division due to staffing shortages or logistical constraints. While a Steward is generally capable of fulfilling these tasks on an as-needed basis, they may not have the specialized training or expertise necessary to provide the best possible guidance to the general public and other agencies. Some examples of tasks the Scott and Shasta Watershed Steward has supported and/or conducted are indicated below.

- Complaint follow-up outside of TMDL Conditional Waiver implementation, including complaints related to industrial stormwater discharges and water rights.
- Coordination related to the Sustainable Groundwater Management Act, including Groundwater Sustainability Agency meeting attendance, presentation to the Groundwater Advisory Committee, and technical advising.
- TMDL Retrospective planning and development.

Key Issues to Resolve: Diversion to these other Ad-hoc duties will sometimes result in delays on other planned tasks.

PY Allocation for FY 2020-21: 1.0 PY Scott and Shasta Steward. 0.05 PY Watershed Stewardship Coordinator for supervision.

1.c Watershed Stewardship – Elk River TMDL Action Plan Implementation

The Elk River Watershed Steward is a 1.0 PY position. The Elk River Steward divides his time between the Tribal and Cultural BU planning project described in Section 3 (0.2 PY), his role as Tribal Liaison for the North Coast Region (0.05 PY) and his stewardship responsibilities (0.75 PY). With respect to the Elk River, the Elk River Steward is responsible for developing and implementing a strategy for returning the Elk River to a trajectory of recovery, as defined by the TMDL Action Plan. Tools used to accomplish this goal include development and implementation of the Elk River Recovery Assessment: Recovery Framework (ERRA), including a Hydrodynamic and Sediment Transport (HST) model; an Elk River Watershed Stewardship Program; WDR implementation; management of grants and contracts; pursuit of implementation funding; coordinating programmatic permitting; and building partnerships. The overall recovery effort, as implemented through the Stewardship Program, is informed by the analysis and recommended actions provided by the ERRA.

Task 1: Develop and Implement an Elk River Watershed Stewardship Program

Summary: Implement the Elk River Watershed Stewardship Program through contract development and management, landowner outreach and coordination, interagency coordination, and coordination with Timber Program staff. Fully establish the key components of Elk River Watershed Stewardship, including: coordinated monitoring, special scientific studies, development of a strategy to protect public health (e.g., drinking water, wastewater treatment, and flood protection), development of a strategy to improve stream channel and floodplain form and function, improve habitat and water quality conditions to support recovery of Coho salmon consistent with NMFS SONNC plan, and coordination with the larger Humboldt Bay restoration activities.

Continue to facilitate permitting and implementation of pilot projects at 1) the Flood Curve and 2) the Wrigley Orchard. Identify funds for additional pilot/demonstration projects, especially on the South Fork and MSR1-2. Active contract:

19-023-110 Stewardship Support: Climate Change Pilot – Tasks include additional runs the Hydrodynamic Sediment Transport (HST) Model developed under the ERRA; finalization of an Action Plan for Sediment Remediation; finalization of a watershed monitoring framework; and development of a Climate Change Pilot Study Plan. Contract ends in March 2022. Significant deliverables expected within the fiscal year are:

- memorandum summarizing first two model scenarios development, results, and conclusions;
- Draft Monitoring Framework in the form of a written report, including any notes, correspondences, and data contributing to Monitoring Plan development;

Key Issues to Resolve: Close coordination and collaborative strategic planning with other resource agencies, especially CDFW and NOAA-NMFS, is crucial to the success of Elk River recovery. RB1 serves as lead agency for implementation of the Upper Elk River Sediment TMDL, while CDFW and NMFS have primacy over recovery of listed salmonids in the Elk River. 1) Need to develop a shared remediation/restoration vision with resource agencies, including programmatic prioritization in local or regional annual workplans; 2) Using the framework established for permitting the pilot projects, refine approach to permitting larger-scale projects in concert with partner resource agencies and consultants. A proposal to State Coastal Conservancy is currently in preparation to fund the initial two years of this outreach and coordination, with NMFS, CDFW, and RB1 review and concurrence.

Milestones	Target Date FY 2020-2021
Develop Project Workplan that projects each of the tasks necessary to fulfill the requirements of the TMDL	September 2020
Establish regular schedule for collaborative meetings to support restoration design, permitting, and implementation.	September 2020

Milestones	Target Date FY 2020-2021
Memorandum summarizing first two model scenarios development, results, and conclusions	March 2021
Draft Monitoring Framework in the form of a written report, including any notes, correspondences, and data contributing to Monitoring Plan development	June 2021

Task 2: WDR Implementation

Summary: In June 2019 the Regional Water Board adopted a revised WDR for HRC to implement sediment source control requirements. A revised WDR for Green Diamond Resources Company was adopted in February 2020. The Elk River Steward will coordinate with Timber staff to ensure implementation of the WDRs in a manner consistent with the TMDL Action Plan, and to ensure the commercial timber companies participate in the Stewardship Program.

Key Issues to Resolve: The HRC WDR includes a provision for development of a feasibility study to evaluate potential methods to control, trap, or meter sediment from in-channel sources in the Upper Elk River before such sediment can be transported to the impacted reach.. This plan is an alternatives analysis and should be closely coordinated with other Watershed Stewardship activities. Include HRC and Green Diamond in the ongoing restoration planning process to ensure that their feasibility analyses complement recovery planning.

Task 3: Develop and Manage Grants and Contracts

Summary: The Elk River Steward manages grants and contracts to support the development and implementation of the Elk River Watershed Stewardship framework. See Section 3.0, Grants Administration and Management for relevant Elk River grants. Discretionary contract money has been approved for a contract to support additional modeling work in the Elk River Watershed, including consideration of climate change.

In FY 2020-2021, the duties of the Elk River Steward will expand in the area of funding development. This will include more focus on developing interagency funding pathways and working with the SWB Budget Office to develop proposals for competitive State and Federal funding programs for sediment and habitat rehabilitation project; compliance, coordination, planning, and design; water supply; infrastructure; demonstration projects; fuels projects; and advance mitigation.

Key Issues to Resolve: None

Milestones	Target Date FY 2020-21
Implement contract to support watershed modeling and climate change assessment	Ongoing
Secure additional funding from source external to CalEPA	June 2021

Task 4: Build Partnerships

Summary: The Elk River Watershed is the confluence of many interests including ranching, farming, rural residential, timber, public infrastructure, public land conservation, and fisheries conservation, to name a few. As an ongoing activity, the Elk River Steward builds partnerships, finds overlapping areas of interest, explores the various regulatory authorities and funding potentials, and seeks to build a long-lasting stewardship structure from the scale of individual properties to regional considerations.

Key Issues to Resolve: The Elk River community is complex and factionalized. As a community, they have grappled with issues related to impaired conditions in their river for more than three decades. Significant progress has been made in the last 24 months as the Stewardship Program shifted its engagement approach to one more focused on the landowner community. Building a cohesive, lasting stewardship structure is a long-term goal, requiring skill, dedication, and patience – and at its core are the individual landowners most impacted by existing conditions, and who will be most affected by large scale recovery and habitat projects. To date, the Stewardship program has developed positive working relationships with 49 of 50 key landowners in the lower 18 miles of the basin, and improved working relationships with the commercial timber companies and regulatory agencies. Continuing to support and implement the watershed stewardship program as currently structured, while building on partnerships with resource agencies is crucial to the continued successful implementation of the Elk River TMDL Action Plan.

Milestones	Target Date FY 2020-21
Develop comprehensive stewardship illustration that communicates sequencing of recovery activities, contributing organizations, permitting milestones, and other relevant project data that effectively informs the public of project status and trajectory.	June 2021

PY Allocation for FY 2020-21: 0.75 PY Elk River Steward. 0.1 PY Watershed Stewardship Coordinator for supervision.

1.d Watershed Stewardship – Klamath River

The Watershed Stewardship Coordinator is primarily responsible for managing the watershed stewardship efforts in the Klamath River Basin, with assistance from internal

program staff and collaboration with external partners. Stakeholders in the Klamath River have developed coordination and implementation frameworks to: 1) manage water quality issues across state boundaries and Tribal boundaries; 2) decommission four dams; and develop and implement a basin-wide fish restoration and monitoring program.

Task 1: Upper Klamath Watershed Action Team

Summary: Develop a plan to address water quality issues in the Upper Klamath watershed with other key upper basin TMDL implementation partners. Assist with planning for several water quality improvement projects within the Upper Klamath Basin.

Key Issues to Resolve: The Upper Klamath Watershed Action Team is working hard to complete the Watershed Action Plan in time to inform funding prioritization assignments for the Coalition of the Willing and Interim Measure 11 Preferred List of Projects Adaptive Management Steering Committee. Following completion of the draft WAP it will undergo a technical review and public engagement process before the Plan will be used to identify candidate restoration projects.

Milestones	Target Date FY 2020-21
Draft Upper Klamath Watershed Action Plan	March 2021

Task 2: Lower Klamath River / Lost River Watershed Stewardship

Summary: The Watershed Stewardship Coordinator is managing the development of a watershed stewardship charter for portions of the Lower Klamath River (i.e., Lake Ewauna through Keno Reservoir) and Lost River which are served by Reclamation's Klamath Irrigation Project. In FY 2020-21, an effort will be underway to develop a Watershed Stewardship Charter with partners, including Reclamation, Oregon Department of Agriculture, Oregon Department of Water Resources, Oregon Department of Environmental Quality, Klamath Tribe, US Fish and Wildlife Service, Klamath Water Users Association, irrigation districts, and private landowners. In addition to the charter, priority water quality improvement projects will be identified for collaborative implementation including treatment wetlands and infrastructure to conserve agricultural water use. In addition to charter development, the RB1 SWAMP is undertaking the Lower Klamath Lake Treatment Wetland Design Study to provide technical support the stewardship facilitation work group. This project is included in the SWAMP portion of this work plan.

Key Issues to Resolve: None

Milestones	Target Date FY 2020-21
Initiate Lower Klamath Project Area Watershed Stewardship Charter	March 2021

Task 3: Klamath Hydroelectric Settlement Agreement

Summary: The Klamath Hydroelectric Settlement Agreement includes interim measures for water quality monitoring and water quality improvement projects, Interim Measures 15 and 11, respectively. The Watershed Stewardship Coordinator is a steering committee member for both Interim Measure Implementation Committees. Planning for Interim Measure 15 Water Quality Baseline and Public Health Program Monitoring is ongoing and will continue through the first year of dam decommissioning when it is expected that additional funds will be identified to continue the program. For Interim Measure 11 funds from Pacific Corps are due to be transferred to the Oregon Watershed Enhancement Board to implement a list of preferred projects in the Upper Klamath Basin. The Preferred List of Projects Governance Document was completed in May 2019. The IM-11 Steering Committee is scheduled to be initiated in October 2020, to help direct project funding. The Watershed Stewardship Coordinator participates in all relevant activities related to the Klamath Hydroelectric Settlement Agreement, on an ongoing basis. The IM-11 fund is $5.4 million dollars with commitments from other agencies to match funding for water quality improvement and restoration projects in the Upper Klamath Basin. The Watershed Stewardship Coordinator will serve as a manager to select and track projects for funding.

Key Issues to Resolve: Transfer of the dam license from PacifiCorp to the Klamath River Renewal Corporation is pending a decision by the Federal Energy Regulatory Commission. Funding ($5.4 million) will be transferred from PacifiCorp to the Oregon Watershed Enhancement Board upon license transfer, when implementation of the IM-11 Preferred List of Projects can commence.

Task 4: Klamath Basin Monitoring and Restoration Activities

Summary: The Watershed Stewardship Coordinator participates on two technical steering committees: 1) the USFWS Klamath Integrated Fish Restoration and Monitoring Program (IFRMP) to restore several focal species in the Klamath Basin, and 2) the Klamath Basin Monitoring Program (KBMP) which directs and conducts strategic planning (e.g., funding recruitment) for the coordination framework. The IFRMP is ongoing and has completed Phase 2 and is initiating Phase 3. In FY 2020-2021, the Klamath Basin IFRMP Phase 3 Report will be completed and is expected in May 2021. Phase 4 involves implementation of the IFRMP and is anticipated to begin in 2022. The KBMP Steering Committee is engaged in a planning exercise to ensure the continuation and expansion of the coordinated monitoring framework post dam removal.

Key Issues to Resolve: KBMP is currently funded by Caltrans as partial fulfillment of their RB1 Statewide MS4 Stormwater permit obligations. KBMP is under consideration for continued funding to fulfill Klamath River Renewal Corporation post-dam removal monitoring obligations and as part of the USFWS IFRMP. The Watershed Stewardship Coordinator is leading efforts to develop a long-term funding agreement for KBMP. A long-term strategy for funding the Klamath Basin Monitoring Program ultimately will be necessary.

Milestones	Target Date FY 2020-21
Memorandum KBMP Steering Committee Long-Term KBMP Funding Strategy	March 2021
Complete Phase 3 of the Klamath IFRMP	June 2021

PY Allocation for FY 2020-21: 0.4 PY Watershed Stewardship Coordinator

1.e Statewide Caltrans Stormwater Permit – RB1 TMDL Implementation Strategy

Summary: Currently under negotiation, the revision to the statewide Caltrans NPDES Stormwater permit requires that the Regional Water Board define a TMDL compliance strategy for Caltrans. The Watershed Stewardship Coordinator has led an effort, including staff from the Planning and Stewardship Division, to calculate Caltrans proportional responsibility for sediment and temperature load reductions as defined in North Coast sediment and temperature TMDLs. Negotiations with Caltrans and the State Water Board will continue in FY 2020-21 to establish the details of Caltran's TMDL compliance obligations. The intended end result is a catalogue of high priority restoration projects per watershed, including an estimate of the sediment and/or temperature load reductions that can be achieved through their implementation. Caltrans will have the opportunity to develop Cooperative Agreements with RCDs, counties and other similar watershed partners to implement a sufficient number of high priority restoration projects to achieve their load reductions requirements.

Key Issues to be resolved: Negotiations with Caltrans have been slow and requires additional State Water Board support.

PY Allocation for FY 2020-21: This project is an unplanned project, which has been staffed on an adhoc basis. The Watershed Stewardship Coordinator is the lead staff, with assistance from the Planning Unit Technical Expert, the Groundwater Protection Specialist, Planning Unit Supervisor, and Planning and Stewardship Division Chief. The Watershed Stewardship Coordinator is allocated 0.05 PY for FY 2020-21 to lead completion of these negotiations and establish implementation tools.

3.a Watershed Stewardship – Russian River Watershed Stewardship

The Russian River Watershed is at the southern end of the North Coast Region and is the urban center of the region. The Russian River and/or its tributaries are impaired due to pathogens, sediment, temperature, low dissolved oxygen, nutrients, mercury, aluminum, and diazinon. Staff from multiple programs have been engaged in several intersecting initiatives in the Russian River, necessitating the creation of a regular Russian River Watershed Stewardship Coordination meeting to keep all relevant staff informed. Projects of note include:

- Russian River Regional Monitoring Program (R3MP)
- Sonoma County Board of Supervisor's Russian River Confluence

- Department of Water Resources Cal Forward Russian River Pilot
- Russian River Watershed Association Stormwater Management Planning
- Sonoma County Office of Resilience Watershed Task Force and Watershed Collaborative
- Sonoma County Water Agency Master Restoration Planning
- USGS Groundwater-Surface Water Interaction Studies
- Russian River Watershed Independent Science Review Panel Science Forum
- And Others

To manage the large number of overlapping initiatives, program development and implementation, and coordination needs, the Russian River would be well-served by establishing a Russian River Watershed Steward position and funding to hire staff into the position. To date, such a position has not yet been approved. In its absence, staff are diverted to efforts in the Russian River on an ad hoc basis and with consequences to other assigned duties.

Summary: In FY 2018-19, a charter, governance structure and funding framework were completed using contract support for the Russian River Regional Monitoring Program (R3MP). In FY 2019-20, staff supported the ongoing work of the R3MP Steering Committee. Staff have secured additional funding to continue development of the program, including the formation of a Technical Advisory Committee to evaluate the monitoring questions of the Steering Committee. The Laguna de Santa Rosa TMDL staff is the lead for continued development of the R3MP Program. Other elements of a Russian River Stewardship Program are currently unstaffed.

Key Issues to Resolve: Identify funding to establish a Russian River Watershed Steward position.

PY Allocation for FY 2020-21: With the exception of PY allocation for development of R3MP, which is described in Section 3, there are no PYs allocated for this project in FY 2020-21.