SAN FRANCISCO BAY BASIN
WATER QUALITY CONTROL PLAN
2018 TRIENNIAL REVIEW

STAFF REPORT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

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TABLE OF CONTENTS

Contents

1. Introduction

This Staff Report presents the results of the 2018 Triennial Review of the Water Quality Control Plan for the San Francisco Bay Basin (Region 2) (Basin Plan). The report includes a listing of proposed Basin Planning projects that may be investigated and addressed through Basin Plan amendments over the next three years.

The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay Region, including water quality standards. The Water Board first adopted a plan for waters inland from the Golden Gate in 1968. After several revisions, the first comprehensive Basin Plan for the Region was adopted by the Water Board, and then approved by the State Water Board in April 1975. Major revisions have been adopted since 1975 to address changing water quality conditions, priorities, and programs. Because Total Maximum Daily Load (TMDL) Basin Plan amendments are now being adopted on an on-going basis, the Basin Plan is subject to more frequent revisions than in the past. The most current version of the Basin Plan is available on the Water Board's website at this location (http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html).

The Basin Plan establishes water quality standards for the San Francisco Bay Region. Water quality standards include designated beneficial uses for surface and ground waters; narrative or numeric water quality objectives to protect those beneficial uses; and a provision to protect high quality waters from degrading to the level allowed by the objectives (i.e., antidegradation). Basin Plans also include implementation plans for water quality objectives, consisting of various regulatory programs.

The Triennial Review of the Basin Plan provides an opportunity to review and receive public input on water quality standards, implementation plans, and plans and policies. The review results in a work plan for future Basin Plan amendments, but Basin Plan amendment projects to develop TMDLs are not included in the work plan. The review is required under section 303(e)(1) of the Clean Water Act and section 13240 of the California Water Code.

During the Triennial Review process, Water Board staff 1) considers public comments on water quality issues that may require investigation; 2) develops a prioritized list of Basin Planning projects that may be pursued by the Water Board staff over the next three years; and 3) presents the list in the form of a resolution for Water Board consideration. The inclusion of a candidate project on the prioritized Triennial Review list does not necessarily mean that the project will be fully pursued and a Basin Plan amendment will be accomplished in the next three years.

This staff report includes: a description of the Triennial Review process, a summary of the public's participation, a description of the methodology used to evaluate and rank each candidate project, estimates of the time and staff resources needed to act on each project over the next three years, a generalized ranking of the candidate projects by priority, and a brief description of each candidate project.

2. Triennial Review Process

In early 2018, Water Board staff began the Triennial Review process by soliciting input from all divisions of the Water Board and reviewed available information to determine where updates may be needed to beneficial uses, water quality objectives, implementation plans, plans or

policies, or where editorial changes may be needed. Water Board staff developed for public review a tentative list of candidate Basin Planning projects. This effort included: review and update of the list of priority Basin Planning projects identified in the last Triennial Review, coordination with the statewide Basin Plan roundtable, and an internal review of the Water Board's regulatory program needs. Based on this effort, Water Board staff produced a "Brief Issue Descriptions" paper, describing candidate projects. The 26 projects included in this paper are shown in Table 1. Based on public input, we updated some of these projects, which are described in more detail and in descending rank order in Appendix B.

On April 6, 2018, the public process for the Triennial Review was formally initiated by distributing a public notice for a Triennial Review workshop. The notice specified a public comment period (April 20 – June 8, 2018) for submission of written comments, communicated that written materials ("Brief Issue Descriptions") would be posted on April 20 (30 days in advance of the workshop), and announced a Triennial Review public workshop on May 21, 2018. Appendix A includes a copy of the "Notice of Public Solicitation Period and Public Workshop for Basin Plan Triennial Review" and the summary of the discussion from the public workshop. We have also posted all the written comments received from the workshop on the Waterboard website.

Following a review of all comments submitted by the public and a systematic ranking of all the candidate projects, Water Board staff developed a prioritized list (see Section 8 below) of candidate Basin Planning projects to pursue during the upcoming three-year period.

To formally complete the Triennial Review, the Water Board must adopt a resolution approving the Triennial Review of the Basin Plan and adopting a Prioritized List of Basin Planning Projects. Staff will provide a formal response to comments received on this staff report as part of the Board package supporting the ultimate Water Board resolution.

Table 1. Basin Plan Projects Described by Board Staff at May 2018 Workshop

Update Beneficial Uses
2.1 Add Unnamed Water Bodies That Receive Discharges
2.2 Addition of Sport Fishing Beneficial Use to Lakes
2.3 Align Ocean Plan and Basin Plan for Recreational Contact Use
2.4 Stream and Wetland Systems Protection Policy
2.5 Modify Groundwater Sub-Basin Boundaries
2.6 Designate Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing Beneficial Uses in the San Francisco Bay Region
Update Water Quality Objectives
3.1 Review and Refine Dissolved Oxygen Objectives for San Francisco Bay
3.2 Update the Basin Plan's Toxicity Testing Requirements
3.3 Revise Pentachlorophenol (PCP) Water Quality Objectives for Salmonids
3.4 Develop Numeric Nutrient Endpoints (NNEs) in Freshwater Streams and Estuaries
3.5 Review and Implement Biological Assessment Tools
3.6 Incorporate Recreational Water Quality Objectives (RWQC) for Bacteria
3.7 Review Un-ionized Ammonia Water Quality Objective for San Francisco Bay and freshwaters
3.8 Lake Merced Dissolved Oxygen and pH Objectives
3.9 Consider incorporating Clean Water Act section 304(a) criteria into the Basin Plan
3.10 Temperature Limits to Protect Salmonids
3.11 Develop Flow Criteria for Selected Bay Area Streams and Rivers
3.12 Incorporate Statewide Mercury Objectives into the Basin Plan
3.13 Clarify Implementation Requirements for Municipal Supply and Agricultural Supply Water Quality Objectives
Update Implementation Plans
4.1 Environmental Screening Levels (ESLs) for Groundwater Cleanups
4.2 Using Wastewater to Create, Restore, and Enhance Wetlands
4.3 Update Cyanide Dilution Credits
4.4 Revise Instantaneous Chlorine Limit
Update Plans and Policies
5.2 Climate Change and Water Resources Policy
Editorial Revisions and Minor Clarifications or Corrections
6.1 Clarify Turbidity Water Quality Objective
6.2 Editorial Revisions, Minor Clarifications, or Corrections

3. Summary of Public Participation Process

The public, both in written comments and those provided during the public workshop, voiced both support for projects identified by staff and/or suggested new potential projects for staff to consider. Many of the public comments encouraged the Water Board to continue working on candidate projects already underway. These comments are summarized below.

Workshop attendees and commenters included private citizens and representatives of a wide-range of different entities. Parties who participated in the workshop or who provided comments during the solicitation process are listed in Table 2.

Table 2. Triennial Review Public Participants

Organization/Participant	Written Comments	Attended Workshop
Alameda County Water District (ACWD), Robert Shaver	✓	
Bay Area Clean Water Agencies (BACWA), David Williams, Lorien Fono	✓	✓
Baykeeper, Erica Maharg, Nicole Sasaki, Ian Wren	✓	✓
California Trout, Patrick Samuel	✓	
City and County of San Francisco, Anna Fedman		✓
City of Berkeley, Mitch Buttress,		✓
City of Palo Alto, Samantha Engelage, Daniel Patten, Phil Bobel	✓	✓
Clean Water Action, Andria Ventura	✓	✓
Contra Costa County, Courtney Riddle		✓
County of Marin, Rob Carson		✓
Earth Law Center & Living Rivers Council, Grant Wilson, Michael DeLorenzo, Chris Malan	✓	
Environmental Justice Coalition for Water (EJCW), Colin Bailey	✓	
EOA Inc., Tom Hall		✓
Fred Krieger, citizen	✓	
Jerry Smith, citizen	✓	
Kennedy Jenks Consultants, Claudia Llerandi		✓
Michelle Pierce, community advocate		✓
Santa Clara County Creeks Coalition, Richard McMurtry	✓	
U.S. Environmental Protection Agency (U.S. EPA), Diane Fleck	✓	
Western States Petroleum Association (WSPA), Kevin Buchan		✓
Wil Bruhns, citizen		✓
Wine Institute, Adam Kotin		✓

3.1. Public Input in Support of Candidate Projects

Many comments were supportive of various projects presented by Water Board staff in the "Brief Issue Descriptions" paper. Those projects that had more than one supporting comment are discussed below. If we received concerns about these projects, we included those comments. In

some cases, we have made some minor modifications to project names or descriptions either in response to stakeholder input or due to consultation with Water Board staff. For this reason, project names in Table 1 may not match exactly with those found elsewhere in this staff report.

2.1 Add Unnamed Water Bodies that Receive Discharges. The City of Palo Alto and BACWA support this candidate project to add a small number of unnamed waterbodies that are currently receiving NPDES wastewater discharges and designating their beneficial uses.

2.3 Align Ocean Plan and Basin Plan for Recreational Contact. The City and County of San Francisco and BACWA supported this project to align the Basin Plan and Ocean Plan with respect to the zone of applicability for the contact recreation beneficial use.

2.4 Stream and Wetland Systems Protection Policy. Wil Bruhns and California Trout support this project.

2.6 Designate Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing Beneficial Uses in the San Francisco Bay Region. Baykeeper, Clean Water Action, Michelle Pierce, EJCW, and the U.S. EPA support this project to designate new tribal and subsistence fishing uses to applicable waters in the region.

3.1 Review and Refinement of Dissolved Oxygen Objectives in San Francisco Bay. ACWD, BACWA, and the City of Palo Alto support this candidate project to continue the work that is underway to review and refine our dissolved oxygen objectives. Baykeeper expressed concerns about using the Suisun Marsh approach for dissolved oxygen objectives in South and Lower South San Francisco Bay habitats.

3.4 Develop Numeric Nutrient Endpoints in Estuaries and Freshwater Streams. The City of Palo Alto supports this project which would have staff continue to participate in an advisory capacity in a State Board effort to develop nutrient objectives and a program of implementation.

3.8 Lake Merced Dissolved Oxygen and pH Objectives. Daly City and California Trout support this candidate project to review and revise water quality objectives specific to Lake Merced.

3.10 Temperature Limits to Protect Salmonids. Baykeeper, California Trout, and the Santa Clara County Creeks Coalition support this candidate project to review scientific information applicable to Bay Area streams to set appropriate temperature thresholds to protect salmonids.

3.11 Develop Flow Criteria for Selected Bay Area Streams and Rivers. Wil Bruhns, ACWD, Baykeeper, California Trout, Earth Law Center, Living Rivers Council, and the Santa Clara County Creeks Coalition support this project. Earth Law Center and Living Rivers Council called special attention to the Napa River as a high priority waterbody for flow criteria.

3.13 Clarify Implementation Requirements for Municipal Supply and Agricultural Supply Water Quality Objectives. ACWD and BACWA support this project.

4.2 Using Wastewater to Create, Restore, and Enhance Wetlands. BACWA, the City of Palo Alto, ACWD, and EOA, Inc. support this project aimed at evaluating and addressing policy issues associated with use of wastewater to create, restore, and enhance wetlands. ACWD would like the definition of treated wastewater expanded to include desalination brine and brackish groundwater discharge from aquifer protection wells. This policy would revisit existing policies regarding the use of treated wastewater for wetland creation, restoration and enhancement.

4.3 Update Cyanide Dilution Credits. The City of Palo Alto and BACWA support this candidate project to update cyanide dilution credits for discharges that were not included in the 2007 cyanide Basin Plan amendment.

5.2 Climate Change and Water Resources Policy. Baykeeper, ACWD, and BACWA support this candidate project to evaluate Board regulatory policies in light of climate change and the need for adaptation to ensure protection of baylands beneficial uses. BACWA suggested that the project should consider biosolids beneficial reuse along with beneficial sediment reuse as part of this project.

6.1 Clarify Turbidity Water Quality Objective. BACWA supported this project as described. Santa Clara County Creeks Coalition and California trout supported this project with an expanded scope to ensure that the turbidity objective protects salmonids.

In addition, the following projects from the "Brief Issue Descriptions" paper received at least one supporting comment. Where we received concerns about a project they are also provided below.

2.2 Addition of Sport Fishing Beneficial Use to Lakes. This candidate project to designate the recreational fishing beneficial use (COMM) for three reservoirs listed for mercury impairment is supported by the U.S. EPA.

2.5 Modify Groundwater Sub-Basin Boundaries. ACWD wrote in support of this project.

3.3 Revise Pentachlorophenol (PCP) Water Quality Objectives for Salmonids. California Trout supports this candidate project.

3.5 Review and Implement Biological Assessment Tools. California Trout supports this project to develop tools to assess instream ecological condition based macroinvertebrate community integrity.

3.6 Incorporate Recreational Water Quality Criteria for Bacteria. BACWA supports this project to revise the Basin Plan (as necessary) after the State Board updates the Inland Surface Water, Enclosed Bays and Estuaries Plan based on USEPA's revised criteria.

3.9 Consider incorporating Clean Water Act section 304(a) criteria into the Basin Plan. Fred Krieger supported this project with emphasis on copper and zinc revisions using the biotic ligand model.

4.1 Environmental Screening Levels (ESLs) for Groundwater Cleanups. ACWD supports this project to update the Basin Plan with a description of the tiered decision process used to determine relevant exposure pathways and appropriate site cleanup levels using environmental screening levels (ESLs).

4.4 Revise Instantaneous Chlorine Limit. BACWA supports this project to revise the instantaneous residual chlorine effluent limit.

3.2. Other Potential Projects Proposed by Commenters

Public comments covered a wide range of potential new projects and Basin Plan updates. Water Board staff considered these comments and determined whether to evaluate a newly proposed project as a candidate Basin Plan project.

In summary, the solicitation process, public input, and State Water Board staff input resulted in a total of 26 candidate Basin Planning projects to be considered and ranked during the 2018 Triennial Review. The ranking process is described in section 4 below, and all the ranked projects are more fully described in Appendix B.

In some cases, projects requested by commenters were not included in the Triennial Review ranking exercise. In the following table, we summarize the additional candidate projects suggested by stakeholders and explain the resolution to the suggestion. During this Triennial Review, staff did not include any of these suggestions as candidate projects, primarily because the recommended projects were unnecessary or in conflict with existing plans and policies.

Table 3. Additional Candidate Projects Suggested by Commenters

Entity	Topic	Resolution
Fred Krieger	Adopt U.S. EPA 2007 Criteria for Copper and use the biotic ligand model to update zinc criteria.	Such revision is a statewide issue. The State Board is in the early stages of a project to address these and other metals criteria so it does not make sense for our region to undertake a duplicative project when revising these criteria is not an urgent priority for this region.
Fred Krieger	Reconsider drinking water standards applied as surface water standards to unintended exceedance of stormwater permit limits.	We are not aware of the types of permitting challenges mentioned by the commenter so we do not see this project as a priority for this region. Moreover, we have a candidate project (3.13) that involves clarification of implementation requirements for the MUN and AGR beneficial uses that does address at least some of the concerns raised in the comment.
Santa Clara County Creeks Coalition	Clarify definition of discharge with respect to discharges from instream impoundments.	The commenter suggests that current Water Board practice has been to assume that discharges from instream impoundments are not discharges under Porter Cologne. This is not the case. Any discharge of waste that creates or threatens to create a condition of pollution or nuisance is considered a discharge under Porter Cologne (section 13304). There is nothing

Entity	Topic	Resolution
		unique about instream impoundments that requires the recommended clarification.
Santa Clara County Creeks Coalition	Clarify the programmatic relationship between Regional Board and Division of Water Rights with respect to discharges from instream impoundments.	This is not a topic appropriate for inclusion in the Basin Plan.
U.S. EPA	Developing nutrient water quality objectives for San Francisco Bay is a priority and should be considered for this cycle.	As part of the Nutrient Management Strategy, Water Board staff continues to work with stakeholders and scientists including the San Francisco Estuary Institute (SFEI) to better understand the role nutrients play in water quality in the San Francisco Bay Estuary. While those efforts are continuing, we do not anticipate that the science will support a Basin Plan amendment or policy changes over the next three years, so it was not a candidate for the 2018 workplan. This project will likely reemerge as a candidate in the next Triennial Review, after additional science is available to inform management decisions. Nonetheless, we have added a sentence to the project description for the numeric nutrient endpoints in estuaries and freshwater streams project to include a reference to the efforts in SF Bay.

4. Project Ranking Criteria

For every Triennial Review, there are more candidate projects than can be accomplished with the available resources — two full-time staff positions funded for Basin Planning efforts, other than TMDLs. The ranking criteria and scoring are straightforward. Each candidate project receives an overall score, which sums the project's individual scores for a number of ranking criteria. The highest score possible for a candidate project is 100 points, and the highest scoring projects will be given priority for staff action in the following three-year period. It is important to emphasize that the score assigned to a project for each ranking criterion is intended merely to reflect how this project compares to other candidate projects in this scoring category. This is not intended as a judgment of the absolute importance of the project with respect to this scoring category. The ranking criteria and scoring are described below.

4.1. Water Board Mission (Protect Beneficial Uses)

Projects that improve protection of beneficial uses were given higher scores (15 is the highest score possible), while projects that would result in little or no direct improvement of beneficial

uses were given lower scores. A score of zero was given for projects judged not to include some strengthening of beneficial use protection. No projects that would weaken protection of beneficial uses were considered.

4.2. Staff Resources Already Invested

This criterion recognizes and gives higher priority to projects that already have expended substantial Water Board staff resources. Projects already underway for a year or more received a score of ten. Projects for which no work has been undertaken received a score of zero. Projects for which some staff resources have been expended, but are still at the early stages of development were assigned a score in proportion to the amount of resources expended to date.

4.3. External Resources Already Invested

This criterion recognizes and gives higher priority to projects for which external resources have already been expended. External resources may include grant funding or funding provided by affected parties to assist the Water Board in coordinating technical information and stakeholder outreach for Basin Plan amendments. Projects that have received substantial external investment received a score of five; other projects received a score in proportion to the amount of external resources invested to date.

4.4. External Resources Likely Available

Similarly, where external resources will be (or will continue to be) dedicated to a project, higher priority is given. Such resources would augment Water Board staffing, helping to complete controversial or complex projects that otherwise might not have adequate staffing. Scores were assigned based on experience with projects where external resources have been invested, as described above, with a maximum possible score of ten. Other projects received a score in proportion to the amount of likely external resources available.

4.5. Public Interest

Water Board staff solicited input from the public, including the regulated community, citizens, and environmental groups. Projects suggested by multiple members of the public or other stakeholders received the highest score of ten in this category.

4.6. Input from Internal Divisions

Staffs from the Water Board's Groundwater, Watershed, NPDES, and Planning divisions were tasked with identifying Basin Planning projects that would facilitate program implementation, clarify the Basin Plan, and provide better customer service. Five points were given to projects identified as a top division priority.

4.7. Implement State Water Board Policy

In all Triennial Reviews conducted by Regional Water Boards, one of the first items reviewed is whether there have been changes in statewide policies or plans that are inconsistent with specific Basin Plan language. A highest score of fifteen was given to projects that would bring the Basin Plan into conformance with statewide plans or policies.

4.8. U.S. EPA Priority

Projects that address comments in a U.S. EPA Basin Plan approval letter or other input from U.S. EPA, such as the comment letters on previous Basin Plan amendments or the comment letter on past or current Triennial Reviews, where U.S. EPA stated strong support for a project were given a score of fifteen, and candidate projects that did not relate to known or stated U.S. EPA interests received a score of zero. In some cases, projects were given a score between zero and fifteen if U.S. EPA expressed an interest in the topic area.

4.9. Geographic Scope

Projects that address multiple water bodies and regulated entities throughout the Region received higher scores (maximum of five) than projects that were more site-specific or discharger-specific.

4.10. Low Controversy and Low Technical Complexity

These two ranking criteria recognize that projects with lower controversy and lower technical complexity could be completed efficiently, with fewer staff resources. Higher scores (maximum of five) were assigned for non-controversial projects and for those that are considered to be straightforward from a technical perspective.

5. Project Ranking Results

Using the criteria described in section 4, a score was assigned for each criterion for every potential Basin Plan project. Points across all ranking criteria were summed for every project to determine its overall score.

With the large number of projects under consideration, it is useful to focus further analyses on the highest priority projects. Thus, the projects were further ranked as high, medium, or low priority. The resulting point ranges are:

Table 4. Point Ranges for Generalized Rank Categories

Point Range	Generalized Rank
≥ 60	High
45-59	Medium
< 45	Low

The overall score and generalized ranking for each project are graphically displayed in Figure 1. Criteria scores for individual projects are shown in Table 5.

6. Priority Ranking for TMDL Development

The Water Board is working on a range of TMDL projects throughout the region. TMDLs often include water quality standards issues, and most will be adopted as Basin Plan amendments. For these reasons, we include our TMDL priorities in the Triennial Review. Staff has identified the following TMDL projects as the highest priority for development and completion as Basin Plan amendments over the next three years. TMDL projects may be addressed by developing a Water Quality Improvement Plan (WQIP), rather than a TMDL and Basin Plan amendment. The Water Board adopted a WQIP to address bacteria on San Vicente Creek. Development of a WQIP does not remove our obligation to address the impairment with a TMDL if standards are not attained in a reasonable time frame.

- Petaluma River Bacteria TMDL
- San Gregorio Creek Sediment TMDL
- Stevens Creek Toxicity TMDL
- San Francisco Bay Beaches Bacteria TMDL (additional beach listings)
- Pescadero Marsh Dissolved Oxygen TMDL
- Pillar Point Harbor Bacteria TMDL
- Statewide Mercury Control Program in Reservoirs

During this Triennial Review we received feedback on our priority ranking for TMDL development. Santa Clara County Creeks Coalition recommends including Los Gatos Creek Temperature TMDL and Coyote Creek Temperature TMDL as priority projects (neither waterbody is currently listed as impaired for temperature). California Trout agreed with our inclusion of Pescadero Marsh and recommended that we also consider TMDLs for Coyote Creek and Guadalupe River Watersheds for dissolved oxygen and temperature (neither Coyote Creek nor Guadalupe River are currently listed for these parameters). We will evaluate available data with respect to these suggested TMDL efforts.

Figure 1 – Basin Plan Project Ranking Scores and Generalized Rankings

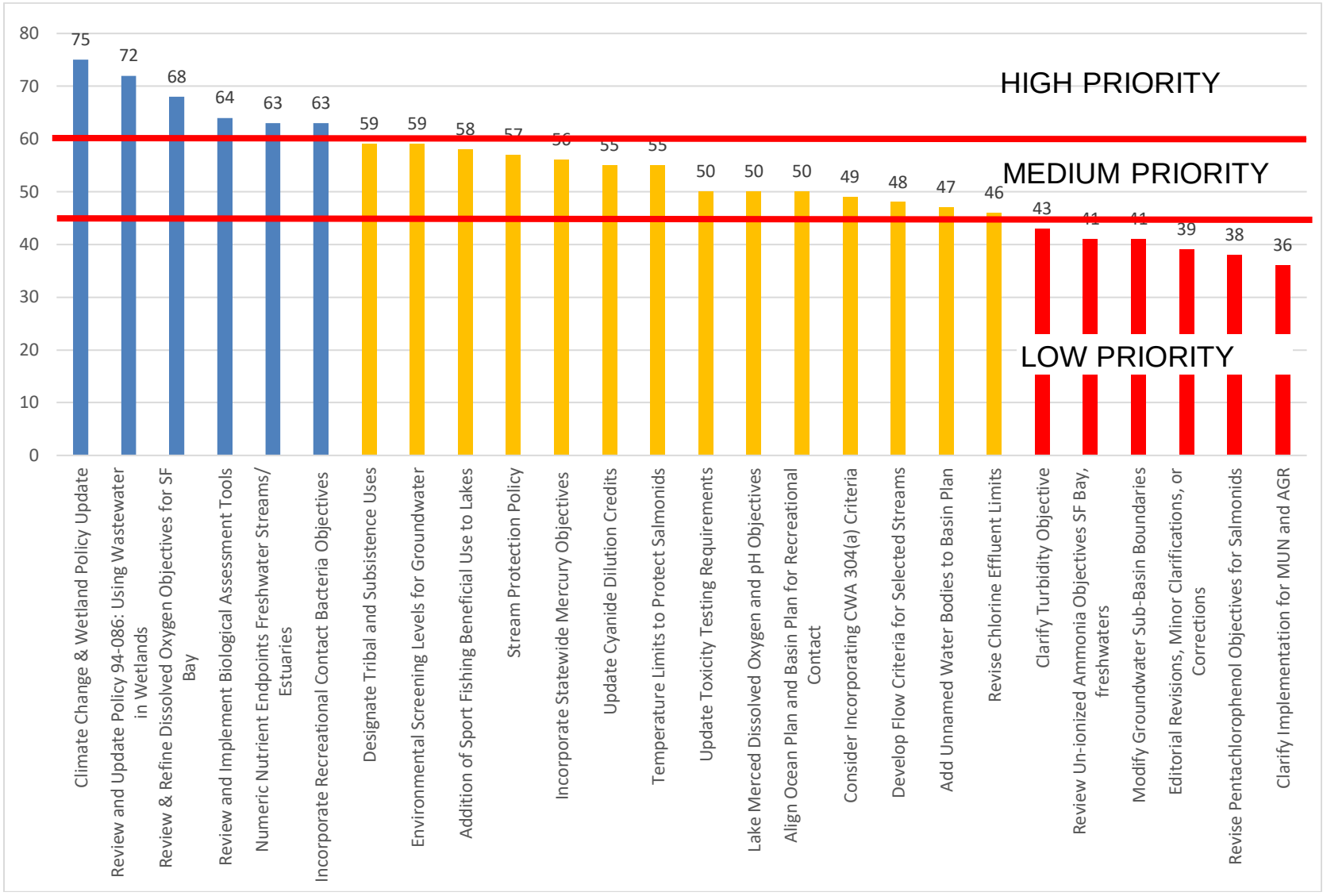

Table 5 Rank-Ordered Scoring for Individual Projects

Rank	Project Title	Protects Beneficial Uses (15 pts)	Staff Resources Already Expended (10 pts)	External Resources Already Expended (5 pts)	External Resources Likely Available (10 pts)	Public Interest (10 pts)	Input from Internal Divisions (5 pts)	Implement State Board Policy (15 pts)	U.S. EPA Priority (15 pts)	Geo-graphic Scope (5 pts)	Low Con-troversy (5 pts)	Low Technical Complexity (5 pts)	SCORE (max 100 pts)
1	Climate Change & Wetland Policy Update	15	10	4	10	8	5	10	5	5	2	1	75
2	Review and Update Policy 94-086: Using Wastewater in Wetlands	8	8	4	10	10	5	10	10	4	2	1	72
3	Review & Refine Dissolved Oxygen Objectives for SF Bay	10	8	5	10	8	5	0	15	4	2	1	68
4	Review and Implement Biological Assessment Tools	12	8	5	5	3	5	5	10	5	3	3	64
5	Numeric Nutrient Endpoints Freshwater Streams/ Estuaries	12	8	2	5	3	3	5	15	5	2	3	63
6	Incorporate Recreational Contact Bacteria Objectives	10	2	3	5	3	0	15	10	5	5	5	63
7	Designate Tribal and Subsistence Uses	10	1	1	3	10	0	10	15	4	2	3	59
8	Environmental Screening Levels for Groundwater	10	10	3	3	5	5	0	10	5	4	4	59
9	Addition of Sport Fishing Beneficial Use to Lakes	10	4	2	3	3	3	5	15	4	4	5	58
10	Stream Protection Policy	12	10	3	3	5	5	5	5	5	1	3	57
11	Incorporate Statewide Mercury Objectives	10	2	2	5	0	0	15	10	5	4	3	56
12	Update Cyanide Dilution Credits	2	8	3	5	5	5	0	15	2	5	5	55
13	Temperature Limits to Protect Salmonids	15	4	3	5	8	0	0	10	5	4	1	55
14	Update Toxicity Testing Requirements	5	5	3	3	2	0	10	10	5	3	4	50

Rank	Project Title	Protects Beneficial Uses (15 pts)	Staff Resources Already Expended (10 pts)	External Resources Already Expended (5 pts)	External Resources Likely Available (10 pts)	Public Interest (10 pts)	Input from Internal Divisions (5 pts)	Implement State Board Policy (15 pts)	U.S. EPA Priority (15 pts)	Geo-graphic Scope (5 pts)	Low Con-troversy (5 pts)	Low Technical Complexity (5 pts)	SCORE (max 100 pts)
15	Lake Merced Dissolved Oxygen and pH Objectives	5	8	5	10	5	0	0	10	1	3	3	50
16	Align Ocean Plan and Basin Plan for Recreational Contact	5	5	1	8	5	5	10	0	2	4	5	50
17	Consider Incorporating CWA 304(a) Criteria	10	1	2	3	5	0	0	15	5	3	5	49
18	Develop Flow Criteria for Selected Streams	15	2	2	8	10	0	0	5	3	1	2	48
19	Add Unnamed Water Bodies to Basin Plan	2	6	1	0	5	5	0	15	3	5	5	47
20	Revise Chlorine Effluent Limits	5	3	4	10	3	0	0	10	5	3	3	46
21	Clarify Turbidity Objective	10	5	1	3	8	5	0	0	5	3	3	43
22	Review Un-ionized Ammonia Objectives SF Bay, freshwaters	10	3	2	3	2	0	0	10	5	3	3	41
23	Modify Groundwater Sub-Basin Boundaries	5	0	3	3	3	5	0	10	2	5	5	41
24	Editorial Revisions, Minor Clarifications, or Corrections	5	2	2	3	2	5	5	0	5	5	5	39
25	Revise Pentachlorophenol Objectives for Salmonids	10	3	1	1	3	0	0	10	5	3	2	38
26	Clarify Implementation for MUN and AGR	5	3	2	2	8	5	0	0	5	3	3	36

7. Available Resources

Non-TMDL Basin Planning resources for the San Francisco Bay Region consist of 2 personnel-years (PY). Available Planning Division staff over the next three years is thus estimated at 6 PY, pending any future budget changes. The Planning Division uses approximately 0.5 PY over three years participating in statewide roundtables and preparing the Triennial Review itself.

For work planning purposes, Basin Plan amendments of low complexity are assumed to require between 0.3 and 0.5 PY. This is the minimum amount of resources required by a Basin Plan project due to the substantial process required, even after Basin Plan amendments are adopted at the Regional Water Board level. Medium complexity amendments are assumed require between 0.6 and 1.2 PY, depending on whether substantial investigation work has already occurred on a project, including dedication of resources external to the Water Board. High complexity projects are assumed to require from 1.5 to 3.0 PY, depending on staff's judgment of the specific level of controversy and complexity that could be anticipated.

Planning Division staff believes that all candidate projects identified in this Triennial Review warrant at least an initial assessment and investigation to determine if the project should be fully executed. Likewise, just because a project received lower ranking does not imply that staff concludes that it should not, at some point, be pursued. The work planning exercise of the Triennial Review highlights the fact that, while numerous outstanding Basin Planning actions are warranted at this and other Water Boards, the allocated staff resources are not sufficient to accomplish every project.

The final Triennial Review Basin Plan project list was developed based on the top priority projects and available staffing, described above. The high priority projects will comprise the Basin Plan work plan for the San Francisco Bay Region for the next three years. It was based on ranking the projects, and considering the current availability of staff resources, including the 6.0 PY available for Water Board Basin Planning efforts. In the San Francisco Bay Region, staffing for planning has historically been augmented by other sections or divisions to address outstanding issues that affect a particular program. In addition, other resources from external sources, for example U.S. EPA, help augment basin planning activities. Other resources, external and from other divisions of the Water Board, may be available to augment the 6.0 PY and thus additional projects may be considered during the course of any given year. This is true for two projects which we have engaged in that our dischargers are provided contract support to complete.

Basin Plan projects that ranked below the level for which resources are available have not been eliminated from further consideration. For instance, if projects take less staff time than estimated, more projects may be addressed in the next three years. Affected parties may also provide resources to address specific planning issues in partnership with the Water Board, recognizing that at least some Water Board staff time is necessary to accomplish such Basin Planning. Each year, Water Board staff will develop annual work plans for non-TMDL basin planning projects, coordinated with the statewide Basin Planning Roundtable.

8. Proposed Basin Planning Projects

Based on the ranking criteria and available resources, as described in previous sections of this staff report, the proposed list of projects to be included in the work plan in the next three years is shown in Table 6. This table shows all high priority projects (those with scores of at least 60 points) that can be accomplished with existing basin planning resources (6.0 PY). There are three additional medium priority projects for which some progress can be accomplished if we can secure additional resources from other divisions of the Water Board or external sources. The Lake Merced and Chlorine Effluent projects both rely on support from external partners and thus the amount of work the Water Board will complete on those projects depends on when we receive certain deliverables.

As internal or external resources are identified and targeted to Basin Planning over the next three years, the prioritized list reflected in Figure 1 and the project descriptions in Appendix B will provide guidance as to where to direct those resources.

Table 6 High Priority Basin Planning Projects Versus Available Resources

Project	Required PY	Cumulative PY	Resource Considerations
Climate Change and Wetland Policy Update	2.0	2.0	These projects can be accomplished with available Basin Planning Resources (6.0 PY).
Review and Update Policy 94-086 -Using Wastewater to Create, Restore, and Enhance Wetlands	1.5	3.5	
Review and Refine Dissolved Oxygen Objectives for San Francisco Bay	1.0	4.5	
Review and Implement Biological Assessment Tools	0.6	5.1	
Develop Numeric Nutrient Endpoints (NNEs) in Freshwater Streams and Estuaries	0.3	5.4	
Incorporate Recreational Contact Bacteria Objectives	0.3	5.7	
Designate Tribal and Subsistence Uses	1.0	6.7	We anticipate that we will have available resources to accomplish some elements of these projects.
Lake Merced Dissolved Oxygen and pH Objectives	1.5	8.2	
Revise Chlorine Effluent Limits	1.0	9.2	

Consider incorporating Clean Water Act section 304(a) criteria into the Basin Plan.

Candidate Project 3.9 (incorporating CWA section 304(a) criteria into the Basin Plan) scored 49 points and did not rank in the top tier of projects. Many of the 304(a) criteria were promulgated in the California Toxics Rule, and revising such criteria involves considerable effort most efficiently done by the State Water Board's Division of Water Quality, since a change to a statewide water quality control plan would supersede all Basin Plans. For that reason, we do not intend to work on any 304(a) criteria contaminants.

There were also specific suggestions to employ the Biotic Ligand Model to develop new copper and zinc criteria. The State Board is currently working on this project so it does not make sense for the regions to duplicate the effort. Because of ongoing and planned efforts to update statewide water quality objectives, staff believes further work on this issue is not needed. In response to the explanation requirement at 40 CFR 131.20, staff will defer adopting new or revised water quality objectives in the Basin Plan at this time because of the resource commitments required to undertake such a task.

APPENDIX A

PUBLIC NOTICE

AND

MEETING SUMMARY OF PUBLIC WORKSHOP

Notice Date: April 6, 2018

NOTICE OF PUBLIC WORKSHOP
AND
SOLICITATION OF PUBLIC COMMENT

2018 TRIENNIAL REVIEW
OF THE
WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY BASIN

The California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) is initiating the triennial review process for the Water Quality Control Plan, San Francisco Bay Basin (Basin Plan). The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay Region, including water quality standards.

The purpose of the triennial review is to examine and update the focus of Water Board planning efforts, including TMDL projects. Section 13240 of the Porter-Cologne Water Quality Control Act and section 303(c)(1) of the federal Clean Water Act require a review of basin plans at least once each three-year period to keep pace with changes in regulation, new technologies, policies, and physical changes within the region.

NOTICE IS HEREBY GIVEN that a public workshop on the Basin Plan Triennial Review will be held:

DATE:	**Monday May 21, 2018**
TIME:	10 a.m. to 12 noon
LOCATION:	Elihu M. Harris State Building 2nd Floor, Room 10 1515 Clay Street Oakland, California 94612
STAFF CONTACT:	Richard Looker 1515 Clay Street, Suite 1400 Oakland, CA 94612 (510) 622-2451 (ph) email: rlooker@waterboards.ca.gov

The Water Board is responsible for reviewing the Basin Plan and is required to identify those portions of the Basin Plan that are in need of modification or new additions, and adopt standards as appropriate. The review includes a public workshop and a public hearing to allow the public to identify issues for the Water Board to consider for incorporation into its Basin Plan.

MATERIALS: Water Board staff is preparing an initial list of candidate Basin Planning issues for inclusion in the Water Board's triennial review workplan. These candidate issues include updates to beneficial uses, water quality objectives, implementation plans, and policies. The document containing brief descriptions of all the triennial review issues currently being considered by Water Board staff will be available for download on April 20, 2018 here:

http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml#triennialreview

SUBMISSION OF WRITTEN COMMENTS: We solicit input from interested parties to assist staff to identify and prioritize Basin Plan amendment projects that will best address the water quality planning needs of our region. It is important to identify the scope, timing and critical nature of potential projects, as the Water Board is limited in terms of the staff resources that are available to complete the projects. Written comments can be submitted via regular or electronic mail and are due by **5pm on June 8, 2018**.

After public input is received, Water Board staff will prepare a Staff Report containing a prioritized list of Basin Planning projects. We will make these materials available for formal public comment as part of the public process in advance of a Water Board hearing taking place this fall. Ultimately, the Water Board will adopt, by resolution, the priority list of Basin Planning projects to be pursued.

Triennial Review Workshop Solicitation Period:

Comment Period Opens	**Friday April 20, 2018**
Public Workshop	**Monday May 21, 2018**
Final date for Submitting Comments	**Friday June 8, 2018**
Board Adoption Hearing	**fall 2018**

AGENDA
BASIN PLAN TRIENNIAL REVIEW
SAN FRANCISCO BAY REGION

PUBLIC WORKSHOP

Room 10, 2nd Floor
California State Building, 1515 Clay St., Oakland, CA

10:00 a.m. to 12:00 noon

May 21, 2018

1. Introductions	All
2. What is a triennial review?	Richard Looker
3. Priority projects from last triennial review	Richard Looker
3. Water Board staff review of issue areas	Richard Looker
a. Update of beneficial uses	
b. Update of water quality objectives	
c. Updates to implementation plan	
d. Updates to plans and policies	
e. Minor editorial revisions	
4. Comments from workshop attendees and discussion	All

Triennial Review Workshop May 21, 2018

Comments Received During the Workshop – Staff responded as appropriate to these comments

Andria Ventura (Clean Water Action, CWA)
She asked for an example of currently unnamed water body, mentioned in an NPDES permit but not included in the Basin Plan.

She also requested clarification on potentially competing reuse projects for treated wastewater (wetlands versus potable reuse). In other words, would use of treated water for wetlands conflict with potable reuse of such water?

Andria Ventura expressed strong support for Project 2.6, the designation of the new beneficial uses for the Bay (subsistence fishing). Non-tribal subsistence fishing is not recognized in the adopted TMDLs. Designation of new beneficial uses and meeting the objectives for Hg and PCBs is a long process but it can be achieved through adaptive implementation. It is a step towards addressing these contaminants. Wants the Water Board to focus on the subsistence fishing use for SF Bay now and recognized there is less data on subsistence fishing in lakes and reservoirs.

Nicole Sasaki (San Francisco Baykeeper)
She expressed strong support for the Project 2.6. It is important to recognize the existence of this beneficial use. It will help to reduce pollution levels and to conduct outreach to the people who fish in the Bay. Strongly encourage to do the subsistence fishing designation quickly, and to rely on current information rather than postpone the project until more data are collected.

Michelle Pierce (Community Advocate)
She also expressed support for project number 2.6 because more people are becoming subsistence fishermen to support their families in high cost living areas such as San Francisco. Designation will help/prompt other agencies (such as OEHHA) to do more. Also, there are other problems around the Bay, e.g., cesium leaching to the Bay from Hunter's Point Shipyard and other superfund sites, which contribute to pollution levels (possibly including fish contamination). Water Board/ Basin Planning should do more to address these superfund sites.

Wil Bruhns (general public)
Biological resources are affected by four major stressors: flow alterations, physical habitat stressors, invasive species and pollutants. Flow alteration is one of the biggest stressors. Priority should be given to developing flow criteria, and flow in Napa River.

Michelle Pierce asked for clarification whether the flow criteria would cover replenishment through precipitation.

Wil Bruhns clarified that he did not think about droughts as they were natural but was talking about changes to the flows due to redirecting of water, and Water Projects in the Delta.

Rob Carson (Marin County Stormwater Pollution Prevention Program)
If new bacteria standards are adopted into the Basin Plan would they affect existing TMDLs?

What implementation strategies are we thinking about for initiatives, such as temperature limits for salmonids, stream and wetland policy, or biological assessment.

Rob Carson was concerned about the stream and wetland policy project and implications to the County's stream maintenance program.

He mentioned strong support from the County on the climate change and beneficial re-use of sediments projects and expressed an interest in getting clear guidance on these issues.

Lorien Fono (Bay Area Clean Water Agencies)
Asked to clarify the process for extending cyanide dilution credits to other water bodies. She wondered whether or not the current dilution credits in permits would be put into the table.

BACWA is supportive of Climate Change project 5.2.

Anna Fedman (San Francisco Public Utilities Commission)
She gave strong support for project 2.3 (Align Ocean Plan and Basin Plan for REC1). She asked how to get more information about new toxicity testing requirements.

Tom Hall (EOA Inc)
He commented on the development of the toxicity testing provisions and supported the project. He wanted to make sure that the Water Board had resources allocated to proceed with the incorporation of the new provisions once they are adopted by the State Board.

He asked about the ranking prioritization scheme for the projects. Would it be the same as before? Expressed some concerns about the calculation of the final score and wanted to apply a "scaling factor" to add more weight towards the water quality protection aspect of the project to emphasis the real benefits to the Bay.

Tom also gave an update on the Lake Merced project (3.8).

Claudia Llerandi (Kennedy-Jenks, Consultant)
Asked to clarify policies we will modify for beneficial reuse of sediments in the context of the climate change project.

Tom Hall (EOA)
He provided some discussion of horizontal levees (definition) versus ecotone, and permitting for applying treated effluent to the horizontal levees. Disposal of treated effluent on horizontal levees is beneficial to the environment but seeps thru the levees may occur. He also gave support for Project 4.2.

APPENDIX B

RANK-ORDERED DESCRIPTIONS OF PROJECTS CONSIDERED IN THE 2018 BASIN PLAN TRIENNIAL REVIEW

PROJECT TITLE	1. Climate Change and Wetland Policy Update	
CATEGORY	Plans and Policies and Implementation Plan	
SUMMARY	Climate scientists agree that the earth's climate is changing and sea levels are rising as a result. As the earth's climate changes, California will likely experience: rising sea levels; warmer temperatures; more extreme weather, including droughts; and changes in the seasonal patterns of rainfall and snowmelt runoff. California's changing climate can present challenges for every Water Board program, but the Basin Plan does not currently mention climate change or how climate change may affect the Water Board's mission to protect water quality. This project is already underway. This candidate project is to update the Basin Plan to reflect the relationship between climate change and water quality regulation and would consist of multiple elements. First, a narrative description would be added to Chapter 1 to explain how climate change could lead to physical and biological impacts like severe drought, inundation of low-lying areas from sea level rise, threats to wetlands and infrastructure, changes in aquatic species composition, impediments to drainage from low gradient streams, and desiccation of first-order streams. The second project element includes a review of existing policies related to promoting resilience of Bay ecosystems and shoreline areas to address sea level rise. Staff efforts to date have focused on three policy areas. We are reviewing how existing policies regulating wetland fill, wetlands conservation and ecosystem restoration can best incorporate consideration of sea level rise. We are reviewing the need for updating existing policies to facilitate the use of treated wastewater and stormwater as a source of freshwater to nourish tidal marshes (see candidate project description 4.2). We are also reviewing sediment management policies to optimize the beneficial reuse of dredged sediment to enhance flood control, support baylands restoration and promote shoreline resilience. The scope of the problem makes this project technically complex and challenging, but there is a growing body of information that can inform our policies at the regional level. Other phases of this project could explore identifying other potential needed changes to the Basin Plan to address all program needs or additional policy development to advance use of natural infrastructure and living shoreline solutions as shoreline adaptation solutions.	
PROPOSED BY:	Water Board	
SUPPORTED BY:	Water Board, Baykeeper, Alameda County Water District, Bay Area Clean Water Agencies	
PRIORITIZED RANK: 1		**GENERALIZED RANK: HIGH**
SCORE: 75		**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 2.0		**PY RUNNING TOTAL: 2.0**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	2. Review and Update of Policy 94-086 - Using Wastewater to Create, Restore, and Enhance Wetlands
CATEGORY	Plans and Policies and Implementation Plan
SUMMARY	The receiving waters downstream of many Bay Area wastewater treatment plants include recently restored wetlands or areas that will be restored to wetland habitat in coming years. In many circumstances, using the treated wastewater as a source of freshwater for restored wetlands could provide an environmental benefit by increasing the amount of freshwater and brackish wetlands available to birds and wildlife dependent on such habitats. Using treated wastewater in this fashion as a source of freshwater was identified as an important climate change response strategy in the Baylands Ecosystem Habitat Goals 2015 Science Update to "restore estuary-watershed connections that nourish the Baylands with sediment and freshwater" (see also the Project below on Climate Change and Water Resources Policy). This is an ongoing project that Water Board staff are actively working on. This project includes review and consideration of the need to update Regional Board Resolution No. 94-086 "Policy on the Use of Wastewater to Create, Restore, and/or Enhance Wetlands." The current Resolution 94-086 policy is now over 20 years old. Much has been learned about wetland restoration over the intervening years and the hydrology and topography of the San Francisco Bay has been changing as vast areas of former salt evaporating ponds are being restored to marsh under the San Francisco Bay Salt Pond Restoration Project. The project would also clarify permitting requirements for wastewater discharges into wetlands, develop near-shore permitting strategies for discharges to wetlands, and creation of wetlands such as horizontal or ecotone levees that include use of wastewater. This project would also evaluate and provide guidance about what level of treatment is appropriate for effluent discharged into wetland habitats, including consideration of contaminants of emerging concern (e.g., flame retardants, personal care products, microbeads and nano particles). Establishing NPDES permits for discharging wastewater in wetlands is complicated by a variety of regulatory issues; this project would explore those regulatory issues and identify policy options. This project would also potentially evaluate issues associated with discharge prohibition exemptions in the Basin Plan and could address Beneficial Use designation associated with creation of new wetlands.
PROPOSED BY:	Water Board
SUPPORTED BY:	Water Board, EOA Inc., Bay Area Clean Water Agencies, Palo Alto, Alameda County Water District

PRIORITIZED RANK: 2	**GENERALIZED RANK: HIGH**
SCORE: 72	**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 1.5	**PY RUNNING TOTAL: 3.5**
IMPLEMENTING DIVISION: PLANNING, NPDES	

PROJECT TITLE	3. Review and Refine Dissolved Oxygen Objectives for San Francisco Bay
CATEGORY	Water Quality Objectives
SUMMARY	This project was identified as a high priority project during the previous (2015) Triennial Review, and the first phase of the project, adoption of site-specific dissolved oxygen objectives for Suisun Marsh is near completion with the Board's adoption of these objectives at the April 2018 Board meeting. The Basin Plan includes a minimum water quality objective of 5.0 mg/L for dissolved oxygen in all tidal waters downstream of the Carquinez Bridge and 7.0 mg/L upstream of the Carquinez Bridge and also includes a requirement that the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation. These objectives were adopted in the 1975 Basin Plan and are generally being attained in most of the Bay's subtidal waters. Concerns exist about the applicability of these objectives to certain habitats in the Bay (e.g., marsh tidal sloughs and managed ponds) where the objectives may not be attainable or applicable. Updating the dissolved oxygen objectives is especially important in view of the dramatic increase in opportunities for restoration of unique habitats around the Bay margins. These unique habitats include extensive tidal wetlands and slough networks as well as pans and other ponded areas. However, dissolved oxygen concentrations in shallow water habitats such as tidal wetlands and slough networks vary much more compared to the main water mass of San Francisco Bay and frequently exhibit concentrations less than 5.0 mg/L and certainly less than 7.0 mg/L. Because restoration efforts of habitats around Bay margins cannot consistently demonstrate compliance with permit conditions derived from the Basin Plan's dissolved oxygen objective of 5.0 mg/L, it is appropriate to explore the possibility of refining the existing objectives by providing more specifics about allowable exceedances both temporal and spatial or possibly, developing site-specific dissolved oxygen objectives in tidal wetlands, slough channels, managed ponds, shallow subtidal habitats, or other shoreline habitats. The approach taken to develop site-specific objectives for Suisun Marsh is expected to be applicable to other shallow-water habitats around the Bay.
PROPOSED BY	Water Board
SUPPORTED BY	Bay Area Clean Water Agencies, Alameda County Water District, City of Palo Alto, Water Board
PRIORITIZED RANK:3	**GENERALIZED RANK: HIGH**
SCORE: 68	**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 1.0	**PY RUNNING TOTAL: 4.5**
IMPLEMENTING DIVISION: NPDES, WATERSHED, PLANNING	

PROJECT TITLE	4. Review and Implement Biological Assessment Tools	
CATEGORY	Plans and Policies and Implementation Plans	
SUMMARY	Biological assessments can be used to provide direct measures of the cumulative response of the biological community to all sources of stress in a watershed. Biological indicators directly assess if beneficial uses such as warm or cold freshwater habitat are supported. The current narrative objective for population and community ecology (Basin Plan section 3.3.8) can serve as the objective to pair with a Bay-Specific or state-wide biological indicator. The State Water Board has been developing a statewide implementation plan to utilize bioassessment data in wadeable streams and rivers. Regional Board staff would continue to participate in this State Board project and depending on the ultimate timeline and result of this statewide policy, we would consider the need for amendments to the Basin Plan. Preventing the degradation of biological integrity is an important component of the statewide effort and is also a priority for our Region. Recent analyses at the State and regional levels show that stream physical habitat conditions substantially influence bioassessment scores calculated with the statewide California Stream Condition Index (CSCI). Metrics to evaluate the condition of engineered channels and compare condition regionally are not consistently available. One element of this project under consideration is the development of condition assessments using CSCI data for engineered or modified channels as a tool to use in Clean Water Act section 401 certifications. We would use existing data to determine the range of water quality, physical habitat conditions, and biological conditions observed in different flood control channels to model expected conditions in flood control channels without existing data and develop a classification approach. A framework, including reference to bioassessment and mapping tools (e.g., mapping in Ecoatlas) could then be incorporated into Chapter 4 Implementation Plan. Bioassessment data would also be a part of development of the Regional Stream and Wetland Systems Protection Policy project insofar as providing a nexus between riparian physical habitat conditions and in-stream water quality and biological condition.	
PROPOSED BY	State Water Board	
SUPPORTED BY	California Trout	
PRIORITIZED RANK: 4		**GENERALIZED RANK: HIGH**
SCORE: 64		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 0.6		**PY RUNNING TOTAL: 5.1**
IMPLEMENTING DIVISION: PLANNING, WATERSHED		

PROJECT TITLE	5. Develop Numeric Nutrient Endpoints (NNEs) in Freshwater Streams and Estuaries
CATEGORY	Water Quality Objectives
SUMMARY	The State Water Board is engaged in two separate efforts to develop a statewide NNE policy: one NNE effort for California estuaries, and a second effort for wadeable streams throughout the State. Nutrients for San Francisco Bay are being addressed separately through the Board's Nutrient Management Strategy during this three-year workplan cycle and will be considered in a future basin planning project. A Technical Advisory Group has been established by the State Water Board to support application of the NNE framework to all California estuaries. The State Water Board has contracted with the Southern California Coastal Water Research Project to develop an estuarine classification system, review candidate nutrient-related indicators for all estuaries, explore revision of dissolved oxygen objectives, and review studies supporting a numeric endpoint for macroalgae on estuarine tidal flats. The State Water Board is also developing a freshwater nutrient policy for wadeable streams that includes narrative nutrient objectives along with numeric guidance to translate the narrative objectives into numeric water quality endpoints as well as an implementation plan to define how nutrient objectives will be used in regulatory programs such as 303(d) listing, NPDES compliance, 401 certifications, etc. The NNE framework will be used to establish numeric endpoints based on the response (e.g., algal biomass, dissolved oxygen, etc.) of a water body to excessive nutrient concentrations. This candidate Basin Planning project consists of Water Board staff's active participation in both efforts and the estimated PYs are limited to that effort. As each nears completion, Staff will evaluate the applicability to the Region's water bodies and the need for changes to the Basin Plan's narrative nutrient objective (section 3.3.3) and its implementation.
PROPOSED BY	State Water Board
SUPPORTED BY	City of Palo Alto

PRIORITIZED RANK: 5	**GENERALIZED RANK: HIGH**
SCORE: 63	**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 0.3	**PY RUNNING TOTAL: 5.4**
IMPLEMENTING DIVISION: PLANNING, NPDES, WATERSHED	

PROJECT TITLE	6. Incorporate Revised U.S. EPA Recreational Water Quality Criteria for Bacteria
CATEGORY	Water Quality Objectives
SUMMARY	In 2012, U.S. EPA issued new recreational water quality criteria (RWQC) recommendations for protecting human health in all coastal and non-coastal waters designated for primary contact recreation use. The 2012 RWQC recommends the use of two bacteria indicators of fecal contamination, E. coli (fresh water only) and enterococci (marine and fresh water). The U.S. EPA also introduced a new concept, Statistical Threshold Value (STV), as a clarification and replacement for the term 'single sample maximum'. The new U.S. EPA criteria no longer recommend different pathogen indicator values for beaches based on intensity of use. The State Water Board will soon be adopting the new RWQC into the Ocean Plan and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. Once that occurs, the total and fecal coliform indicators currently in the Basin Plan will no longer apply for the protection of contact recreation. The State Water Board's program implementing the new criteria currently contains other elements such as a reference beach/natural source exclusion process and exemptions to the new criteria under conditions of high flow. Upon the anticipated upcoming State Water Board's adoption of the new criteria and other associated policies, the Water Board will likely need to make corresponding changes to our Basin Plan to be consistent with the State Board action.
PROPOSED BY	State Water Board
SUPPORTED BY	Bay Area Clean Water Agencies, State Water Board

PRIORITIZED RANK: 6	**GENERALIZED RANK: HIGH**
SCORE: 63	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3	**PY RUNNING TOTAL: 5.7**
IMPLEMENTING DIVISION: NPDES, PLANNING	

PROJECT TITLE	7. Designate Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing Beneficial Uses in the San Francisco Bay Region	
CATEGORY	Update Beneficial Uses	
ISSUE SUMMARY	In 2017, the State Water Resources Control Board adopted Resolution No. 2017-0027. The provisions for this resolution (***Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions***) defined three new beneficial uses: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB). Resolution 2017-0027 established these three uses in the Statewide Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California, but it did not designate these uses for any specific waterbodies in California nor require that the uses be designated. Regional Water Boards are generally responsible for designating beneficial uses for specific waterbodies (where the use applies) within their respective regions, and this designation occurs through a basin planning process. This candidate project is to amend the Basin Plan to designate these three uses for waterbodies in the San Francisco Bay Region. In executing this project, Water Board staff would work with local tribes as well as groups representing subsistence fishing communities to document the existence of these uses along with relevant spatial and temporal attributes. Upon reviewing the available documentation, Water Board staff would determine the appropriate geographic scope (e.g., specific waterbodies or regional designation) of the use designations for the Basin Plan amendment.	
PROPOSED BY:	Clean Water Action, State Water Board	
SUPPORTED BY:	U.S. Environmental Protection Agency, Baykeeper, Clean Water Action, Michelle Pierce, Environmental Justice Coalition for Water	
PRIORITIZED RANK: 7		**GENERALIZED RANK: MEDIUM**
SCORE: 59		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 6.7**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	8. Environmental Screening Levels (ESLs) for Groundwater Cleanups	
CATEGORY	Implementation Plans	
SUMMARY	Staff would update the Basin Plan with a description of the tiered decision process used to determine relevant exposure pathways and appropriate site cleanup levels using environmental screening levels (ESLs). ESLs are conservative contaminant concentrations in a particular media (soil, soil gas, or groundwater) below which the contaminant can be assumed not to pose a significant, long-term (chronic) threat to human health and the environment. The decision process expands the existing protection of groundwater beneficial uses to include potential risk to human health from indoor air exposure and protection of aquatic receptors. Accomplishing this project would both promote consistency and optimal resource allocation in groundwater cleanup projects because ESLs are a powerful tool to focus regulatory attention on the most significant contaminant concerns during site assessment and cleanup. This update would not incorporate the current ESL criteria as fixed numbers, but rather memorialize the approach for deriving and applying ESLs to cleanup sites. This project would document our current process for screening sites using a multiple pathway conceptual model, which includes groundwater and surface water interactions.	
PROPOSED BY	Water Board	
SUPPORTED BY	Water Board, Alameda County Water District	
PRIORITIZED RANK: 8		**GENERALIZED RANK: MEDIUM**
SCORE: 59		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 7.2**
IMPLEMENTING DIVISION: TOXICS, GROUNDWATER PROTECTION		

PROJECT TITLE	9. Addition of Sport Fishing Beneficial Use to Lakes	
CATEGORY	Update Beneficial Uses	
ISSUE SUMMARY	This project entails adding Commercial and Sport Fishing (COMM) to certain lakes and reservoirs that are listed as impaired on the Clean Water Act 303(d) impaired waterbodies list due to mercury concentrations in sportfish or are potentially of concern where the COMM beneficial use is determined to apply. Many lakes and reservoirs in the region already have this beneficial use designation. The need for designating the COMM use for these waterbodies was identified as part of the ongoing work on the Statewide Mercury in Reservoirs TMDL. The COMM beneficial use is considered impaired when high contaminant concentrations make fish unsafe for human consumption. Other waterbodies may also be reviewed for the COMM beneficial use as part of this project.	
PROPOSED BY:	Water Board	
SUPPORTED BY:	Water Board, U.S. Environmental Protection Agency	
PRIORITIZED RANK: 9		**GENERALIZED RANK: MEDIUM**
SCORE: 58		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 7.7**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	10. Regional Stream Protection Policy	
CATEGORY	Implementation Plans	
ISSUE SUMMARY	The candidate project is currently envisioned as a Basin Plan amendment that would protect stream and riparian areas, which include stream channels, floodplains, and riparian areas, and would consist of two main parts. First, we would add information to Chapter 1 that presents current scientific understanding about the variety of water quality factors relevant to protecting the physical, chemical, and biological components of aquatic ecosystems, including the importance of the quality of riparian areas. We would also describe here the associated functions provided by perennial, intermittent, and ephemeral streams, and associated riparian areas. Second, we would add language in Chapter 4 that clarifies Water Board expectations for protecting critical stream functions in a variety of permitting contexts. Here we would clarify that Porter-Cologne empowers the Water Board to protect beneficial uses of streams or rivers (waters of the state), where state water comprises the channel bed and bank, through regulation of activities in waters of the state as well as adjacent riparian areas on which stream beneficial uses depend. Elements of projects described in project 3.5 could be incorporated into this project.	
PROPOSED BY:	Water Board	
SUPPORTED BY:	Wil Bruhns, Water Board, California Trout	
PRIORITIZED RANK: 10		**GENERALIZED RANK: MEDIUM**
SCORE: 57		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 8.7**
IMPLEMENTING DIVISION: WATERSHED		

PROJECT TITLE	11. Incorporate Statewide Mercury Objectives into the Basin Plan	
CATEGORY	Water Quality Objectives	
SUMMARY	In 2017, the State Water Resources Control Board adopted Resolution No. 2017-0027. The provisions for this resolution (***Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions***) established five new mercury water quality objectives for the protection of people and wildlife that consume fish and apply to all the inland surface waters, enclosed bays and estuaries of the State that have the applicable beneficial uses. The mercury water quality objectives established through resolution No. 2017-0027 do not supersede any site-specific numeric mercury water quality objectives established in the Basin Plan except for the freshwater mercury water quality objective for chronic effects to aquatic life (0.025 µg/L) (Table 3-4 and corresponding note). This candidate project is to amend the Basin Plan to incorporate these new objectives and make necessary clarifications as to their applicability for various waterbodies throughout the Region.	
PROPOSED BY	State Water Board	
SUPPORTED BY	State Water Board	
PRIORITIZED RANK: 11		**GENERALIZED RANK: MEDIUM**
SCORE: 56		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 9.2**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	12. Update Cyanide Dilution Credits	
CATEGORY	Update Implementation Plans	
ISSUE SUMMARY	The project would be to update Table 4-6 to add cyanide dilution credits for shallow water dischargers and discharge locations not already in the table. Some dischargers (e.g., Fairfield-Suisun and City of Palo Alto) discharge to waters not listed in the table. Therefore, with each permit reissuance, the Water Board must consider appropriate mixing zones and dilution credits for the discharges not listed Table 4-6. Often, the same effluent is discharged to two or more receiving waters. In these cases, compliance with the effluent limitations is typically measured at just one location; however, different effluent limits may apply. Cyanide effluent limitations may differ for no reason other than that the mixing zones (or lack thereof) result in different dilution credits. As a result, the effective effluent limitations may be more stringent than the Water Board intended when it adopted Table 4-6. This project would ensure consistency and reduce the effort needed to resolve these challenges during permit preparation. This relatively straightforward project could be combined with the project to add to the Basin Plan unnamed waterbodies receiving NPDES discharges.	
PROPOSED BY:	Water Board	
SUPPORTED BY:	Water Board, Palo Alto, Bay Area Clean Water Agencies	
PRIORITIZED RANK: 12		**GENERALIZED RANK: MEDIUM**
SCORE: 55		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.4		**PY RUNNING TOTAL: 9.6**
IMPLEMENTING DIVISION: PLANNING, NPDES		

PROJECT TITLE	13. Temperature Limits to Protect Salmonids	
CATEGORY	Update Water Quality Objectives	
ISSUE SUMMARY	This candidate project would involve reviewing the latest scientific information applicable to Bay Area streams to set an appropriate temperature thresholds and acceptable range of temperatures to protect salmonids. The material reviewed would include available information on the multiple stressors to steelhead in Bay Area creeks and whether local steelhead populations are adapted to local conditions. National Marine Fisheries Service (NMFS) has developed a technique to model, using digital elevation and climate data, the reach-scale stream attributes (gradient, stream size, and valley constraint) that influence availability of the fine-scale habitat features (e.g., pools, spawning gravel, and large wood) preferred by salmonids. This "Intrinsic Potential" model may be useful in this candidate project to help identify stream reaches that have good potential to serve as habitat for salmonids and to which temperature objectives should apply.	
PROPOSED BY:	U.S. Environmental Protection Agency	
SUPPORTED BY:	Water Board, Baykeeper, California Trout, Santa Clara County Creeks Coalition, U.S. Environmental Protection Agency	
PRIORITIZED RANK: 13		**GENERALIZED RANK: MEDIUM**
SCORE: 55		**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 1.5		**PY RUNNING TOTAL: 11.1**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	14. Update the Basin Plan's Toxicity Testing Requirements	
CATEGORY	Update Water Quality Objectives	
SUMMARY	The State Water Board is developing an amendment to the Toxicity Control Provisions of the Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. This toxicity amendment has been delayed by legal challenges, but it is scheduled to be considered for adoption by the State Board at the end of 2018 and scheduled to go into effect in 2019. The toxicity amendment would update procedures for assessing the potential for chemicals to cause toxicity to aquatic life in surface waters. Currently, there are inconsistencies between different State and Regional Water Boards' toxicity testing requirements that result in uneven protections for aquatic life and an unequal playing field for waste dischargers. By adopting numeric toxicity objectives, the State Water Board would establish a clear, consistent definition of toxicity. By contrast, existing narrative toxicity objectives can be subject to a range of interpretations. The State Water Board toxicity amendment would require a new statistical approach, endorsed by U.S. EPA, to be applied consistently throughout California. The new approach, called the Test of Significant Toxicity (TST), incorporates the latest statistical approach and benefits from extensive peer review. This amendment would supersede aspects of the Basin Plan's current toxicity policy, so the Water Board would likely need to edit the Basin Plan sections on toxicity (3.3.18 and 4.5.5.3) to conform to the policy. In addition, the policy allows for some Regional Water Board implementation discretion which could result in possible Basin Plan revisions or additions.	
PROPOSED BY	State Water Board	
SUPPORTED BY	State Water Board, Water Board	
PRIORITIZED RANK: 14		**GENERALIZED RANK: MEDIUM**
SCORE: 50		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 11.6**
IMPLEMENTING DIVISION: NPDES		

PROJECT TITLE	15. Lake Merced Dissolved Oxygen and pH Objectives
CATEGORY	Update Water Quality Objectives
ISSUE SUMMARY	Lake Merced is a small, eutrophic (nutrient-enriched) urban lake in San Francisco that is currently listed as impaired by low dissolved oxygen and high pH. Daly City is developing a capital project to address storm-related flooding that currently occurs in the Vista Grande Drainage Basin. The project would capture existing stormwater and authorized non-stormwater runoff that is currently conveyed to the Pacific Ocean, and use the water to augment water levels in Lake Merced. Some stakeholders expect that the augmentation of the water levels will support lake fisheries. The increased water levels and other associated lake management efforts (e.g., routing water into a treatment wetland prior to discharge into Lake Merced) may offer some water quality improvements but not enough to remedy the impairments based on existing water quality objectives. This Basin Planning project would explore water quality standards actions (Chapter 3) for dissolved oxygen and pH, and it would also memorialize Lake Merced water quality management efforts in Chapter 4 of the Basin Plan. This project was identified as a high priority project in the 2015 review but has been delayed.
PROPOSED BY:	Water Board
SUPPORTED BY:	City of Daly City, California Trout

PRIORITIZED RANK: 15	**GENERALIZED RANK: MEDIUM**
SCORE: 50	**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.5	**PY RUNNING TOTAL: 13.1**
IMPLEMENTING DIVISION: PLANNING, WATERSHED	

PROJECT TITLE	16. Align Ocean Plan and Basin Plan for Recreational Contact Use	
CATEGORY	Update Beneficial Uses	
ISSUE SUMMARY	The applicability of the water contact recreation (REC1) beneficial use in the Pacific Ocean is defined in the California Ocean Plan. The Ocean Plan restricts effluent limits intended to protect REC1 to a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour and areas designated with REC1 by a regional board. Because the San Francisco Bay Region Basin Plan provides no specific details on where REC1 applies, by default it assigns REC1 to the entire Pacific Ocean, and therefore the Basin Plan's effluent limits (e.g., for bacteria) must apply to the entirety of the ocean out to the edge of State waters which is three nautical miles away from shore. This may be considered an overly broad application of the REC1 use that provides no water quality benefit in State waters and unnecessarily complicates permitting the San Francisco Public Utilities Commission's Oceanside outfall that discharges effluent well beyond three nautical miles. The project would clarify that the Basin Plan's application of REC1 to the Pacific Ocean would be equivalent to the Ocean Plan's distance and depth contour specification.	
PROPOSED BY:	Water Board	
SUPPORTED BY:	Water Board, San Francisco Public Utilities Commission, Bay Area Clean Water Agencies	
PRIORITIZED RANK: 16		**GENERALIZED RANK: MEDIUM**
SCORE: 50		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 13.6**
IMPLEMENTING DIVISION: PLANNING, NPDES		

PROJECT TITLE	17. Consider Incorporating Clean Water Act Section 304(a) Criteria into the Basin Plan.
CATEGORY	Update Water Quality Objectives
ISSUE SUMMARY	Federal regulations at 40 CFR 131.20(a) require states to review their water quality standards in comparison to Clean Water Act Section 304(a) criteria as new information becomes available. Water Quality objectives in Basin Plan Chapter 3 or in effect under the federal California Toxics Rule (2000) that are not as protective as the USEPA nationally-recommended criteria need to be updated. States should consider adopting new or revised 304(a) criteria as objectives as part of the Triennial Review process. For example, USEPA promulgated new and revised human heath water quality criteria in 2015 (Federal Register 80(124):36986-36989). This ruling established new water quality criteria for seven pollutants that are not in the California Toxics Rule (Arsenic, Chloroform, 3-Methyl-4Chlorophenol, 1,1,1-Trichloroethane, 1,2,4-Trichlorobenzene, Selenium, and Zinc). The 2015 ruling contains revised water quality criteria that are more stringent than the California Toxics Rule for 64 pollutants. In addition, the 2015 ruling contains revised water quality criteria that are less stringent than the California Toxics Rule for 19 pollutants. This candidate project would update the Basin Plan to incorporate, as necessary, the revised 304(a) criteria. The Water Board has the authority to incorporate new or updated WQOs into its Basin Plan as needed to adequately protect beneficial uses. However, for pollutants that are part of the CTR, further action by the U.S. EPA to de-promulgate the CTR criterion may be necessary in situations where the updated WQO is less stringent than the CTR criterion. Moreover, it is often the case that adopting any new or revised 304(a) criteria is more appropriately and efficiently accomplished by the State Board because the criteria should apply statewide rather than to a single region.
PROPOSED BY:	U.S. Environmental Protection Agency
SUPPORTED BY:	U.S. Environmental Protection Agency, Fred Krieger

PRIORITIZED RANK: 17	**GENERALIZED RANK: MEDIUM**
SCORE: 49	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 2.0	**PY RUNNING TOTAL: 15.6**
IMPLEMENTING DIVISION: PLANNING	

PROJECT TITLE	18. Develop Flow Criteria for Selected Bay Area Streams and Rivers	
CATEGORY	Water Quality Objectives	
SUMMARY	The Basin Plan does not currently include narrative or numeric objectives for in-stream flow. There are some water bodies (e.g., creeks, streams, rivers) in the region where anthropogenically reduced flows may be harming beneficial uses related to aquatic life during at least a portion of the year. For this project, flow criteria or objectives would be tributary- or watershed-specific. Water Board staff would determine which water bodies in the region have beneficial uses at risk from reduced flows, collate available instream flow data, and investigate various modeling and monitoring approaches to ultimately identify high priority water bodies. Flow criteria developed elsewhere relied on multiple years of stream gage data, which are not available for most tributaries in the San Francisco Bay Area. Thus, our approach may require modeling the hydrograph for many catchments. We would seek to leverage limited available resources to conduct needed studies over large geographic areas while addressing multiple species, life stages, and fluvial processes. The State Water Board is preparing a manual with procedures to guide the development of regional flow criteria. This guidance is intended to be applicable statewide, but allows for regional application, and incorporates existing information, studies, and data. Flow criteria could address minimum low flows during particular time periods (e.g., summer), but can also incorporate ecological benefits of a complete flow regime, which includes the magnitude, variability, duration, and timing of flows. This project is highly complex and would require close coordination with the California Department of Fish and Wildlife as well as State Water Board's Division of Water Rights because of the nexus with water rights laws.	
PROPOSED BY	Living Rivers Council	
SUPPORTED BY	California Trout, Living Rivers Council, Wil Bruhns, Alameda County Water District, Baykeeper, Earth Law Center, Santa Clara County Creeks Coalition, Water Board	
PRIORITIZED RANK: 18		**GENERALIZED RANK: MEDIUM**
SCORE: 48		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 16.6**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	19. Add Unnamed Water Bodies That Receive Permitted Discharges to Basin Plan
CATEGORY	Update Beneficial Uses
ISSUE SUMMARY	A small number of NPDES wastewater permits cover discharges to water bodies not named in the Basin Plan. Mostly, these are new discharge points subsequent to the water body Basin Plan update accomplished in 2010. As of 2018, there are currently approximately six additional water bodies that should be added to the Basin Plan because they receive an NPDES-permitted discharge, but the first step of this project would include a review of NPDES permits to determine if there are more. This candidate project would add the missing water bodies receiving discharges which are not currently named in the Basin Plan. This should be a straightforward project that could feasibly be combined with another Basin Plan amendment (e.g., updating cyanide dilution credits or another project).
PROPOSED BY:	Water Board
SUPPORTED BY:	City of Palo Alto, Bay Area Clean Water Agencies, Water Board

PRIORITIZED RANK: 19	**GENERALIZED RANK: MEDIUM**
SCORE: 47	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3	**PY RUNNING TOTAL: 16.9**
IMPLEMENTING DIVISION: PLANNING, NPDES	

PROJECT TITLE	20. Revise Instantaneous Chlorine Effluent Limits
CATEGORY	Update Implementation Plans
ISSUE SUMMARY	The effluent limit for residual chlorine (free chlorine plus chloramines) is an instantaneous limit of 0.0 mg/L. This effluent is problematic because it is very difficult to remove trace amounts of chlorine. Failure to remove all traces of chlorine can lead to effluent limit violations, sometimes in circumstances where the amount of chlorine is very small and not a threat to water quality. POTWs that use chlorine for disinfection use sodium bisulfite (SBS) to remove the chlorine. To avoid violations, operators routinely overdose the effluent with SBS, costing agencies millions of dollars per year in aggregate, and exerting oxygen demand in the receiving water, with no water quality benefit. This candidate project would explore options to address chlorine residual limits. Some initial scoping work has been accomplished on this project.
PROPOSED BY:	San Francisco Public Utilities Commission, Bay Area Clean Water Agencies
SUPPORTED BY:	Bay Area Clean Water Agencies, Water Board

PRIORITIZED RANK: 20	**GENERALIZED RANK: MEDIUM**
SCORE: 46	**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0	**PY RUNNING TOTAL: 17.9**
IMPLEMENTING DIVISION: PLANNING, NPDES	

PROJECT TITLE	21. Clarify Turbidity Water Quality Objective
CATEGORY	Editorial Revisions, Minor Clarifications or Corrections
ISSUE SUMMARY	The Basin Plan's turbidity water quality objective is difficult to interpret: *Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU* This language is often subject to misinterpretation when determining whether dredging operations are negatively impacting water quality in the Bay. The language can be improved for clarity as well as consistency with turbidity objectives found in the Basin Plans from other regions. Because improving this language would require only minor clarifying changes, this project could be accomplished as part of another Basin Planning project. The project will also revise the objective to state also that waste discharges should not increase normal background light penetration or turbidity above 55 NTU in areas where natural turbidity is 50 NTU or less. Such revision would codify the conventional interpretation of this objective.
PROPOSED BY:	Water Board
SUPPORTED BY:	Water Board, California Trout, Bay Area Clean Water Agencies, Santa Clara County Creeks Coalition

PRIORITIZED RANK: 21	**GENERALIZED RANK: LOW**
SCORE: 43	**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 0.5	**PY RUNNING TOTAL: 18.4**
IMPLEMENTING DIVISION: PLANNING	

PROJECT TITLE	22. Review Un-ionized Ammonia Water Quality Objective for San Francisco Bay and Freshwaters	
CATEGORY	Water Quality Objectives	
ISSUE SUMMARY	This candidate project will be to review and revise, as necessary, the un-ionized ammonia water quality objective for San Francisco Bay region waterbodies and its associated implementation provisions. Specifically, the purpose of the project is to ensure that the Basin Plan's objective and implementation provisions (e.g., for NPDES permits) are consistent with the magnitude and averaging period of U.S. EPA's acute and chronic saltwater criteria for un-ionized ammonia as well as U.S. EPA 2013 recommended criteria freshwater.	
PROPOSED BY:	U.S. Environmental Protection Agency	
SUPPORTED BY:	U.S. Environmental Protection Agency	
PRIORITIZED RANK: 22		**GENERALIZED RANK: LOW**
SCORE: 41		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 19.4**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	23. Modify Groundwater Sub-Basin Boundaries.
CATEGORY	Update Beneficial Uses
ISSUE SUMMARY	This candidate project would involve revising the boundaries of two groundwater basins located in San Francisco and San Mateo counties to be consistent with the California Department of Water Resources Bulletin 118. DWR's Bulletin 118 defines the Westside Basin and the Islais Valley Basin each as one entire groundwater basin with no delineated sub-basins. This update can also provide an opportunity to make a small adjustment to the boundaries of the Niles Cone sub-basin in the Fremont area. The Basin Plan, Figure 2-10C and Table 2-2 may not conform to Bulletin 118 and should be reviewed and updated as necessary. The Bulletin 118 boundaries are used as the basis for statewide water resource, planning, management, and funding decisions, as well as the California Statewide Groundwater Elevation Monitoring Program. DWR's draft Basin Boundary Regulations, published on July 17, 2015, state that, "revision of any basin boundaries or creation of new sub-basins approved by the Department shall be consistent with the State's interest in the sustainable management of groundwater as expressed in the Sustainable Groundwater Management Act (SGMA)." While elements of the Basin Plan are not required to be consistent with SGMA, maintaining consistency in statewide groundwater management will make planning efforts more effective and efficient.
PROPOSED BY:	San Francisco Public Utilities Commission
SUPPORTED BY:	Alameda County Water District, Water Board

PRIORITIZED RANK: 23	**GENERALIZED RANK: LOW**
SCORE: 41	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.5	**PY RUNNING TOTAL: 19.9**
IMPLEMENTING DIVISION: PLANNING	

PROJECT TITLE	24. Editorial Revisions, Minor Clarifications, or Corrections
CATEGORY	Editorial Revisions
SUMMARY	Possible Basin Plan editorial changes have been identified by Water Board staff and through suggestions submitted by the public during recent Triennial Reviews. Some of these could be included as additional components for another Basin Planning project. Potential changes include but are not limited to: • Updating Section 4-8 (Stormwater Discharges) to incorporate by reference the limitations on point source storm water and nonpoint source discharges to provide special protections for marine aquatic life and natural water quality in Areas of Special Biological Significance (ASBS). • Update Sections 4-8 and 4-14 on urban stormwater to remove outdated and confusing terminology. The two sections should be combined, streamlined, & edited to be more timeless. • Update and/or remove text from Section 4.11, which provides non-regulatory narrative about special circumstances related to specific POTWs. Much of the text is out of date and not necessary. • Explain difference between threshold and limit in Table 3-6. • Discuss requirements of Groundwater Management Act in chapter 4 • Discuss direct and indirect potable use programs in chapter 4. • Include a mention of approved Salt and Nutrient Management Plans (SNMPs) for Sonoma Valley, Livermore-Amador Valley, and Santa Clara Valley. There may also soon be specific management actions developed to protect groundwater basins, such as in the nitrate areas of concern of the Livermore and Coyote Valleys. • Cleanup Chapters 5 and 6 in terms of citations to plans and policies as well as water quality monitoring information. Consider dropping Chapter 6 and moving essential material elsewhere in Basin Plan. • Update the Figure 4-4 noting dredge material disposal and beneficial reuse sites.
PROPOSED BY	Water Board
SUPPORTED BY	Water Board

PRIORITIZED RANK: 24	**GENERALIZED RANK: LOW**
SCORE: 39	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3	**PY RUNNING TOTAL: 20.2**
IMPLEMENTING DIVISION: NPDES, PLANNING, GROUNDWATER PROTECTION, TOXICS	

PROJECT TITLE	25. Revise Pentachlorophenol (PCP) Water Quality Objectives for Salmonids	
CATEGORY	Water Quality Objectives	
SUMMARY	PCP criteria were included in the California Toxics Rule (CTR) of 2000. Subsequently, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service issued a Biological Opinion concluding that the U.S. EPA's CTR water quality criteria for PCP are not protective of the early life stages of salmonids under conditions of low dissolved oxygen and high temperatures. As a result, the U.S. EPA calculated criteria that are protective. The U.S. EPA has asked the State and this Water Board as part of the last triennial review to identify where these aquatic conditions occur and to adopt the revised (lower) PCP water quality criteria. This project, which has been a candidate in past triennial reviews, would develop a basin plan amendment to adopt the proposed more restrictive objectives for PCP and create a plan to implement the objectives where applicable to protect the early life stages of salmonids that may be present under conditions of low dissolved oxygen and high temperatures in the San Francisco Bay Region. Information is not available at this time to indicate where aquatic conditions occur in the Region that might pose a risk to salmonids.	
PROPOSED BY	U.S. EPA	
SUPPORTED BY	California Trout	
PRIORITIZED RANK: 25		**GENERALIZED RANK: LOW**
SCORE: 38		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 21.2**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	26. Clarify Implementation Requirements for Municipal Supply and Agricultural Supply Water Quality Objectives	
CATEGORY	Water Quality Objectives	
SUMMARY	The Basin Plan should be revised to update the primary and secondary maximum contaminant levels (MCLs) listed in Table 3-5 and clarify appropriate implementation measures for the secondary MCLs. Basin Plan section 3.3.22 prospectively establishes the primary and secondary MCLs specified in Title 22 of the California Code of Regulations as municipal supply water quality objectives. U.S. EPA developed the secondary MCLs as non-mandatory drinking water standards to guide public water systems in managing drinking water for aesthetic considerations, such as taste, color, and odor; concentrations above secondary MCLs do not necessarily present human health risks. California adopted these standards. When these objectives were originally included in the Basin Plan, the administrative record provided some background information about their implementation. The MUN and AGR objectives were "meant to be applied at the tap because the level of water treatment or the quality/quantity of blending water could vary significantly. If necessary, exemptions from achieving these objectives could be granted if a consistent level of treatment or blending could be demonstrated." The Basin Plan should also clarify appropriate implementation measures for the agricultural supply water quality objectives listed in Table 3-6. The Basin Plan does not currently explain how to implement "threshold values" versus "limits."	
PROPOSED BY	Water Board	
SUPPORTED BY	Water Board	
PRIORITIZED RANK: 26		**GENERALIZED RANK: LOW**
SCORE: 36		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 21.7**
IMPLEMENTING DIVISION: PLANNING		