Appendix B

Triennial Review
Staff Report

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SAN FRANCISCO BAY BASIN

WATER QUALITY CONTROL PLAN
2012 TRIENNIAL REVIEW

STAFF REPORT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

November 2012

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1. Introduction

This Staff Report presents the results of the 2012 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 few 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 Basin Plan establishes water quality standards for the San Francisco Bay Region. In California, 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. Basin Plan amendment projects to develop TMDLs are not included in the work plan. The review is required under section 303(c)(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. Rather, Water Board staff first reviews the technical and legal dimensions of each priority project and then decides whether to proceed with a proposed Basin Plan amendment. If Water Board staff does not pursue a project on the priority list, it will inform the Board regarding the results of such review.

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 execute each project and to prepare a Basin Plan amendment, a generalized ranking of the candidate projects by priority, and a brief description of each candidate project.

2. Triennial Review Steps

In late 2011, 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 (including adopted site-specific objectives for copper and cyanide in San Francisco Bay), 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 21 projects included in this paper are shown in Table 1 and are described in Appendix B. Ongoing projects that were identified in the last Triennial Review have been updated and included in this Triennial Review as well.

Table 1. Basin Plan Projects Proposed by Board Staff at March 2012 Workshop

Update Beneficial Uses
Modify Groundwater Recharge Beneficial Use
Evaluation of the Beneficial Use for Municipal and Domestic Supply for Groundwater Aquifers along the Bay Fringe
Evaluation of the Shellfish Harvesting Beneficial Use for San Francisco Bay
Complete Stream and Wetland Systems Protection Policy
Update Water Quality Objectives
Develop Site-Specific Objectives for Dissolved Oxygen in San Francisco Bay
Update the Basin Plan's Toxicity Testing Requirements
Refine Alameda Creek Watershed TDS and Chloride Water Quality Objectives
Revise Cadmium Water Quality Objectives
Revise Pentachlorophenol (PCP) Water Quality Objectives
Develop Trash Water Quality Objectives
Develop Nutrient Water Quality Objectives
Development and Implementation of Biological Objectives
Incorporate Revised U.S. EPA Recreational Water Quality Criteria for Bacteria
Update Implementation Plans
Environmental Screening Levels (ESLs) for Groundwater Cleanups
Amend Wet Weather Overflows Implementation
Low Risk Site Closure Requirements
Salt and Nutrient Management Plans
On-Site Wastewater Treatment System Implementation Plan
Update Plans and Policies
The California Water Plan
Priority Ranking for TMDL Development
Develop Policy for Managing Mercury in Restored Wetlands
Editorial Revisions and Minor Clarifications or Corrections

On March 2, 2012, the public process for the Triennial Review was initiated formally by distributing the "Brief Issue Descriptions" paper to interested parties, posting it on the Water Board's website, and requesting interested parties to comment on the candidate projects and/or

suggest additional projects. The public notice provided a 47-day period (March 2 – April 17, 2012) for written comments, and announced a public workshop on this topic on March 27, 2012. 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 public workshop.

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 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 resolution.

3. Summary of Public Participation Process

The public, both in written comments and those provided during the public workshop, voiced both support for and, in some cases, opposition to projects identified by staff. The public also 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 as well as representatives of federal, regional, and local 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), Walter Wadlow & Steven Inn	✓	✓
Bay Area Clean Water Agencies (BACWA), James Kelly	✓	
Bay Planning Coalition, John Coleman	✓	
BayKeeper, Jason Flanders, Abigail Blodgett, & Ian Wren	✓	✓
Wil Bruhns, citizen	✓	
Caltest Analytical Laboratory, Peter Halpin		✓
Central Contra Costa Sanitary District (CCCSD), Ann Farrell, Melody LaBella, Margaret Orr, & Tim Potter	✓	✓
Chevron Corporation, Jenny Pyon		✓
Citizens Committee to Complete the Refuge, Carin High	✓	
City of Palo Alto, Karin North		✓
City of San Jose, Jim Ervin & Carrie Romanow	✓	✓
City of Sunnyvale, Tom Hall of EOA		✓

Organization/Participant	Written Comments	Attended Workshop
Clean Water Action, Andria Ventura	✓	
Copper Development Association, Robert Gensemer of GEI Consultants	✓	
East Bay Dischargers Authority, Mike Connor		✓
Fairfield-Suisun Sewer District, Meg Herston	✓	✓
Gary Grimm, Attorney		✓
Fred Krieger, citizen	✓	
Larry Walker Associates, Alina Constantinescu		✓
Public Water Agencies, Elizabeth Leeper	✓	✓
San Luis and Delta Mendota Water Authority, Daniel Nelson	✓	
San Mateo County Environmental Health, Charles Ice & Greg Smith	✓	
Santa Clara Valley Water District, Ann Draper, Teresa Trinh, & Pat Showalter	✓	✓
San Francisco Public Utility Commission, Steven R. Ritchie	✓	
South Bay Salt Pond Restoration Project, John Bourgeois	✓	
State Water Contractors, Terry L. Erlewine	✓	
U.S. Environmental Protection Agency (U.S. EPA), Susan Keydel, Janet Hashimoto	✓	✓
Western States Petroleum Association, Kevin Buchan		✓
Westlands Water District, Craig Manson	✓	
Wine Growers of Napa County, Michelle Benvenuto	✓	
Zone 7 Water Agency (Zone 7), Mary Lim	✓	✓

3.1. Public Input on Candidate Projects

Many comments were in favor of various projects presented by Water Board staff in the "Brief Issue Descriptions" paper. These supporting comments are summarized below.

Modify the Groundwater Recharge Beneficial Use. ACWD, SCVWD, and Zone 7 support the candidate project to modify and expand the groundwater recharge beneficial use definition to support storage of drinking water in groundwater aquifers.

Complete the Stream and Wetland Systems Protection Policy. The U.S. EPA, Baykeeper, Wil Bruhns and Zone 7 support completion of this policy to protect stream channels, wetlands, floodplains, and riparian areas. The policy would include new beneficial uses and

water quality objectives to protect stream and wetland system functions, such as flood water storage.

Develop Site-Specific Objectives for Dissolved Oxygen for San Francisco Bay. The U.S. EPA, BACWA, the City of San Jose, CCCSD, the South Bay Salt Pond Restoration Project, and the Westlands Water District support this candidate project to develop new dissolved oxygen objectives or possibly, site-specific dissolved oxygen objectives in tidal wetlands, slough channels, managed ponds, and other shallow water habitats.

Revise Pentachlorophenol (PCP) Water Quality Objectives. Both the U.S. EPA and Baykeeper support this candidate project to 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.

Develop Trash Water Quality Objectives. Baykeeper and Zone 7 support the candidate project that incorporates into the Basin plan State Board policy regarding trash objectives and implementation provisions.

Develop Nutrient Water Quality Objectives. The U.S. EPA, Baykeeper, SCVWD, Zone 7, the Westlands Water District, BACWA, the City of San Jose and CCCSD support the candidate project that continues the work to develop an assessment framework for nutrients for San Francisco Bay and evaluate statewide efforts to address nutrients for freshwater and coastal estuaries for their applicability in the region.

Develop and Implementation of Biological Objectives. The U.S. EPA and Baykeeper support this project to develop biological objectives (narrative or numeric benchmarks that describe conditions necessary to protect aquatic life beneficial) that provide a direct measure of the cumulative response of the biological community to all sources of stress. The State Water Board has identified this as an important statewide project as well. In the San Francisco Bay region, SWAMP has collected bioassessment data by monitoring watersheds in the Region and is currently collaborating with other watershed monitoring programs to develop Bay Area-specific indices of biotic integrity, referred to as IBIs, for both perennial and non-perennial streams. The State Water Board is in the process of developing statewide biological objectives and IBIs for perennial streams and rivers.

Refine Alameda Creek Watershed Total Dissolved Solids (TDS) and Chloride Water Quality Objectives. ACWD and Zone 7 both support this candidate project to refine TDS and Chloride objectives in this watershed to reflect current water quality conditions and salt transport throughout the Alameda Creek system. Baykeeper opposes this candidate project, contending that it is not protective of Bay water quality and will, in fact, result in water quality degradation.

Environmental Screening Levels (ESLs) for Groundwater Cleanups. The ACWD, SCVWD, and Zone 7 support this project, which 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 risk-based environmental screening levels (ESLs).

Low-Threat Site Closure Requirements. This project is to develop a regional policy to address closure of cleanups at low-threat contaminant sites as a complement to the recently adopted State Water Board policy for Low Threat Closure of Petroleum Underground Storage Tank (UST) sites. ACWD and Zone 7 expressed concerns about the State Board policy in its current form.

In addition, the following projects from the "Brief Issue Descriptions" paper also received at least one supporting comment:

- Salt and Nutrient Management Plans
- Amend Wet Weather Overflows Implementation

3.2. Other Potential Projects Proposed by Commenters

As previously mentioned, public comments covered a wide range of potential projects and Basin Plan updates. Water Board staff considered these comments and determined whether to evaluate the proposed project as a Basin Plan project.

In summary, the solicitation process, public input, and State Water Board staff input resulted in the addition of four projects to the 21 projects initially identified in Table 1 above. Thus, a total of 25 projects were ranked in the Triennial Review. Three of the additional four projects were suggested by stakeholders (see Table 3 below), and the fourth, "Regulatory Strategy for Contaminants of Emerging Concern," was suggested by Water Board staff. The ranking process is described in section 4 below, and all the projects are more fully described in Appendix B.

In some cases, projects requested by commenters were not included in the Triennial Review ranking exercise. For example, one commenter suggested a project to develop more prescriptive urban runoff management policies; other commenters suggested modifying how the Board regulates certain contaminants to protect the municipal supply beneficial use; another commenter suggested updates to the Basin Plan's mixing zone policy. Staff did not include some of the these suggestions as possible projects, because: the suggested project conflicts with or duplicates projects already underway; the suggestion commented on how to scope a specific project, rather than presenting a new project; or the suggestion may have recommended a Basin Plan amendment that staff felt was unnecessary or in conflict with existing plans and policies. Several commenters suggested useful editorial changes to the Basin Plan, and these ideas have been incorporated into the project description for editorial changes shown in Appendix B.

Table 3. Summary of Comments Suggesting Other Planning Projects

Entity	Topic	Resolution
BACWA	**Update Regional Board Wastewater Wetlands Policy: update Regional Board Resolution 94-086, "Policy on the Use of Wastewater to Create, Restore, and/or Enhance Wetlands."** Evaluate the beneficial aspects of potential future wastewater wetland discharges and develop near-shore permitting strategies for discharges to wetlands and sloughs as a means to achieve enhanced water quality attainment.	A new project description is included in Appendix B
Baykeeper	**Develop planning provisions and policies for Sea Level Rise adaptation:** At a minimum, the Regional Board must include within the Basin Plan discussion of the likely effects of climate change, with particular focus on sea level rise. Of greater utility would be prescriptive actions expected of developers within areas subject to sea level rise during the life of a proposed project, as well as recommendations to help ensure the sustainability of wetland restoration projects.	A project description has been drafted (see Appendix B) addressing how Water Board programs should be adapted to the impacts of climate change and sea level rise.
U.S. EPA	**Review and revise the objective and implementation language for un-ionized ammonia in SF Bay.** This is to ensure the objective and its implementation is consistent with EPA criteria and implementation for saltwater acute and chronic effects. Specifically, we encourage review and revision, as necessary, of the Basin Plan objective's magnitude and averaging period (in contrast with EPA's saltwater criteria) and its implementation, including in NPDES permits	This has been included in Appendix B as a candidate project

4. Project Ranking Criteria

As was the case during the last several Triennial Reviews, there are far more potential projects than available resources; two full-time staff positions are funded for Basin Planning efforts. In this Triennial Review, the ranking criteria categories remain unchanged from the last Triennial Review, but we adjusted the maximum scores possible for some criteria, motivated in part by comments received at the March 2012 public workshop that the focus of the ranking should be on protecting beneficial uses. For example, the maximum score of the "Water Board Mission" criterion has been increased to 20 points such that it is now the largest single contribution to a

project's score. Each project receives an overall score, which sums the project's individual scores for a range of criteria. The highest score possible for a project is 100 points, and the higher scoring projects will be given priority for staff action in the following three-year period. We should emphasize that the score assigned to a project for each criterion, rather than reflecting a criterion score in some absolute sense, instead only reflects how this project compares to other candidate projects in 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 (20 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 developmental 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 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 five. 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. Other projects received a score proportional to the level of stated or implied public interest.

4.6. Input from Internal Divisions

Staffs from the Water Board's Groundwater, Watershed, and NPDES 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. A score of ten was given if a relevant statewide policy is under development and will be completed in the near future.

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 this Triennial Review, 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 staff is aware of U.S. EPA 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 for each criterion was assigned to each potential Basin Plan project. Points across all ranking criteria were summed for each 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. Approximately one-third of the projects were placed in each category, based on their overall scores. The resulting point ranges are:

Table 4. Point Ranges for Generalized Rank Categories

Point Range	Generalized Rank
≥ 60	High
45-60	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:

- Butano and Pescadero Creeks Sediment (in progress)
- Lagunitas Creek Sediment (in progress)
- Mission Creek Toxic Hot Spot
- Napa River Nutrients (in progress)
- North San Francisco Bay Selenium (in progress)
- Permanente Creek Selenium
- Petaluma River Nutrients and Pathogens (some progress)
- San Francisco Bay Beaches (pathogens) (recently initiated)
- San Gregorio Creek Sediment
- San Mateo Coast, Pacifica/San Pedro Creek Pathogens
- Sonoma Creek Nutrients (in progress)
- Suisun Marsh Dissolved Oxygen, Mercury and Nutrients (in progress)

We put forward our priorities for completing TMDL Basin Plan amendments as part of this review in order to give the public a chance to provide the Board with feedback. We received no comments on these priorities and it should be noted that these TMDL projects are not included in the priority list of Basin Planning projects.

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Figure 1 – Basin Plan Project Ranking Scores and Generalized Rankings

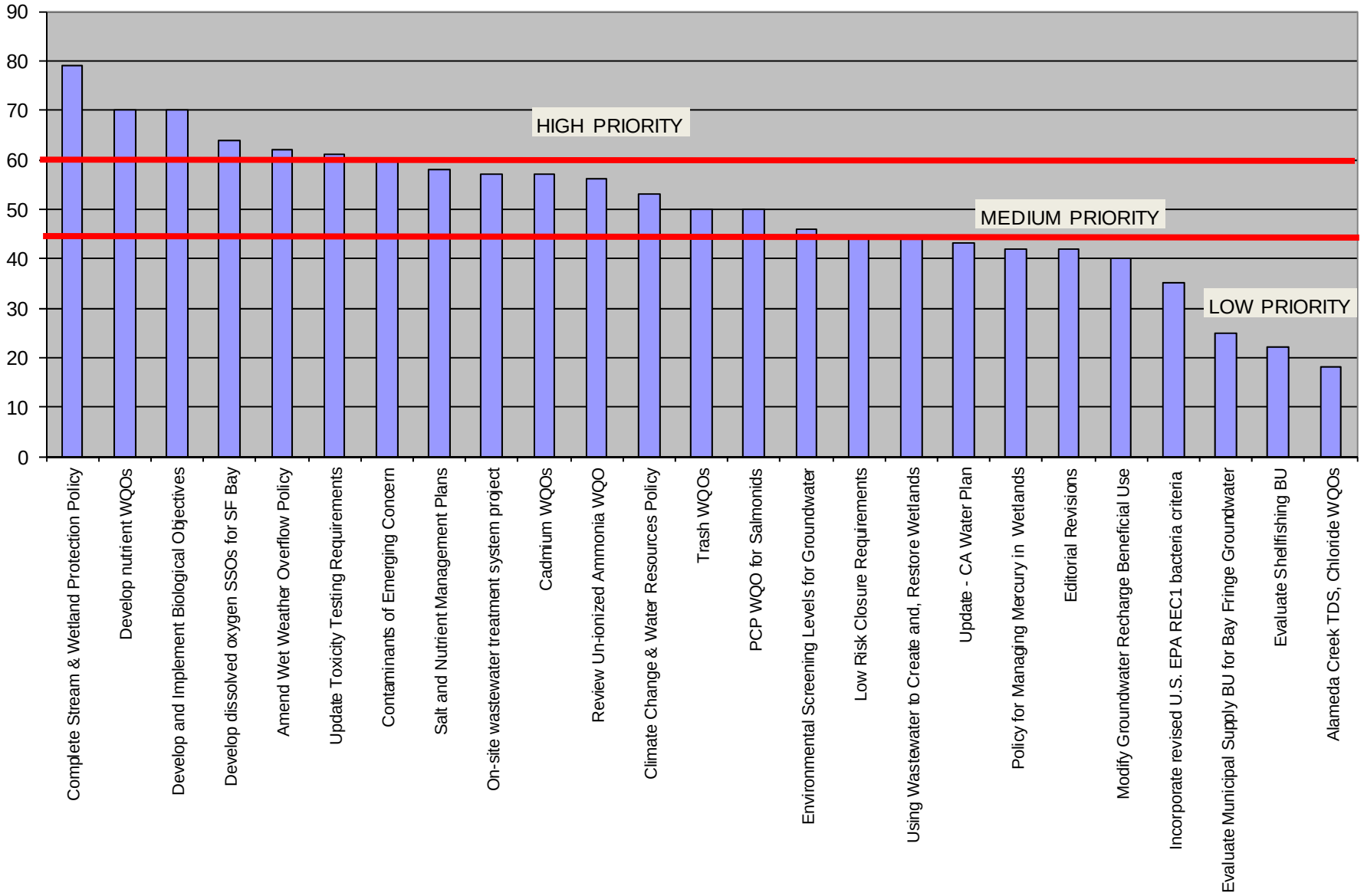

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Table 5. Rank-Ordered Scoring for Individual Projects

Rank Order	Project Title	Protects Beneficial Uses	Staff Resources Already Expended	External Resources Already Expended	External Resources Likely Available	Public Interest	Input from Internal Divisions	Implement State Water Board Policy	U.S. EPA Priority	Geo-graphic Scope	Low Con-troversy	Low Technical Complexity	SCORE
1	Complete Stream & Wetland Protection Policy	20	10	5	5	10	5	0	15	5	3	1	79
2	Develop nutrient WQOs	15	8	5	5	10	5	5	15	5	1	1	70
2	Development and Implementation of Biological Objectives	15	8	3	5	5	5	5	15	5	3	1	70
3	Develop dissolved oxygen SSOs for SF Bay	15	3	3	5	10	5	0	15	5	2	1	64
4	Amend Wet Weather Overflows Implementation	10	10	3	1	2	5	15	5	3	3	5	62
5	Update Basin Plan's Toxicity Testing Requirements	10	5	5	5	2	3	10	10	5	1	5	61
6	Contaminants of Emerging Concern	10	10	5	5	5	5	5	5	5	3	2	60
7	Salt and Nutrient Management Plans	10	3	5	5	5	5	15	0	3	3	4	58
8	On-site wastewater treatment system implementation plan	10	3	5	5	3	3	15	5	3	2	3	57
8	Revise Cadmium WQOs	10	3	5	1	0	3	10	10	5	5	5	57

Rank Order	Project Title	Protects Beneficial Uses	Staff Resources Already Expended	External Resources Already Expended	External Resources Likely Available	Public Interest	Input from Internal Divisions	Implement State Water Board Policy	U.S. EPA Priority	Geo-graphic Scope	Low Con-troversy	Low Technical Complexity	SCORE
9	Review Un-ionized Ammonia Water Quality Objective	15	3	3	5	8	0	0	15	5	1	1	56
10	Climate Change & Water Resources Policy	20	3	0	1	10	3	0	5	5	5	1	53
11	Develop Trash WQOs	10	2	5	5	5	5	5	5	5	1	2	50
11	Revise Pentachlorophenol WQOs	15	0	5	5	5	0	0	10	5	3	2	50
12	Environmental Screening Levels for Groundwater Cleanup	10	8	0	3	5	5	0	5	3	3	4	46
13	Low Risk Closure Requirements	0	8	5	1	2	5	15	0	3	1	4	44
13	Using Wastewater to Create, Restore, and Enhance Wetlands	10	0	5	5	5	5	5	0	5	1	3	44
14	Update - CA Water Plan	5	0	5	5	5	3	0	5	5	5	5	43
15	Develop Policy for Managing Mercury in Restored Wetlands	15	5	1	2	5	5	0	5	2	1	1	42
15	Editorial revisions, minor clarifications, and corrections	5	7	1	0	10	5	0	0	5	4	5	42
16	Modify groundwater recharge BU	10	7	0	1	7	5	0	0	3	4	3	40

Rank Order	Project Title	Protects Beneficial Uses	Staff Resources Already Expended	External Resources Already Expended	External Resources Likely Available	Public Interest	Input from Internal Divisions	Implement State Water Board Policy	U.S. EPA Priority	Geo-graphic Scope	Low Con-troversy	Low Technical Complexity	SCORE
17	Incorporate revised EPA REC. criteria for bacteria	5	0	5	1	0	0	5	5	5	4	5	35
18	Eval MUN BU for GW at Bay Fringe	0	7	0	1	0	5	5	0	3	2	2	25
19	Evaluate SHELL BU for Bay	0	3	1	5	0	0	5	0	3	2	3	22
20	Alameda Crk TDS, Chloride WQOs	5	2	0	1	3	0	0	0	1	3	3	18

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.

For work planning purposes, Basin Plan amendments of low complexity are assumed to require 0.3 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 investigation. Just because a project received lower ranking does not imply that staff concludes that it should not, at some point, be addressed. This work planning exercise illuminates the systemic problem that, while numerous outstanding Basin Planning actions are warranted at this and other Water Boards, the allocated staff resources are not commensurate with the associated Basin Planning workload.

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 allocated to the Water Board for Basin Planning. In the San Francisco Bay Region, staffing for planning has historically been augmented by other sections or divisions in order to address outstanding issues that affect the particular part of the agency. In addition, other resources from external sources, for example U.S. EPA, help augment basin planning activities. This has been the case for the development of the Stream and Wetland Protection policy, to name one example. Other resources, external and from other divisions of the Water Board, are assumed to augment the 6.0 PY by an additional 2.0 PY; thus 8.0 PY are estimated to be available to complete Basin Planning projects.

Basin Plan projects that fall below the available PY have not been eliminated from further consideration. For instance, in the event that 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 an annual work plan for non-TMDL basin planning projects, coordinated with the statewide Basin Planning Roundtable, and use this prioritized list as a starting point.

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 PY) and those high priority projects that can be accomplished if resources are made available from other divisions of the Water Board.

Accomplishing all of the high priority projects will require at least 8.8 PY. 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
Complete Stream and Wetlands Protection Policy	1.0	1.0	These projects can be accomplished with available Basin Planning resources (6.0 PY).
Develop Nutrient Water Quality Objectives	3.0	4.0	
Develop and Implement Biological Objectives	1.0	5.0	
Develop Dissolved Oxygen Site-Specific Objectives	2.0	7.0	These projects can be accomplished if 2.0 PY are available from other Water Board divisions or from external sources.
Amend Wet Weather Overflow Policy	0.5	7.5	
Update Toxicity Testing Requirements	0.3	7.8	
Develop Regulatory Strategy for Contaminants of Emerging Concern	1.0	8.8	This project can be accomplished if 2.8 PY are available from other Water Board divisions or external sources.

APPENDIX A

PUBLIC NOTICE

AND

MEETING SUMMARY OF PUBLIC WORKSHOP

NOTICE OF PUBLIC SOLICITATION PERIOD AND PUBLIC WORKSHOP

TRIENNIAL REVIEW

WATER QUALITY CONTROL PLAN, 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.

A public workshop on the Basin Plan Triennial Review will be held:

DATE: **Tuesday March 27, 2012**
TIME: 1 p.m. to 3 p.m.
LOCATION: Elihu M. Harris State Building
2nd Floor, Room 10
1515 Clay Street
Oakland, California 94612

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This notice solicits public input for the preparation of the Water Board's triennial review work plan. Written comments can be submitted via regular or electronic mail and are due by **April 17, 2012**.

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 projects for the Water Board to consider for incorporation into its Basin Plan.

Water Board staff has prepared an initial list of candidate projects for inclusion in the Water Board's triennial review work plan. These candidate projects include updates to beneficial uses, water quality objectives, implementation, and plans and policies. These projects include, but are not limited to:

- Evaluate the municipal supply beneficial use for groundwater aquifers along the Bay fringe

- Complete the policy to protect stream and wetland systems
- Develop numeric nutrient criteria to interpret existing narrative criteria for biostimulatory substances
- Update the On-Site Wastewater Treatment System (OWTS) Implementation Plan
- Develop Salt and Nutrient Management Plans
- Develop Low-Threat Site Closure Requirements
- Establish Environmental Screening Levels (ESLs) for Groundwater Cleanups
- Update the Basin Plan's Toxicity Testing Requirements

We encourage 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. A brief description of all the projects being considered by Water Board staff can be found at:

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

After public input is received, the Water Board will adopt, by resolution, a priority list of Basin Planning projects to be pursued. The public hearing on the resolution is anticipated to occur in the fall of 2012.

Triennial Review Solicitation Period:

Solicitation Period Opens	**Friday March 2, 2012**
Public Workshop	**Tuesday March 27, 2012**
Final date for Submitting Comments	**Tuesday April 17, 2012**
Public Hearing	**Fall 2012**

AGENDA
BASIN PLAN TRIENNIAL REVIEW
SAN FRANCISCO BAY REGION

PUBLIC WORKSHOP

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

1:00 p.m. to 3:00 p.m.

March 27, 2012

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

Basin Plan Triennial Review Public Workshop

Summary of Public Comments/Questions

San Francisco Bay Water Board
Oakland, CA
March 27, 2012

I. Background

The San Francisco Bay Water Board (Water Board) staff is conducting its Triennial Review of the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Water Board held a public workshop from 1:00 p.m. to 3:00 p.m. on March 27, 2012 at the Elihu Harris State Office Building. Approximately 25 representatives from public agencies, environmental organizations, and other members of the public attended.

The goals of the meeting were to:

1. Update stakeholders on the Triennial Review Process
2. Present general topics for consideration in the Triennial Review
3. Solicit comments from the public and regulated community on the potential scope of basin planning projects that should be priorities for Water Board staff.

Richard Looker, Planning Division of the Water Board, opened up the workshop by reviewing the agenda, and providing an overview of the purpose of the workshop. He gave a presentation on the Triennial Review process and discussed the topics currently under consideration by staff as priority projects. An issue paper is available to the public, outlining the topics under consideration and can be found at the following website: http://www.swrcb.ca.gov/sanfranciscobay/basin_planning.shtml#triennialreview.
The presentation was followed by a question and answer/comment session. The public was encouraged to submit comments in writing by the close of business, April 17, 2012. It was made clear that the comments could be submitted by email and that the public was welcome to contact any of the Basin Planning Division staff present at the meeting (Richard Looker or Naomi Feger with questions.

II. Summary of questions, comments, and responses [where possible the commenter is identified by name]

Jason Flanders, San Francisco BayKeeper: This is a background question. Is there a guiding policy that provides the elements Richard brought up? Attainability factors, for example. What are the criteria for considering a project? When you look at a policy in terms of attainability (e.g. groundwater suitability for drinking), what elements do you look at?

Mike Connor, East Bay Dischargers Association (EBDA): It would help Jason to hear how you are setting priorities. It is not clear how the priorities are set for the projects mentioned in the presentation. It's hard to comment without knowing what the criteria are for setting priorities.

Tom Hall, EOA Inc, representing City of Sunnyvale: Is the intent to use the ranking system that was used in the last Triennial Review? Having input to the ranking process – is that an option?

Naomi Feger, Water Board: Discussed the last round of review and how the ranking of projects was done. She offered to receive public input to why projects should rank high.

Margaret Orr, Central Contra Costa County Sanitary District (CCCSD): Margaret read her written comments regarding toxicity testing. See her specific comments in the compilation of written comments.

Jim Ervin, San Jose WPCP: The toxicity policy is draft; we anticipate in August the policy will be final and we'll have to start living with it. The guidance currently in the Basin Plan could be adjusted to bridge the gap between the new policy and the existing situation. The State Toxicity plan has overprotection built in, and that will conflict with the existing Basin Plan language. Also, acute toxicity: if no reasonable potential – then use only one species. Will we have to do both chronic and acute if we've already demonstrated no RP? Last, lately there are no red abalone… can the Basin Plan help with species for chronic testing – e.g. guidance or brackets?

Kevin Buchan, Western States Petroleum Association (WSPA): What is the region doing vis a vis the State WET Policy? Naomi responded.

Tom Hall, EOA: On the topic of toxicity, Basin Plan language has not been updated and needs to be. Implementation aspects are overdue.

Margaret Orr, CCCSD: Toxicity should get attention, because USEPA will cancel the flow chart now in use. We'll lose the ability to create dilution curve.

Tom Hall, EOA: We want to note that the toxicity language in the Basin Plan has worked well and we'd like to see the flexibility maintained.

Susan Keydel, USEPA: EPA encourages the Water Board to include as a priority in the Triennial Review project list a review of the objective and implementation language for un-ionized ammonia in SF Bay, to ensure the objective and implementation are consistent with EPA criteria and implementation for saltwater acute and chronic effects. Specifically, we encourage review and revision as necessary of the magnitude and averaging period of the Basin Plan objective --in contrast with EPA's saltwater criteria -- and implementation including implementation in NPDES permits.

Elizabeth Leeper, attorney for Public Water Agency: see written comments on behalf of Water Users Association – un-ionized ammonia.

Greg Smith, San Mateo Environmental Health: (1) Onsite wastewater treatment – locals do the permitting. We would like to have RB2 staff working with the Health folks in developing a

State-wide model ordinance that will implement Onsite Wastewater Treatment System Policy. (2) Regarding ESLs, we would love to see the ESLs be more official. (3) Re: EPA REC-1 changes, locals do the monitoring, Greg asked a clarifying question about what the Regional Board will do, which is to align with USEPA changes. (4) Low threat site closure: do not wrap UST and solvent cases together. More implementable if separate.

Tom Hall, EOA: Process question. What is the role of regional board staff when State Board is developing strategies? Do you reach out to local parties to have input into these policies? Naomi addressed this.

Karin North, City of Palo Alto: How would the project regarding site specific objectives for DO impact our WWTP discharge? Richard discussed: objectives are not developed yet, other details.

Jim Ervin, San Jose: There's a huge workload effort in developing that DO SSO. Described his plant's complicated DO monitoring, this being just one site.

Mike Connor, EBDA: (1) You mentioned your thinking about state of problems in South Bay. The Basin Plan is the master plan, but it doesn't say how we're doing and what the major problems are. This is our driver as the protectors of water quality. (2) Criteria for prioritizing are interesting. About 30% of the criteria are about money or resources, 30% are about State Board and EPA, 5% are about will it make a difference in protecting BU, 10% are about geographic extent, 10% are public concerns. It seems weighted to bureaucratic criteria. He'd want to put resources where they can make the most difference to BUs and water quality.

Jason Flanders, BayKeeper: Agrees with Mike Connor. Projects seem to either weaken protection or to come into sync with State Board. Most seem to make compliance easier. He wanted more info on Stream Protection Policy – is there anything for public review? Asked for details about the policy, which we'll do offline.

Mike Connor, EBDA: It would be nice to see an evaluation of all the TMDLs as well as the evaluation of our water quality issues.

Meg Herston, Fairfield-Suisun Sewer District (FFSD): We don't know if Suisun Bay is impaired for various pollutants. Asked for clarification, which Naomi gave.

Pat Showalter, Santa Clara Valley Water District (SCVWD): Asked for more information on the development of Nutrient Water Quality Objectives – what is the State Board process? Naomi gave this information.

Meg Herston, FFSD: Asked for further clarification about the development of nutrient objectives.

Kevin Buchan, WSPA: Asked about the literature review that has been completed for the nutrient project.

Teresa Trinh, SCVWD: Asked where she could find the COLD beneficial use's DO objective. Richard responded.

Tom Hall, EOA: Agrees DO is a high priority but it's a huge workload. Because it's a state-wide issue, encourages us to try to leverage the estuarine document that's been developed.

Jim Ervin, San Jose: A project not on the list is mixing zones. The language is fairly limited in current Basin Plan. Should it be added as a project (to better define the size and method of calculation)? Technology and modeling tools have gotten better than 2004.

Tom Hall, EOA: Mixing zone is being dealt with ad hoc, so a policy or guidance would be warranted.

Tim Potter, CCCSD: Process question re: WET Policy. Will the State Board develop the policy, or can dischargers work with Regional Board to discuss the development of the policy? Richard explained the process. Tim would rather work on the policy at the regional level.

Mike Connor, EBDA: This is why a statement of water quality status would be useful.

Margaret Orr, CCCSD: The list of adopted Basin Plan amendments is impressive, and she expressed thanks.

Teresa Trinh, SCVWD: It seems like the suggested projects overlap; especially for example the State Board's Bay Delta Plan and our projects.

Richard Looker thanked everyone for coming and participating in the workshop.

APPENDIX B

RANK-ORDERED DESCRIPTIONS OF PROJECTS CONSIDERED IN THE 2012 BASIN PLAN TRIENNIAL REVIEW

PROJECT TITLE	1. Complete Stream and Wetland Systems Protection Policy	
CATEGORY	Beneficial Uses	
ISSUE SUMMARY	This project is to complete the Stream and Wetland Policy currently under development. The resulting Basin Plan amendment would protect stream and wetland systems, which include stream channels, wetlands, floodplains, and riparian areas. The amendment is expected to help protect and restore the physical characteristics of these systems, including their connectivity and natural hydrologic regimes, in order to protect beneficial uses. The proposed stream protection amendment would designate two beneficial uses of streams and wetlands: water quality enhancement and flood peak attenuation/flood water storage. These beneficial uses explicitly recognize that physical characteristics of water bodies contribute to better water quality, and need to be protected in the Board's permitting programs in order to achieve the Board's mission of protecting all beneficial uses of the Region's water bodies. The proposed amendment would also include new water quality objectives and an implementation plan that sets forth actions needed to attain the new water quality standards. The implementation plan would provide flexibility to account for a wide range of watershed conditions (e.g., degree of urbanization, watershed size, and surrounding land uses) and would establish a general framework for how to assess achievement of the water quality objectives associated with the new beneficial uses. Board staff, with support from EPA funding, has been supporting the development of both a regional policy and the State Board's wetland protection policy. Completion of the regional policy is pending completion of some elements of the state's policy to ensure coordination and consistency.	
PROPOSED BY:	Water Board	
SUPPORTED BY:	U.S. EPA Baykeeper Zone 7 Wil Bruhns	
PRIORITIZED RANK: 1		**GENERALIZED RANK: HIGH**
SCORE: 79		**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 1.0**
IMPLEMENTING DIVISION: WATERSHED		

PROJECT TITLE	2. Develop Nutrient Water Quality Objectives
CATEGORY	Water Quality Objectives
SUMMARY	The Basin Plan does not currently include numeric water quality objectives protective of nutrient-related impairments, such as excessive algae growth, unnatural foam, odor, and other impacts associated with excessive nitrogen and phosphorous. The major focus of this project would be to develop an assessment framework for nutrients for San Francisco Bay, but it would also include evaluating statewide efforts to address nutrients for freshwater and coastal estuaries. This is both a national and local high priority water quality concern. For San Francisco Bay, Water Board staff is currently working on developing a nutrient strategy for the Bay, the SF Bay-specific NNE framework is integral to that strategy. The framework will be the foundation both for assessing the Bay's impairment status relative to nutrients, eutrophication and for developing a nutrient monitoring, modeling and management strategy for SF Bay. Staff is also working collaboratively with stakeholders to develop the regional nutrient strategy. Program resources are available to provide funding for the Southern California Coastal Water Research Program (SCCWRP) and the San Francisco Estuary Institute (SFEI) to support staff on this project. In addition, this project builds on the State Board's efforts to develop an approach to address nutrients statewide. The State Water Board is in the process of developing a freshwater nutrient policy that includes narrative nutrient objectives along with numeric guidance to translate the narrative objectives into numeric water quality objectives. The approach is based on the Nutrient Numeric Endpoint (NNE) framework, which establishes numeric endpoints based on the response (e.g. algal biomass, dissolved oxygen, etc.) of a water body to excessive nutrient concentrations. The State Water Board held a public scoping meeting in October 2011 and is also initiating peer review of the policy's technical foundation. Water Board staff would track this effort and evaluate the policy's application for fresh waters in the Region which could result in changes to the Basin Plan involving nutrient objectives and implementation thereof. In addition, a State Regional Technical Advisory Group has been established by the State Water Board to support application of the framework to 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.
PROPOSED BY	U.S. EPA, State Water Board
SUPPORTED BY	Water Board, State Water Board, Baykeeper, City of San Jose, Zone 7, Bay Area Clean Water Agencies, Central Contra Costa Sanitary District, Westlands Water District, Santa Clara Valley Water District, U.S. EPA

PRIORITIZED RANK: 2	**GENERALIZED RANK: HIGH**
SCORE: 70	**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 3.0	**PY RUNNING TOTAL: 4.0**
IMPLEMENTING DIVISION: PLANNING AND TMDL	

PROJECT TITLE	2. Development and Implementation of Biological Objectives
CATEGORY	Water Quality Objectives
SUMMARY	Biological assessments provide direct measures of the cumulative response of the biological community to all sources of stress; they measure the condition of the aquatic resource to be protected. Biological objectives set the biological quality goal, or target, to which water quality can be managed, rather than the maximum allowable level of a stressor (pollutant or other water quality condition) that affects the aquatic life in that water body. Therefore, biological objectives are more integrative and environmentally relevant goals for the protection of aquatic life than the objectives based on stressors that are currently in the Basin Plan. U.S. EPA is encouraging states to adopt biological objectives, and several states, such as Ohio and Florida, have already done so. In California, the Surface Water Ambient Monitoring Program (SWAMP) has been collecting the information needed to develop biological objectives. In the San Francisco Bay Region, SWAMP has collected bioassessment data by monitoring watersheds and is currently collaborating with other watershed monitoring programs to develop Bay Area specific indices of biotic integrity, referred to as an IBI, for both perennial and non-perennial streams. The State Water Board is in the process of conducting CEQA review of forthcoming statewide biological objectives for perennial streams and rivers. Data from stormwater programs, Region 2 SWAMP, Perennial Streams Assessment Program, and Reference Condition Management Program are available to develop San Francisco Bay-specific biological objectives for perennial and non-perennial streams and the associated implementation plans. The biological objectives framework relies on a combination of biological, physical, and chemical monitoring to account for natural variation through water body classification and modeling, and relies on bioassessment data to measure aquatic life directly. Biological objectives are coupled with numeric biological standards (e.g., Index of Biological Integrity or observed vs. expected ratio scores) that provide a direct measure of the beneficial use being protected.
PROPOSED BY	U.S. EPA
SUPPORTED BY	State Water Board, Water Board Baykeeper U.S. EPA

PRIORITIZED RANK: 2	**GENERALIZED RANK: HIGH**
SCORE: 70	**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 1.0	**PY RUNNING TOTAL: 5.0**
IMPLEMENTING DIVISION: PLANNING AND TMDL, WATERSHED	

PROJECT TITLE	3. Develop Site-Specific Objectives for Dissolved Oxygen in San Francisco Bay
CATEGORY	Water Quality Objectives
SUMMARY	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. These objectives were adopted in the 1975 Basin Plan and have remained unchanged. Recent advances in scientific knowledge regarding the dissolved oxygen tolerance of estuarine and marine organisms, as well as new methods for setting protective limits, may provide the technical basis for improved and more consistent objectives to protect beneficial uses. As part of the nutrient numeric endpoint project for coastal estuaries underway at the Southern California Coastal Water Research Project (SCCWRP), an evaluation of the scientific basis for dissolved oxygen objectives for estuaries and enclosed bays in California has been conducted. This work may inform an update of dissolved oxygen objectives for San Francisco Bay. 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. In addition, there are no Suisun Marsh specific DO objectives. 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 than in 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 developing new dissolved oxygen objectives or possibly, site-specific dissolved oxygen objectives in tidal wetlands, slough channels, managed ponds, and possible shallow subtidal habitats or other shoreline habitats. In addition, Board staff is working on the development of a nutrient assessment framework for San Francisco Bay and dissolved oxygen is proposed as a primary indicator. As such, the existing dissolved oxygen objectives should be evaluated for various habitats in San Francisco Bay.
PROPOSED BY	Water Board
SUPPORTED BY	Bay Area Clean Water Agencies City of San Jose Central Contra Costa Sanitary District Westlands Water District, South Bay Salt Pond Restoration Project

PRIORITIZED RANK:3	**GENERALIZED RANK: HIGH**
SCORE: 64	**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 2.0	**PY RUNNING TOTAL: 7.0**
IMPLEMENTING DIVISION: NPDES, WATERSHED, NPS/PLANNING	

PROJECT TITLE	4. Amend Wet Weather Overflows Implementation	
CATEGORY	Implementation Plans	
SUMMARY	The Basin Plan contains a conceptual approach for evaluating wet weather discharge conditions where polluted stormwater or process wastewater bypasses normal treatment. This approach uses three levels of treatment corresponding to the three types of beneficial uses commonly affected by wet weather overflows (water contact recreation, non-contact water recreation, and shellfish harvesting). In 2007, the State Water Board found the wet weather permit and time schedule order (TSO) issued to the East Bay Municipal Utility District to be inconsistent with the Clean Water Act mandate that POTWs achieve secondary treatment, at a minimum. State Water Board Order 2007-0004 remanded the permit and TSO back to the Water Board for revision and directed the Water Board to amend the Basin Plan to delete language that conflicts with the Clean Water Act. The Water Board adopted a revised permit and a stipulated order that no longer allow discharges from wet weather facilities to the Bay. This project would amend Section 4.9.2 and Table 4-4 of the Basin Plan to update the relevant language there.	
PROPOSED BY	State Water Board	
SUPPORTED BY	Baykeeper	
PRIORITIZED RANK: 4		**GENERALIZED RANK: HIGH**
SCORE: 62		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 7.5**
IMPLEMENTING DIVISION: NPDES		

PROJECT TITLE	5. Update the Basin Plan's Toxicity Testing Requirements
CATEGORY	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. That 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 vast range of interpretations. The draft State Water Board policy 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 policy would supersede aspects of the Basin Plan's current toxicity policy, so we would likely need to edit the Basin Plan sections on toxicity (3.3.18 and 4.5.5.3) to conform with 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	U.S. EPA (in 2009)
SUPPORTED BY	State Water Board

PRIORITIZED RANK: 5	**GENERALIZED RANK: HIGH**
SCORE: 61	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3	**PY RUNNING TOTAL: 7.8**
IMPLEMENTING DIVISION: NPDES	

PROJECT TITLE	6. Develop Regulatory Strategy for Contaminants of Emerging Concern
CATEGORY	Implementation Plans
SUMMARY	CECs pose a significant challenge in that there are many chemicals in use for which there are no water quality objectives. While there is a growing body of information about the likelihood of some of these contaminants contributing to impacts on beneficial uses, for many there is still a lack of toxicity and environmental occurrence information. This project would create a framework for decision-making about management actions required to address CECs in the region. As an outgrowth of the recycled water policy, the State Water Board established a Scientific Advisory Panel to determine which Constituents of Emerging Concern should be monitored in treated wastewater, prior to use for groundwater recharge or as irrigation water. The State Board is currently considering amendments to the policy to include a list of CECs to monitor. A second effort was also initiated by the State Water Board, engaging the same Scientific Advisory Panel, to assist in developing a monitoring strategy for coastal, ocean and inland waters. A report entitled *Monitoring Strategies for CECs in California's Aquatic Ecosystem* was released this year. The panel took a risk-based screening approach to develop a list of CECs that should initially be monitored for those CECs where information about toxicity and occurrence is available. In the last decade, the Regional Monitoring Program (RMP) has been conducting special studies on the occurrence, fate and toxicity of CECs in the San Francisco Bay. Building on this work and the recommendations of the Panel, the RMP will be developing an ongoing monitoring strategy for CECs. This Basin Planning project would involve adopting a management and regulatory strategy for CECs and updating Section 4.26.3 of Chapter 4, Implementation Plan, which discusses the Board's approach to Emerging Toxic Pollutants of Concern. It is anticipated that a Tiered risk-based approach would be used to make decisions about the need for management actions, e.g., controls, monitoring and the need for developing water quality objectives.
PROPOSED BY:	Water Board
SUPPORTED BY:	Water Board Baykeeper et al supported development of Water Quality Objectives for CECs

PRIORITIZED RANK: 6	**GENERALIZED RANK: HIGH**
SCORE: 60	**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0	**PY RUNNING TOTAL: 8.8**
IMPLEMENTING DIVISION: PLANNING AND TMDL, NPDES	

PROJECT TITLE	7. Salt and Nutrient Management Plans	
CATEGORY	Implementation Plans	
SUMMARY	The State Water Board adopted a Recycled Water Policy in February 2009. The purpose of the Policy is to increase the use of recycled water in a manner consistent with state and federal water quality laws. The Recycled Water Policy requires that Salt and Nutrient Management Plans be completed to facilitate basin-wide management of salts and nutrients from all sources in a manner that optimizes recycled water use while ensuring protection of groundwater supply and beneficial uses, agricultural beneficial uses, and human health. The Recycled Water Policy requires stakeholders to develop implementation plans to meet these management goals for salts and nutrients. All groundwater basins in the region will eventually be required to adopt salt and nutrient management plans. Board staff has identified three priority groundwater basins – Sonoma, Livermore-Amador Valley and Santa Clara. San Francisco Bay Region stakeholders are in the process of developing management plans for these three priority groundwater basins. These management plans will assess sources, identify linkages to water quality objectives and establish a plan to achieve and maintain water quality objectives. These implementation plans will eventually be adopted into the Basin Plan. In order for Basin Plan adoption to be a smooth process, the Water Board is providing regulatory and technical guidance during the stakeholder-led development of these plans.	
PROPOSED BY	Water Board	
SUPPORTED BY	Water Board, Santa Clara Valley Water District	
PRIORITIZED RANK: 7		**GENERALIZED RANK: MEDIUM**
SCORE: 58		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 9.8**
IMPLEMENTING DIVISION: GROUNDWATER PROTECTION, TOXICS, PLANNING		

PROJECT TITLE	8. On-Site Wastewater Treatment System Implementation Plan	
CATEGORY	Implementation Plans	
SUMMARY	The State Water Board has adopted a new policy for septic systems to ensure that surface waters and ground waters are not contaminated by the pathogenic bacteria and soluble inorganic materials such as nitrogen compounds that these systems can release. The OWTS Policy includes: a) Minimum operating requirements that may include siting, construction, and performance requirements, b) Requirements for OWTS adjacent to impaired waters, c) Requirements authorizing local agency implementation, d) Corrective action requirements, e) Minimum monitoring requirements, f) Exemption criteria, and g) Requirements for determining when an existing OWTS is subject to major repair. This project would provide resources to staff to scope the effort involved in completing the Basin Planning work required of the policy. We would amend Section 4.18 of the Basin Plan to ensure consistency with the new policy, as necessary.	
PROPOSED BY	Water Board	
SUPPORTED BY	Water Board	
PRIORITIZED RANK: 8		**GENERALIZED RANK: MEDIUM**
SCORE: 57		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 0.5		**PY RUNNING TOTAL: 10.3**
IMPLEMENTING DIVISION: GROUNDWATER PROTECTION, TOXICS, PLANNING		

PROJECT TITLE	8. Revise Cadmium Water Quality Objectives	
CATEGORY	Water Quality Objectives	
SUMMARY	In 2000, U.S. EPA promulgated the California Toxics Rule (CTR), which established acute and chronic dissolved freshwater criteria for cadmium as 4.3 micrograms per liter (µg/L) and 2.2 µg/L, respectively. The CTR also established acute and chronic dissolved saltwater criteria for cadmium of 42 µg/L and 9.3 µg/L, respectively. The U.S. Fish and Wildlife Service (FWS) found that the CTR freshwater and saltwater cadmium criteria are not protective of threatened and endangered species. In response to this FWS finding, U.S. EPA developed revised, recommended cadmium criteria in 2001 that are protective. The State Water Board staff is proposing to adopt hardness-based equations for freshwater cadmium objectives (derived by the United States Geological Survey) and U.S. EPA's revised, recommended saltwater cadmium criteria for inland surface waters, enclosed bays, and estuaries. Once State Board adopts these new equations, the Water Board could undertake a project to prepare a Basin Plan amendment incorporating these hardness-based relationships.	
PROPOSED BY	State Water Board	
SUPPORTED BY		
PRIORITIZED RANK: 8		**GENERALIZED RANK: MEDIUM**
SCORE: 57		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3		**PY RUNNING TOTAL: 10.6**
IMPLEMENTING DIVISION: NPDES		

PROJECT TITLE	9. Review Un-ionized Ammonia Water Quality Objective	
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 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.	
PROPOSED BY:	U.S. Environmental Protection Agency	
SUPPORTED BY:	U.S. Environmental Protection Agency, Westlands Water District, San Luis and Delta Mendota Water Authority, Santa Clara Valley Water District	
PRIORITIZED RANK: 9		**GENERALIZED RANK: MEDIUM**
SCORE: 56		**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 2.0		**PY RUNNING TOTAL: 12.6**
IMPLEMENTING DIVISION: PLANNING AND TMDL		

PROJECT TITLE	10. Climate Change and Water Resources Policy
CATEGORY	Plans and Policies
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; 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 candidate project is to update the Basin Plan to reflect the relationship between climate change and water quality regulation and would consist of two elements. First, a narrative description of how climate change might impact California water supply, water quality, and water quality regulation would be added to Chapter 1. This would describe likely changes to California climate and sea level and the pace of these changes. This section would also describe potential physical and biological impacts of climate change like inundation of low-lying areas, threats to wetlands and infrastructure, changes in species composition, and impediments to drainage from low gradient streams. The second, and more challenging, project element would be to identify specific ways that Water Board programs might integrate consideration of climate change into permitting and other implementation actions. This second element would likely take the form of a Climate Change Policy to be included in Chapter 5 of the Basin Plan. The policy would: • Describe existing efforts to address climate change impacts on Water Board programs, including efforts being led by the Water Board, permittees, other agencies, and others generally. • Describe the Board's efforts to plan for and address climate change. • Identify any unmet planning needs and provide a plan to address them, and • Offer useful guidance to aid Water Board staff and stakeholders in considering climate change impacts. The policy would provide this guidance while avoiding conflict with existing state and federal laws currently governing these program areas, although it may identify opportunities for change in those laws. Board staff is currently working as part of inter-agency team to update the Bayland Goals project to address climate change.
PROPOSED BY:	Water Board
SUPPORTED BY:	Baykeeper Wil Bruhns

PRIORITIZED RANK: 10	**GENERALIZED RANK: MEDIUM**
SCORE: 53	**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 2.5	**PY RUNNING TOTAL: 15.1**
IMPLEMENTING DIVISION: PLANNING AND TMDL	

PROJECT TITLE	11. Develop Trash Water Quality Objectives	
CATEGORY	Water Quality Objectives	
SUMMARY	Land-based sources of trash and debris are negatively affecting beneficial uses of the Bay and its tributaries. Once transported to coastal and open oceans, the trash, in the form of marine debris, affects beneficial uses there, as well. The State's current regulatory framework is not consistent across all regions (some regions have narrative objectives only and others have narrative objectives and prohibitions). Moreover, the Basin Plan lacks implementation provisions that explicitly protect against significant impacts to the Bay and ocean beneficial uses that may result from the transport of land-based trash. At present we are addressing trash and our trash listings through the Municipal Regional Permit that addresses stormwater discharges. The State Water Board is developing a trash policy both to address the problem of trash and remedy the inconsistent regulatory framework. The purpose of the policy is to minimize development of time and resource-intensive trash TMDLs around the State, The draft policy currently contains three elements: • A water quality policy that would define trash as well as performance standards for cleanup and removal of trash from the storm drain system; • Trash water quality objectives; and • Implementation provisions designed to achieve the objectives. Adoption of this policy by the State Water Board would require changes to the Basin Plan in Chapters three, four, and five to ensure consistency with the policy.	
PROPOSED BY	Water Board	
SUPPORTED BY	Baykeeper et al Zone 7	
PRIORITIZED RANK: 11		**GENERALIZED RANK: MEDIUM**
SCORE: 50		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 16.1**
IMPLEMENTING DIVISION: WATERSHED, PLANNING AND TMDL		

PROJECT TITLE	11. Revise Pentachlorophenol (PCP) Water Quality Objectives	
CATEGORY	Water Quality Objectives	
SUMMARY	PCP criteria were included in the California Toxics Rule (CTR) of 2000. Subsequently, the US 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 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	Baykeeper, U.S. EPA	
PRIORITIZED RANK: 11		**GENERALIZED RANK: MEDIUM**
SCORE: 50		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 17.1**
IMPLEMENTING DIVISION: PLANNING		

PROJECT TITLE	12. 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, by memorializing these screening levels in the Basin Plan, other regulatory agencies would more likely use the ESLs as appropriate cleanup levels. 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 would document our current process for screening sites using a multiple pathway conceptual model, which includes groundwater and surface water interactions. This project was included in the prioritized list in the last Triennial Review and some initial work, supported by the Toxics Division, has already been conducted.
PROPOSED BY	Water Board
SUPPORTED BY	Alameda County Water District Zone 7 Santa Clara Valley Water District

PRIORITIZED RANK: 12	**GENERALIZED RANK: MEDIUM**
SCORE: 46	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3	**PY RUNNING TOTAL: 17.4**
IMPLEMENTING DIVISION: TOXICS, GROUNDWATER PROTECTION	

PROJECT TITLE	13. Low Risk Site Closure Requirements	
CATEGORY	Implementation Plans	
SUMMARY	Staff would develop a regional policy to address closure for low-threat contaminant sites as a complement to the recently approved State Water Board policy for Low Threat Closure of Petroleum Underground Storage Tank (UST) sites. State Board's policy establishes criteria under which certain types of UST sites that present a low threat to human health, safety, and the environment can be closed, that is no longer subject to investigation and cleanup requirements. This policy's scope would be limited to solvent-impacted sites, thereby avoiding any overlap with the State Water Board policy. The policy would benefit staff in that they could focus their attention on sites that pose the most threat to human health and the environment. The policy would also improve consistency in decision-making by providing guidance to Water Board staff, responsible parties, consultants, and other stakeholders, on clarifying future requirements for these sites. For example, some sites may require no further action (i.e., site closure); others may require only monitoring but no further active remediation; other sites may require additional work (e.g., a higher degree of site characterization and/or remediation).	
PROPOSED BY	Water Board	
SUPPORTED BY		
PRIORITIZED RANK: 13		**GENERALIZED RANK: LOW**
SCORE:44		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 18.4**
IMPLEMENTING DIVISION: TOXICS, GROUNDWATER PROTECTION		

PROJECT TITLE	13. Using Wastewater to Create, Restore, and Enhance Wetlands
CATEGORY	Plans and Policies and Implementation Plans
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 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. This project would update Resolution 94-086 "Policy on the Use of Wastewater to Create, Restore, and/or Enhance Wetlands." The current Resolution 94-086 policy is now over 17 years old. Many lessons have been learned about salt marsh 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 policy would clarify permitting requirements for wastewater discharges into wetlands, develop near-shore permitting strategies for discharges to wetlands and sloughs and would seek to encourage the beneficial re-use of wastewater for restoring wetland habitat in a manner consistent with the Water Board's mandate to protect water quality and the beneficial uses of wetlands. The project would recognize that the San Francisco Bay estuary represents a unique California environment that is being enhanced as salt marshes are being restored around the fringes of the Bay. The receiving waters downstream of many Bay Area POTWs are increasingly comprised of recently restored marshes that improve Bay water quality. 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. The candidate project would result in a revised Policy and involve changes to Chapter 4 sections of the Basin Plan describing implementation provisions for wastewater treatment plants and, possibly, changes to Chapter 5.
PROPOSED BY:	Bay Area Clean Water Agencies
SUPPORTED BY:	

PRIORITIZED RANK: 13	**GENERALIZED RANK: LOW**
SCORE: 44	**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.2	**PY RUNNING TOTAL: 19.6**
IMPLEMENTING DIVISION: PLANNING AND TMDL, NPDES	

PROJECT TITLE	14. The California Water Plan	
CATEGORY	Implementation Plans	
SUMMARY	The California Department of Water Resources (DWR) is preparing the California Water Plan Update 2013, utilizing a variety of venues and outreach to partner with other State agencies, federal agencies, tribal governments, statewide and local agencies, organizations, technical experts, and the public. The 2013 Water Plan will, for the first time, contain a finance plan that will identify critical priorities for State investment in integrated water management activities and recommend equitable and fiscally responsible financial strategies and revenue sources should funding gaps be identified as part of the water plan's development. The Water Plan will also emphasize enhanced content related to water quality, to highlight regional and statewide water quality challenges and recommend strategies to protect and improve water quality and water supply reliability. Staff has already contributed material for the Water Quality Section of the San Francisco Bay Regional Report. This project would evaluate the need for potential updates to the Basin Plan to integrate the recommendations of the Water Plan. We anticipate that the Water Plan will focus on regional water issues with statewide impacts, data availability, lessons learned, best management practices and management strategies, with a strong emphasis on integrated regional water management and planning.	
PROPOSED BY:	Water Board	
SUPPORTED BY:		
PRIORITIZED RANK:14		**GENERALIZED RANK: LOW**
SCORE: 43		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3		**PY RUNNING TOTAL: 19.9**
IMPLEMENTING DIVISION: PLANNING AND TMDL		

PROJECT TITLE	15. Develop Policy for Managing Mercury in Restored Wetlands
CATEGORY	Plans and Policies
SUMMARY	Wetlands pose a dilemma for resource managers and regulators because these environments provide badly-needed habitat for a wide variety of wildlife, but their chemical and biological features can increase exposure to certain types of contaminants, notably mercury. Wetlands are complex systems, especially with respect to contaminant cycling in wetland food webs. In the face of this complexity, regulators must balance the need to protect wildlife and people from hazardous exposure to contaminants against the myriad environmental benefits and ecological services provided by wetlands. The Water Board does not currently have a comprehensive policy providing unambiguous direction to wetland restorers and managers about how to manage in the face of this complexity. The San Francisco Bay Mercury TMDL requires wetland restoration projects to include pre- and post-restoration monitoring to demonstrate that they have been designed and are operated to minimize methylmercury production and biological uptake, and result in no net increase in mercury or methylmercury loads to the Bay. In this candidate project, the Water Board would develop policy to help provide regulatory certainty in the challenging context of managing mercury in wetlands. The policy would likely include elements to provide restoration project proponents with greater certainty about required monitoring (e.g., over what duration, time of year, spatial coverage, which media or species/biosentinels) and the regulatory consequences of the monitoring results. We would also try to address the challenges of using dredged material for wetland restoration — how to use the material responsibly while minimizing the risk of exposure of biota to contaminants in the material. Last, we would include elements explicitly addressing how to balance the potential increased risks to wildlife from contaminant exposure as wetlands are restored with the ecological benefits provided by restored wetlands. This project would ultimately result in policy incorporated into the Basin Plan. This project would build on existing efforts by SFEI and the South Bay Salt Pond project to develop mercury monitoring frameworks that can be used to adaptively manage restoration projects.
PROPOSED BY	Water Board
SUPPORTED BY	Water Board

PRIORITIZED RANK: 15	**GENERALIZED RANK: LOW**
SCORE: 42	**COMPLEXITY: HIGH**
ESTIMATED PERSONNEL-YEARS (PY): 3.0	**PY RUNNING TOTAL: 22.9**
IMPLEMENTING DIVISION: GROUNDWATER PROTECTION, TOXICS, PLANNING	

PROJECT TITLE	15. Editorial Revisions, Minor Clarifications, or Corrections
CATEGORY	Editorial Revisions
SUMMARY	Make editorial non-regulatory changes that clarify or update some of the program descriptions to be consistent with new laws, plans and regulations or to correct minor errors. These changes are sometimes needed for clarity and to ensure that the public is informed about the latest requirements to protect water quality. These changes would be non-regulatory, i.e., they would not impose new requirements on permittees, but rather clarify existing regulatory requirements or program descriptions. For example, Chapter 7 was recently created in the Basin Plan to include Water Quality Attainment Strategies, such as Total Maximum Daily Loads (TMDLs). Chapters 4 and 7 need to be aligned to account for already adopted TMDLs and future TMDL Basin Plan amendments. Suggestions were also made during the public workshop as to possible changes to the Basin Plan that could be considered non-regulatory. They include: • Update footnotes to Tables 3.3 and 3-4 to reflect U.S. EPA's final tributyltin criteria adopted in 2003. Currently the draft criteria are reflected in the footnotes. • Chapter 5, State Plans and Policies: add references to new policies and consider adding details about the policies and their enforcement. • Chapter 1, Introduction: Consider adding more detail. • Update discussion of oil spills in Section 4.24 • Clarification on Table 3-6 regarding difference between threshold and limit • Include footnote to Table 3-3A explaining that water effect ratios are already included in copper site-specific objectives but that total to dissolved translators are not
PROPOSED BY	Water Board
SUPPORTED BY	U.S. EPA Baykeeper Santa Clara Valley Water District

PRIORITIZED RANK: 15	**GENERALIZED RANK: MEDIUM**
SCORE: 42	**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3 per update	**PY RUNNING TOTAL: 23.2**
IMPLEMENTING DIVISION: NPDES, PLANNING AND TMDL	

PROJECT TITLE	16. Modify Groundwater Recharge Beneficial Use	
CATEGORY	Beneficial Uses	
SUMMARY	This project would explore modifying and expanding the groundwater recharge beneficial use definition to support storage of drinking water in groundwater aquifers. The Basin Plan designates all groundwater basins as potential or existing drinking water sources. The State faces global climate change and associated hydrological changes, so groundwater storage will become an increasingly important water management tool to help the State meet its future water needs. Enhancing groundwater storage may be necessary to help the Region cope with climate change impacts.	
PROPOSED BY	East Bay Municipal Utility District (in past triennial review)	
SUPPORTED BY	East Bay Municipal Utility District, Alameda County Water District, Zone 7, Santa Clara Valley Water District	
PRIORITIZED RANK: 16		**GENERALIZED RANK: LOW**
SCORE: 40		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 24.2**
IMPLEMENTING DIVISION: GROUNDWATER PROTECTION, TOXICS, PLANNING		

PROJECT TITLE	17. Incorporate Revised U.S. EPA Recreational Water Quality Criteria for Bacteria	
CATEGORY	Water Quality Objectives	
SUMMARY	In December, 2011, the U.S. EPA published and invited comment on its draft recreational water quality criteria for bacteria in both fresh and marine waters. There are not substantial changes to the geometric mean criteria, but U.S. EPA introduced a new concept, Statistical Threshold Value (STV), as a clarification and replacement for the term 'single sample maximum'. Also, the draft criteria document no longer recommends different criteria values for beaches based on intensity of use. EPA has also developed a quantitative polymerase chain reaction method to detect and quantify enterococci more rapidly than the culture method. For calculating the geometric mean and associated STV, EPA recommends a duration between 30 days and 90 days. EPA recommends a frequency of zero exceedances of the GM and less than 25 percent exceedance of the STV, during the recreation duration specified. The duration of the averaging period and the frequency of exceedance are both components of a water quality criterion, and as such, would need to be explicitly included in State's water quality standards. Once the new criteria have been adopted by U.S. EPA, California would need to make corresponding changes in State plans and policies. Part of this work would involve making decisions on averaging periods as well as harmonizing the recommended exceedance frequencies with the State policy for impaired waters. The State Board will resume work on adoption of statewide freshwater bacteria objectives, once the U.S. EPA finalizes these objectives. It is not clear at this point what basin planning work would be required on the part of the regions.	
PROPOSED BY	State Water Board	
SUPPORTED BY		
PRIORITIZED RANK: 17		**GENERALIZED RANK: LOW**
SCORE: 35		**COMPLEXITY: LOW**
ESTIMATED PERSONNEL-YEARS (PY): 0.3		**PY RUNNING TOTAL: 24.5**
IMPLEMENTING DIVISION: NPDES, PLANNING AND TMDL		

PROJECT TITLE	18. Evaluate the Beneficial Use for Municipal and Domestic Supply for Groundwater Aquifers along the Bay Fringe	
CATEGORY	Beneficial Uses	
PROJECT SUMMARY	The goal of this project would be to create a consistent and transparent process to determine when the municipal supply beneficial use applies to a given groundwater aquifer and to memorialize these use determinations through the Basin Plan. The project would entail developing a regional policy for groundwater along the Bay fringe and underlying fill areas. The Water Board's "Sources of Drinking Water" Policy (Water Board Resolution 89-039) states that all surface and groundwaters in the state are suitable or potentially suitable for municipal and domestic water supply. This project would explore where exceptions to this policy might be granted – for example when the groundwater has elevated total dissolved solids concentrations or the area suffers from low well yield. Developing this policy would provide regulatory certainty as to whether the domestic or municipal supply beneficial uses apply to a given Bay fringe site, and ensure that appropriate cleanup levels are applied for Bay fringe sites for which the domestic or municipal beneficial use does not apply.	
PROPOSED BY	Water Board	
SUPPORTED BY		
PRIORITIZED RANK: 18		**GENERALIZED RANK: LOW**
SCORE: 19		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 25.5**
IMPLEMENTING DIVISION: TOXICS		

PROJECT TITLE	19. Evaluate the Shellfish Harvesting Beneficial Use for the San Francisco Bay Region
CATEGORY	Beneficial Uses
SUMMARY	Most segments of San Francisco Bay are currently designated as suitable for commercial and recreational shellfish harvesting beneficial uses (SHELL). There are currently no commercial shellfish beds in San Francisco Bay. Commercial shellfish beds in the region are in Tomales Bay and along the coast at Point Reyes National Seashore. All coastal areas in the region are also designated as having the SHELL beneficial use. The Basin Plan identifies water quality objectives for shellfishing using a bacterial indicator, measured as fecal coliforms, and these objectives are based on protection of commercial shellfish beds for human health consumption. These objectives are more than ten times lower than the recreational water contact objectives. The State Water Board has been working on an amendment to the Ocean Plan to update bacterial indicator objectives protective of shellfishing. One aspect of this project under consideration is refining the shellfish harvesting beneficial use definition to distinguish between commercial and recreational shellfishing. Data have also been collected and evaluated to support an implementation option for the SHELL beneficial use as it would apply to recreational shellfishing – referred to as the "reference system approach." In the "reference system approach, we determine how frequently bacterial water quality objectives are exceeded in areas downstream of relatively undeveloped watersheds. Then, the exceedance frequencies for other areas are compared to the reference exceedance frequency for the purpose of determining protection of beneficial uses. Data collected thus far however indicate that even reference areas exceed the SHELL water quality objectives 40% of the time. We have participated in a limited fashion in the past with other Regional Boards and the State Water Board in the development of the statewide project related to this beneficial use. At a minimum, this project would revise the beneficial uses to be consistent statewide and to distinguish between recreational and commercial shellfishing. An approach is needed in the region to address the applicability of the shellfish water quality objective.
PROPOSED BY	Water Board
SUPPORTED BY	

PRIORITIZED RANK: 19	**GENERALIZED RANK: LOW**
SCORE: 22	**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0	**PY RUNNING TOTAL: 26.5**
IMPLEMENTING DIVISION: PLANNING AND TMDL, NPDES	

PROJECT TITLE	20. Refine Alameda Creek Watershed Total Dissolved Solids (TDS) and Chloride Water Quality Objectives	
CATEGORY	Water Quality Objectives	
SUMMARY	The current surface water quality objectives for TDS and chloride in the Alameda Creek Watershed above Niles (Basin Plan Table 3-7) were adopted in the 1975 Basin Plan. These objectives were established to protect groundwater used for drinking water. Specifically, they were intended to minimize salt buildup in the Livermore-Amador groundwater basin by limiting treated municipal wastewater discharges to the Alameda Creek watershed upstream of Niles, as surface waters recharge the Livermore-Amador groundwater basin. The objectives were based on historic South Bay Aqueduct (SBA) water quality and thus limited surface water discharges to salt concentrations no higher than those in SBA imports. The adoption of these objectives led to the cessation of all publicly-owned treatment works (POTW, i.e., sewage treatment plant) discharges to the Livermore-Amador groundwater basin by 1980. Other wastewater dischargers (e.g., aggregate mining operations) use Livermore-Amador groundwater in their operations and discharge salt from this groundwater into Alameda Creek and its tributaries. These discharges do not necessarily lead to salt buildup in the Livermore-Amador groundwater. However, the discharged water must meet the water quality objectives in Table 3-7. With municipal wastewater discharges eliminated, the Table 3-7 objectives may no longer be applicable. In reconsidering the objectives, potential impacts to the Niles Cone groundwater basin (recharged by the Alameda Creek watershed downstream of Niles) must be considered. The surface water quality objectives would be reviewed and refined to reflect salt transport throughout the Alameda Creek system and conditions that best protect water supplies and other beneficial uses.	
PROPOSED BY	Water Board	
SUPPORTED BY	Alameda County Water District, Zone 7	
PRIORITIZED RANK: 20		**GENERALIZED RANK: LOW**
SCORE: 18		**COMPLEXITY: MEDIUM**
ESTIMATED PERSONNEL-YEARS (PY): 1.0		**PY RUNNING TOTAL: 27.5**
IMPLEMENTING DIVISION: NPDES		