California Regional Water Quality Control Board, Los Angeles Region

STAFF REPORT

2004 Triennial Review:

Prioritization of Basin Planning Issues

January 12, 2005

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I. INTRODUCTION

The Water Quality Control Plan for the Los Angeles Region (Basin Plan) contains water quality standards for the Los Angeles 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 policy to maintain high quality waters (i.e., antidegradation). Basin Plans also include implementation plans for water quality objectives, through various regulatory programs. Basin Plans fulfill statutory requirements for water quality planning in California Water Code (CWC) section 13240 and the federal Clean Water Act (CWA) section 303(c).

The Regional Board first adopted an interim water quality control plan in 1971. After several revisions, the first comprehensive Basin Plans for the region were adopted by the Regional Board and approved by the State Board at meetings in October 1974, February 1975 and March 1975. Subsequently, several amendments were adopted between 1978 and 1990. A comprehensive update to the Basin Plans was adopted in 1994 at which time the two Basin Plans (one for the Santa Clara Basin and one for the Los Angeles Basin) were combined into one concise Basin Plan for the entire region. Since 1994, twenty-two amendments have been adopted including nine TMDLs, nine revisions to objectives, two revisions to beneficial uses, and two revisions to implementation plans and policies.

Both State and federal laws mandate the periodic review, and if necessary, update of Basin Plans. Federal law [CWA section 303(c)(1)] requires that a State's water quality standards be reviewed every three years – a process known as a triennial review. The primary purpose of the Triennial Review is to review water quality standards and take public comment on issues the Regional Board should address in the future through the Basin Plan amendment process. The Triennial Review is not a Basin Plan amendment, but rather a work plan for upcoming Basin Plan amendments.[1] During the Triennial Review process the Regional Board develops and adopts a prioritized list of Basin Planning issues that it determines should be investigated over the next three years. This list of priorities is then transmitted to the State Board and the US EPA. This report and the Board resolution (Appendix A), when adopted, fulfill State and federal requirements for triennial review.

The following staff report briefly summarizes Basin Planning issues that should be considered and prioritized during this Triennial Review, and provides an estimate of the resources necessary to complete the work to address each issue. The issues are grouped into five categories: 1) revisions to beneficial uses, 2) revisions to water quality objectives, 3) development of Total Maximum Daily Loads (TMDLs), 4) revisions to

[1] As stated, the inclusion of an issue on the prioritized Triennial Review list of issues does not necessarily mean that any amendment will be made to the Basin Plan. The decision on whether or not to proceed with a proposed Basin Plan amendment is only made after the Regional Board reviews the technical and legal considerations associated with an issue and determines that development of a Basin Plan amendment is appropriate. Amending the Basin Plan involves preparing a staff report outlining alternatives and environmental impacts and, in the case of water quality standards, economic considerations; a CEQA environmental checklist; and the actual amendment (i.e., changes to the Basin Plan). Amendments are mailed out for public review 45 days in advance of the public hearing, typically held at a regularly scheduled Regional Board meeting. The Regional Board must adopt amendments, and then transmit them for review and approval by the State Board and Office of Administrative Law, as well as by US EPA if the amendment involves surface water quality standards or implementation provisions for these standards.

implementation policies and plans (other than TMDLs), and 5) administrative changes. In total, 56 Basin Planning issues were identified and evaluated by staff during the 2004 Triennial Review. These issues are summarized in Table 1, by category.

Each issue is assigned a priority level (high priority, medium priority, low priority) based on a variety of considerations described in detail in section IV. Those Basin Planning issues that are already under evaluation by Regional Board staff, and will likely be completed in the near future are not prioritized, but instead are identified as "ongoing" (eight projects were identified as "ongoing"). Of the 56 new issues, staff identified 24 issues as high priorities, 14 as medium priorities, and 10 as low priorities.

To address all 56 Basin Planning issues over the next three years would require an estimated **18.65 Personnel-Years (PYs)** from the Basin Planning Program. The Basin Planning Program currently operates with less than two PYs (1.8 PYs) per year or 5.4 PYs over a three-year period. A total of **2.6 Basin Planning PYs** are required to complete the eight "ongoing" issues[2], leaving **2.8 Basin Planning PYs** available over the next three years to address the highest priorities identified during this Triennial Review. Given these resource constraints, staff further ranked the 24 high priorities relative to each other. This ranking is shown in Table 2. Staff then selected the highest priorities along with the ongoing projects that it recommends the Board address from 2005-2007. Staff's recommendation is presented in Table 3.

The report is organized as follows. In section II, we discuss the Triennial Review process, including public participation components. In section III, we summarize the comments received thus far on the Basin Planning issues identified by staff during this Triennial Review. In section IV, we describe the prioritization considerations we evaluated when identifying an issue as a high, medium or low priority and when further ranking the high priorities. In section V, we present summaries of the 56 Basin Planning issues, grouped by category. Within each category, we first present those issues that staff recommends the Board address over the next three years followed by those issues that were evaluated but which due to resource constraints staff does not recommend the Board address over the next three years. Finally, in section VI, we summarize our evaluation of the 56 issues and recommend which issues the Board should address during the next three years.

II. TRIENNIAL REVIEW PROCESS

The last Triennial Review was conducted in 2001 (LARWQCB, 2001). In the summer of 2004, Basin Planning staff began the 2004 Triennial Review by examining the 2001 Triennial Review priorities list (see Appendix B). After noting the items that have been completed since 2001, Basin Planning staff conducted internal meetings with Regional Board staff and management from each of the major program areas. The purpose of these meetings was to solicit staff input on what additions or revisions to the Basin Plan would help them better achieve their program's goals, using the 2001 list as a starting point for discussion.

[2] Again, issues identified as "ongoing" were automatically identified as issues to be completed during the coming three-year period. As a result, we first deducted the 2.6 PYs necessary to complete ongoing issues from the 5.4 PYs available in the Basin Planning Program over the next three-year period, leaving 2.8 PYs to allocate among the highest priority issues.

The Preliminary 2004 Triennial Review Priorities List (Appendix C) was developed after these internal meetings. Basin Planning staff then shared the preliminary 2004 list with U.S. EPA Region IX for their input. U.S. EPA staff provided input regarding their highest priorities on the 2004 list and possible additions and/or deletions to the list (see section III for a summary of U.S. EPA comments).

On July 29, 2004, Regional Board staff noticed a series of three public workshops in a mailing to over 700 interested persons. The notice was also posted on the Regional Board's website and published in several newspapers of general circulation. The purpose of these workshops was to solicit early input from stakeholders on the Basin Planning issues of greatest importance to them. The first workshop was held on August 16, 2004 in downtown Los Angeles as a half-day interactive meeting. The second workshop was held in the evening of August 31, 2004 in Ventura County. The third workshop was held at a regularly scheduled Board meeting on October 7, 2004. See section III for a summary of comments received at these workshops. The Preliminary 2004 Triennial Review Priorities List was presented at all three public workshops. Another Board workshop is scheduled for January 27, 2005. The process will conclude after another public comment period with a public hearing in March 2005 at which the Regional Board will consider adoption of a Board resolution identifying the Basin Planning priorities to be investigated over the next three years.

III. SUMMARY OF COMMENTS

Stakeholders were given the opportunity to provide early comments at the four public workshops described in section II as well as in writing.

During the first of the August Triennial Review workshops, held on August 16, 2004, participants broke into workgroups to discuss changes to the Basin Plan according to the five categories mentioned above (beneficial uses, water quality objectives, TMDLs, other plans and policies, and administrative). Twelve additions to the Preliminary 2004 Triennial Review Priorities List were suggested, bringing the total number of Basin Planning issues to 56. Twelve items were re-ranked based on the collective priorities of workshop participants. The new and re-ranked items are shown in gray highlighting in the table in Appendix D. This table was then re-sorted using the ranking suggested by the workshop participants. The last column of the table contains additional notes on what was suggested by workshop participants. Detailed notes on the suggestions made by the participants in the first workshop are also provided in Appendix D, following the table.

At the second workshop, held in Ventura County on August 31, 2004, participants mostly listened to the overview provided by Regional Board staff and asked some general questions about the Triennial Review process. The only attendee to make comments represented the City of Oxnard. The City of Oxnard also submitted written comments, which are included in the binder entitled "Public Workshop to Consider Basin Planning Priorities for 2005-2008 (Triennial Review), Public Comments".

At the Board workshop on October 7, 2004, Basin Planning staff discussed the statutory requirements for conducting the Triennial Review, the Triennial Review process, and the preliminary list of Basin Planning priorities based on internal input and input from the

U.S. EPA and workshop attendees. There were seven individuals who gave oral testimony at the Board workshop on the preliminary list of priorities, representing the City of Los Angeles, County of Los Angeles (Public Works), City of Signal Hill, Los Angeles County Sanitation Districts, Santa Monica BayKeeper, Heal the Bay and the Western States Petroleum Association. Four of the seven individuals who gave oral testimony also submitted written comments on the Preliminary 2004 Triennial Review Priorities List.

In total, seven agencies or coalitions submitted early written comments on the Preliminary 2004 Triennial Review Priorities List. These letters are included in the binder entitled "Public Workshop to Consider Basin Planning Priorities for 2005-2008 (Triennial Review), Public Comments". Six of these letters represented the views of municipalities and one represented the views of industry. No early written comments were submitted by environmental organizations, though representatives of Heal the Bay and Santa Monica BayKeeper participated in some of the public workshops as mentioned above. See Table 4.

TABLE 4 – EARLY COMMENT LETTERS RECEIVED ON PRELIMINARY 2004 TRIENNIAL REVIEW PRIORITIES LIST

Commenting Organization	Org. Type	Date
City of Oxnard	Municipal	10-Aug-04
City of Signal Hill	Municipal	16-Aug-04
Executive Advisory Committee	Municipal	17-Sep-04
County of Los Angeles, DPW [3]	Municipal	22-Sep-04
Western States Petroleum Association	Industry	18-Jun-04
Calleguas Creek Watershed Committee	Municipal	07-Oct-04
City of Los Angeles, Bureau of Sanitation	Municipal	07-Oct-04

While there were many detailed comments and suggestions unique to various stakeholders, there were several common themes and issues that surfaced as priorities based on the early written comments and input from the public workshops.

Among the regulated community, four common themes emerged. One revolved around re-evaluating beneficial uses. Three related issues were identified including 1) re-evaluating beneficial uses in engineered channels and effluent dominated waters (EDWs), 2) re-evaluating the application of beneficial uses during wet weather flows, and 3) re-evaluating how *potential* beneficial uses are applied and protected.

A second theme revolved around stormwater and how Basin Plan requirements are applied to stormwater. In addition to examining the beneficial uses as described above, commenters requested clarification on how the objectives contained in the California

[3] A coalition of agencies submitted a letter on July 3, 2003, which the Los Angeles County Department of Public Works subsequently incorporated by reference in its written comments on the 2004 Triennial Review [letter from the County of Los Angeles dated September 22, 2004]. The coalition includes the Los Angeles County, Department of Public Works; City of Signal Hill; Executive Advisory Committee, Los Angeles County NPDES Stormwater Permit; Western States Petroleum Association; Sanitation Districts of Los Angeles County; Construction Industry, Coalition on Water Quality; and Los Angeles/Orange Counties Building and Construction Trades Council.

Toxics Rule (CTR) and the provisions of the Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (SIP) are applied to stormwater. Requests were also made to develop a policy for addressing peak storm flows, including the conditions under which storm flows should be subject to Basin Plan requirements (i.e. water quality standards, receiving water limitations in permits, etc.).

A third theme was to develop a policy to address waters that are sometimes referred to (primarily by the regulated community) as Effluent Dominated Waters (EDWs). There has been much discussion about how to balance protection of EDWs and the beneficial uses they can and do support with the possibility of permitting flexibility for certain pollutants in these types of waters.

A fourth theme dealt with evaluating and taking into consideration natural sources of pollutants. Specifically, a number of commenters supported a potential amendment to broaden the application of the "natural sources exclusion" included in the implementation provisions for the bacteria objectives to other naturally occurring constituents such as minerals and some metals such as selenium. Related to this, several commenters also supported a potential amendment to clearly identify how natural conditions would be determined for objectives such as temperature and pH.

Finally, several commenters and workshop participants mentioned three other specific items. One was the need for guidance on how TMDL requirements are incorporated into permits. The second item was the need to evaluate and revise as appropriate the averaging periods for mineral quality objectives contained in the Basin Plan. The third was to adopt waivers or variances for certain types of discharges such as short-term discharges with no environmental impact.

Both Heal the Bay and various regulated agencies identified two items as shared high priorities. These included (1) developing protocols for determining appropriate hardness, pH and temperature values to use for calculating waste load allocations and effluent limits for metals and ammonia and (2) developing a policy on interpreting narrative toxicity objectives in permits.

Staff from U.S. EPA Region IX provided early feedback on the initial list via a conference call. Some of the top priorities identified were (1) developing a policy on interpreting narrative toxicity objectives in TMDLs and permits, (2) adopting a total residual chlorine objective and implementation provisions, (3) adopting biocriteria, and (4) adopting nutrient objectives to protect against cultural eutrophication.

At the Board workshop, Board members provided initial feedback on some of the priorities. One general comment dealt with the need to provide the regulated community with certainty and guidance on Basin Plan requirements and how those requirements are incorporated into permits. Another stressed the regional goal of promoting reuse of our water resources and prioritizing any Basin Planning issues that would address that goal. Some Board members reiterated several of the specific priorities identified by stakeholders. These included (1) developing a policy on interpreting narrative toxicity objectives, (2) clarifying the applicability of the CTR and SIP to stormwater, and (3) providing guidance on the incorporation of TMDL requirements into permits. Board members also identified several high priorities that should be retained as such including TMDL adoption, updating the "Preservation of Biological Habitats" beneficial use, and

developing a narrative objective for emerging chemicals. Finally, there were several items that Board members felt were adequately addressed and did not need to be included including clarification of the tributary rule and the definitions for enclosed bays and estuaries.

IV. RANKING PROCESS

In this Triennial Review, the Regional Board is considering how to address 56 Basin Planning issues with less than two full-time staff positions. A series of overriding considerations were identified to aid in prioritizing the candidate Basin Planning issues.

Prioritization Factors

The Regional Board considered a range of factors in prioritizing Basin Planning issues. These factors fall into four general categories, which are listed in order of importance in Figure 1. That is, factors in the category "Environmental Protection Mission/Legal Requirements" were more important in the prioritization of an issue than the factors in any of the other three categories. In addition, for some amendments, the lower priority factors might not even be considered. These factors are summarized into the following four categories:

- Environmental Protection Mission / Legal Requirements
- Clarity / Consistency / Regulatory Flexibility
- Support for Issue
- Estimated Resource Requirements

Environmental Protection Mission / Legal Requirements

First and foremost, any proposed changes to the Basin Plan must be consistent with the Board's mission of protecting the beneficial uses of waters of the state. Issues that improve protection of beneficial uses were given greater importance, while issues that would result in little or no direct improvement to water quality and the protection of beneficial uses were given lower importance.

In all Triennial Reviews by Regional Boards, one of the first items reviewed is whether there have been changes in federal requirements or recommendations, or statewide policies or plans that result in inconsistencies or the need to update specific Basin Plan language. Issues that would bring the Basin Plan into conformance with federal requirements or recommendations and/or statewide plans or policies were given greater importance.

Some amendments are essential to the development of TMDLs and their implementation through permits. These issues were also given greater weight. For example for metals TMDLs, it is vital that the appropriate hardness value for calculating waste load allocations, receiving water limits and effluent limits be identified.

Finally, amendments that would address other legal or regulatory considerations were also given greater weight.

Clarity / Consistency / Flexibility

Some Basin Planning issues have been included for consideration because the regulated community has pointed out inconsistencies, a lack of clarity or the need for additional regulatory flexibility in the Basin Plan. An example of needed regulatory flexibility would be where natural sources of pollutants such as minerals or bacteria would make it impossible to achieve Basin Plan objectives even if all anthropogenic sources of the pollutant were eliminated.

The last comprehensive update to the Basin Plan was ten years ago in 1994. Therefore there are many opportunities to clarify the Board's evolving water quality standards and TMDL, permitting and grant programs among others and to make the Basin Plan language consistent with recent State Board policy changes and State laws. Because the State Board and U.S. EPA have approval authority for any Basin Plan amendment, prioritization should consider whether an amendment would achieve consistency with State Board and U.S. EPA policies and directives.

Greater importance was also given to issues that would update explanations of the Regional Board's programs. Simple non-regulatory clarifications can go a long way toward making the Basin Plan more user-friendly, for instance cross-referencing related regulatory requirements in State law or policy, or updating maps and program descriptions.

Support for Issue

A key component of the Triennial Review is soliciting input from "users" of the Basin Plan, including Board staff, other regulatory agencies at the state and federal level, the regulated community, and organizations representing segments of the public-at-large (e.g. environmental organizations, organizations representing user groups such as surfers, etc.). Many of the amendments under consideration during this Triennial Review process were highlighted as priorities by the implementing programs at the Regional Board or by the US EPA during internal meetings held in the Summer of 2004. Greater weight was given to these issues.

Based on input received in comment letters and at the public workshops, some of these issues appear to have garnered more public interest than others. Greater weight was given to issues that respond to input from the regulated community on how the Basin Plan could be improved or clarified. In this and previous Triennial Reviews, Regional Board staff have received input not only from the regulated community, but also from organizations representing segments of the public-at-large. Greater weight was assigned to issues that are perceived by staff to have higher public interest, based on a combination of input from the regulated community and other stakeholders.

The Regional Board is interested in planning exercises that are broad in geographic scope and address issues that affect a wider array of organizations and the public. The Regional Board is interested in targeting its extremely limited planning resources to

issues that will benefit the greatest possible area of its regional jurisdiction. Therefore, issues that address multiple waterbodies and regulated entities throughout the region or issues that are widely transferable received greater weight than issues that were more site-specific or discharger-specific.

Estimated Resource Requirements

The Basin Plan amendment process is lengthy, and issues that are not controversial or technically complex tend to be handled more efficiently, and should, all else equal, receive higher priority. These two factors recognize that Basin Plan issues with lower controversy and lower technical complexity have a higher likelihood of success in making it through the Basin Planning process. Issues were assigned higher priority based on these factors if perceived to be non-controversial and straightforward from a technical perspective.

It is unlikely that the Regional Board would recommend stoppage of work on issues in which the Regional Board has already invested significant staff resources or other organizations have invested significant resources. These factors, staff resources or external resources already invested, recognizes that projects partially completed using Basin Plan staff resources should receive higher priority in the Triennial Review work plan.[4]

The Regional Board should also consider including issues in the work plan that may exceed our internal resources when there is interest in the regulated community to devote resources to the issue. This consideration acknowledges issues where substantial resources from external organizations have been invested in the project. For some projects, regulated entities have invested resources in good faith to resolve issues in the Basin Plan. In the last decade, the administrative burden of a Basin Plan amendment project has increased substantially. Affected parties have recognized the benefits of providing resources to assist the Regional Board in coordinating technical information and stakeholder outreach for Basin Plan amendments. This approach was discussed and encouraged in the Draft TMDL Strategy prepared jointly by the Regional Board and US EPA Region IX. Several of the issues in the Triennial Review have had external resources invested.

[4] As discussed in section I, there are some Basin Planning issues that are currently under investigation and which will likely be completed within the year. Regional Board management has committed to these projects and significant staff resources, contract funds or stakeholder resources have already been invested, therefore, these projects will be seen to completion. As a result, these projects are not included in the prioritization exercise.

FIGURE 1

SUMMARY OF FACTORS CONSIDERED IN PRIORITIZING ISSUES

Environmental Protection Mission / Legal Requirements

1) Achieves Regional Board Mission (Protect Beneficial Uses)
    - known environmental impacts with inadequate controls
2) Achieves State or federal requirements or recommendations (e.g., new legislation, new EPA criteria guidance, court orders, requirements as follow-up to EPA review of previous Basin Plan amendments)
    - Implements State Board Policy (e.g. Ocean Plan, Sources of Drinking Water Policy, etc.)
3) Facilitates TMDL development and implementation
4) Addresses other regulatory or legal considerations

Clarity / Consistency / Flexibility

1) Rectifies mistakes and/or resolves inconsistencies within the Basin Plan
2) Provides additional regulatory flexibility for special circumstances
3) Achieves consistency with previous EPA, OAL, State Board or Regional Board decisions
4) Improves usefulness and clarity of Basin Plan

Support for Issue

1) Input from Implementing Divisions
2) Perceived Public Interest
3) Stakeholder Interest (streamline permitting, consider site-specific conditions, etc.)
4) Geographic Scope (region wide to site specific, transferability to other locations)

Estimated Resource Requirements

1) Low Controversy and Low Technical Complexity
2) Staff Resources Already Invested
3) External Resources Already Invested
4) External Resources Likely Available

V. SUMMARIES OF TRIENNIAL REVIEW ISSUES

The 2004 Triennial Review summary charts presented in the following section are organized by category, generally corresponding to the chapters of the Basin Plan (i.e., beneficial uses, water quality objectives, TMDLs, implementation plans and policies, and administrative). Within each category, issues were grouped by priority (i.e., ongoing projects are presented first followed by the high priorities, medium priorities and low priorities). The ordering of Triennial Review issues follows that of Table 1, Basin Planning Issues Evaluated during the 2004 Triennial Review.

Each issue includes a written summary in tabular form with the following information: issue identification number, title, category, priority, rank, resource need, implementing program(s), brief description, background/importance and proposed action. Each issue also includes which Regional Board program or external organization proposed the issue, and which organization(s) or individual(s) have expressed support for, or opposition to (the latter where expressly indicated), the issue.

It should be noted that the following summaries include Basin Planning issues proposed internally by program staff as well as issues proposed by the staff of U.S. EPA and by stakeholders, including the regulated community. A key component of the Triennial Review process is soliciting stakeholder input on potential Basin Planning issues to be addressed over the next three years. Therefore, if appropriately in the realm of Basin Planning, Regional Board staff has included these issues in the staff report. (Issues suggested by stakeholders or EPA are identified as such in the "Proposed By" section of each issue summary. Stakeholder additions to the 2004 Preliminary List of Triennial Review Priorities are also identified in Appendix D.) Inclusion of these issues does not necessarily indicate staff's endorsement of the issue as a priority for Board consideration. Staff has evaluated these suggestions in the same manner as those identified internally.

All "ongoing" and highest priority issues (i.e., those that are proposed by staff for completion during the 2005-2007 period) appear at the beginning of each of the five sub-sections that follow. The first several rows of each write-up are bolded so that they can be easily differentiated from the other amendments that were considered, but are not proposed by staff for completion in the next three years.

A. REVISIONS TO BENEFICIAL USES

Beneficial uses include both existing and potential uses of our surface and ground waters. Beneficial uses include both human uses of water bodies (e.g., swimming, drinking water) and non-human uses (e.g., aquatic and wildlife habitat). Beneficial uses form the cornerstone of water quality protection. Once the Regional Board designates beneficial uses, appropriate water quality objectives can be established. Together, beneficial uses and water quality objectives form water quality standards, along with the state's antidegradation policy.

"Existing" beneficial uses are those that have been attained for a water body on, or after, November 28, 1975, the date when the U.S. EPA issued the first water quality standards

regulation. Existing uses may be further classified as "intermittent," if the stream only flows during certain periods of the year and, therefore, only supports the use intermittently. Beneficial uses may be designated as "potential," whether or not they have been attained on a water body, for several reasons, including (1) plans to put the water to such future use, (2) potential to put the water to such a future use, (3) designation of a use by the Regional Board as a regional water quality goal, or (4) public desire to put the water to such future use.

Both the California Water Code and federal Clean Water Act mandate that beneficial uses be designated for all water bodies. Twenty-four beneficial uses have been identified in the Los Angeles Region (including the coastal watersheds of Los Angeles and Ventura counties). These beneficial uses are defined in Chapter 2 of the Basin Plan for the Los Angeles Region.

Specifically, 40 Code of Federal Regulations (CFR) Section 131.10 describes States' responsibilities for designating and protecting beneficial uses. This Section, in part, outlines minimum attainability criteria; lists six factors of which at least one must be satisfied to justify removal of designated uses that are not existing uses; prohibits removal of existing uses; and establishes conditions and requirements for conducting use attainability analyses.

In the following Section, we list general and specific revisions to beneficial uses that have been proposed by staff and/or other stakeholders. In most cases, the lead program for these revisions would be the Standards and TMDL Unit in the Regional Programs Section.

1. Ongoing Projects and Issues Proposed to be Addressed

The beneficial use projects and high priority issues, summarized below, are targeted for completion during 2005-2007.

Issue Number	**O-1**
Title	**Tiered Aquatic Life Use Pilot Project**
Category	**Beneficial Uses**
Type	**Regionwide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.3 PY [plus contract funds]**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**A pilot project on "tiered aquatic life uses."**

Issue Number	O-1
Title	**Tiered Aquatic Life Use Pilot Project**
Background / Importance	In urban environments, the physical modifications to water bodies can place limitations on the type, quality and diversity of the resident biological community. As a result, regardless of the water quality, the aquatic community may be limited by the physical configuration of the water body. The purpose of tiered aquatic life uses (TALUs) is to have more appropriate goals for protecting aquatic life that account for these inherent physical limitations. The use of biological assessments and biological indices is essential to refining aquatic life uses in water quality standards. The concept of tiered aquatic life uses has been under discussion by U.S. EPA for some time and several states have implemented these tiered uses in their state water quality assessments and water quality standards. However, there are few examples of the application of TALU in Western semi-arid streams and, in particular, no examples of how a state might identify and implement TALU in semi-arid ***coastal*** streams, where it is vital to protect downstream sensitive and ecologically rich coastal water bodies.
Proposed Action	The purpose of the project is to develop more tailored water quality standards (through beneficial use designations and associated biocriteria) to protect the biological communities of semi-arid urban coastal streams. Specifically, the project will: 1) Evaluate the applicability of the Tiered Aquatic Life Uses (TALU) conceptual model to *semi-arid urban coastal streams*; 2) If deemed appropriate, recommend appropriate tiered aquatic life uses for these *semi-arid urban coastal streams* (using a case example in the Los Angeles Region); 3) Evaluate potential reference conditions for each tier. Ultimately, the goal will be to move toward developing appropriate biocriteria and possibly other water quality objectives for each tier. The proposed project would build upon EPA's TALU Workgroup and forthcoming methods document by evaluating the application of TALU to *semi-arid urban coastal streams*.
Proposed By	Standards & TMDL Unit
Supported By	Public Workshop Attendees

Issue Number	**O-2**
Title	**Revise or Develop Subcategories of Use for Fish Consumption**
Category	**Beneficial Uses**
Type	**Regionwide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.3 PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Evaluate adding a beneficial use or redefining the commercial and sport fishing (COMM) beneficial use to better account for different levels of fish consumption, including subsistence fishing in inland surface waters. Conduct a survey of water bodies to document use for both sport fishing and subsistence fishing.**
Background / Importance	The Basin Plan includes four beneficial uses related to human consumption of aquatic species. These are commercial and sport fishing (COMM), REC-1 (water contact recreation, including fishing), aquaculture (AQUA) and shellfish harvesting (SHELL). However, none of these uses specifically addresses uses of water bodies for subsistence fishing. Accounting for subsistence fishing may be important as local studies in Santa Monica Bay (SMBRP, 1993) have shown that fish consumption is significantly higher than the national average, which was used to develop water quality criteria to protect human health. For marine waters, the 2001 revision to the California Ocean Plan took into account the higher fish and seafood consumption rate in California and revised human health criteria for many priority pollutants based on this higher consumption rate (23 g/day vs. 6.5 g/day).
Proposed Action	If fish consumption levels are significantly higher in certain water bodies and are at levels considered indicative of subsistence fishing, beneficial use designations should reflect this level of use and water quality objectives should be set to be fully protective of human health at that consumption level. Actions under this item may include: 1) creating a new beneficial use or subcategory of beneficial use for subsistence fishing, 2) designating water bodies with this use where appropriate, 3) clarifying how fish consumption is protected under other beneficial uses, including REC-1, COMM, SHELL and AQUA.
Proposed By	TMDL & Standards Unit
Supported By	Public Workshop Attendees, Los Angeles County

Issue Number	**R-1**
Title	**Map Update**
Category	**Beneficial Uses**
Type	**Regionwide**
Priority	**High**
Rank	**6**
Resource need	**0.25 (0.5) PY[5]**
Implementing Program(s)	**Standards/TMDL; Information Technology**
Brief Description	**Update maps, reach boundaries and estuary boundaries, and revise beneficial uses accordingly.**
Background / Importance	There have been tremendous advances in mapping technology over the last decade and, additionally, the boundaries of watersheds, groundwater basins and reaches within water bodies have been updated in many cases. Updating and reconciling the list of water bodies and associated beneficial uses in the Beneficial Use Tables in Chapter 2 according to the newly revised maps would be done concurrently. The Regional Board should re-evaluate reach and estuary delineations. Redefining reaches and estuary boundaries based on more detailed hydrologic or other water body characteristics will result in more readily interpreted water quality data with respect to cause and effect relationships. The river segment (i.e., reach) designations and estuary boundaries contained in the Basin Plan were in some cases based on limited data instead of being based on detailed hydrological or other water quality characteristics. As staff examines watersheds in greater detail during watershed assessments and TMDL development, more concise information is being compiled on water body characteristics, and where these characteristics change along a water body. Different regulatory requirements apply depending on whether a water body is an inland surface water, estuary, enclosed bay or ocean water. There is some confusion about the definition of each of these and how each water body is identified. For purposes of clarification, the definitions and boundaries between these waterbody types should be included in the Basin Plan.
Proposed Action	Update maps in Chapter 2 of Basin Plan (Figures 1-22). Consider doing the following: a. Display watershed management areas. b. Align existing Hydrologic Units with most recent Cal Water 2.2 system (Overlay #1 in Basin Plan). c. Update reaches as appropriate. d. Define and delineate the boundaries of estuaries, harbors and enclosed bays. e. Match reach maps with beneficial use tables and water quality objective tables, where necessary.

[5] Basin Planning PYs are presented first followed by the total PYs (indicated in parentheses) needed to address the issue.

Issue Number	**R-1**
Title	**Map Update**
	f. Update groundwater maps based on Department of Water Resources (DWR) Bulletin 118 (2003 update) and update beneficial uses table for groundwater basins as necessary. Develop or reference clear definitions of “estuaries” and “enclosed bays” or clearly define the data requirements and criteria for delineating estuaries and enclosed bays. To the extent possible, clarify in the Basin Plan the boundaries of estuaries, harbors and enclosed bays, including the transition point(s) to marine/ocean waters and to inland fresh waters.
Proposed By	Regional Programs; Permitting; Underground Storage Tanks
Supported By	Public Workshop Attendees

2. Issues Evaluated, but Not Proposed for Completion

The beneficial use issues summarized below were evaluated during this Triennial Review, but due to limited resources are not proposed for completion in 2005-2007.

Issue Number	R-2
Title	Recreational Uses in Engineered Channels during High Flow Conditions
Category	Beneficial Uses
Type	Regionwide
Priority	High
Rank	14
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Evaluate appropriate recreational uses for engineered channels in Ventura County during high-flow conditions.
Background / Importance	Many water bodies in the region were heavily engineered (primarily from the 1930s to 1950s) to reduce the incidence of flooding in urbanized areas by conveying storm-water runoff to the ocean or other discharge point as efficiently as possible. To accomplish this, the channels were typically lined, on the sides and/or bottom, with riprap or concrete. These modifications create life-threatening "swift-water" conditions during and immediately following storm events. Furthermore, the vertical walls or steep-sided slopes of these channels make it very difficult to enter the channel during these conditions. The inherent danger of recreating in engineered channels during and immediately following storm events is widely recognized and is already addressed by Los Angeles and Ventura Counties through County policies. Given these current conditions, which physically preclude the recreational beneficial uses from being fully attained (i.e., under defined high flow/velocity conditions), the Regional Board adopted an amendment, which temporarily suspends the recreational beneficial uses in engineered flood control channels during and immediately following significant storm events (LARWQCB, 2003). Using readily available information and field surveys, Regional Board staff identified 61 water body segments in Los Angeles County to which the suspension applies. At the time of adoption, data on engineered channels in Ventura County were not readily available. Therefore, the high-flow suspension does not currently apply to any engineered channels in Ventura County. However, similar conditions exist in engineered channels in Ventura County; therefore, the Regional Board should consider a similar amendment for engineered channels in Ventura County to ensure consistency in regional policies.
Proposed Action	The Regional Board would temporarily suspend the recreational beneficial use designations of engineered channels during defined wet weather events that are characterized by unsafe conditions. The High Flow Suspension applies on days with rainfall greater than or equal to ½ inch and the 24

Issue Number	R-2
Title	Recreational Uses in Engineered Channels during High Flow Conditions
	hours following the end of the ½-inch or greater rain event. The High Flow Suspension only applies to engineered channels. This amendment has been completed for Los Angeles County but needs to be completed for Ventura County if the necessary data are available.
Proposed By	Public Workshop Attendees
Supported By	City of Signal Hill; City of Oxnard and Los Angeles County Department of Public Works

Issue Number	S-1
Title	Update “Preservation of Biological Habitats” (BIOL) Beneficial Use
Category	Beneficial Uses
Type	Statewide
Priority	High
Rank	17
Resource need	0.2
Implementing Program(s)	State Board with support of Standards/TMDL Unit
Brief Description	Update and expand the “Preservation of Biological Habitats” beneficial use to include newly designated State Marine Protected Areas (MPAs); Critical Coastal Areas (CCAs) where appropriate; renamed State Water Quality Protection Areas (SWQPAs), formerly known as ASBSs; and other inland surface waters where appropriate.
Background / Importance	The “Preservation of Biological Habitats” (BIOL) beneficial use is defined as those waters that support designated areas or habitats, such as Areas of Special Biological Significance (ASBS), established refuges, parks, sanctuaries, ecological reserves, or other areas where the preservation or enhancement of natural resources requires special protection. Nationally there has been greater focus on the condition of our oceans in particular and the need to protect and preserve this vast resource. The importance of this resource has been discussed at length in recent reports such as the Pew Commission report (2003) and the U.S. Oceans Commission report (2004). Currently there is a myriad of State designations used to identify water bodies and, in particular, marine and coastal areas deserving special protection. This has raised concern that there are too many designations by too many agencies, leading to confusion and inadequate protection. Specifically, in the Basin Plan, it is not clear what, if any, additional water quality protections are afforded to these areas with the exception of ASBSs. Waste discharges to ASBSs are prohibited under the California Ocean Plan. An additional concern is that the majority of water bodies designated with the BIOL use are coastal or marine waters; however, there are some inland surface water bodies that are significant regional resources for preservation of biological habitats such as the Santa Clara River. An important step underway in California is the designation of Marine Protected Areas by the California Department of Fish and Game. In order to heighten awareness and increase stewardship of these areas, it is important that the Regional Board do the following: 1) stay abreast of and incorporate into the definition of the BIOL use these and other new designations; 2) evaluate what additional water quality protections should be afforded to these areas and habitats; and 3) ensure that individual water body designations reflect the most up-to-date designations of the State Board and other State environmental and resource agencies.

Issue Number	S-1
Title	Update “Preservation of Biological Habitats” (BIOL) Beneficial Use
Proposed Action	The Regional Board should align its BIOL beneficial use designations with those of the State Board (SWQPAs and Critical Coastal Areas, CCAs where appropriate), California Department of Fish and Game (MPAs) and other similar state, regional or local designations. The Regional Board may consider broadening the range of special resources that may be afforded a higher level of protection, particularly in inland surface waters. These actions would provide a more unified designation system across agencies that address both habitat and water quality issues. The amendment should re-evaluate and revise if necessary the definition of the beneficial use and the level(s) of water quality protection that would be afforded to the designated water bodies. The amendment would also determine which water bodies should be assigned this higher level of protection based on other existing local, regional or state designations (e.g., CDFG’s MPAs, Los Angeles County’s Significant Ecological Areas designation) and/or field surveys.
Proposed By	Standards
Supported By	Santa Monica Bay Restoration Commission

Issue Number	S-2
Title	Use Attainability Analysis (UAA) Guidance/Policy
Category	Beneficial Uses
Type	Statewide
Priority	Medium
Rank	N/A[6]
Resource need	0.2 PY
Implementing Program(s)	State Board with support of Standards & TMDL Unit
Brief Description	Develop a UAA guidance/policy for the State
Background / Importance	If a designated use is an **existing use** (as defined in 40 CFR 131.3) for a particular water body, the existing use cannot be removed unless a use requiring more stringent criteria is added. If the State wishes to remove a **designated use** specified in section 101(a)(2) of the CWA, the State must perform a use attainability analysis.[7] A State may change activities within a specific use category but may not change to a designated use that requires less stringent criteria, unless the State can demonstrate that the designated use cannot be attained. Even after the previous steps have been considered, the designated use may be removed, or subcategories of a use established, only under the conditions given in section 131.10(g). 1) Naturally occurring pollutant concentrations prevent attainment; 2) Natural, ephemeral, intermittent, or low-flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; 3) Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; 4) Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; 5) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to [chemical] water quality, preclude attainment of aquatic life protection uses; or 6) Controls more stringent than those required by sections 301(b)(1)(A) and (B) and 306 of the Act would result in substantial and widespread economic and social impact. The Water Quality Standards Regulation requires States to provide opportunity for public hearing before adding or removing a use or

[6] Only high priorities were further ranked from 1…n; medium and low priorities were not assigned individual ranks.

Issue Number	S-2
Title	Use Attainability Analysis (UAA) Guidance/Policy
	establishing subcategories of a use.
Proposed Action	Work with State Board to develop a UAA policy to ensure consistency in UAAs.
Proposed By	Public Workshop Attendees
Supported By	

[7] Existing uses are those uses actually attained in a waterbody on or after November 28, 1975. Existing uses cannot be removed. Designated uses, in contrast, are those uses specified in state water quality standards regulations for each waterbody or segment thereof, whether or not they are being attained. They are essentially goals for a waterbody. In the Basin Plan, we identify these as "potential" uses.

Issue Number	S-3
Title	Re-evaluation of “Potential Uses”
Category	Beneficial Uses
Type	Statewide
Priority	Medium
Rank	N/A
Resource need	0.2 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Define “potential uses” more specifically. Consider how potential uses can be fully protected, while considering the possibility of regulatory flexibility in certain circumstances. Revisit the potential use designation where use attainment appears unlikely.
Background / Importance	Beneficial uses can be designated as "potential" for several reasons, including: • Implementation of the State Board's policy entitled "Sources of Drinking Water Policy" (State Board Resolution No. 88-63, described in Chapter 5); • plans to put the water to such future use; • potential to put the water to such future use; • designation of a use by the Regional Board as a regional water quality goal; or • public desire to put the water to such future use. “Existing” and “Potential” beneficial uses are differentiated in the Basin Plan, but are protected at the same level from a regulatory standpoint.
Proposed Action	Consider policies that would fully protect potential beneficial uses, but provide the possibility of regulatory flexibility in certain circumstances. Consider the possibility of tiered potential uses. On a case-by-case basis, where appropriate, consider UAAs for potential uses that may not be attainable.
Proposed By	Public Workshop Attendees
Supported By	City of Signal Hill

Issue Number	R-3
Title	Beneficial Use Changes
Category	Beneficial Uses
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.75
Implementing Program(s)	Standards/TMDL Unit
Brief Description	Evaluate individual beneficial use designation requests.
Background / Importance	Beneficial uses form the foundation for water quality protection. Beneficial uses determine what water quality objectives are applied to a water body. If these water quality objectives are not met, the beneficial use is considered impaired and a TMDL must be developed to remove the impairment. During sampling events, staff often records observations related to beneficial uses of waterbodies. In addition, other organizations and agencies submit to the Regional Board requests for beneficial use designations or de-designations for specific waterbodies of interest to them. In order to de-designate a beneficial use, a Use Attainability Analysis (UAA) must be performed. The required analysis is rigorous and stringent. See Issue Number S-2 for more detail on conducting UAAs.
Proposed Action	Staff will evaluate specific proposals for beneficial use designations and de-designations, as resources permit.
Proposed By	Public Workshop Attendees
Supported By	

Issue Number	R-4
Title	Recreational Uses of Engineered Channels with Restricted Public Access
Category	Beneficial Uses
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0. 5
Implementing Program(s)	Standards/TMDL Unit
Brief Description	Evaluate appropriate recreational beneficial uses for storm channels that are concrete lined, fenced, and have restricted public access.
Background / Importance	Many water bodies in the region were heavily engineered (primarily from the 1930s to 1950s) to reduce the incidence of flooding in urbanized areas by conveying storm-water runoff to the ocean or other discharge point as efficiently as possible. To accomplish this, the channels were typically lined, on the sides and/or bottom, with riprap or concrete. Furthermore, many of these channels have restricted public access and are characterized by low water levels during most of the year. Where access is precluded at all times, the regulated community is questioning the appropriateness of the recreational use designation.
Proposed Action	Assess the appropriateness of recreational (REC-1 and REC-2) beneficial use designations in engineered channels, i.e. concrete-lined, that are fenced thus restricting public access.
Proposed By	City of Signal Hill
Supported By	County of Los Angeles Department of Public Works[8]

[8] See Footnote 3.

B. REVISIONS TO WATER QUALITY OBJECTIVES

Water quality objectives are levels of individual pollutants or water quality characteristics that, if met, will protect the beneficial uses of the water. When a water body is designated for more than one beneficial use, objectives necessary to protect the most sensitive use must be applied to the water body. The federal Clean Water Act section 304(a) directs the U.S. EPA to develop recommended criteria. These recommendations are intended to assist States in developing water quality objectives (California terminology for state "criteria"), as part of our water quality standards.

Water quality objectives may be expressed in either narrative or numeric form. States may establish numeric objectives using CWA section 304(a) criteria guidance, section 304(a) criteria guidance modified to reflect site-specific conditions, or other scientifically defensible methods. Numeric objectives are values expressed as levels, concentrations, toxicity units, or other numbers deemed necessary to protect designated uses. Narrative objectives are descriptions of conditions necessary for the water body to attain its beneficial uses. Often expressed as "free from" certain characteristics, narrative objectives can be the basis for controlling nuisance conditions, e.g., floating debris. Narrative objectives are often the basis for limiting toxicity in discharges. States may establish narrative objectives where numeric objectives cannot be established or to supplement numeric objectives under 40 CFR 131.11(b)(2).

1. Ongoing Projects and Issues Proposed to be Addressed

The following ongoing projects and issues related to water quality objectives, summarized below, are proposed for completion during 2005-2007.

Issue Number	**O-3**
Title	**Oversee stakeholder led studies to develop copper SSOs**
Category	**Water Quality Objectives**
Type	**Regionwide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.3 PY**
Implementing Program(s)	**Water Quality Standards**
Brief Description	**Develop site-specific objectives for copper using the Biotic Ligand Model (BLM) and water effects ratio (WER) analysis.**
Background / Importance	The BLM and WER are criteria adjustment methods that account for the effect of site-specific water characteristics on pollutant bioavailability and toxicity to aquatic life. Both are tools that can be used to develop a site-specific objective (SSO) for a water body for a particular constituent. It can result in a higher (or lower) allowable concentration of a constituent than the national criteria and/or Basin Plan objectives to fully protect beneficial uses. Higher allowable objectives can result in significant cost savings to the regulated community, while still fully protecting beneficial uses. Where they are found to be technically sound and fully protective, there is no cost to the environment and they are appropriate.

Issue Number	O-3
Title	**Oversee stakeholder led studies to develop copper SSOs**
Proposed Action	Develop site-specific objectives for copper using the BLM and WER methods. This is a stakeholder driven process as it is the stakeholder that is seeking regulatory relief. Guidance documents on how to conduct an SSO using the WER and BLM methods include: - 1994 Interim Guidance on Determination and Use of Water-Effect Ratios for Metals (EPA-823-B-94-001), 1994. - Streamlined Water-Effect Ratio Procedure for Discharges of Copper (EPA-822-R-01-005), March 2001. - Compilation Of Existing Guidance For The Development of Site-Specific Water Quality Objectives In The State Of California (State Water Resources Control Board), June 2003. - 2003 Draft Update of Ambient Water Quality Criteria for Copper. EPA 822-R-03-026. Offices of Water and Science and Technology, US EPA. November 2003. - Biotic Ligand Model, Windows Interface, Version 2.0.0: User's Guide and Reference Manual. HydroQual. April 2003.
Proposed By	Los Angeles County Department of Public Works
Supported By	

Issue Number	**O-4**
Title	**Mineral Objective Averaging Period(s)**
Category	**Water Quality Objectives**
Type	**Regionwide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.3 PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Evaluate appropriate averaging period(s) for mineral quality objectives.**
Background / Importance	There has been debate over the interpretation of the averaging period in the Basin Plan for mineral quality objectives. As worded, the objectives have been applied as instantaneous maximums. However, in the 1975 Basin Plan for the Santa Clara River Basin there was a footnote indicating that the mineral objectives were to be applied as flow weighted averages over a period of time. Resolving this debate is important to facilitate TMDL development and is also important to stakeholders in the region. The footnote that was removed in the 1994 Basin Plan has strong implications on the way the mineral objectives are implemented, particularly for the POTWs that discharge to the Santa Clara River and Calleguas Creek. With the footnote, mineral concentrations can be averaged over a year and then compared to the objectives, allowing individual peaks to be moderated and compliance to be more easily achieved. Conversely, without the footnote the objectives must be met at all times, making the objective an instantaneous maximum and compliance more stringent.
Proposed Action	Consider agricultural water supply requirements, aquatic life standards and human health standards. Then evaluate the following possible averaging periods to determine the averaging period that will protect sensitive agriculture, aquatic life and human health. 1. Instantaneous maximum 2. Monthly calendar average 3. Rolling monthly average 4. Rolling annual average 5. Average water year 6. Three-year average 7. Three-year rolling average
Proposed By	TMDLs
Supported By	Stakeholders of the Calleguas Creek Watershed Management Plan; City of Los Angeles

Issue Number	**O-5**
Title	**Variance from Groundwater Objectives**
Category	**Water Quality Objectives**
Type	**Regionwide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.5 PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Evaluate groundwater MUN de-designation requests. Consider as an alternative maintaining the MUN use, but suspending objectives for natural constituents where it can be demonstrated the source is natural in origin.**
Background / Importance	In 1989, the Regional Board incorporated the State Board's Sources of Drinking Water Policy into the Basin Plan. This policy stated that all waters of the state, with certain exceptions, are to be protected as existing or potential sources of municipal and domestic supply. Exceptions include waters with historically high dissolved solids, low sustainable yield, waters with contamination that cannot be treated for domestic use using best management practices or best economically achievable treatment practices, waters within particular municipal, industrial, and agricultural wastewater conveyance and holding facilities, and regulated geothermal groundwater. In Regional Board Resolution 89-03, "Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans," the Regional Board chose not to apply any of the allowable exceptions. The resolution designated all waters as potential municipal and domestic supply (MUN) that were not already designated as either existing or potential municipal and domestic supply.[9] From 2000 to 2004, Regional Board staff has received five requests to consider removing the MUN beneficial use from groundwater basins on the basis of exceptions permitted in the SODW Policy. In the process of evaluating these requests for de-designation, it has become apparent to staff and management that the Regional Board needs to develop a consistent, regional framework for addressing these groundwater issues.
Proposed Action	Since 2000, a number of agencies have requested that the Regional Board re-evaluate the MUN designations for particular groundwater basins designated as a result of Regional Board Resolution 89-03. For example, requests have been received to re-examine the appropriateness of MUN designations for the: 1. semi-perched Oxnard Aquifer under Point Mugu Naval Base

[9] The US EPA in a letter dated February 15, 2002 revised its decision [dated May 26, 2000] approving the 1994 Basin Plan. In the February 15, 2002 letter, the US EPA approved in whole the 1994 Basin Plan. The letter states that "EPA bases its approval on the court's finding that the Regional Board's identification of waters with an asterisk ("*") in conjunction with the implementation language at page 2-4 of the 1994 Basin Plan, was intended 'to only conditionally designate and not finally designate as MUN those water bodies identified by an ("*") for the MUN use in Table 2-1 of the Basin Plan, without further action'. Thus, the waters identified with an ("*") in Table 2-1 do not have MUN as a designated use until such time as the State undertakes additional study and modifies its Basin Plan." (US EPA, 2002) EPA's decision has no effect on the MUN designations of groundwater.

Issue Number	O-5
Title	**Variance from Groundwater Objectives**
	2. specified portion of the West Coast Basin seaward of the Dominguez Gap Barrier Project in the City of Long Beach 3. lower Ventura River groundwater basin Some of the options that the staff has considered are the following. One, de-designating, at one time and using fixed criteria, portions of groundwater basins where the contaminants are clearly natural in source. Two, evaluating each de-designation request on an individual basis. Three, removing certain MUN objectives where the sources of the contaminants are natural. If the latter approach is used, the geographic scope and range of constituents to which this applies needs to be identified. That is, whether the objectives to be suspended will occur in areas seaward of injection barriers, areas influenced by coastal waters in general, or coastal and inland areas. Also, it needs to be determined whether the constituents to be lifted will be of marine origin or consist of a broader array of constituents. Other possible options are to take no action or to remove the MUN designations on a case-by-case basis.
Proposed By	Groundwater; TMDL
Supported By	

Issue Number	**O-6**
Title	**Ammonia Site Specific Objectives**
Category	**Water Quality Objectives**
Type	**Regionwide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.2 PY**
Implementing Program(s)	**Water Quality Standards**
Brief Description	**Develop Ammonia Site Specific Objectives for the San Gabriel River, Los Angeles River and Santa Clara Rivers**
Background / Importance	Because ammonia has a known toxic effect to aquatic life, the U.S. EPA Office of Water has found that the control of ammonia discharges is necessary to protect aquatic life uses in surface waters of the United States. Ambient water quality criteria are set at the national level by the U.S. EPA to be protective of conditions throughout the United States. Because of the variety of waterbodies and differing conditions throughout the country, the criteria developed on the national level might be over- or under-protective for some waterbodies. State and Tribal decision-makers retain the discretion to adopt water quality standards on a case-by-case basis that differ from this guidance when appropriate and where supported by local data. Beyond the headwaters, many of the waterbodies in Los Angeles County are dominated by effluent from wastewater treatment facilities, particularly during the prevailing dry weather conditions in Southern California. Characteristics of these waterbodies, such as high hardness and ionic composition, vary from conditions in other waterbodies. The proposed SSOs for ammonia would take into account differences that affect the toxicity of ammonia between the local water chemistry and that of the test water used in the development of the national criteria. The objective of this amendment is to adopt site-specific chronic (i.e. 30-day average) objectives for ammonia in select Los Angeles County waterbodies that will be sufficiently protective, but not over-protective of the aquatic habitat in these waterbodies. The proposed SSOs would also be more easily attainable much of the time, while still fully protecting aquatic organisms in the target waterbodies. The amendments will facilitate development of TMDLs as well as ongoing Regional Board oversight of discharges from major POTWs to these waterbodies.
Proposed Action	Develop an amendment to the Basin Plan to incorporate site-specific [30-day average] ammonia objectives for select inland surface waters. The goal of this amendment is to take into account site specific conditions that have been shown to alter [reduce] the toxicity of ammonia to aquatic life and aquatic invertebrates in particular. The proposed changes are based on toxicity bioassays using the amphipod crustacean *Hyalella azteca*, the most chronically sensitive test species used in the development of the

Issue Number	**O-6**
Title	**Ammonia Site Specific Objectives**
	national ammonia criteria, and the US EPA's Water Effects Ratio (WER) methodology (U.S. EPA 1994).
Proposed By	Los Angeles County Sanitation Districts; City of Los Angeles; City of Burbank
Supported By	

Issue Number	**O-7**
Title	**Residual Chlorine Objective**
Category	**Water Quality Objectives**
Type	**Statewide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.2 PY**
Implementing Program(s)	**State Board with support from Standards & TMDL and Permitting Units**
Brief Description	**Review and revise the residual chlorine objective to be fully protective of aquatic life and consider associated implementation policy for permitting purposes.**
Background / Importance	Discharges of chlorine are common because it is used to disinfect effluent, to control fouling organisms in cooling water systems, and in industrial processes, particularly in the food and paper industries. These discharges may be quite toxic to aquatic organisms, but the complexity of the reactions of chlorine (Jolley and Carpenter, 1981, 1982) increases the difficulty of assessing the impact of chlorine. When chlorine is added to fresh water, the solution will usually contain two forms of free chlorine: hypochlorous acid (HOCl) and the hypochlorite ion (OCl^-). If the water contains ammonia, the solution will probably also contain two forms of combined chlorine: monochloramine and dichloramine. Because all four of these are quite toxic to aquatic organisms, the term "total residual chlorine" (TRC) is used to refer to the sum of free chlorine and combined chlorine in fresh water. The Basin Plan currently contains a two-part objective for total residual chlorine. The first part states that, "Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L." The second part states that, "…[chlorine residual] shall not persist in receiving waters at any concentration that causes impairment of beneficial uses." Concern has been expressed that the waste discharge limit of 0.1 mg/L may not be adequately protective of aquatic life. This issue was identified in the 1995 Triennial Review as a high priority and again in the 2001 Triennial Review as a high priority.
Proposed Action	The State Board, Division of Water Quality, Freshwater Standards Unit is currently working on a Statewide Policy, which would include adoption of the U.S. EPA recommended criteria for total residual chlorine (U.S. EPA, 1984). U.S. EPA criteria include a 4-day average concentration limit of 0.011 mg/L and a one-hour average concentration limit of 0.019 mg/L for freshwater. The Statewide Policy will also contain provisions for assessing compliance with the TRC objectives. The provisions for assessing compliance may include, but are not limited to, monitoring requirements and concentration/duration thresholds for determining permit violations. Regional Board staff is providing input to State Board, since the provisions of the Statewide Policy would ultimately be implemented through regionally issued discharge permits.

Issue Number	**O-7**
Title	**Residual Chlorine Objective**
Proposed By	Regional Programs
Supported By	U.S. EPA

Issue Number	**R-5**
Title	**Guidelines for Interpreting Narrative Objectives**
Category	**Water Quality Objectives**
Type	**Regionwide**
Priority	**High**
Rank	**2**
Resource need	**0.75 PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Develop a general policy for interpreting narrative objectives. Identify and prioritize narrative objectives for addition or revision (such as a narrative objective for emerging chemicals including MTBE, perchlorate, chromium VI, 1-4 dioxane, and 1-2-3 TCP or for biological integrity). Address one or two of the identified priorities.**
Background / Importance	Many of the objectives in our Basin Plan are stated in narrative form (e.g. bioaccumulation, biostimulatory substances, color, exotic vegetation, floating material). That is, there is no specific numeric limit for the pollutant or stressor, instead the objective is generally worded as follows: "Waters shall not contain [pollutant or stressor] in concentrations that cause nuisance or adversely affect beneficial uses". However, staff must be able to consistently interpret these narrative objectives when developing numeric targets in TMDLs and translating these narrative objectives into numeric effluent limits in permits. Narrative objectives are an important component of water quality standards. Narrative objectives often provide a mechanism to regulate the many new chemicals developed and marketed each year when scientific research is still underway to determine numeric limits for the chemical. These objectives are worded to ensure that the pollutant or stressor does not cause any adverse effects to beneficial uses or cause a nuisance. Because narrative objectives are expressed in this way, it is valuable to have a policy for interpreting these narrative objectives when they are used in water quality assessments, TMDLs, and permits. Though stated in narrative form, there are often numeric limits that could be applied from other state agencies (such as the Department of Fish and Game or the Office of Environmental Health Hazard Assessment), federal agencies (such as the US EPA or US Fish and Wildlife Service), foreign government agencies, international agencies or from the scientific literature. A policy could outline a decision process for interpreting narratives using appropriate numeric limits.
Proposed Action	To facilitate the consistent translation of narrative objectives into numeric targets in TMDLs or numeric effluent limits in permits, the Regional Board may develop a policy that outlines what considerations should be taken into account when translating narrative objectives. These considerations may include: correlation between beneficial use impacts and levels of the pollutant/stressor; all relevant information submitted by the discharger and interested parties; and relevant numerical criteria and guidelines developed and/or published by other agencies and organizations (e.g., criteria contained in "A Compilation of Water Quality Goals" prepared by

Issue Number	R-5
Title	**Guidelines for Interpreting Narrative Objectives**
	the California Regional Water Quality Control Board, Region 5). If the Regional Board prioritizes developing a policy for interpreting narrative objectives for emerging chemicals, the Regional Board should consider developing a screening protocol for these types of chemicals and, as needed, incorporating limits into permits and requiring regional monitoring programs. If the water body is identified as impaired by this pollutant, the policy should state that monitoring and a limit is required in the permit.
Proposed By	TMDLs and Public Workshop Attendees
Supported By	City of Los Angeles; Los Angeles County Department of Public Works

Issue Number	**S-5**
Title	**Objectives for Sediment Quality and Sediment Toxicity**
Category	**Water Quality Objectives**
Type	**Statewide**
Priority	**High**
Rank	**4**
Resource need	**0 (0.2) PY**
Implementing Program(s)	**Standards and Permitting**
Brief Description	**Work with State Board staff to develop numeric or narrative objectives for sediment quality and sediment toxicity.**
Background / Importance	Exposure to contaminated sediments can have a significant effect on the health, diversity and abundance of benthic invertebrates such as clams and worms that live in and on the surface of the sediment. Fish and birds foraging on benthic invertebrates may also be exposed through ingestion of benthic invertebrates and sediment. Animals in higher trophic levels can also be exposed to bioaccumulative pollutants by eating contaminated fish. These effects underscore the necessity of developing sediment quality objectives for the protection of both marine and terrestrial ecosystems and human health and animal welfare.
Proposed Action	The State Water Resources Control Board initiated a process to develop sediment quality objectives (SQOs) for enclosed bays and estuaries in May of 2003. A workplan was developed to guide the SQO development over the anticipated four years of its development (SWRCB, 2003). The Division of Water Quality, SWRCB, is required to work on SQOs for the protection of human health and wildlife but given the state of understanding and the limited time and resources, they are focusing on a site specific or water body specific human health based SQOs. State Board is evaluating several different models and performing case studies to determine what methods work best and what types of data are most important. Regional Board staff is on the Agency Coordination Committee formed by State Board to discuss how SQOs would be implemented within the context of existing programs. The group has met a couple of times to help guide development of the work plan and will be meeting in the future as SCCWRP and State Board develop the proposed approach. The State Board must produce draft SQOs by August 2005. These SQOs only are being developed for enclosed bays and estuaries.
Proposed By	TMDLs
Supported By	Public Workshop Attendees

Issue Number	**S-4**
Title	**Development of Nutrient Objectives**
Category	**Water Quality Objectives**
Type	**Statewide**
Priority	**High**
Rank	**5**
Resource need	**0 (0.2) PY**
Implementing Program(s)	**Regional Programs**
Brief Description	Continue groundwork, including participation in RTAG, in support of developing nutrient objectives as required by US EPA.
Background / Importance	It is generally understood that nutrient loads have complex, and often indirect, effects on aquatic ecosystems that may lead to impairment of beneficial uses of water bodies. In many instances, these effects are also influenced by non-nutrient factors that may act differently in individual water bodies to mitigate or worsen problems caused by excess nutrients. Therefore, efforts to develop nutrient objectives must follow approaches that are different from those that have been widely applied for developing objectives for other water quality parameters, e.g. toxicants. The process for developing nutrient objectives for the region started in 1998 with the publication of the National Strategy for the Development of Regional Nutrient Criteria (USEPA 1998). EPA then proceeded to develop national criteria recommendations for certain ecosystems. EPA Region IX made an early commitment to the regional team concept for developing nutrient criteria ("objectives" in state terminology) by calling together the Regional Technical Advisory Group (RTAG) in 1999 prior to the completion of the EPA guidance documents for developing nutrient criteria. The RTAG conducted a pilot project in 1999 and 2000 to evaluate regional reference conditions for streams and rivers in aggregated Ecoregion II (Western Forested Mountains). The results of this project suggested that the proposed reference condition distributions used by EPA would require some refinement and supporting studies to ensure that the adopted criteria (objectives) were appropriate for conditions in California. In 2001 the California State Water Resources Control Board (SWRCB) created the State Regional Board Technical Advisory Group (STRTAG) to: (1) work in parallel with the RTAG, (2) assume responsibility for the development of nutrient objectives for California, and (3) better coordinate the activities of the individual Regional Boards. The RTAG and STRTAG continue to work in close association. The EPA national approach has relied on a statistical analysis of monitoring data to select targets for nutrients. While this is a starting point, it bears little relationship to the nutrient concentrations or loads that present a risk to attaining specific beneficial uses. The proposed California approach was developed by Tetra Tech, Inc. and relies on using selected

Issue Number	S-4
Title	**Development of Nutrient Objectives**
	biological responses in addition to nutrient concentrations. Although biological responses are not always measured and are more difficult to predict than concentrations, these measures appear to be more generalized than nutrient concentrations. That is, it may be possible to agree that a given density of periphyton biomass is injurious to support of any coldwater fishery, or a given frequency of blue-green algal blooms impairs a municipal supply use, even if the nutrient concentration that will cause that result varies widely from stream to stream. Despite the additional data requirement, the advantage of the proposed approach is a more robust link to actual impairment of use, rather than an approach that relies on concentration data alone.
Proposed Action	The statewide effort is nearly complete. Tetra Tech has completed the model that sets nutrient objectives for each region and each watershed for which a TMDL will be required in California. There are 173 nutrient TMDLs that are in place or scheduled throughout the State. The steps that are left to accomplish are to hold a workshop for experts in nutrients to review the model. And, following this, training of personnel is necessary.
Proposed By	Standards
Supported By	EPA

Issue Number	**R-8**
Title	**Determination of Hardness in Metals Calculations**
Category	**Water Quality Objectives**
Type	**Regionwide**
Priority	**High**
Rank	**7**
Resource need	**0.4 (0.5) PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Evaluate what hardness value(s) should be used in the calculation of permit limits (or waste load allocations in TMDLs) for hardness-dependent metals.**
Background / Importance	The California Toxics Rule contains freshwater aquatic life criteria for certain metals that are expressed as a function of hardness. Hardness and/or water quality characteristics that are usually correlated with hardness can reduce or increase the toxicity of some metals. Hardness is used as a surrogate for a number of water quality characteristics that affect the toxicity of metals in a variety of ways. Increasing hardness has the effect of decreasing the toxicity of metals. However, there is no statewide policy or guidance for determining which hardness values to use in the development of TMDLs or effluent limits in permits. The challenge is to select the hardness values that will produce objectives that are fully protective of aquatic life but not unnecessarily stringent. In some cases, it is relatively easy to select the appropriate hardness value because effluent and receiving water have similar values, and these values do not vary greatly temporally or spatially in the water body. In other cases, some or all of these factors may vary significantly. Sampling location and/or seasonality of sampling could be important in these cases. Whether the data are adequate to select the appropriate hardness value(s) must be examined on a case-by-case basis. A small data set for one discharge and/or receiving water may be inadequate due to the high variability in hardness values. However, the same size data set for a different discharge and/or receiving water may be sufficient to characterize hardness. NPDES permit writers have used average hardness values or median hardness values when setting CTR-based final effluent limitations for hardness-dependent metals.
Proposed Action	The Basin Plan would be modified to include a policy on how to select the appropriate hardness values for establishing CTR-based limitations for hardness-dependent metals.
Proposed By	Permitting
Supported By	Public Workshop Attendees

Issue Number	**R-9**
Title	**Temperature and pH Values for Determining Ammonia Objectives**
Category	**Water Quality Objectives**
Type	**Regionwide**
Priority	**High**
Rank	**8**
Resource need	**0.4 (0.5) PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Assess what temperature and pH values of what waters should be used in determining the ammonia objective for a water body. Clarify how the 30-day objectives are evaluated.**
Background / Importance	RESOLUTION NO. 2002-011, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters, adopted by the Regional Board on April 25, 2002, updated the freshwater ammonia objectives for inland surface waters. Resolution No. 2004-022, adopted by the Regional Board on March 4, 2004, updated the saltwater ammonia objectives for inland surface waters not characteristic of freshwater (such as estuaries and enclosed bays). In addition, these Resolutions established procedures for calculating effluent limitations from the water quality objectives. However, the implementation provisions did not specify where the pH and temperature, necessary for the calculation of the objectives and permit limits, would be collected or which pH and temperature values would be used. NPDES permit writers have thus far included footnotes in the recently adopted NPDES permits for POTWs to specify that the temperature and the pH shall be sampled in the receiving water downstream of the discharge, and that those values would be used to determine the applicable ammonia objectives in the tables for compliance determination purposes. The reason being is to assure that a toxic condition in the receiving water is not caused by the discharge. Some dischargers would like to have the pH and temperature sampled at the final discharge point, rather than in the receiving water.
Proposed Action	Consider additional implementation provisions for the ammonia objectives for inland surface waters, specifying which temperature and pH should be used to determine the appropriate ammonia objectives and effluent limitations.
Proposed By	Permitting
Supported By	Public Workshop Attendees

Issue Number	**S-6**
Title	**Numeric Biocriteria**
Category	**Water Quality Objectives**
Type	**Statewide**
Priority	**High**
Rank	**9**
Resource need	**0.2 (0.4) PY**
Implementing Program(s)	**Water Quality Standards/SWAMP**
Brief Description	Continue groundwork in support of the future development of numeric biocriteria, including collection of regional bioassessment data and refinement of regional indices of biological integrity.
Background / Importance	Beneficial uses such as aquatic life are at the heart of water quality protection and water quality standards. The basic goal of the federal Clean Water Act is to protect and restore the physical, biological and chemical integrity of our nation's waters. Water quality objectives are expressly set to protect beneficial uses. However, individually these objectives do not always fully protect beneficial uses from multiple stressors or the cumulative effects of multiple pollutants. Furthermore, because new chemicals are constantly emerging in the environment, it is not always possible to immediately identify the cause of biological impairment. Biocriteria are effective regulatory tools for assessing the overall health of the aquatic community and for identifying possible impairments or degradation caused by cumulative impacts or emerging chemicals that might not otherwise be identified using physical and chemical measures alone.
Proposed Action	Continue groundwork in support of the future development of numeric biocriteria, including collection of regional bioassessment data and refinement of regional indices of biological integrity. Work with the Basin Planning Roundtable to develop a standard narrative objective for biological integrity that the Regional Boards can incorporate into their Basin Plans.
Proposed By	Standards
Supported By	US EPA

2. Issues Evaluated, but Not Proposed for Completion

The following Basin Planning issues related to water quality objectives, summarized below, were evaluated, but are not proposed for completion in 2005-2007.

Issue Number	R-6
Title	Defining "Natural Conditions" for Temperature, Turbidity and pH
Category	Water Quality Objectives
Type	Regionwide
Priority	High
Rank	13
Resource need	0.75 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Evaluate how to determine "natural conditions" and deviations from natural conditions due to waste discharge when applying pH, temperature and turbidity objectives. Evaluate use of maximum value(s) for temperature and turbidity as objectives in urbanized, highly modified systems.
Background / Importance	In the Basin Plan the temperature, turbidity and pH objectives are tied in part to deviations from "natural conditions." Because many of our watercourses have been altered, determining natural conditions can pose challenges. The Basin Plan says that ambient pH levels shall not be changed by more than 0.5 unit or 0.2 unit from natural conditions as a result of waste discharge for inland waters and enclosed bays or estuaries, respectively. For waters designated WARM or COLD, water temperature shall not be altered by more than 5 degrees F above the natural temperature. Given these objectives, it is important to understand and define what constitutes "natural conditions." The Basin Plan numeric objective for turbidity states, "Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%." Natural turbidity is not fully defined in the Basin Plan, resulting in ambiguity during the permitting and enforcement processes. For industrial discharges it is often not physically possible to measure the natural turbidity of the receiving water so for these cases, a fixed maximum number for turbidity shall be considered in order to protect the environment.
Proposed Action	Develop implementation provisions, or a method, for determining natural conditions and deviations from those conditions for pH of inland waters and enclosed bays or estuaries, temperature of both WARM and COLD waters and turbidity. It is important to develop a methodology to assess pH, turbidity and temperature changes for each type of water body (i.e. compliance calculation method). The Proposed Action should include a definition of this methodology to determine compliance when there is a discharge to a

Issue Number	R-6
Title	Defining "Natural Conditions" for Temperature, Turbidity and pH
	stream or to an enclosed bay or estuary. For example, should we compare upstream versus downstream conditions for a stream discharge? This could result in many dischargers being in violation of the temperature objective during the winter. Another alternative may be to track changes at a given location over a 24-hour period. If the temperature (or pH) varied by more than the objective it would be considered a violation. For enclosed bays and estuaries, one alternative is to compare the discharge zone to some ambient condition. The Regional Board should also consider how to determine natural turbidity. For industrial discharges specifically, the Regional Board may also consider applying a fixed turbidity value as a limit.
Proposed By	Regional Programs
Supported By	Los Angeles County Department of Public Works

Issue Number	R-7
Title	Narrative Water Quality Objective for Exotic Vegetation
Category	Water Quality Objectives
Type	Regionwide
Priority	High
Rank	16
Resource need	0.3 PY
Implementing Program(s)	Water Quality Standards
Brief Description	Expand narrative water quality objective for exotic vegetation to more broadly apply to exotic plant and animal species.
Background / Importance	Invasive species cause serious harm when they "tip the balance" in delicate ecosystems or push endangered native species over the edge, reducing biodiversity. Of the 958 species federally listed as threatened or endangered, some 400 are listed primarily because of competition with, or predation by, invasive species. Exotic species introductions are one of the primary environmental threats to our aquatic ecosystems. California has one of the highest numbers of invasive species in the country. *Caulerpa taxifolia*, a non-native seaweed, is one of the most recent to impact Southern California marine habitats. Another harmful species is the *Arundo donax* (Giant Reed) which is a very hearty species that easily out-competes native species. It requires large quantities of water and to the best of our knowledge does not provide either food or nesting habitat for native animals. Examples of invasive aquatic animal species in California are: Chinese Mitten Crabs, Zebra Mussels, New Zealand Mussel Snails and Northern Pike. Scientists agree that, regardless of how an aquatic species arrives in an ecosystem, once it is established, eradication is nearly impossible. Prevention is clearly the best hope for stemming the tide of invasives. And since ballast water is the most significant source of coastal aquatic invasive species worldwide, measures are being developed to prevent the large-scale transfer of organisms from port to port. Both the U.S. government and the International Maritime Organization recommend that ships "exchange" ballast water in the open ocean, rather than in coastal waters, where exotic species have a better chance of establishing themselves. In the future the Regional Board should investigate current practices and requirements for exchange of ballast water. The Board should coordinate with the California Department of Fish and Game, US Fish and Wildlife Service, and California Coastal Commission to establish recommendations for reducing invasion in our Region's waterbodies, such as prohibitions on discharge of aquarium water. A broad policy statement that deals with other potential threats could also be considered. The Board should consider recommending against the sale/use of certain exotic species (e.g. those mentioned above) by nurseries and residential users, where the exotic vegetation could have a negative impact on

Issue Number	R-7
Title	Narrative Water Quality Objective for Exotic Vegetation
	waterways by reducing habitat.
Proposed Action	The proposed action is simply to expand the narrative water quality objective for exotic vegetation to more broadly apply to exotic plant and animal species.
Proposed By	Santa Monica Bay Restoration Commission
Supported By	Public Workshop Attendees

Issue Number	R-10
Title	Methylene Blue Activated Substances (MBAS) Objective Update
Category	Water Quality Objectives
Type	Regionwide
Priority	High
Rank	23
Resource need	0.4 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Update the water quality objective of 0.5 mg/L for MBAS (Methylene Blue Activated Substances). Evaluate application of objective to protect all appropriate beneficial uses. Evaluate the need for a new water quality objective for modern detergents such as CTAS (cobalt thiocyanate active substances).
Background / Importance	Surfactants disturb the water surface tension, which affects insects and can affect the gills of aquatic life. MBAS can also impart an unpleasant soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of both surface and ground waters. The Basin Plan contains the following water quality objective for inland surface waters: "Waters shall not have MBAS concentrations greater than 0.5 mg/L in waters designated MUN." The 0.5 mg/L concentration (which has been determined to be protective of beneficial uses and the aesthetic quality of waters) is based on the Department of Health Services' secondary drinking water standard. Since the taste and odor narrative objective applies to both surface and groundwaters, the MBAS numeric objective should apply to both surface and groundwaters.
Proposed Action	(1) Evaluate to which beneficial uses the objective should apply, including but not limited to GWR, REC-1, REC-2 and WARM in addition to MUN. (2) Consider amending the Basin Plan so that the 0.5 mg/L objective for MBAS applies to surface waters with a MUN beneficial use designation and also to groundwaters with a MUN beneficial use designation. Evaluate the need for a new objective for modern detergents such as CTAS.
Proposed By	Permitting
Supported By	

Issue Number	R-11
Title	Dissolved Oxygen Averaging Period
Category	Water Quality Objectives
Type	Regionwide
Priority	High
Rank	24
Resource need	0.3 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Evaluate appropriate averaging period(s) for Dissolved Oxygen (DO) objectives.
Background / Importance	The Basin Plan specifies instantaneous dissolved oxygen objectives and mean annual dissolved oxygen objectives. The annual averaging period appears to be inappropriate due to high variability in dissolved oxygen data especially during summer and winter. Monitoring cost for dissolved oxygen is minimal. Therefore, at a minimum, a short-term averaging period such as monthly averaging should be considered in order to obtain representative data from different seasons.
Proposed Action	The Regional Board should consider a shorter-term averaging period for dissolved oxygen. Staff recommends that an average monthly objective be adopted to replace the current mean annual objective.
Proposed By	Permitting; Regional Programs
Supported By	

Issue Number	R-13
Title	Natural Sources Exclusion Policy
Category	Water Quality Objectives
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.2 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Evaluate the need to broaden the application of the "natural sources exclusion" permitted in bacterial TMDLs to other naturally occurring constituents, e.g. arsenic and selenium, based on results of the natural loadings study funded by US EPA.
Background / Importance	A number of chemical constituents are naturally occurring in the environment. These include, but are not limited to, nutrients (nitrogen and phosphorus), minerals and metals. In some cases, these constituents may be naturally elevated above the water quality objective and may exceed the objective more frequently than currently allowed by the water quality standard. In these cases, it may be appropriate to allow exceedances of the objective comparable to that observed in a reference system. Furthermore, it is important in the development of TMDLs to be able to quantify the background levels of the pollutant of concern when setting waste load allocations and load allocations to achieve the numeric targets in the TMDL.
Proposed Action	Based on the results of the natural source loadings study, evaluate the need to develop implementation provisions for water quality objectives where natural sources of the pollutant cause it to be elevated above the current objective or to exceed the objective more frequently than currently allowed by the water quality standard.
Proposed By	TMDL
Supported By	Public Workshop Attendees; City of Signal Hill; County of Los Angeles – Department of Public Works; City of Los Angeles; and Western States Petroleum Association.

Issue Number	R-12
Title	Site-Specific Objectives for cyanide and various metals
Category	Water Quality Objectives
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	1.0 PY
Implementing Program(s)	Water Quality Standards
Brief Description	Develop site-specific objectives for cyanide and various metals using the water effects ratio (WER) analysis.
Background / Importance	The Water Effects Ratio (WER) is a criteria adjustment factor accounting for the effect of site-specific water characteristics on pollutant bioavailability and toxicity to aquatic life. A water effects ratio is a tool to develop a site-specific objective (SSO) for a water body for a particular constituent. It can result in a higher (or lower) allowable concentration of a constituent than the national criteria and/or Basin Plan objectives to fully protect beneficial uses. Higher allowable objectives can result in significant cost savings to the regulated community. Where they are technically sound, there is no cost to the environment and they are appropriate.
Proposed Action	Develop site-specific objectives for cyanide and various metals using the water effects ratio or other appropriate analysis. This is a stakeholder driven process as it is the regulated community that is seeking regulatory relief. Guidance documents on how to conduct an SSO using a water effects ratio are: - 1994 Interim Guidance on Determination and Use of Water-Effect Ratios for Metals (EPA-823-B-94-001), 1994. - Streamlined Water-Effect Ratio Procedure for Discharges of Copper (EPA-822-R-01-005), March 2001. - Compilation Of Existing Guidance For The Development of Site-Specific Water Quality Objectives In The State Of California (State Water Resources Control Board), June 2003.
Proposed By	Los Angeles County Department of Public Works
Supported By	

Issue Number	R-14
Title	Application of Objectives to Peak Storm Flows
Category	Water Quality Objectives
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDLs
Brief Description	Evaluate peak storm flows and whether all beneficial uses and water quality objectives should apply to infrequent and/or substantial storm flows.
Background / Importance	During large storm events, stormwater runoff drains large areas and conveys with it the pollutants lying on the land's surface. The pollutant load and volume of water can be high. Water pollution control technologies to treat the large volume of storm water and associated pollutant loads are expensive and, in many cases, are still in developmental stages, making compliance with standards technologically and economically challenging. Some in the regulated community feel that it is not economically practical for stormwater to meet water quality standards especially with other competing societal needs. Therefore they are looking for some regulatory relief given the unique characteristics of stormwater. The Regional Board has addressed this issue in part by evaluating and suspending the recreational beneficial use and the associated bacteria objectives in engineered channels in Los Angeles County during high flow events. However, the Board soundly rejected similar suggestions to suspend the recreational beneficial use at beaches, where the use is clearly existing and, therefore, must be protected even during large wet weather events. The Regional Board has included as an item in this Triennial Review another issue to evaluate a high-flow suspension of the recreational beneficial use and associated bacteria objectives in engineered channels in Ventura County similar to the amendment previously adopted by the Regional Board for Los Angeles County. This amendment suspends the REC use and associated objectives during specified wet weather conditions when it is not safe to have recreational activities in engineered channels. (See Issue Number R-2.)
Proposed Action	Evaluate peak storm flows and whether all beneficial uses and water quality objectives should apply to infrequent and/or substantial storm flows.
Proposed By	County of Los Angeles Department of Public Works[10]; City of Signal Hill; and Western States Petroleum Association.

[10] See Footnote 3.

Issue Number	R-15
Title	Numeric Objective for TSS
Category	Water Quality Objectives
Type	Regionwide
Priority	Medium
Rank	NA
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Develop a numeric objective for solid, suspended and settleable materials.
Background / Importance	Currently, the Basin Plan does not include a numeric objective for Total Suspended Solids (TSS); rather it has a narrative objective that states "Waters shall not contain TSS or settleable material in concentrations that cause nuisance or adversely affect beneficial uses". A numeric objective for TSS included in the Basin Plan would achieve consistency in setting effluent limitations for TSS in NPDES permits and provide the regulatory support for enforcement issues on TSS. TSS is a significant source of pollution to surface waters. When suspended particles settle to the bottom of a water body, they become sediments. The terms "sediment" and "silt" are often used to refer to TSS. TSS consist of an inorganic fraction (silts, clays, etc.) and an organic fraction (algae, zooplankton, bacteria, and detritus). The inorganic portion is usually considerably higher than the organic. Both contribute to turbidity, or cloudiness of the water. Waters with high sediment loads are very obvious because of their "muddy" appearance. This is especially evident in rivers, where the force of moving water keeps the sediment particles suspended. Sources of TSS include erosion from agricultural land, surface mining, construction sites, dewatering operations, and resuspension of sediments from dredging operations. TSS is detrimental to fish health; it can clog fish gills, decreasing disease resistance, egg growth, either killing them or reducing their growth rate. They also reduce light penetration in surface water. This reduces the ability of algae to produce food and oxygen. In addition, when TSS settle out, the silt may smother bottom-dwelling organisms, cover breeding areas, and smother eggs. TSS affects other parameters such as temperature and dissolved oxygen. Because of the greater heat absorbency of the particulate matter, the surface water becomes warmer and this tends to stabilize the stratification (layering) in stream pools, and reservoirs. This, in turn, interferes with mixing, decreasing the dispersion of oxygen and nutrients to deeper layers. TSS interferes with effective drinking water treatment. High sediment loads interfere with coagulation, filtration, and disinfection. More chlorine is required to effectively disinfect turbid water. Turbid water can impede recreational use and aesthetic enjoyment of water due to poor visibility, which can be dangerous for swimming and diving. A positive effect of the presence of TSS in water is

Issue Number	R-15
Title	Numeric Objective for TSS
	that toxic chemicals such as pesticides and metals tend to adsorb to them thereby making the toxics less available to be absorbed by living organisms.
Proposed Action	The Regional Board should look into developing a quantitative objective for TSS. Any recommended objective should ensure that suspended solids concentration in a discharge does not reduce the maximum depth of photosynthetic activity by more that 10% from the seasonally established norm. Currently, effluent limitations or standards for TSS from public owned treatment works (POTW) and other industrial process discharge are based in part on the secondary treatment standards (40 CFR part 133.102 These standards for TSS are as follows: The 30-day average shall not exceed 30 mg/l. The 7-day average shall not exceed 45 mg/l. The 30-day average percent removal shall not be less than 85 percent. To date, generally "other" NPDES permits in this Region use a monthly average of 50 mg/l and a daily maximum of 150 mg/l to regulate TSS in surface water discharges. The daily maximum of 150 mg/l is a very high number. It is high because once this number is exceeded, it is almost impossible to achieve the monthly average of 50 mg/l, unless a significant number of samples are collected. Therefore, it is recommended that the Basin Plan provide for TSS limitations for "other" NPDES permits within this Region as follows: The 30-day average shall not exceed 50 mg/l. The daily maximum shall not exceed 100 mg/l. This set of standards (for "other" NPDES permits) should be applicable to discharges associated with non-POTW and/or non-industrial process wastewater discharge, including non-contact cooling water. In summary, it is recommended that two tiers of standards for TSS be considered for incorporation in the in the Basin Plan. The first tier of standards based 40 CFR part 103.102 secondary treatment standards would apply to POTW and industrial process wastewater discharges. The second tier of standards based on the existing limitation in many of our NPDES permits and on best professional judgement should apply to non-POTW and non-industrial process, including non-process wastewater. The second tier of standards could apply to discharges provided coverage under the general permit and other discharges where a high level of wastewater treatment is not necessary.
Proposed By	Permitting
Supported By	

Issue Number	R-16
Title	MCL Applicability to Taste and Odor Objective
Category	Water Quality Objectives
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Evaluate whether the Board should adopt secondary MCLs as numeric water quality objectives.
Background / Importance	Undesirable tastes and odors in water are an aesthetic nuisance, can impact recreational and other uses, and can indicate the presence of other pollutants. The current Basin Plan contains the following narrative water quality objective for Taste and Odor: "Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible aquatic resources, cause nuisance, or adversely affect beneficial uses." Title 22 drinking water standards contain secondary MCLs for organoleptic (taste, odor, etc.) effects.
Proposed Action	Consider amending the Basin Plan to include numeric objectives for those pollutants that have secondary MCLs.
Proposed By	Permitting
Supported By	

Issue Number	R-17
Title	Numeric Objective for Oil and Grease
Category	Water Quality Objectives
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Develop a numeric water quality objective for oil and grease.
Background / Importance	Oil and grease are not readily soluble in water and form a film on the water surface. Oily films can coat birds and aquatic organisms, impacting respiration and thermal regulation, and causing death. Oil and grease can also cause nuisance conditions (odors and taste), are aesthetically unpleasant, and can restrict a wide variety of beneficial uses. The current Basin Plan contains the following narrative water quality objective for oil and grease: "Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses." Permit writers have utilized the following numeric limits for oil and grease to implement the narrative objective in NPDES permits: The Monthly Average shall not exceed 10 mg/L; and The Daily Maximum shall not exceed 15 mg/L. These numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water.
Proposed Action	Consider amendments to the Basin Plan to include numeric objectives for oil and grease in inland surface waters, consistent with the empirically based effluent limitations currently in use by permit writers.
Proposed By	Permitting
Supported By	

Issue Number	R-18
Title	Numeric TPH Objective
Category	Water Quality Objectives
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Develop a numeric water quality objective for total petroleum hydrocarbons (TPH).
Background / Importance	The general NPDES permit, ORDER NO. R4-2002-0125 (CAG834001), for discharges of Treated Groundwater and Other Wastewaters from Investigation and/or Cleanup of Petroleum Fuel-Contaminated Sites to Surface Waters, contains a final effluent limitation of 100 µg/L for Total Petroleum Hydrocarbons (TPH), based on the taste and odor threshold values for diesel oil and kerosene. However, there is no numeric objective for TPH in the Basin Plan.
Proposed Action	Consider amending the Basin Plan to include a numeric water quality objective for TPH, based on the taste and odor threshold values for diesel oil and kerosene.
Proposed By	Permitting
Supported By	

C. ADOPTION OF TMDLS AS BASIN PLAN AMENDMENTS

Section 303(d)(1)(a) of the Clean Water Act (CWA) requires that "each state shall identify those waters within its boundaries for which the effluent limitations … are not stringent enough to implement any water quality standard applicable to such waters." The CWA also requires states to establish a priority ranking for these waters. This list of prioritized impaired water bodies is known as the 303(d) list of water quality limited segments (WQLS). The CWA then requires that Total Maximum Daily Loads (TMDLs) be established for waters on the 303(d) list. On California's 1998 303(d) list, the Regional Board identified 832 water body reaches as water quality limited. Using this listing, these impaired reaches were consolidated into 92 "TMDL Analytical Units" in order to better manage and prioritize impaired watersheds for TMDL development.

The following TMDLs, summarized below, are proposed for completion in 2005-2007.

Issue Number	**R-19**
Title	**Adopt TMDLs**
Category	**Plans and Policies – TMDLs**
Type	**Regionwide**
Priority	**High**
Rank	**1**
Resource need	**0 (39) PYs**
Implementing Program(s)	**TMDLs**
Brief Description	**Adopt TMDLs as Basin Plan amendments per tentative schedule.**
Background / Importance	A consent decree between Heal the Bay, Santa Monica BayKeeper *et al.* and the U.S. EPA was signed on March 22, 1999. The consent decree establishes a schedule for the completion of 92 TMDL analytical units within the Los Angeles Region during the next 13 years. A schedule was established in the consent decree for the completion of specific TMDLs and a minimum number of TMDLs that must be completed each year. The Regional Board will schedule the remaining TMDLs as necessary to complete all 92 Analytical Units within the 13-year period. Some of these TMDLs include water quality standards issues, and most will be adopted as Basin Plan amendments. For these reasons, TMDLs are included in the Triennial Review.
Proposed Action	Adopt the following TMDLs, per tentative schedule, as Basin Plan Amendments over the next three years: Marina Del Rey (pesticides, PCBs, metals, toxicity) Calleguas Creek (pesticides, PCBs, metals, toxicity) Santa Monica Bay (chlordane) Ballona Creek (coliform) San Gabriel River (metals) LA/LB Harbors and Estuaries (legacy pesticides, PAH, metals, TBT, bacteria)
Proposed By	TMDLs; Regional Board Management
Supported By	EPA

Table 5
TMDLs to be completed in the next 3 years (2005-2007)

Watershed Management Area	TMDL
Marina Del Rey	Pesticides
Marina Del Rey	PCBs
Marina Del Rey	Metals
Marina Del Rey	Toxicity
Calleguas Creek	Pesticides
Calleguas Creek	PCBs
Calleguas Creek	Metals
Calleguas Creek	Toxicity
Santa Monica Bay	Chlordane
Ballona Creek	Coliform
San Gabriel River	Metals
LA/LB Harbors and Estuaries	Legacy Pesticides
LA/LB Harbors and Estuaries	PAH
LA/LB Harbors and Estuaries	Metals
LA/LB Harbors and Estuaries	TBT
LA/LB Harbors and Estuaries	Bacteria

D. REVISIONS TO IMPLEMENTATION POLICIES AND PLANS

Implementation plans and policies provide detailed direction on how to implement water quality standards and protect the Region's waters. Below are potential Basin Plan amendments that relate to implementation plans and policies.

1. Ongoing Projects and Issues Proposed to be Addressed

The Basin Planning issues related to implementation plans and policies, summarized below, are proposed for completion in 2005-2007.

Issue Number	**O-8**
Title	**Hydromodification Resolution / Policy**
Category	**Plans and Policies**
Type	**Regionwide**
Priority	**Ongoing**
Rank	**N/A**
Resource need	**0.5 PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Develop a resolution / regional policy on hydromodification of water courses in the Los Angeles Region.**
Background / Importance	Protecting beneficial uses within the Los Angeles Region consistent with the Federal Clean Water Act and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) requires careful consideration of projects that alter the hydrology or beds or banks of waters of the State. The alteration away from a natural state of stream flow or the beds or banks of rivers, streams, or creeks, including ephemeral washes, is generally referred to as a hydromodification. Over time, many of the watercourses in the Los Angeles Region have been altered from their natural state into constructed waterways. While constructed waterways have aided in development and flood control, there have been undesirable consequences as well. These modifications can impair beneficial uses by disturbing vegetative cover, removing habitat; modifying or eliminating instream and riparian habitat; degrading or eliminating benthic communities; increasing scour and erosion as a result of increased velocities, and increasing water temperature when riparian vegetation is removed. The regular maintenance of modified channels can disturb instream and riparian habitats if not managed properly. These modifications may also, if not managed properly, impair beneficial uses by depriving wetlands and estuarine shorelines of enriching sediments or by causing excessive deposition in downstream environments; changing the ability of natural systems to both absorb hydraulic energy and filter pollutants from surface waters; and altering habitat for spawning and other critical life stages of aquatic organisms. Hardening of channels may also eliminate opportunities for groundwater recharge in some areas. Furthermore, some hydromodifications may reduce recreational opportunities and may reduce the aesthetic enjoyment of people engaged

Issue Number	O-8
Title	**Hydromodification Resolution / Policy**
	in recreation in and around the water body. In light of these impacts and the Board's goal of maintaining or restoring the biological, physical and chemical integrity of the region's water courses, it is important to carefully evaluate any proposed hydromodifications and avoid, minimize or mitigate the impacts to the extent possible.
Proposed Action	Bring before the Board a resolution to reiterate the Regional Board's existing authority to regulate hydromodification of water courses and to outline a two-step process to achieve one of the Regional Board's highest priorities, which is to maintain and restore, wherever feasible, the physical and biological integrity of the Region's water courses. Subsequent actions to be considered may include among others a Basin Plan amendment to incorporate criteria and evaluation requirements to be used by Board staff when evaluating projects for water quality certification or waste discharge requirements, and setting conditions for certification or for Standard Urban Stormwater Mitigation Plan (SUSMP) or Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) approval by the local agency. These criteria and requirements would strongly encourage the preservation of watercourses in their natural state.
Proposed By	Standards/TMDLs; Non-point Source; Storm water
Supported By	

Issue Number	**S-7**
Title	**Interpreting Narrative Toxicity Objectives**
Category	**Plans and Policies**
Type	**Statewide**
Priority	**High**
Rank	**3**
Resource need	**0.2 PY**
Implementing Program(s)	**Standards/TMDL; State Board**
Brief Description	**Consider developing a regional policy, or work with State Board staff on a statewide policy, on interpreting narrative toxicity objectives.**
Background / Importance	Narrative objectives are often hard to implement because it is difficult to identify the most appropriate numeric criteria to use when applying them. The US EPA Region IX and X Guidance for Implementing Whole Effluent Toxicity Testing Programs document provides guidance to permit writers and States on how to best implement EPA's National Pollutant Elimination System (NPDES) regulations regarding appropriate WET limitations and monitoring requirements in NPDES permits. The guidance incorporates information on whole effluent toxicity requirements from supporting EPA documents such as the Technical Support Document for Water Quality-based Toxics Control [EPA/505/2-90-001, March 1991], commonly referred to as the TSD. The US EPA Region IX and X Guidance for Implementing Whole Effluent Toxicity Testing Programs document is designed to implement national policy on the issues, however, it is not intended to supercede any established State program. In the State Implementation Policy (SIP) the State Board provided some guidance for California regarding toxicity. However, that guidance was not very specific. NPDES permit writers in Region 4 used US EPA Region IX and X Guidance for Implementing Whole Effluent Toxicity Testing Programs, the TSD, and the SIP as the basis for including numeric final effluent limitations for chronic toxicity in NPDES permits for Publicly Owned Treatment Works (POTWs). US EPA, environmental groups and other Regional Boards supported that approach. However, the permits were petitioned to the State Board [SWRCB/OCC Files A-1496 & A-1496(a) Los Coyotes/Long Beach Petitions]. The State Board reviewed the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential. On September 16, 2003, at a public hearing, the State Board adopted Order No. WQO 2003-0012, deferring the issue of numeric chronic toxicity effluent limitations until Phase II of the SIP is adopted. In the meantime, the State Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. This issue is presently under review, but national litigation on the WET program (now resolved) postponed this issue such that it could not be addressed as part of the Phase II revisions to the SIP.
Proposed Action	NPDES permit writers in Region 4 are currently using 1 TUc as a trigger for accelerated monitoring, based on the State Board's precedential Order

Issue Number	**S-7**
Title	**Interpreting Narrative Toxicity Objectives**
	No. WQO 2003-0012. The permits also contain a reopener to allow the Regional Board to modify the permit, if necessary, consistent with any new policy, law, or regulation. The State Board is planning on revising the SIP to include additional direction for toxicity control, however, it may or may not include a numeric water quality objective for chronic toxicity. Regional Board staff can work on developing an approach for interpreting the narrative toxicity objective independently and/or in conjunction with the State Board's efforts. A numeric water quality objective of 1 TUc for inland dischargers to surface waters, similar to the 1 TUc water quality objective included in the California Ocean Plan for ocean dischargers, may be developed.
Proposed By	Permitting
Supported By	Public Workshop Attendees

Issue Number	**R-21**
Title	**Clarify the Applicability of the Tributary Rule**
Category	**Plans and Policies**
Type	**Regionwide**
Priority	**High**
Rank	**10**
Resource need	**0.5 PY**
Implementing Program(s)	**Standards/TMDL; Information Technology**
Brief Description	**Clarify the applicability of the tributary rule**
Background / Importance	Because not all water bodies are individually listed in the Basin Plan, Chapter 2 includes two statements to extend protection to water bodies not specifically identified in Tables 2-1 through 2-4 (generally smaller streams and creeks). First, it states that "beneficial uses of inland surface water generally include REC-1 (swimmable) and WARM, COLD, SAL, or COMM (fishable), reflecting the goals of the federal Clean Water Act. In addition, inland waters are usually designated as IND, PROC, REC-2, WILD, and are sometimes designated as BIOL and RARE." Second, it states that "those waters not specifically listed (generally smaller tributaries) are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary. This is commonly referred to as the 'tributary rule'."[11] A similar rule applies to groundwater basins. (Basin Plan, p. 2-4; Table 2-1, Footnote a; Table 2-2, Footnote ac; Table 2-3, Footnote a; Table 2-4, Footnote a). Some stakeholders have questioned the Board's application of the tributary rule. Specifically, there have been questions regarding how the rule is applied when an unnamed freshwater stream is tributary to the ocean where the beneficial uses and water quality objectives for marine waters are not necessarily appropriate for freshwater systems. Others have raised concerns about what constitutes a "tributary" and whether the rule is applied too broadly. For example, there are questions regarding whether agricultural drainages, storm water conveyances and ephemeral washes are considered "tributaries". It is important to clarify our application of this rule in our regulatory decisions and to correct misconceptions about the Regional Board's application of this rule.
Proposed Action	Clarify the applicability of the tributary rule in cases where an unnamed freshwater stream is tributary to the ocean (i.e. which beneficial uses and

[11] For ocean waters, the California Ocean Plan (2001) includes a similar statement, "the beneficial uses of the ocean waters of the State that shall be protected include industrial water supply; water contact and non-contact recreation…; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish migration; fish spawning and shellfish harvesting." And, for groundwater, the Basin Plan includes a similar statement, "many groundwater basins are designated MUN, reflecting the importance of groundwater as a source of drinking water in the Region…other beneficial uses for groundwater are generally IND, PROC, and AGR." A footnote to Table 2-3 further states that, "groundwaters outside of the major basins are either potential or existing sources of water for downgradient basins, and as such beneficial uses in the downgradient basins shall apply to these areas."

Issue Number	R-21
Title	**Clarify the Applicability of the Tributary Rule**
	associated water quality objectives are applied). Clarify what constitute "headwaters" or "tributaries" (e.g. are underground storm drains, ephemeral washes, and agricultural drains tributaries?, etc.). Clarify application of the groundwater tributary rule by specifying which upgradient groundwater areas are covered by the rule (e.g., hydraulically connected groundwater, water bearing aquifers, perched groundwater, etc.).
Proposed By	TMDL
Supported By	City of Signal Hill; City of Ojai; Los Angeles County Department of Public Works. Santa Monica BayKeeper and Heal the Bay opposed this item.

Issue Number	**S-8**
Title	**Effluent Dominated Waters**
Category	**Plans and Policies**
Type	**Statewide**
Priority	**High**
Rank	**11**
Resource need	**0.2 PY**
Implementing Program(s)	**Standards/TMDL**
Brief Description	**Determine the most appropriate approach(es) to address effluent and agriculturally dominated water bodies.**
Background / Importance	There has been much discussion of the concept of "effluent dominated water bodies" (EDWs), particularly among the regulated community. The discussion ranges from what defines an EDW to whether different beneficial uses and water quality objectives should apply. This issue has gotten significant attention in the semi-arid southwest, in particular, where streams that were once ephemeral are now perennial due to the introduction of large volumes of treated wastewater. Based on previous discussions and input, it is clear if we treat EDWs as systems incapable of attaining certain beneficial uses that human health, aquatic communities and environmental quality will be negatively impacted. EDWs support beneficial uses and these uses must be protected. Furthermore, as with any discharge, consideration of downstream impacts is important with EDWs. Since flows from EDWs are diluted less than other discharges, their impacts on natural resources can be greater. In coastal regions, all flows terminate at the ocean or coastal lagoons. These areas support a variety of wildlife and serve as important draws for tourism. In southern California, many streams have been concrete lined in an attempt to control flooding. Since this is also a semi-arid region, most streams are naturally ephemeral. By eliminating contact between effluent and natural streambeds, important assimilation and attenuation processes are also eliminated. Essentially concrete-lined channels serve as conduits for treated wastewater, conveying it quickly and efficiently to the coast. It is essential to recognize and protect against possible impacts such an arrangement can have on downstream natural resources. We also know that there are a number of compliance concerns for discharges to EDWs. In most cases these concerns stem from the beneficial use designations of the EDW, which largely drive the water quality objectives applicable to the EDW. Of particular concern are the aquatic life beneficial uses and the municipal and domestic supply (MUN) beneficial use. Also of concern is the water contact recreation (REC-1) beneficial use. There is a suite of existing regulatory tools available to address some of these compliance concerns. In some cases, the concern may be addressed through a statewide policy, while in others the concern may need to be dealt with on a regional or site-specific basis taking into consideration the unique characteristics of the EDW, discharge and

Issue Number	S-8
Title	**Effluent Dominated Waters**
	beneficial uses. Some of the tools already available or under development include site-specific objectives (SSOs), translators, use attainability analyses (UAAs), tiered aquatic life uses (TALUs), and case-by-case exceptions (under the SIP). Other potential tools that may warrant exploration include limited term variances or a point of compliance policy for certain pollutants. These tools may allow the State Board and Regional Boards to protect the beneficial uses of EDWs, while also addressing the compliance concerns of dischargers to these waters. The State Board recognizes the significance of this issue, and has committed to explore the possible development of a statewide policy.
Proposed Action	The Regional Board has been actively participating in the statewide effort by co-sponsoring a State Board workshop on this issue in Los Angeles on February 28, 2001. The Regional Board will continue to be a key player, given the high level of concern about this issue from a variety of stakeholders (i.e., regulated community and environmental groups) in the Los Angeles region. In conjunction with the statewide effort, the Regional Board should consider appropriate ways of addressing EDWs in the region, and work with other Regional Boards in Southern California to ensure a consistent framework for addressing issues associated with EDWs.
Proposed By	Public Workshop Attendees
Supported By	Los Angeles County; City of Los Angeles.

2. Issues Evaluated, but Not Proposed for Completion

The following Basin Planning issues related to implementation plans and policies, summarized below, were evaluated, but not proposed for completion in 2005-2007.

Issue Number	R-25
Title	Clarify Mixing Zones
Category	Plans and Policies
Type	Regionwide
Priority	High
Rank	12
Resource need	0.4 PY
Implementing Program(s)	Water Quality Standards and Permitting.
Brief Description	Clarify how the Regional Board will evaluate mixing zones and dilution factors.
Background / Importance	The Basin Plan stipulates that, on a case-by-case basis, although rare in inland waters, the Regional Board can allow a mixing zone for compliance with receiving water objectives. In rivers and streams, an approved mixing zone can not extend more than 250 feet from the point of discharge or be located less than 500 feet from an adjacent mixing zone. In lakes or reservoirs, it may not extend 25 feet in any direction from the discharge point, and the sum of mixing zones may not be more than 5% of the volume of the water body. Mixing zones are also addressed for priority toxic pollutants (but not conventional pollutants) in the State Implementation Policy. As detailed in the State's Ocean Plan, ocean dilution zones are determined using standard models. Since many of the streams in the Region have minimal upstream flows and therefore minimal dilution of effluent, mixing zones are usually not appropriate.
Proposed Action	It would be helpful to Regional Board staff and dischargers to further clarify under what conditions mixing zones would be allowed, and under what conditions they would be prohibited. Other regions have considered this question in a "Point of Application" policy. For example, two conditions may be required to allow any mixing zone: a) upstream flow of better water quality to create a mixing zone, and b) the waterbody may not be listed as impaired on the 303(d) list of water quality limited segments (WQLS). Consideration also might be given to the nature of the pollutant (e.g., discharge of residual chlorine might be allowed a short zone of volatilization). In addition, as currently stipulated in the Basin Plan, a maximum distance or area could be included in the policy.
Proposed By	County of Los Angeles Department of Public Works[12]
Supported By	

[12] See footnote 3.

Issue Number	R-20[13]
Title	High-Risk Areas for Septic Systems
Category	Plans and Policies
Type	Regionwide
Priority	High
Rank	15
Resource need	0.3 (0.5) PY
Implementing Program(s)	Standards/TMDL
Brief Description	Pending state regulations pursuant to AB 885, evaluate whether formal criteria are needed to identify high-risk areas for septic systems. Consider the following: a) Set criteria for identifying high-risk areas (e.g., high groundwater table, within a certain distance from impaired water bodies, etc.) b) Identify high-risk areas in Basin Plan i) Set more stringent oversight and monitoring requirements for septic systems in these areas, or ii) Require transition from septic systems to centralized wastewater treatment.
Background / Importance	The Basin Plan (p. 4-47) recommends the evaluation of the adequacy of local agency regulations for installation and maintenance of septic systems. The Basin Plan also discourages the prolonged use of septic systems, except in isolated areas where connection to a wastewater collection system is not feasible and there is no threat to groundwater. The Regional Board has negotiated memorandums of understanding (MOUs) with local agencies for management of septic systems and issued waivers of waste discharge requirements to septic systems covered by an MOU. Local agencies have agreed to implement upcoming statewide regulations for septic systems as part of their MOUs. In the interim, local agencies have agreed to take additional actions in high-risk areas where septic systems pose a threat to water quality.
Proposed Action	The proposed action would assist local agencies in identifying areas of high-risk by formalizing criteria through a Basin Plan amendment. Alternatively, the Regional Board could identify and specify within the Basin Plan high-risk areas based on the criteria. The Regional Board could use the identification of high-risk areas for the implementation of more stringent requirements for septic systems or for the prohibition of septic systems in these areas.
Proposed By	Non-chapter 15
Supported By	

[13] This was not prioritized for completion during 2005-2007 because staff assumes that State Board will be addressing this issue. If additional Regional Board actions are required in response to State Board actions, staff will need to re-prioritize this issue.

Issue Number	R-22
Title	Incorporation of Reference to CTR and SIP and Clarification of Applicability of CTR and SIP to Stormwater Discharges
Category	Plans and Policies
Type	Regionwide
Priority	High
Rank	18
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Generally, incorporate references to the California Toxics Rule (CTR) and the State Implementation Plan (SIP) into the Basin Plan. More specifically, clarify of the applicability and implementation through permits of CTR criteria to stormwater discharges.
Background / Importance	The California Toxics Rule (CTR), promulgated by the US EPA in May 2000, sets numeric criteria for priority toxic pollutants for all inland surface waters and enclosed bays and estuaries in California. The CTR includes 1) ambient aquatic life criteria for 23 priority toxics; 2) ambient human health criteria for 57 priority toxics; and 3) a compliance schedule provision which authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met. The State must use the CTR criteria together with the State's existing water quality standards when controlling pollution in inland waters and enclosed bays and estuaries. The State of California adopted a companion to the CTR, known as the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (SIP), in 2000. The SIP establishes specific implementation provisions for the priority toxic pollutant criteria promulgated by the US EPA in the CTR for certain types of discharges.
Proposed Action	The CTR and SIP established new water quality objectives and associated implementation provisions for certain types of discharges, respectively, for control of priority pollutants in the Los Angeles Region. The Basin Plan needs to be administratively updated to reflect these new regulations. These updates are valuable to ensure that the regulated community and the public are informed about the latest requirements to protect water quality. Such updates to the Basin Plan would be non-regulatory, that is they would not impose new requirements on permittees, but rather clarify existing regulatory requirements not cited in the current version of the Basin Plan. Clarification is needed regarding how stormwater permitting programs will incorporate CTR criteria and implementation requirementsinto municipal and industrial storm water permits.
Proposed By	Permitting; Storm Water
Supported By	Public Workshop Attendees; City of Signal Hill; and County of Los Angeles – Department of Public Works.

Issue Number	R-27
Title	Groundwater De-Watering Policy
Category	Plans and Policies
Type	Regionwide
Priority	High
Rank	19
Resource need	0.4 PY
Implementing Program(s)	Standards/TMDLs
Brief Description	A groundwater dewatering policy particularly for construction projects where water could be returned to its groundwater of origin.
Background / Importance	Currently the Regional Board does not have the authority without a variance policy to grant exceptions to water quality standards. However, there may be situations, such as groundwater dewatering during construction, where because the discharge is small, of a limited duration, and has no significant potential environmental impacts, a variance may be appropriate for certain constituents (e.g., salts). Such a policy would not apply to any priority pollutants. According to EPA, water quality standard variances require similar substantive and procedural requirements to removing a designated use, but unlike removing a use, variances are discharger and pollutant specific, are for a limited period of time, and do not remove the underlying beneficial use(s) of the water body.
Proposed Action	This particular amendment would consider a groundwater de-watering policy particularly for construction projects where water could be returned to its ground water of origin.
Proposed By	Non-Chapter 15
Supported By	Public Workshop Attendees; City of Los Angeles.

Issue Number	R-23
Title	Guidance on TMDL Incorporation into Permits
Category	Plans and Policies
Type	Regionwide
Priority	High
Rank	20
Resource need	0.25 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Develop guidance on incorporation of TMDL requirements into permits.
Background / Importance	TMDLs are not self-implementing, meaning that the requirements of TMDLs must subsequently be incorporated into various permits, enforcement orders, or other regulatory tools available to the Regional Board. As more and more TMDLs are adopted, it is important to describe how the requirements of TMDLs, including TMDL load allocations, will be incorporated into permits or other regulatory mechanisms to ensure their implementation.
Proposed Action	Add a discussion to Chapter 7 of the Basin Plan to discuss how the requirements of TMDLs, including TMDL load allocations, are incorporated into permits, enforcement actions, or other regulatory mechanisms to ensure their implementation.
Proposed By	Santa Monica Bay Restoration Commission; Storm Water; TMDL
Supported By	Public Workshop Attendees; County of Los Angeles – Department of Public Works; City of LA; and Western States Petroleum Association

Issue Number	R-24
Title	Evaluate the individual and cumulative impacts from coastal power plants and desalination plants on the marine ecosystem.
Category	Plans and Policies
Type	Regionwide
Priority	High
Rank	21
Resource need	2.5 PY
Implementing Program(s)	Standards/TMDL (to develop a proposed policy) and NPDES permitting (to implement policy)
Brief Description	Marine ecosystems can be severely impaired from operation of coastal power plants and desalination plants, due to withdrawal of large volumes of water, and discharge of the resulting brine, with increased loading of pollutants, including toxics, chlorine and temperature. ➢ **Impingement and Entrainment from Cooling Water Intake Structure (CWIS):** Intake screens on large pumps needed to draw ocean water will trap and kill (impinge) fish and other aquatic forms of life. The aquatic life small enough to be drawn through the screens (entrainment) will be killed mainly by heat and chemical treatment in the condensers of power plants, and mainly by pressure and chemical treatment in the filters of desalination plants. ➢ **Thermal and Chemical Impairment from Discharge:** Power plants discharge large flows of wastewater with elevated temperatures and chemical additives that can severely impair marine ecosystems. Desalination plants, which typically use reverse osmosis, generate brine and chemical additives that also can severely impair marine ecosystems. ➢ **Co-location between Power Plants and Desalination Plants:** Due to the high power requirements from the desalination plants, as well as improved desalination efficiency with slightly warmer raw water, the desalination and energy generation industries tend to co-locate with both installations using the same intake water for cooling and desalination. For convenience, they tend to use the same discharge tunnels to dispose of their respective wastes.
Background / Importance	➢ **California Energy Capacity Situation:** California needs to develop additional capacity to generate power to meet increasing industrial and residential demands as well as to replace aging power plants – The Governor has designated this as a high priority for his administration. Energy shortage, although, not as severe as the 2000-2001 condition, continues to plague California during periods of high demand. ➢ **Current Plans to Increase Power Capacity:** Much of the increase in capacity is driven by modernizing aging power plants that are typically sited along the coast, where the plants can uptake high flows of water from the ocean to generate steam and to cool equipment. ➢ **Diversify and Augment Water Supplies:** Southern California needs to develop additional water resources. Both private and public water utilities are pushing to desalinate water from the ocean. As environmental issues arising from desalination plants may be inter-related with those from coastal power plants, evaluation is intended to

Issue Number	R-24
Title	Evaluate the individual and cumulative impacts from coastal power plants and desalination plants on the marine ecosystem.
	address potential impacts from both types of infrastructure. ➢ **Co-location of Facilities:** In particular, co-location of power plants and desalination plants is providing impetus to extend the life of aging power plants and continue operation rather than decommission them and construct new power plants at new locations.
Proposed Action	1. Conduct a scoping workshop. 2. Determine the reach and applicability of the Regional Board authority to develop new standards and implement them through the NPDES permit renewal processes. 3. Request active guidance and direction from the State Board to implement a statewide assessment of impacts, and develop appropriate statewide standards. 4. Work with other CalEPA agencies and resource agencies to identify and quantify additional opportunities to achieve appropriate protection of the aquatic environment. These include, but not limited to: ➢ Best available technologies, e.g., cooling towers, combined cycle systems; ➢ Evolving technologies, e.g., distributed energy, renewable energy, and ➢ Demand side management, e.g., cycling systems, energy efficiency measures.
Proposed By	Board Member; Storm Water, Watershed Regulatory
Supported By	

Issue Number	R-26
Title	Develop Policies and/or Standards that would Maximize Recycled Water Use while Protecting Groundwater Resources
Category	Plans and Policies
Type	Regionwide
Priority	High
Rank	22
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL; Groundwater; and Permitting.
Brief Description	Recycled water use should be encouraged by policies and standards in southern California due to limited water resources available in the region's semi-arid climate. Water quality objectives and policies that protect groundwater quality may in certain circumstances prevent or limit agencies from maximizing water conservation by recycling water. Where possible, standards and policies to protect groundwater resources should be crafted in such a way as to fully protect groundwater resources (both quantity and quality), while also addressing the need to promote water recycling.
Background / Importance	Groundwater is an important source of water in Los Angeles County, providing approximately 40% of the total demand. Groundwater reserves also provide an emergency supply of water during droughts and natural disasters that disrupt normal water deliveries. The Central and West Coast Groundwater Basins are artificially replenished by spreading and injecting replacement water. One of the three sources of the replacement water is highly treated recycled water (reclaimed wastewater), purchased from the Los Angeles County Sanitation Districts, which is conveyed to various spreading grounds. In dry years water agencies must import water from the State Water Project, where chloride concentrations can exceed the groundwater recharge standards. Water conservation efforts increase the mineral content of wastewater, making it difficult to conserve water, and meet water quality standards. In addition, as the costs of imported water continue to rise, producing a local supply of water by recycling wastewater is an economic benefit. Recycled water customers benefit economically as the price of recycled water is substantially less than potable water. Currently, the recycled water rate is 46 percent of the potable rate (July 2004). In southern California, the Irvine Ranch Water District has distributed recycled water for over thirty years. Recycled water is used in high-rise office buildings for toilet and urinal flushing. In Los Angeles and Orange counties, recycled water is injected into groundwater storage basins to prevent saltwater intrusion into the basins near the coastline. Additionally, in Orange County, recycled water that has undergone additional advanced treatment is added to groundwater supplies that are used as a source of drinking water.
Proposed Action	Develop a policy that assures the highest standards of public health by ensuring the quality of recycled water, while maximizing the ability of the

Issue Number	R-26
Title	Develop Policies and/or Standards that would Maximize Recycled Water Use while Protecting Groundwater Resources
	water replenishment districts and municipalities to use recycled water. Consider various policies to accomplish the above, such as: 1. Evaluate the suite of pollutants (both conventional and emerging), which currently present a threat to groundwater from water reclamation. 2. Explore the possibility of attenuation studies, variances, and site-specific objectives to provide permitting flexibility while fully protecting groundwater. 3. Coordinate efforts under this issue with those of Issue Number S-3 on potential beneficial uses.
Proposed By	Public Workshop Attendees; City of Los Angeles
Supported By	

Issue Number	R-28
Title	Variance Policy or General Permit for Short-term Discharges with No Significant Potential Environmental Impacts.
Category	Plans and Policies
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.4 PY
Implementing Program(s)	Standards/TMDLs
Brief Description	Adopt a variance policy for short-term discharges with no significant potential environmental impacts
Background / Importance	Currently the Regional Board does not have the authority without a variance policy to grant exceptions to water quality standards. However, there may be situations, such as groundwater dewatering during construction, where because the discharge is small, of a limited duration, and has no significant potential environmental impacts, a variance may be appropriate for certain constituents (e.g., salts). Such a policy would not apply to any priority pollutants. According to EPA, water quality standard variances require similar substantive and procedural requirements to removing a designated use, but unlike removing a use, variances are discharger and pollutant specific, are for a limited period of time, and do not remove the underlying beneficial use(s) of the water body.
Proposed Action	The Regional Board should explore the feasibility of developing a "categorical" variance policy, which outlines the conditions under which a variance might be granted.
Proposed By	Non-Chapter 15
Supported By	Public Workshop Attendees; City of Los Angeles.

Issue Number	R-31
Title	Categorical waiver policies
Category	Plans and Policies
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.4 PY
Implementing Program(s)	Standards/TMDLs
Brief Description	Categorical waiver policies as appropriate, e.g. agricultural wavier, green waste waiver, etc.
Background / Importance	Regional Boards may issue categorical waivers of waste discharge requirements for certain types of discharges. To do this, the Regional Board must approve and issue categorical waiver criteria either through adopting a specific resolution or Basin Plan amendment. Once a categorical waiver is approved by the Regional Board, the Executive Officer may be delegated the responsibility to review and approve categorical waivers. Three categorical waivers have been approved in the Region, as set forth in Resolution No. 53-5 (adopted in 1953). These are: single family dwelling subsurface disposal systems, single family dwelling swimming pool discharges, and on-site drilling mud discharges from single oil wells. Section 13269, Paragraph (a), of the Water Code continues to state that certain Water Code provisions "may be waived" by a Regional Board for a specific discharge or a specific type of discharge "if the waiver is not against the public interest." However, recent legislation (Senate Bill 390, amending Section 13269) requires that all waivers or waiver categories be evaluated and renewed every 5 years. Initially, Regional Boards must evaluate and renew all waivers and waiver categories by January 1, 2003; otherwise they will automatically terminate. After this initial evaluation and renewal, Regional Boards must conduct on-going compliance monitoring and renew every 5 years, all waivers and waiver categories. The Regional Board developed a green waste waiver in 2003. Since this time there have been no new categorical waivers developed. Regional Board TMDL staff is currently working on an agriculture waiver. It is anticipated that this will be completed by summer of 2005. The State Board is working on a waiver for septic systems. At the regional level this is being handled by developing an MOU with the counties.
Proposed Action	Three actions are proposed under this issue: develop a general waiver policy, evaluate existing waivers, and evaluate the need for new waivers. The evaluation of waivers requires an initial review of all waivers and waiver categories, as well as validation of the adequacy of waiver conditions through field sampling at a representative number of discharges granted waivers. Depending on the data generated from this exercise, the Regional Board may decide to renew the waiver category (based on the adequacy of waiver conditions and their observance), amend the conditions (based on their inadequacy as documented through field tests),

Issue Number	R-31
Title	Categorical waiver policies
	or allow the waiver category to automatically terminate on 1/1/2003 (based on the documented impact on water quality). If the last option is chosen, the Regional Board will then have to determine how those discharges should be regulated—either through general WDRs or individual WDRs. In the next few years, the Regional Board is anticipating working on categorical waivers for CAFO (concentrated animal feeding operation), in-stream mining, and a golf course or open park space.
Proposed By	Non-Chapter 15
Supported By	Public Workshop Attendees; City of Los Angeles.

Issue Number	R-29
Title	Pollutant Trading (Offset) Policy
Category	Plans and Policies
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.5 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Develop a pollutant trading or offset policy.
Background / Importance	Finding solutions to complex water quality problems requires innovative approaches that are aligned with core water programs. Pollutant trading is an approach that offers greater efficiency in achieving water quality goals on a watershed basis. It allows one source to meet its regulatory obligations by using pollutant reductions created by another source that has lower pollution control costs. Trading capitalizes on economies of scale and the control cost differentials among and between sources. The United States Environmental Protection Agency (EPA) believes that under certain circumstances market-based approaches such as pollutant trading may provide greater flexibility and have greater potential to achieve water quality and environmental benefits than would otherwise be achieved under more traditional regulatory approaches. Market-based programs can achieve water quality goals at substantial economic savings. U.S. EPA has issued a policy to encourage states, interstate agencies and tribes to develop and implement water quality trading programs for nutrients, sediments and other pollutants where opportunities exist to achieve water quality improvements at reduced costs. More specifically, the policy is intended to encourage voluntary trading programs that facilitate implementation of TMDLs, reduce the costs of compliance with CWA regulations, establish incentives for voluntary reductions and promote watershed-based initiatives. A number of states are in various stages of developing trading programs. U.S. EPA's policy provides guidance for states, interstate agencies and tribes to assist them in developing and implementing such programs.
Proposed Action	Develop a pollutant trading or offset policy using U.S. EPA, Office of Water's Water Quality Trading Policy (January 13, 2003) for guidance.
Proposed By	Public Workshop Attendees
Supported By	City of LA; Los Angeles County Department of Public Works.

Issue Number	R-30
Title	Interim Effluent Limits
Category	Plans and Policies
Type	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.25 (0.5) PY
Implementing Program(s)	Water Quality Standards and Permitting.
Brief Description	Clarify how the Regional Board will develop interim effluent limits and guidance on how to set performance-based limits when there is inadequate data to determine reasonable potential, to calculate effluent limits, or to develop a TMDL.
Background / Importance	There are cases where the City of Los Angeles feels that there is inadequate data to calculate final effluent limits or waste load allocations under a TMDL. In these cases the City would like the Regional Board to develop and use standard guidance for developing interim effluent limits until adequate data are available.
Proposed Action	Develop standardized guidance for calculating interim effluent limits absent the data necessary to identify final effluent limitations or waste load allocations in TMDLs. Staff generally uses the 95^{th} and 99^{th} percentile. The City prefers the method of using the mean plus three standard deviations (99.7th percentile) of performance used by Region 2.
Proposed By	City of Los Angeles
Supported By	

Issue Number	S-9
Title	Statewide Policy for Storm Water Management
Category	Plans and Policies
Type	Statewide
Priority	Medium
Rank	N/A
Resource need	0 (0.2) PY
Implementing Program(s)	Storm Water
Brief Description	The Regional Board should work with the State Board to develop a statewide policy for storm water management.
Background / Importance	Much of the regulated community feels pressured by storm water regulations and their associated financial burden. They feel that the Clean Water Act did not reflect the intention that storm water must meet the same standards as non-storm water. They feel that reliance on the use of BMPs is the most practical way to address storm water rather than strict numeric water quality objectives. They feel that it is impractical to expect storm water to meet water quality standards from an economic standpoint and due to other societal needs. They feel that water pollution control technologies are not advanced enough to treat the large volumes of storm water to the standards with which they must comply.
Proposed Action	Work with State Board to develop a statewide policy for storm water management taking into consideration the practical constraints of regulating storm water.
Proposed By	Western States Petroleum Association
Supported By	

Issue Number	S-10
Title	Use of Porter Cologne §13000 and 13241 in Assessing Water Quality Standards
Category	Plans and Policies
Type	Statewide
Priority	Low
Rank	N/A
Resource need	0.2 PY
Implementing Program(s)	Water Quality Standards
Brief Description	Explicit protocols should be developed to ensure that Porter Cologne §13000 and §13241 factors are adequately considered when developing water quality standards.
Background / Importance	Porter Cologne §13000 states that: "The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." Porter Cologne §13241 states that: "Each regional board shall establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance; however, it is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board in establishing water quality objectives shall include, but not necessarily be limited to, all of the following: (a) Past, present, and probable future beneficial uses of water. (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto. (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors, which affect water quality in the area. (d) Economic considerations. (e) The need for developing housing within the region. (f) The need to develop and use recycled water." Section 13241 outlines factors that must be considered when establishing water quality objectives. It is important that the Regional Board consistently considers these factors and clearly describes in the administrative record how these factors were considered.
Proposed Action	Develop protocols for ensuring that Porter Cologne requirements, and specifically the consideration factors identified in § 13241, are addressed during the establishment of water quality objectives.
Proposed By	Los Angeles County Department of Public Works[14]

[14] See Footnote 3.

E. ADMINISTRATIVE BASIN PLAN REVISIONS

The "administrative" category of issues includes changes to the Basin Plan that would not result in new regulation. However, these updates are important in order to make the Basin Plan "user friendly". These updates will ensure that stakeholders can clearly find and understand the latest water quality regulation for the region.

None of the Basin Planning issues in this category are proposed for completion in 2005-2007; however staff will try to accommodate these administrative updates as resources and time permit.

Issue Number	R-32
Title	Title 22 Updates
Category	Administrative
Effort	Regionwide
Priority	Medium
Rank	N/A
Resource need	0.2 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Update Tables 3-5 through 3-7 and 3-9 per updates to Title 22 of the California Code of Regulations (CCR).
Background / Importance	The water quality objectives for chemical constituents, pesticides and radioactive substances contained in Chapter 3 of the Basin Plan are those contained in Title 22 of the California Code of Regulations, which is incorporated by reference into the Basin Plan. The incorporation by reference is prospective meaning that future changes to the maximum contaminant levels (MCLs) contained in Title 22 are incorporated as the changes take effect. Since the Basin Plan update in 1994, there have been several amendments to Title 22 and, specifically, to Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64431-B of Section 64431 (Flouride), and Table 64444-A of Section 64444 (Organic Chemicals).[15] It would be helpful to update the Basin Plan to reflect these revised regulations to ensure that the regulated community and the public are aware of the latest requirements to protect water quality.
Proposed Action	Update Tables 3-5, 3-6, 3-7 and 3-9 per recent amendments to Title 22 (Division 4, Chapter 15) of the California Code of Regulations (CCR). Such updates to the Basin Plan would be non-regulatory, that is they would not impose new requirements on permittees, but rather clarify existing regulatory requirements not cited in the current version of the Basin Plan.
Proposed By	Underground Storage Tanks
Supported By	The City of Los Angeles is opposed to this.

[15] Table 64431-A was amended on 4-22-98 and 6-12-03; Table 64431-B was repealed on 4-22-98; and Table 64444-A was amended on 6-12-03. Changes to Table 64431-A included a revision of the cyanide MCL and the addition of a flouride MCL. Changes to Table 64444-A included the addition of a methyl-tert-butyl ether MCL and revisions to the MCLs of five organic chemicals.

Issue Number	R-33
Title	Waters of U.S. vs. Waters of the State.
Category	Administrative
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.1 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Provide a clarification in the Basin Plan on what constitutes waters of U.S. vs. waters of the State.
Background / Importance	On January 9, 2001 the United States Supreme Court issued a decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (2001) 121 S.Ct. 675 (*SWANCC*) that held that the language of the Clean Water Act (CWA) cannot be interpreted as conferring authority for the federal government to regulate "isolated, intrastate, and nonnavigable waters" merely because migratory birds may frequent them. The Court emphasized the states' responsibility for regulating such waters. This has brought into question the state's authority to regulate discharges to isolated, non-navigable waters under the CWA section 401 certification program. However, California has numerous authorities that require inland waters, including isolated wetlands, vernal pools, etc. to be protected. None of those state authorities are affected by the U.S. Supreme Court's decision. Accordingly, the *SWANCC* decision has no impact upon the Regional Board's authority to act under state law. Under the California Porter-Cologne Water Quality Control Act (Porter Cologne; Ca. Water Code, Div. 7, §13000 *et seq.*), discharges to wetlands and other "waters of the state" have been and remain subject to state regulation. The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e).) The U.S. Supreme Court's ruling in *SWANCC* has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, including those waters that are no longer considered waters of the United States per the *SWANCC* decision. The thrust of the *SWANCC* decision is that regulation of inland, isolated waters is and should be under the primary authority of the state rather than the federal government. Given the state and federal "no net loss" of wetlands policy, the Regional Board's should consider that regulating any discharges of waste to waters that may no longer be under federal jurisdiction is both authorized and justified.
Proposed Action	Include the definitions of waters of the state and waters of the U.S. in the Basin Plan, including reference to relevant state and federal statutes and

Issue Number	R-33
Title	Waters of U.S. vs. Waters of the State.
	court decisions.
Proposed By	Regional Programs
Supported By	Public Workshop Attendees

Issue Number	R-34
Title	Stormwater Chapter
Category	Administrative
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.2 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Develop a separate chapter in the Basin Plan to compile existing information on stormwater and stormwater regulation in the Region.
Background / Importance	Storm water has become a very high priority over the past 10 years as large point sources of pollution have been largely addressed. Stormwater is now one of the leading causes of poor water quality. When the Basin Plan was developed there was not nearly as much regulatory activity as there is today on storm water. It would be useful to Basin Plan users to dedicate a chapter of the Basin Plan to a detailed discussion of stormwater and to compile all existing regulatory requirements or references to stormwater requirements into one chapter.
Proposed Action	The Regional Board should include a chapter in the Basin Plan devoted to the issues of urban runoff and storm water.
Proposed By	Public Workshop Attendees
Supported By	City of Signal Hill

Issue Number	R-35
Title	Discussion of New General Permits
Category	Administrative
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.1 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Evaluate the need to update the Basin Plan to reflect new general permits.
Background / Importance	Table 4-2 of the Basin Plan contains a summary of General WDRs and NPDES Permits issued by the State Board and the Los Angeles Regional Board. However, some of the general permits have been renewed since the Basin Plan was last revised in 1994. In addition, new General Permits have been issues since 1994.
Proposed Action	Table 4-2 of the Basin Plan would be updated to list the following General NPDES permits: 1. ORDER NO. R4-2002-0107 (CAG914001) Discharges of Treated Groundwater from Investigation and/or Cleanup of Volatile Organic Compound Contaminated-Sites to Surface Waters 2. ORDER NO. R4-2002-0125 (CAG834001) Treated Groundwater and Other Wastewaters from Investigation and/or Cleanup of Petroleum Fuel-Contaminated Sites to Surface Waters 3. ORDER NO. R4-2003-0111 (CAG994004) Discharges of Groundwater from Construction Dewatering to Surface Waters 4. ORDER NO. R4-2003-0108 (CAG994005) Discharges of Groundwater from Potable Water Supply Wells to Surface Waters 5. ORDER NO. R4-2004-0058 (CAG994003) Discharges of Non Process Wastewater to Surface Waters 6. ORDER NO. R4-2004-0109 (CAG674001) Discharges of Low Threat Hydrostatic Test Water to Surface Waters
Proposed By	Permitting
Supported By	

Issue Number	R-36
Title	Chapter 4 Update
Category	Administrative
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.1 PY
Implementing Program(s)	Standards/TMDL; Non-point Source
Brief Description	Update Chapter 4 of the Basin Plan to discuss monitoring programs (e.g., SWAMP, Bight Regional Monitoring Projects).
Background / Importance	The Los Angeles Regional Board conducts or participates in several statewide or regional monitoring efforts. Each monitoring program has specific goals and objectives. Other agencies, stakeholders and other interested parties should be aware of these programs so that they can make use of the monitoring data collected and avoid duplication of effort as they develop new sampling programs.
Proposed Action	Provide descriptions of recently completed or ongoing major statewide and regional monitoring programs.
Proposed By	Regional Programs
Supported By	

Issue Number	R-37
Title	NPDES Permit Limits
Category	Administrative
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.1 (0.2) PY
Implementing Program(s)	Standards/TMDL
Brief Description	Consider including in the discussion of NPDES permits in Chapter 4 that both concentration-based and mass-based limits may be used in permits.
Background/ Importance	40 CFR Section 122.45(f)(1) of the Code of Federal Regulations (40 CFR) requires that except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR Section 122.45(f)(2) allows the permit writer, at their discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both. Limits contained in NPDES permits have been expressed both as concentrations and as mass, unless impracticable (such as temperature in degrees and pH in pH units). However, dischargers argue that one or the other, not both types of limits, should be included in their permits.
Proposed Action	The discussion of permit limits in the Basin Plan would be clarified by stating that 40 CFR allows the simultaneous inclusion of both mass-based and concentration-based limits in NPDES permits.
Proposed By	Permitting
Supported By	

Issue Number	R-38
Title	Minimum Flows
Category	Administrative
Type	Regionwide
Priority	Low
Rank	N/A
Resource need	0.2 PY
Implementing Program(s)	Standards/TMDL
Brief Description	Add to Basin Plan a discussion of the need to balance stormwater and wastewater treatment with preservation of instream and riparian habitat.
Background / Importance	Minimum flow is a significant issue in the semi-arid climate that characterizes the Los Angeles Region. Critical periods in terms of water quality often correspond to periods of low flow, due to the reduced assimilative capacity of water bodies during low-flow conditions. These periods of low flow also are vital to maintaining critical habitat whose natural functions are supported by natural flow during the dry season. On a national level, there have been several key legal cases that have linked flow to water quality. This issue may be exacerbated if water rights are granted for diversion of surface water for irrigation. However, the Basin Plan does not set forth a Regional Board policy to consider flow or a narrative objective for minimum flow.
Proposed Action	The Regional Board should convene a workgroup to discuss the need for minimum flows. There is a linkage between water quantity and water quality and habitat quality. The Regional Board should consider at a minimum including a discussion of this linkage. Future steps may include a policy statement that this linkage ought to be considered in the Board's actions. Criteria should be developed for determining what minimum level of flow should be kept in a stream. These criteria might be based on water body type, historical conditions, and beneficial uses, for example. In addition, the source of the flow during the dry season should be determined, especially whether it is natural in source or anthropogenic. Where the latter is the source, restoration of natural stream flows should be encouraged.
Proposed By	Santa Monica Bay Restoration Commission
Supported By	

VI. CONCLUSIONS

There were 56 Basin Planning issues that were evaluated during this Triennial Review. The majority (45) were regional efforts, while eleven issues involved Regional Board staff participation in statewide efforts led by the State Board.[16] See Table 1, which includes a column identifying the issues as regional or statewide in scope.[17] Eight issues were considered "ongoing" because substantial resources (i.e. staff time, contract funds, or stakeholder-led investments) have already been expended on the project. Additionally, staff expects that for these projects less than one year of part-time work is required to complete the amendment. See Table 1; ongoing projects are indicated in the table by an ID beginning with an "O".

Each Basin Planning issue was prioritized as high, medium and low. Of the 56 issues, staff identified 24 issues as high priorities, 14 as medium priorities, and 10 as low priorities. The eight "ongoing" projects were not prioritized, since staff has already committed to the completion of these projects. The prioritization was based on the hierarchical factors described in Section IV. The high priority issues were then ranked against each other. See Table 2.

Each of the Basin Planning issues was assigned an estimated staff resource commitment (personnel-years or PYs). Estimates were made for the total PYs needed to address the issues as well as the Basin Planning Program PYs needed specifically. This was done to enable planning staff to determine the number of highest priority items that can be addressed in this three-year period, given the number of Basin Planning PYs available in Region 4. The Basin Planning Program operates with less than two full-time staff positions. Over a three-year period, **available planning staff time equals 5.4 PYs**. Ultimately we will need to choose which of the highest priorities the Regional Board can realistically address with our limited Basin Planning Program resources. In some cases, staffing for planning may be augmented by other sections or divisions in order to address an outstanding issue that affects that particular part of the agency, or by stakeholders as outlined in the TMDL Strategy. With supplementary resources, a few more issues may be addressed over the three-year period.

Our preliminary estimate suggests that **18.65 Personnel-Years (PYs)** from the Basin Planning Program would be required to address all 56 Basin Planning issues. A total of **2.6 Basin Planning PYs** are required to complete the eight "ongoing" issues[18], leaving **2.8 Basin Planning PYs** available over the next three years to address the highest priorities identified during this Triennial Review. Our estimates suggest that **7.95 Basin Planning PYs** would be necessary to complete all 24 high priority issues, including both regional and statewide efforts. See Table 3.

[16] Statewide issues were included in the Region's Triennial Review for two reasons. First, the Regional Board wishes to emphasize the importance of these statewide issues to the Los Angeles Region by their inclusion in the Triennial Review. Second, Regional Board staff contributes to various degrees to these statewide efforts, which requires the investment of limited staff resources. As a result, it is important that these issues and the required staff resources are included in the evaluation of which Basin Planning issues to address over the next three-year period.

[17] Additionally, regional efforts have an ID beginning with a "R", while statewide issues have an ID beginning with a "S".

[18] Again, issues identified as "ongoing" were automatically identified as issues to be completed during the coming three-year period. As a result, we first deducted the 2.6 PYs necessary to complete ongoing issues from the 5.4 PYs available in the Basin Planning Program over the next three-year period, leaving 2.8 PYs to allocate among the highest priority issues.

Therefore, of the 56 issues evaluated, staff recommends addressing the eight ongoing projects (Basin Planning resource commitment of 2.6 PYs) along with the top eleven high priorities (Basin Planning resource commitment of 2.9 PYs) over the next three years, as shown in Table 3.

TABLE 3
BASIN PLANNING ISSUES TO BE ADDRESSED DURING 2005-2007

ID	Basin Plan Category	Regionwide or Statewide Effort	Basin Planning Issue
O-1	Beneficial Uses	Regionwide	Develop & oversee pilot project on "tiered aquatic life uses".
O-2	Beneficial Uses	Regionwide	Clarification of uses related to fish consumption (SCCWRP study). REC1 use vs. commercial uses. Development of new use(s) and or subcategories of use.
O-3	Water Quality Objectives	Regionwide	Oversee stakeholder led studies to develop copper SSOs.
O-4	Water Quality Objectives	Regionwide	Evaluate appropriate averaging period(s) for mineral quality objectives.
O-5	Water Quality Objectives	Regionwide	Evaluate groundwater MUN de-designation requests. Consider as an alternative maintaining the MUN use, but suspending objectives for natural constituents where it can be demonstrated the source is natural in origin.
O-6	Water Quality Objectives	Regionwide	Adopt Ammonia SSO (SGR, LAR, SCR).
O-7	Water Quality Objectives	Statewide	Participate in statewide effort to adopt total residual chlorine objectives and implementation provisions
O-8	Plans and Policies	Regionwide	Develop a regional policy on hydromodification of watercourses in the Los Angeles Region. Consider including criteria and evaluation requirements to be used by Board staff when evaluating projects for certification or WDRs.
R-19	Plans and Policies	Regionwide	Adopt the following TMDLs (per tentative schedule) as Basin Plan Amendments: Marina Del Rey (pesticides, PCBs, metals, toxicity) Calleguas Creek (pesticides, PCBs, metals, toxicity) Santa Monica Bay (chlordane) Ballona Creek (coliform) San Gabriel River (metals) LA/LB Harbors and Estuaries (legacy pesticides, PAH, metals, TBT, bacteria)
R-5	Water Quality Objectives	Regionwide	Develop a general policy for interpreting narrative objectives. Identify and prioritize narrative objectives for addition or revision (such as emerging chemicals such as MTBE, perchlorate, chromium VI, 1-4 dioxane, and 1-2-3 TCP). Address one or two of the identified priorities.
S-7	Plans and Policies	Statewide	Consider developing a regional policy, or work with State Board staff on a statewide policy, on interpreting narrative toxicity objectives.
S-5	Water Quality Objectives	Statewide	Work with State Board staff to develop numeric or narrative objectives for sediment quality and sediment toxicity.

ID	Basin Plan Category	Regionwide or Statewide Effort	Basin Planning Issue
S-4	Water Quality Objectives	Statewide	Continue groundwork, including participation in RTAG, in support of developing nutrient criteria as required by US EPA.
R-1	Beneficial Uses	Regionwide	Update maps in Basin Plan. Consider doing the following: a. Display watershed management areas. b. Align existing Hydrologic Units with most recent Cal Water 2.2 system. c. Update reaches as appropriate. d. Define and delineate estuaries and enclosed bays. e. Match reach maps with beneficial use tables. f. Update groundwater maps based on Department of Water Resources (DWR) Bulletin 118 (2003 update).
R-8	Water Quality Objectives	Regionwide	Evaluate what hardness value(s) should be used in the calculation of permit limits (or TMDLs) for hardness-dependent metals.
R-9	Water Quality Objectives	Regionwide	Assess what temperature and pH values of what waters should be used in determining the ammonia objective for a waterbody. Clarify how the 30-day objectives are evaluated.
S-6	Water Quality Objectives	Statewide	Continue groundwork in support of developing numeric biocriteria. Develop a narrative objective for biological integrity.
R-21	Plans and Policies	Regionwide	Clarify application of tributary rule. Consider a) identifying minimum beneficial uses of all water bodies, b) clarifying what constitute headwaters, c) clarifying that "equivalent" freshwater uses apply if a stream is tributary to the ocean, and d) clarifying the groundwater "tributary" rule.
S-8	Plans and Policies	Statewide	Participate in Statewide effort on Effluent Dominated Waters (EDW) Policy.

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