



Winston H. Hickox
*Secretary for
Environmental
Protection*

State Water Resources Control Board

Division of Water Quality

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Gray Davis
Governor

April 14, 2000

Members and Alternates:

MEETING OF THE AB 982 PUBLIC ADVISORY GROUP

The AB 982 Public Advisory Group (PAG) will meet on Thursday, May 4, 2000 and Friday, May 5, 2000 at the State Capitol in Room 437.

Please find enclosed the meeting agenda and the documents prepared to support many of the agenda items. If you are planning to have handouts, please bring at least 50 copies for the PAG members and audience.

If you have any questions regarding the PAG or the meeting, please call me at (916) 657-1108. You may also call the AB 982 PAG staff liaison, Gita Kapahi, at (916) 657-0883.

Sincerely,

[Original signed by CJWilson](#)

Craig J. Wilson, Chief
Bays and Estuaries Unit
Division of Water Quality

Enclosures

cc: Interested Parties

AB 982 Public Advisory Group

Thursday, May 4, 2000, 10 a.m. to 5 p.m.

Room 437
State Capitol
Sacramento, California

A G E N D A (DAY 1)

1. *Convene Meeting* – Co-Chairs
2. *March 23 and 24, 2000 Meeting Summary*
Action Item: Consider approval of Meeting Summary (Attached)
3. *Biomonitoring Presentation* (Greg Karras and Dave Paradies) (30 minutes)
4. *The State Water Resources Control Board's (SWRCB's) Continuing Planning Process (CPP)* (15 minutes)
 - U.S. Environmental Protection Agency Letter on the CPP (Attached)
 - SWRCB Response to EPA Letter (Attached)
 - SWRCB CPP Document (September 1991) (Attached)
5. *Review of Consensus Points and Issues* (Attached)
 - Monitoring
 - Listing Issues
 - Other Issues
6. *Comments on the Process for Developing Total Maximum Daily Loads (TMDLs)*
 - SWRCB Staff Presentation on TMDL Efforts (1 hour)
 - Summary of TMDL Efforts (attached)
 - SWRCB Letter to EPA on TMDL Federal Rule (attached)
 - State and Federal Workplans related to TMDLs (attached)Action Item: Consider developing list of consensus points.
7. *Adjourn until 9 am on May 5, 2000*

AB 982 Public Advisory Group

Thursday, May 5, 2000, 9 a.m. to 1:30 p.m.

Room 437
State Capitol
Sacramento, California

A G E N D A (DAY 2)

8. *Reconvene Meeting* – Co-Chairs

9. *State Water Information Management (SWIM) System -- Information Item*
(10 minutes)

10. *Update on the Clean Water Act Section 319 Projects – Information Item* (No Discussion unless requested by the PAG)
 - Status of the Section 319 Contracts (Attached)
 - Plan for California's Nonpoint Source Pollution Control Program (Please refer to <http://www.swrcb.ca.gov/nps/html/protecting.html>)

11. *Summary of May 4, 2000 Discussion on the Process for Developing TMDLs*

12. *Comments on the Elements of TMDLs*
Action Item: Consider developing list of consensus points.

13. *Public Forum* (Any person may address the PAG on issues not on the Agenda.)

14. *Adjourn*

AB 982 Public Advisory Group

Meeting Held March 23 and 24, 2000
State Water Resources Control Board Hearing Room

Meeting Summary

Convene Meeting: Co-Chair Beckman convened the meeting and declared a quorum for the meeting at 10 am on March 23, 2000.

March 3, 2000 Meeting Summary: The meeting summary was approved without change.

Proposal for the comprehensive surface water monitoring program: State Water Resources Control Board (SWRCB) staff presented an outline for the comprehensive surface water quality monitoring proposal, discussed general strategies for implementing ambient monitoring in polluted and clean areas, and discussed many of the features of the surface water monitoring program. The staff pointed out several locations in the documents where changes had been made in response to the Public Advisory Group (PAG) comments. The PAG requested that changes made on any draft document be identified using ~~strikeout~~ and underline.

After discussing several concepts raised in handouts by the environmental groups, the PAG discussed several points that could be used as goals for the proposal for comprehensive monitoring. The PAG recommended that the program be focussed on monitoring ambient conditions of waters in each hydrologic unit of the State at least every 5 years. The monitoring information should also be interpreted once it is collected.

This umbrella monitoring program should establish minimum baseline monitoring requirements, consistent monitoring methods, data quality objectives, centralized data management, and centralized reporting. The umbrella program should also consider all existing data and other monitoring efforts. This ambient monitoring focus would be separate from the types of monitoring designed to identify water quality problems.

A second part of the monitoring effort should be directed to water quality problem identification. The Regional Water Quality Control Boards (RWQCBs) should conduct any additional monitoring to identify problems in accordance to regional priorities using the protocols (templates) and methodologies established in the Statewide umbrella program. The program would establish requirements that all data used in connection with the comprehensive monitoring program be verifiable, useable, and accessible to the public through a centralized location.

The PAG recommended that the monitoring proposal be restructured to reflect these priorities.

Comprehensive data management: The PAG discussed the merits of establishing a consolidated centralized statewide data and analysis system, which would consolidate all existing water quality data along with its respective protocols and methodologies. The comprehensive data management system should be maintained in a centralized location and made available to the public.

Videotape recording at PAG meetings: The videotaping issue was discussed during the afternoon session on March 23. The concerns over how the videotape would be used were discussed. A motion to adopt a change in the operating procedures was presented by the environmental group organizations that said statements made by PAG members may not always represent the view of the organization they represent. A substitute motion was made by the discharger organizations that focussed on members not using what is said at PAG meetings to further a group's litigation interest or agenda.

ACTION: The substitute motion was defeated (12 no votes, 11 yes votes). The main motion was approved (15 yes votes, 8 no votes with 2 abstentions). Please note that a two-thirds majority is required to change the operating procedures. On March 24, the PAG reconsidered the main motion and one member changed his vote. The motion was therefore approved 16 to 1 with 1 abstention. The new language was placed in Article V, Section 1 of the PAG Operating Procedures.

The PAG heard a presentation on the Central Coast RWQCB ambient monitoring efforts.

Adjourn: PAG meeting was adjourned until 9:00 AM March 24, 2000.

Reconvene Meeting: Co-Chair Johns reconvened the meeting and declared a quorum for the meeting at approximately 9 am on March 24, 2000.

SWRCB Water Quality program structure and effectiveness as it relates to Clean Water Act Section 303(d): The PAG began with a general discussion of some of the perceived deficiencies in the State's efforts to develop TMDLs. SWRCB staff provided a general overview of the TMDL process, California's adoption procedures, and the approximate numbers of TMDLs completed and under development. There was a brief discussion of the estimated costs of TMDL development. The PAG inquired about the status of the State's water quality control program, the continuous planning process (CPP), and how the Section 303(d) requirements fits into this strategy. Discussion also focused on the various budget amounts contributed by the U.S. Environmental Protection Agency and the State for monitoring, TMDL development, and TMDL effectiveness evaluation.

ACTION: The PAG recommended that the SWRCB Staff prepare a brief staff report on TMDLs including a discussion of the historical background, a summary of the current TMDL workplans, the current budget structure and a general discussion of future plans with regard to this issue. The PAG also requested a status report on the Federal 319 process and the continuing planning process.

The PAG also requested information on the System for Water Information Management (SWIM).

The PAG turned its attention to a discussion on issues regarding the lack of TMDL listing and de-listing criteria. The PAG developed a draft recommendation on the need for a SWRCB-adopted Policy on listing, delisting and minimum acceptable and credible information for listing sites. The Group also agreed on the need for a SWRCB Policy on requiring RWQCBs to consider existing data during the Section 303(d) process.

The PAG then revisited many of the monitoring issues discussed on March 23, 2000. The PAG prepared a letter to the SWRCB providing specific comments on the proposed comprehensive ambient monitoring program.

ACTION: The PAG unanimously approved the letter. The letter, in part, stated that the SWRCB should create a ambient water quality monitoring program that will monitor both clean and polluted areas. There is a critical need to emphasize the need to for standardization and consistency in monitoring and reporting methods. There was strong support for the creation and use of standardized templates and protocols, which will allow greater use of monitoring data collected. Finally, the PAG agreed that data management in general needs to be a priority issue in the State's monitoring program.

The PAG letter was delivered to the SWRCB and is posted on the SWRCB website.

Public Forum: One person made a presentation to the PAG. He suggested that PAG use electronic mail for correspondence and post as much information as possible on the SWRCB website. As a consequence of the PAG's discussion, SWRCB staff will only send paper copies of meeting agenda packages to those members, alternates, and interested parties that request paper copies.

Adjourn: The PAG discussed several items for its next meeting (e.g., biomonitoring, the continuing planning process, TMDL process, and elements of TMDLs). The PAG meeting was scheduled for May 4 and 5, 2000.

Written Proxy Votes: Bill Thomas and Zeke Grader.

**Staff Report
by the Division of Water Quality**

THE CONTINUING PLANNING PROCESS

The State Board's continuing planning process (CPP) encompasses nearly all the Board's water quality programs, ranging from the NPDES permit process to grants and loans, including adoption and review/revision of water quality control plans.

A document describing the Board's CPP as it existed at the time was submitted to USEPA in 1991. Much has changed since then, such as development of the Board's Strategic Plan and Watershed Management Initiative, establishment of California's Office of Administrative Law, and various new legal requirements, e.g., mandated scientific peer review for scientifically based rules adopted by the Board.

The State Board is now preparing a new guide to its CPP. This document will be finalized by June, 2000, and will be forwarded to USEPA and made available on the Board's web site. The document will outline the Board's planning process as it exists in 2000, and point the reader to more detailed resources where individual programs are described in detail. The document will make good use of electronic resources, and the web version will link directly to appropriate internet resources.

In contrast to the 1991 document, the 2000 CPP guide is planned as an evolving guide. The web-based version will be updated as program information changes, to ensure that current information about the Board's CPP remains readily available to the public.

Recent correspondence regarding the CPP is attached.

For information about the State Board's CPP, contact Paul Lillebo (916) 657-1031 or Greg Frantz (916) 657-0770.



Winston H. Hickox
Secretary for
Environmental
Protection

State Water Resources Control Board

Division of Water Quality

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Gray Davis
Governor

DEC 20 1999

Mr. Dave Smith WTR-2
U.S. Environmental
Protection Agency, Region 9
74 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Smith:

CONTINUING PLANNING PROCESS

Thank you for your September 21, 1999 letter to Mr. Paul Lillebo, Chief of the Water Quality and Basin Planning Program, Division of Water Quality. In that letter you offer U.S. Environmental Protection Agency's comments on the State Water Resources Control Board's (SWRCB) September 1991 Continuing Planning Process document. As you know, this document, which described our planning process at the time it was written, no longer accurately reflects our current planning process. In recent years, various planning-related activities at the SWRCB and Regional Water Quality Control Boards have been developed to implement our Watershed Management Initiative. Examples of other recent changes in our planning process are requirements for review of new State regulations by the California Office of Administrative Law and peer review of new science-based regulations.

I plan to submit a description of our new continuing planning process for your review by the end of February 2000. That document will not attempt to describe in detail all aspects of our complex planning functions but will serve as a guide to locate details about the programs and activities that constitute our ongoing planning process. At a minimum, it will cover the processes described in Clean Water Act section 303(e) and in the Federal regulations (40 CFR 130.5). Our intention is eventually to have this information posted on the Internet for easy public access.

If you have any questions about the February 2000 document, you may call me at (916) 657-0756. The staff person who is coordinating the development of the document is Greg Frantz, and he may be reached at (916) 657-0770.

Sincerely,

ORIGINAL SIGNED BY

Stan Martinson, Chief
Division of Water Quality

California Environmental Protection Agency



Winston H. Hickox
Secretary for
Environmental
Protection

State Water Resources Control Board

Division of Water Quality

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Gray Davis
Governor

TO: Ed Anton, Chief, DCWP
Syed Ali, Planning Section, DWQ
Gerry Bowes, Standards Development Section, DWQ
Jim Kassel, Regulatory Section, DWQ
Ken Harris, Nonpoint Source Section, DWQ

ORIGINAL SIGNED BY

FROM: Stan Martinson, Chief
DIVISION OF WATER QUALITY

DATE: FEB 11 2000

SUBJECT: CONTINUING PLANNING PROCESS--REPORT TO
U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA)

The State Water Resources Control Board has recently been asked by USEPA to provide them with information about the State and Regional Boards' various planning processes pursuant to Clean Water Act section 303(e). Our last "Continuing Planning Process" document was submitted to USEPA in September 1991. I have attached that document, along with USEPA's comments, for your information. Clearly, much has changed since then in the way we conduct business. Whereas the 1991 document included lengthy descriptions of each State and Regional Board Program, this time we intend to keep the document brief and to provide USEPA with a list of references indicating where to find the complete descriptions of our planning activities. This is predicated on the fact that descriptions of many of our planning activities already exist in other documents such as the Watershed Management Initiative, Administrative Procedures Manual, and other sources.

I plan to supply USEPA with a comprehensive picture of our planning activities, and therefore request that each of you to assist in this effort by (1) providing a listing of the planning activities in your Division or Section and (2) providing a reference where the activity is described. The references should be of documents or web sites that are accessible to USEPA. If no such references are available, please provide a brief description of the planning activity. Note that there are nine planning elements contained in 40 CFR 130.5(b) for which we are specifically required to submit information. In most cases these will be covered in the descriptions of our overall planning process. Look over the attached list of planning process elements and ensure that they are included in your references. Again, if no such reference exists, provide a *brief* description of the planning element based on your knowledge of the subject.

California Environmental Protection Agency

Ed Anton et al.

- 2 -

Your response is needed no later than February 25, 2000 in order to meet our deadline to submit the information to USEPA. The contact person working on this issue is Greg Frantz, and your responses should be sent to him. Please call Greg at 657-0770 if you have questions.

Attachments (2)

cc: David Smith
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

California Environmental Protection Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

DEC 16 1999

DEC 16 1999

Mr. Walt Pettit
Executive Director
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 94244-0100


Dear Mr. Pettit:

The U.S. Environmental Protection Agency has completed its evaluation of California's most recent Continuing Planning Process (CPP) document dated September 1991. We reviewed the CPP to determine whether it is consistent with Section 303(e) of the Clean Water Act and its implementing regulations at 40 CFR 130.5. The results of the evaluation are enclosed for your review. EPA completed this evaluation following distribution of a draft evaluation to your staff and several interested stakeholders. EPA considered all comments received in developing the final evaluation, and included many of the changes suggested by the commenters.

Our review indicates that the 1991 CPP is no longer consistent with federal statutory and regulatory requirements, is outdated, and provides insufficient details concerning the State's processes for carrying out the water quality management program. Therefore, a comprehensive update of the CPP is needed in the near future. EPA's regulations give each State considerable discretion to determine the format of the CPP, as long as the CPP accurately describes the state's existing program and processes, and otherwise meets the federal statutory and regulatory requirements.

I understand that your staff are already in the process of updating the CPP, and I appreciate the State's commitment to completing this update. Upon submission of the revised CPP, EPA will review the CPP update pursuant to Clean Water Section 303(e) and federal regulations at 40 CFR 130.5. I believe there would be several effective methods for approaching California's CPP update, and we would be happy to explore them with you and your staff. In particular, given the work underway, I'd request completion of the update by June, 2000. If you have questions or wish to discuss the CPP evaluation, please call me at (415) 744-1860 or David Smith at (415) 744-2012.

Sincerely,


Alexis Strauss
Director
Water Division

enclosure

Review of California's Continuing Planning Process

December 14, 1999

Introduction

The Clean Water Act Section 303(e) requires each State to develop and maintain a continuing planning process (CPP) which describes the State's water quality planning process. Specific elements of the State's program which must be addressed are listed in Section 303(e) and include water quality standards, total maximum daily loads (TMDLs), NPDES discharge permitting, residual water treatment waste management, water quality management planning, and intergovernmental coordination. The U.S. Environmental Protection Agency (EPA) is required to review approved State CPPs from time to time to ensure that the planning processes are consistent with the Clean Water Act and associated regulations.

The CPP is intended to describe the processes a State uses to run its water programs and develop plans to improve and protect water quality. The CPP is not itself a plan; it is a collection of processes that, when followed, will lead to the development of decisions including TMDLs, permit limits, and water quality management plans.

California's initial CPP was approved by EPA on March 30, 1973 prior to EPA's approval of California's NPDES permit program. EPA approved the revised CPP on June 28, 1984 at the time California's pretreatment permit program was approved. The State also submitted CPP revisions in 1988 and 1991 for EPA review.

This document discusses the results of U.S. Environmental Protection Agency's review of California's most recent Continuing Planning Process (CPP) document dated September 1991. EPA is conducting this review pursuant to federal regulatory provisions at 40 CFR 130.5(c). EPA committed to conduct parts of this review in a consent decree and settlement agreement developed to settle a lawsuit against EPA (*Heal the Bay, et al. v. Browner*). Pursuant to the provisions of the consent decree in *Heal the Bay, et al. v. Browner*, EPA is issuing its final determination of whether the portion of the CPP relating to the Section 303(d) program is consistent with Section 303(e) and its implementing regulations at 40 CFR 130.5 and 130.7, and associated recommendations for improvement. EPA is also issuing its final recommendations concerning the other CPP elements at this time.

EPA evaluated whether the California CPP adequately addresses the nine required elements in a CPP which are identified in 40 CFR 130.5(a), the TMDL process requirements identified in 40 CFR 130.7(a), and the seven provisions identified in paragraph 6 of the Settlement Agreement developed pursuant to *Heal the Bay, et al. v. Browner*. The review is organized in terms of the nine CPP elements described in 40 CFR 130.5. The TMDL process review addresses the requirements in 40 CFR 130.5(b) (3) and 130.7(a), along with the factors identified in the settlement agreement.

This review was made available for public comment for 45 days. EPA considered written comments submitted to EPA by November 9, 1999 by NRDC, CASA, and SCAP.

Overview of General Format and Required Elements

EPA regulations at 40 CFR 130.5(b) give each State discretion to determine the format of its CPP as long as the minimum requirements of the Clean Water Act and the regulations are met. The State may also include other processes in the CPP, at its discretion. The form and content may be tailored to reflect the organization and needs of the State provided that the requirements of the Act, 40 CFR 130, and where applicable, 40 CFR parts 29, 30, 33 and 35, Subparts A and J are met.

California's CPP is organized for the most part by program area. This format is adequate for describing program processes, but does not clearly describe how these processes relate to each other. It is unclear whether these processes vary among Regional Boards. If processes do vary among Regional Boards, the CPP should describe the different approaches used by different Regions.

Clean Water Act Section 303(e) and federal regulations at 40 CFR 130.5 list nine processes which the CPP must describe:

1. The process for developing effluent limitations and schedules of compliance that are required by Sections 301(b)(1), 301(b)(2), 306, and 307.
2. The process of incorporating areawide waste management plans under Section 208 and applicable basin plans under Section 209.
3. The process for developing TMDLs and individual water quality based effluent limits.
4. The process for updating and maintaining water quality management plans including schedules for revision.
5. The process for assuring adequate authority for intergovernmental cooperation in the implementation of State Water Quality Management Programs.
6. The process for assuring implementation (including schedules of compliance) for revised or new water quality standards.
7. The process for ensuring adequate controls for all residual waste from water treatment processing.
8. The process for developing an inventory and ranking in priority order of needs for construction of waste treatment works under Sections 301 and 302.
9. The process for determining the priority of permit issuance.

The CPP format makes it difficult to determine where each of the federally-required CPP elements is addressed in the 1991 document. It would be useful to include a table indicated where each of the required elements is addressed in the document. The only required elements which do not appear to be addressed are the process for ensuring adequate controls for all residual waste from water treatment processing and the process for determining the priority of permit issuance. These required elements need to be addressed in a revised CPP. EPA endorses the organization of the CPP in a manner which provides a readable and comprehensive discussion of each process.

California's CPP needs to be updated to reflect changes in State water quality management policies and procedures and to more clearly explain the State's water quality planning process. Additional detail concerning the decision processes and mechanisms for public involvement are needed for each of the required CPP elements. The State should explain how related planning and

decision processes fit together to establish a coherent and comprehensive planning process. In cases where the CPP references other documents which describe program processes, the CPP should summarize these processes and explain how copies of the referenced documents can be obtained by the public.

In several cases, new programmatic or process requirements have been established at the State or Federal level since the 1991 CPP was developed, and program activities which were priorities in 1991 have been completed or superseded. The CPP needs to be updated to reflect these changes in program requirements, processes, and priorities. Program areas emphasized in the 1991 CPP which need to be updated to reflect fundamental changes in their status include:

- water quality standards plans,
- nonpoint source management plan,
- Bay-Delta related activities, and
- TMDL program activities, including Section 303(d) listings, priority rankings, and TMDL development.

In addition, the CPP should be updated to address several new State policies or requirements which have been developed since 1991, including:

- the State's Watershed Management Initiative
- review of decisions by Office of Administrative Law pursuant to the California Administrative Procedures Act
- requirements to subject certain decisions to scientific peer review.

Element 1: The process for developing effluent limitations and schedules of compliance that are at least as stringent as those required by Sections 301(b)(1), 301(b)(2), 306, and 307.

The CPP does not clearly describe this process. The CPP should be updated to describe the process steps, decision criteria, and public participation provisions and identify associated State statutes, regulations, and/or policies. The discussion of the process should address the process for (1) issuing permits with effluent limitations, (2) determining the timetable for achievement of such effluent limitations, (3) reviewing and, if necessary, revising effluent limitations, and (4) issuing schedules of compliance.

Element 2: The process of incorporating areawide waste management plans under Section 208 and applicable basin plans under Section 209.

The CPP discusses how areawide waste management and basin plans are incorporated into California's Basin Planning process and lists agencies designated as management agencies under Section 208. The CPP should be updated to more thoroughly describe how all planning responsibilities required under Sections 208 and 209 are addressed in California, including more detailed descriptions of the respective roles and responsibilities of the Regional Boards, State Board, and designated management agencies. The list of designated management agencies needs to be updated. The process for revising management agency agreements should be described.

Element 3: The process for developing TMDLs and individual water quality based effluent limits.

This element addresses both TMDL development and development of water quality based effluent limits in NPDES permits. This review addresses these processes separately.

TMDL Process Requirements

The TMDL process review considers the provisions of 40 CFR 130.5(b)(3) and 130.7(a)-(e), which require that the CPP clearly describe the process for:

- identifying water quality limited segments (303(d) lists),
- setting priorities for developing TMDLs,
- establishing TMDLs, wasteload allocations and load allocations (including monitoring, modeling, data analysis, calculation methods and list of pollutants to be regulated),
- submitting the lists, priority rankings, and TMDLs for EPA approval,
- incorporating approved TMDLs, wasteload allocations, and load allocations into the State water quality management plan and individual NPDES permits, and
- involving the public, affected dischargers, designated areawide planning agencies, and local governments.

The review of TMDL process requirements is organized in terms of the provisions described in the settlement agreement pursuant to *Heal the Bay, et al. v. Browner*, paragraph 6.

EPA has determined that the portion of the 1991 CPP related to Section 303(d) is inconsistent with the Act and its implementing regulations. The 1991 CPP does not accurately reflect the requirements that:

- Section 303(d) lists must be developed and submitted every two years along with priority rankings and identification of waters targeted for TMDL development over the following two years.
- TMDLs must be completed for all waters on the 303(d) list.
- TMDLs must include wasteload allocations for point sources and load allocations for nonpoint sources as needed to attain water quality standards.
- the State's process for developing Section 303(d) lists and TMDLs must be described in detail (see 40 CFR 130.7(a)).

Therefore, the State needs to update the CPP to address these deficiencies and the additional recommendations discussed in the following sections.

a. Update definition of TMDLs/wasteload allocations/load allocations to be consistent with 303(d) and 40 CFR 130.2

The definitions of TMDLs, wasteload allocations, and load allocations should be updated to

be consistent with existing federal regulations at 40 CFR 130.2. Currently the State's description of TMDLs indicates that waste load allocations for point sources will be developed for limiting pollutants and load allocations *may* be developed. The CPP should be updated to reflect the requirement to establish load allocations for non-point sources that are contributing to non-attainment of water quality standards (40 CFR 130.2). The CPP should also discuss the requirements of Section 303(d)(1)(C) to include a margin of safety to account for uncertainty as well as consider seasonal variability.

The section of the CPP entitled "Total Maximum Daily Loads and Waste Load Allocations" states that an evaluation will be performed to determine whether TMDLs "will be useful" in addressing a water quality problem. Clean Water Act Section 303(d)(1)(C) requires the development of TMDLs for all identified water quality limited segments identified on the Section 303(d) list. The CPP should reflect that requirement.

b. Identification of the sections of the Act and implementing regulations which establish the State's Section 303(d) program requirements.

The CPP correctly cites Section 303(d) as the section of the Clean Water Act that pertains to the listing of water quality limited segments and the development of TMDLs. The State should revise its citation of Federal regulation to include 40 CFR 130.2 and 130.7 when referring to the Section 303(d) listing and TMDL regulations.

c. The State's Process for Identifying and Including waters on Section 303(d) Lists and for establishing TMDLs for waters on section 303(d) lists.

The current description of the State's process for listing water quality limited segments and developing TMDLs is outdated. The State should describe its current process for preparing the Section 303(d) list including:

- gathering "existing and readily available information",
- assessment procedures,
- listing decision criteria,
- priority ranking procedures and criteria,
- procedures for targeting waters for TMDL development in the subsequent 2 years,
- public review and comment on the draft Section 303(d) list, and
- the list approval process, including descriptions of State and Regional Board roles.

In discussing the criteria to be applied in evaluating whether water quality standards are being attained for purposes of Section 303(d) listings, the CPP should discuss how the State considers attainment of designated beneficial uses, numeric water quality objectives, narrative water quality objectives, and State antidegradation policies, as required by 40 CFR 130.7(b)(3). The CPP should also describe the State's process for determining TMDL development schedules and factors which are considered in making scheduling decisions.

The CPP should describe the process used to develop and adopt TMDLs in California. This update should discuss:

- the process through which the State determines its analytical approaches to TMDL development,
- steps in TMDL development, including timelines where they exist,
- the process for deciding each TMDL element, including numeric targets, load and wasteload allocations, loading capacity, margins of safety, and seasonal variations/critical conditions,
- state requirements to adopt TMDLs (e.g., Basin Planning, peer review and Office of Administrative Law review requirements),
- TMDL implementation planning processes and minimum plan elements,
- public participation processes, and
- process for submitting TMDLs to EPA.

The State should also update its description of the Basin Planning process and its relationship to TMDL adoption. Currently the description of the Basin Plan process does not include the requirement for approval by the Office of Administrative Law or the requirement for peer review. Nor does the CPP provide sufficient details concerning the specific process and decision criteria which will be used to establish TMDLs.

Finally, the State should describe how water quality monitoring, water quality modeling, data analyses, and different calculation methods are selected and applied in the process of developing Section 303(d) lists and establishing TMDLs.

d. Incorporation of TMDLs into the Watershed Management Approach

Since the last update of the CPP, the State has adopted a strategic plan and watershed management initiative that envisions the application of a watershed approach to address water quality problems in many situations. To the extent the State intends to follow a watershed management approach to TMDL development, the State should describe the process by which TMDLs generally will be incorporated into its watershed management approach as well as how TMDL development schedules dictated by consent decrees or settlement agreements will be addressed in a watershed management context.

e. Process for involving the public.

The CPP currently does not describe the State's process for involving the public (including affected dischargers, designated area wide agencies, and local governments) in the TMDL process. Public involvement includes providing access to the decision-making process, seeking input from and conducting dialog with the public, assimilating public viewpoints and preferences, and demonstrating that those viewpoints have been considered in the final decision. The State should provide a description of the State's process for involving the public in the preparation and review of the Section 303(d) list as well as the TMDL development process. Specifically, the State should describe the process used to develop TMDLs when (1) the Regional Board develops a TMDL or (2)

an entity other than the Regional Water Quality Control Board assumes more of a lead role in developing the technical information for the TMDL. The State should also describe those aspects of the water quality management plan that are related to the Section 303(d) program, including monitoring programs, NPDES permitting procedures to implement new wasteload allocations, and nonpoint source program provisions for implementing new load allocations.

f. Description of public review process and incorporation of loads into water quality management plans and permits.

The State's CPP currently does not describe the State's process for public review of calculations and supporting data, analysis, and assumptions used to establish TMDLs. The State's CPP (Attachment 1) indicates that wasteload allocations will be developed, if needed, and that such allocations will be incorporated into waste discharge requirements and NPDES permits. The State should update its CPP to describe the process by which it will incorporate approved TMDLs, wasteload allocations and load allocations (both State established and EPA established) into the State's water quality management plan, NPDES permits, and (if the State determines that it is appropriate) waste discharge requirements. As part of the description of this process the State should indicate the time frame for incorporation of approved or established WLAs into NPDES permits as well as the time frame for incorporation of EPA established TMDLs into the State's water quality management plan.

g. Incorporation of TMDL programs/processes into other agreements.

The State should describe how it will incorporate TMDL programs and processes identified in the CPP into other federal/state agreements and agreements with other State or local agencies. The State Board has existing management agency agreements and memoranda of understanding or agreement with a number of state and federal agencies. Since some of these agreements are affected by changes in the TMDL program, the State Board should describe the process by which changes will be made in those agreements to reflect changes in the TMDL program as described in any revisions to the CPP. In addition, the CPP should describe the process through which TMDL program resource needs are addressed in the federal/state workplan planning process.

Process for Developing Effluent Limitations

The 1991 CPP does not describe the State's process for developing effluent limitations for NPDES permits. The CPP should be updated to describe the process steps, decision criteria, and public participation provisions and identify associated State statutes, regulations, and/or policies. The CPP should discuss the process for developing effluent limitations pursuant to NPDES permits for industrial facilities, wastewater treatment plants, municipal stormwater discharges, and stormwater discharges regulated under general permits. The CPP should describe the timeframe for permit reissuance and provisions for implementing a watershed-based permitting approach where that approach is being implemented. As discussed above, the CPP should also describe the process for revising permits to be consistent with new wasteload allocations.

Element 4: The process for updating and maintaining water quality management plans including schedules for revision.

The CPP contains an extensive discussion of water quality management planning activities, but needs to be updated and clarified to explain currently applicable process requirements. The CPP should explain how water quality management plans are updated to ensure that all management plan elements required by 40 CFR 130.6(c) are kept up to date, and provide schedules for water quality management plan revisions. The CPP update should describe the process for addressing each of these required management plan elements, including process steps, responsible units of State government, decision rules where applicable, and public participation processes. In particular, the CPP should describe the process for incorporating TMDLs and associated implementation measures in the water quality management plans. The CPP should provide a listing of all required Basin Plan elements, including elements required under State law. The CPP should also discuss how other important State water quality management programs (e.g., State Nonpoint Source Management Plan) are implemented and revised.

The CPP should describe with more specificity the relationship between individual Basin Plans (and the procedures for updating them) and Statewide Plans and Policies. This should include a description of the legal relationship between the two types of plans, and the extent to which one type implements or interprets the other. The set of Statewide Plans and Policies discussed in the 1991 CPP is outdated and needs to be revised to reflect the current status of these policies.

Finally, the CPP should describe the process and schedule for future reviews and revisions of the CPP itself.

Element 5: The process for assuring adequate authority for intergovernmental cooperation in the implementation of State Water Quality Management Programs.

The discussion of provisions for intergovernmental cooperation procedures in the 1991 CPP is incomplete and outdated. The CPP should be updated to discuss how the State uses management agency agreements, MOUs, and MOAs to assure intergovernmental cooperation in implementing State water quality management programs. In addition, the CPP should discuss the State's process for assuring adequate authority for intergovernmental cooperation in situations which are not addressed through management agency agreements, MOUs, or MOAs. Also, the CPP should describe the State's processes for coordinating its activities with relevant tribal governments and authorities and with neighboring states and countries.

Element 6: The process for assuring implementation (including schedules of compliance) for revised or new water quality standards.

The existing CPP contains a cursory discussion and a set of flow charts which describe the water quality standards development and implementation process. The CPP should be updated to provide a detailed description of the process through which water quality standards are established and periodically reviewed. This update should address the processes for setting or modifying beneficial use designations, numeric objectives, narrative objectives, variances, antidegradation

policies, and water quality standards implementation procedures. The CPP should discuss how the State operates the triennial review of water quality standards, including the process for setting triennial review priorities, decision criteria, process steps, and provisions for public involvement.

The CPP should also discuss the different processes through which the State implements water quality standards, including TMDLs, water quality based effluent limits in NPDES permits, nonpoint source controls pursuant to the Nonpoint Source Management Plan, and other implementation mechanisms under State or Federal law. In its discussion of implementation through the Nonpoint Source Management Plan, the CPP should discuss the State's process for soliciting and selecting implementation projects to be funded with Clean Water Act Section 319(h) grants. In its discussion of other implementation planning programs, the CPP should discuss the State's process for soliciting and selecting planning grants to be funded with Clean Water Act Section 604(b) grants.

The CPP should clarify the State's process for authorizing and setting compliance schedules for NPDES permits and including a list of Regional Boards in which compliance schedules are authorized.

Element 7: The process for ensuring adequate controls for all residual waste from water treatment processing.

The 1991 CPP does not address this element. The CPP should be updated to describe the State's process for ensuring that adequate controls are in place for residual wastes and sludges from water treatment processing.

Element 8: The process for developing an inventory and ranking in priority order of needs for construction of waste treatment works under Sections 301 and 302.

The CPP contains a discussion of the process for setting priority rankings for funding through the State Revolving Fund (SRF). The CPP should be updated to provide a more thorough description of the actual process and decision criteria through which SRF funding decisions are made. The CPP update should reflect changes in the SRF review process which allow funding of non-wastewater treatment projects, including stormwater management and nonpoint source control projects.

Element 9: The process for determining the priority of permit issuance.

As discussed above, the CPP should be revised to describe the process through which priorities for permit issuance are determined. This discussion should address the process for issuing new permits, reissuing major permits, reissuing minor permits, amending or revising permits, transferring permits, reopening permits where needed prior to their expiration, and procedures for issuing permits on a watershed basis (for Regional Boards where that approach is used).

Conclusion

The 1991 CPP is outdated and insufficiently detailed to provide a thorough description of the State's water quality program operating processes. A comprehensive update of the CPP will assist the State in explaining more clearly its complex decision making processes under multiple State and Federal statutory mandates. A clearer description of these processes would facilitate public understanding of and involvement in water quality protection decisions, which should eventually result in improvements in implementation of needed water quality controls. EPA requests that the State complete and submit for EPA review a comprehensive update of the CPP consistent with these comments within 6 months.

STATE OF CALIFORNIA

CONTINUING PLANNING PROCESS DOCUMENT

SEPTEMBER 1991

**STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY**

TABLE OF CONTENTS

INTRODUCTION

WATER QUALITY MANAGEMENT PLANS

STATEWIDE PLANS

Ocean Plan; Enclosed Bays and Estuaries Plan; Inland Surface Waters Plan; Water Quality Control Plan for Salinity; San Francisco Bay/Sacramento-San Joaquin Delta Estuary; Pollutant Policy Document

BASIN PLANS

Areawide Management Plans (208); Toxic Hot Spot Cleanup Plans; Water Quality Planning studies [205(j)(2) and 604(b)]

ADOPTION OF STATE AND REGIONAL PLANS

IMPLEMENTATION OF STATE AND REGIONAL PLANS

STATEWIDE BASIN PLANNING UPDATE PROGRAM

STATE REVOLVING FUND LOAN PROGRAM

CLEAN WATER STRATEGY

WATER QUALITY MONITORING PROGRAM

STATEWIDE MONITORING PROGRAM

Surface Water Toxicity Program; Toxic Substances Monitoring Program; State Mussel Watch Marine Monitoring Program; Other Monitoring Programs

REGIONAL BOARD MONITORING

Monitoring For Waste Discharger Compliance and Enforcement; Special Studies

SPECIALIZED MONITORING

Bay-Delta Program; Lake Tahoe Program; Consolidated Database for Bay Protection and Toxic Cleanup

NONPOINT SOURCE PROGRAM

CLASSIFICATION OF SURFACE WATERS

WATER QUALITY LIMITED SEGMENTS

TOTAL MAXIMUM DAILY LOADS AND WASTE LOAD ALLOCATION

CONSISTENCY BETWEEN NPDES PERMITS, STATE REVOLVING FUND LOANS AND WATER QUALITY MANAGEMENT PLANS

INTRODUCTION

California's water quality planning program is primarily comprised of statewide and regional water quality control plans. The program is developed and amended through a continuing planning process as described in this document. The process involves a network of programs carried out by the State Water Resources Control Board (State Board) and the nine Regional Water Quality Control Boards (Regional Boards) which, in conjunction with a periodic review and amendment process, provides for continual protection and enhancement of the waters of the State.

A significant portion of the water quality planning effort is devoted to establishing water quality objectives necessary to protect identified beneficial uses of the waters of the State and identifying control measures for pollutant sources. In the regional water quality control plans, water bodies are identified, the beneficial uses of the waters are established, and water quality objectives are adopted to protect the beneficial uses. The identified beneficial uses and water quality objectives together constitute the State's water quality standards. Periodic review and update of the water quality control plans are integral parts of the planning process.

WATER QUALITY MANAGEMENT PLANS

California's water quality management program consists of both statewide water quality control plans (statewide plans) and regional water quality control plans for specific hydrologic areas (basin plans). Portions of a third type of plan, areawide waste treatment management plans which are required under the Clean Water Act Section 208, have been incorporated into both statewide and basin plans. Recommendations of water quality planning studies carried out under Clean Water Act Section 205(j)(2) and under special State Board programs, such as the Bay-Delta Program, may also be used in amending statewide and basin plans.

The statewide water quality control plans must identify existing and potential beneficial uses of marine, ground, and inland surface waters, establish water quality objectives to protect beneficial uses, develop implementation programs to achieve these objectives, and describe surveillance and monitoring activities to evaluate the effectiveness of the water quality control program [Porter-Cologne Water Quality Control Act (Water Code), Sections 13240-13244]. Background information, such as population and land use projections, is included in technical appendices to the plans.

The State and Regional Boards adopt policies to provide a framework for water quality planning. The State Board is authorized to adopt policies for water quality control, including both principles for long-range resource planning and specific water quality objectives at key locations (Water Code, Section 13140-42). Statewide policies currently include the Statement of Policy With Respect to Maintaining High Quality of Waters in California, adopted October 28, 1968 (Resolution 68-16); the State Policy for Water Quality Control, adopted July 6, 1972 (by motion); the Water Quality Control Policy for the Enclosed Bays and Estuaries of California, adopted May 16, 1974 (Resolution 74-43); the Policy and Action Plan for Water Reclamation in California, adopted January 6, 1977 (Resolution 77-1); the Policy on the Disposal of Shredder Waste, adopted March 19, 1987 (Resolution 87-22); and the Water Quality Control Policy on the Use and Disposal of Inland Waters for Powerplant Cooling, adopted June 19, 1975 (Resolution 75-58). The Pollutant Policy Document for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, adopted June 21, 1990 (Resolution 90-67) provides policy guidance to be implemented by the San Francisco Bay and Central Valley Regional Boards. This document is one product of the State Board's San Francisco Bay-Delta Program. Regional Boards have also adopted policies which cover subjects such as on-site disposal, erosion control, reclamation, dairy waste management, and dredging. Regional Board policies are subject to State Board approval (State Board Resolution 73-42).

STATEWIDE PLANS

The State Board may adopt statewide plans to address issues or areas not covered by the basin plans. In some cases, the State Board adopts plans that are regional such as the Lake Tahoe Plan and the Bay/Delta Plan. Water quality standards and 208 plan elements incorporated into statewide plans are subject to EPA approval [Clean Water Act (CWA), Section 303(c)].

Statewide plans that have been developed include the Water Quality Control Plan for Ocean Waters of California, originally adopted July 6, 1972 with the most recent amendment adopted March 22, 1990 (Resolution 90-27); the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California, adopted January 7, 1971 and amended September 18, 1975 (Resolution 75-87); the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta, adopted August 16, 1978 (Resolution 78-43) and amended May 1, 1991 (Resolution 91-34) by the Water Quality Control Plan for Salinity; the Lake Tahoe Basin Water Quality Plan, conditionally approved on June 18, 1981 (Resolution 81-64) and amended January 20, 1983; and two plans adopted jointly on April 11, 1991 (Resolution 91-33), the Inland Surface Waters of California Plan and the Water Quality Control Plan for Enclosed Bays and Estuaries of California. Statewide plans supersede basin plans where a conflict occurs [Water Code, Section 13170].

Federal water quality standards, as described in Section 303(c) of the Clean Water Act, correspond to the designated beneficial uses and water quality objectives of the statewide and basin plans. Federal law [CWA Section 303(c)] requires a review to identify necessary revisions of water quality standards at least once in every three-year period starting in 1972. State law (Water Code, Section 13240) requires periodic review and necessary revisions of statewide and basin plans and provides that the Ocean Plan must be reviewed every three years [Water Code, Section 13170.2(b)].

The State Board is responsible for review of statewide plans. The reviews are comprehensive and include a public scoping hearing to identify issues to be addressed. Staff then prioritize the issues to be addressed and develop a workplan for evaluating the issues indicated (Administrative Procedures Manual, Chapter VIII).

California Ocean Plan

The Water Quality Control Plan for Ocean Waters of California (Ocean Plan) is the State's water quality control plan for ocean waters. It lists beneficial uses of California's ocean waters which must be protected, establishes water quality objectives necessary to achieve protection for those beneficial uses, and sets forth a program of implementation, including waste discharge limitations, monitoring, and enforcement, to ensure that water quality objectives are met. The State Board adopted the Ocean Plan in 1972, and has since revised the Plan four times, most recently in March 1990.

State and Federal law require triennial review of the Ocean Plan to ensure continued adequacy of water quality standards [Water Code, Section 13170.2(b), CWA Section 303(c)(1)]. The triennial review process, as implemented by the State Board, consists of several steps. An initial staff report is prepared that discusses issues remaining from the previous triennial review. The staff report is released prior to a preliminary public hearing held to solicit comments and identify issues for the new triennial review. Based on the public hearing and staff report, a workplan is prepared to prioritize issues. After State Board approval of the staff workplan, the options for Ocean Plan changes are evaluated. A second public hearing is held to discuss the staff evaluation, followed by State Board action to resolve identified issues through amendments to the Ocean Plan, if needed. The highest priority issues are addressed on a resources-available basis. Because statewide plans supersede basin plans, coastal Regional Board adopt Ocean Plan revisions into their basin plans by direct reference.

A strict definition of ocean waters distinguishes between Ocean Plan and Enclosed Bays and Estuaries Plan jurisdictions. Ocean waters are limited to territorial marine waters of California outside of enclosed bays, estuaries, and coastal lagoons - terms which are themselves strictly defined.

At the last revision in March 1990, the State Board amended the Ocean Plan in the areas of bacterial monitoring procedures, toxic chemicals objectives, and toxicity testing of effluent. The next revision of the Ocean Plan is expected in July 1993.

California Enclosed Bays and Estuaries Plan

Initial work on development of a statewide plan for bays and estuaries began in 1988 in response to the requirements of CWA Section 303(c)(2)(B). Amendments to the California Water Code in 1989 (Senate Bill 475, Chapter 269, Water Code Section 13390 et seq.) mandated the development of the California Enclosed Bays and Estuaries Plan (Plan) which was adopted by the State Board on April 11, 1991 (State Board Resolution 91-33). The new statute also requires that the Water Quality Control Policy for Enclosed Bays and Estuaries of California be reviewed and updated and that the results of the review and update be incorporated into the Plan. In addition, the State Board is required to develop and adopt sediment quality objectives.

Currently, the Plan contains water quality objectives for toxic substances of concern in bays and estuaries. Incorporation of a revision of the Water Quality Control Policy for Enclosed Bays and Estuaries of California is planned. The Plan incorporates, by reference, the water body identifications, beneficial use designations, and selected site-specific water quality objectives contained in basin plans. Generally, provisions of the Plan supersede basin plans or another statewide plan or policy to the extent that the more stringent provision shall apply (see introduction to plan for details).

A program of implementation is also included in the Plan. Implementation provisions provide direction to Regional Boards on various issues including mixing zone considerations, compliance determination, and schedules of compliance.

California Inland Surface Waters Plan

Development of a statewide plan for inland surface waters began in 1988 in response to CWA Section 303(c)(2)(B) which requires all states to adopt numerical standards for toxic pollutants. The Inland Surface Waters Plan was adopted by the State Board on April 11, 1991 and applies to all inland surface waters of the State excluding bays and estuaries (State Board Resolution 91-33).

The plan incorporates, by reference, water body-specific beneficial use designations for inland surface waters contained in the basin plans or other statewide plans. Narrative, toxicity, and numerical water quality objectives to protect aquatic life and human health are included. Numerical objectives are specified for 38 toxic pollutants. Regional Boards may develop site-specific objectives in instances where the statewide objectives are inappropriate. The plan allows Regional Boards to identify certain water bodies where the statewide numerical objectives apply as performance goals while site-specific objectives are developed.

A program of implementation is also included in the plan. Implementation provisions provide guidance to Regional Boards on various issues including mixing zones, effluent limitations, compliance determination, monitoring requirements, schedule for compliance, and revision of waste discharge requirements.

Water Quality Control Plan for Salinity--San Francisco Bay/Sacramento-San Joaquin Delta Estuary

The Water Quality Control Plan for Salinity--San Francisco Bay/Sacramento-San Joaquin Delta Estuary is a focused plan for the parameters of salinity, temperature, and dissolved oxygen for the waters of the Bay-

Delta Estuary. It was considered together with other water quality control plans and policies applicable to the waters of the Bay-Delta Estuary, such as the Pollutant Policy Document for the Bay-Delta Estuary, and the Statewide Water Quality Control Plans for the Inland Surface Waters and for Enclosed Bays and Estuaries of California. The Plan is part of a complete water quality planning package for the Estuary.

The establishment of salinity objectives was guided by the requirements of the Porter-Cologne Act, Basin and Statewide Planning provisions and the Triennial Review process. Coordinated public hearings were conducted to gather information and scientific evidence which was analyzed by staff and reviewed by State Board Members for policy issues. After numerous additional public hearings and reviews of the draft Plan, the State Board adopted the final Plan on May 1, 1991 (Resolution 91-34).

Appropriate temperature and dissolved oxygen objectives were determined to protect fisheries after an extensive review of scientific data and field studies concerning the effect of water temperature on all life stages of Chinook salmon. These studies indicate that there are limited data available and that temperatures of 66 degrees F to 68 degrees F provide an approximate boundary between appropriate protection and unacceptable conditions. The State Board, therefore, adopted temperature objectives that would provide a "cap" to prevent water temperatures from increasing in the Delta. The cap is not a goal; it is just one of several ways of providing protection from elevated temperatures.

In determining the scope of the Plan, the State Board reviewed information submitted during Phase I and the Water Quality Phase of the proceedings indicated that specific salinity, temperature and dissolved oxygen levels could be determined which would provide protection to the beneficial uses addressed in the Plan. The appropriate place to provide this type of protection is a water quality control plan. However, water quantity issues, such as flow and project operations, are more appropriately addressed in the portion of the proceedings leading to a water right decision. The State Board retains the option of setting flow objectives, if appropriate.

Regarding the adoption process and schedule, the initial evidentiary hearing of the Bay-Delta proceedings, Phase I, has been completed. Succeeding phases were renamed to clarify the purposes each is to serve. They are the Water Quality Phase, the Scoping Phase, and the Water Right Phase.

The Water Quality Phase continued the review and revision of the Plan which was adopted in May 1991. A separate Pollutant Policy Document for the Bay-Delta Estuary adopted by the State Board (June 1990) addresses the effects of certain pollutants on beneficial uses in the Bay-Delta Estuary; it contains policy guidance to be used by the San Francisco Bay Region (2) and the Central Valley Region (5) when they update their basin Plans. Other pollutants of concern are addressed in the Statewide Water Quality Control Plans for Inland Surface Waters and for Enclosed Bays and Estuaries.

The Scoping Phase has already begun (March 1991) on issues related to water quality in the Estuary; it will include scoping hearings on such matters as the public trust, physical facilities, negotiated agreements and potential, administrative, and legislative actions. A draft Environmental Impact Report (EIR) will be developed and circulated as a result of the Scoping Phase. Various alternatives developed in the Scoping Phase will be explored in the draft EIR. The Water Right Phase will include a water right hearing with adoption of a final EIR and water right decision(s) in December 1992. In these water right decisions, the Board will decide which water users will help meet water quality objectives and flow requirements in the Estuary.

The plan is currently being implemented in several ways. New implementation measures are limited to a Salt Load Reduction Program and a staged implementation of water quality objectives in the southern Delta. The Plan also contains a compliance monitoring program to: (1) ensure compliance with the adopted

water quality objectives, and (2) identify meaningful changes in any significant water quality parameters affecting the designated beneficial uses.

Water quality objectives are primarily being maintained by existing water right permits. However, flow objectives continue to be established by the State Board's Decision 1485 (D-1485). In regard to the Suisun Marsh, water quality objectives are unchanged from the 1978 Delta Plan. The implementation vehicle, D-1485, was amended to change or delete some monitoring stations and to revise the schedule for implementation; it continues to be in effect until a new biological assessment is reviewed.

Pollutant Policy Document

Although not a statewide plan, the Pollutant Policy Document (PPD) for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary contains policies that will necessitate changes in two basin plans. The document contains policies directed to the Regional Water Quality Control Boards for the San Francisco Bay Region and the Central Valley Region. These Regional Boards will address policies in the PPD by amending the basin plans to implement the PPD.

The goals of the PPD will be implemented in numerous ways, including incorporation in the Water Quality Assessment process, as well as integration in the Ocean Plan, the plans for Enclosed Bays and Estuaries and for Inland Surface Waters. It will be included, where appropriate, in the Regional Board Basin Plans as indicated above.

The PPD identifies pollutants with the greatest potential biological significance in the Estuary and remands these to the Regional Boards to develop plans to reduce or eliminate them. Those pollutants which significantly impact the Bay-Delta Estuary were identified primarily by the Aquatic Habitat Institute, the Bay Area Dischargers Association, and the Department of Fish and Game. The process consisted of analyzing the sources and amounts of pollutants which were the most toxic and the most persistent.

Further, the PPD contains guidance that includes policies to establish a mass emissions strategy and to dispose of dredging spoils. The mass emissions strategy was developed since the Bay and Delta have multiple and varied sources of pollutants discharged under hydrodynamic and water chemistry conditions favoring long-term accumulation of pollutants in sediments and organisms. The goal of the mass emissions strategy is to reduce the concentration of toxic pollutants in the water column, sediments and tissues; the strategy is also intended to achieve the highest water quality possible considering the specific conditions affecting each water body. To begin, for example, each water body or segment identified will have specific short- and long-term measures designed to limit the mass emissions for each identified toxic pollutant.

During Phase I of the proceedings, evidence was offered about the sources and amounts of pollutants in the Estuary. The evidence was reviewed and a draft published in 1988. After more evidence was received and analyzed during the Water Quality Phase, the PPD was adopted on June 21, 1990 (Resolution 90-67).

BASIN PLANS

The Regional Water Quality Control Plans (basin plans) are prepared by each of the nine Regional Boards. Basin plans, and amendments thereto, become effective when approved by the State Board (Water Code, Section 13245). Water quality standards and 208 plan elements incorporated into basin plans are also subject to EPA approval [Clean Water Act, Section 303(c)].

The Regional Boards are responsible for reviewing their basin plans, including water quality standards periodically. Under the Federal Clean Water Act, water quality standards must be reviewed every three years. Guidelines for the review process have been issued by the State Board (Administrative Procedures

Manual, Chapter VIII). The purpose of the review is to determine through comprehensive review of the basin plan and water quality standards whether revisions to the basin plan should be considered and to reaffirm the adequacy of the plan.

The review process involves both procedural and substantive requirements. The procedural requirements include notifying affected public and private parties of workshops and hearings, holding public hearings to identify areas of potential revision and to review draft and final plan amendments, and approval of amendments by the State Board and EPA before they become effective. The substantive aspects of the review of water quality objectives vary among the basin plans. Appropriate existing objectives which do not require revision are identified. At the same time, inspection of monitoring data, compliance inspections, discharger reports, and complaints provide evidence of any continuing or new water quality problems, impairment of beneficial uses, or violation of water quality objectives. These problems indicate a potential need for revision of water quality objectives. In addition, the establishment of background water quality conditions, based on improved monitoring, may alter water quality objectives. The Regional Boards must evaluate this information and determine if and how the water quality objectives should be revised.

Areawide Management Plans (Section 208)

Section 208 of the 1972 Amendments to the Federal Water Pollution Control Act and, subsequently, of the Clean Water Act required the development of areawide waste treatment management plans (areawide plans) for the control of point and nonpoint sources of pollution, the establishment of regulatory programs, and the designation by the states of management agencies to implement the areawide plans. Section 208 plans have been developed by nine designated 208 planning agencies in California and plans for nondesignated areas have been developed by the State Board as follows:

1. Association of Bay Area Governments
2. Association of Monterey Bay Area Governments
3. San Diego Association of Governments
4. Sacramento Area Council of Governments
5. Southern California Association of Governments
6. Ventura County Board of Supervisors
7. Tahoe Regional Planning Agency
8. United States Forest Service
9. United States Bureau of Forestry

These areawide plans were reviewed and certified by the State Board as being consistent with applicable basin plans, and were submitted to EPA for approval.

The Section 208 planning effort produced a variety of products including areawide plans, Best Management Practices (BMPs), and special study reports. Not all planning efforts resulted in implementable water quality control measures. BMPs were developed to address specific nonpoint source water quality problems, on both a site-specific and regional basis, relating to such activities as logging, road construction, mining, agriculture, subdivision development, septic systems management, and storm water runoff. Where appropriate, implementation of these BMPs was enhanced by amending the basin plans to revise or amend Regional Board policies, prohibitions, or guidelines.

Section 208-funded planning activities and grants in California were officially completed in December 1985, when the State Board adopted Resolution No. 85-91, entitled "Close-Out of the Federal Section 208 Areawide Waste Treatment Management Planning Program Grants for California." However, the State Board continues to hold the responsibility and authority to manage water quality through the measures developed under the 208 planning program or to recertify these measures as necessary.

Toxic Hot Spot Cleanup Plans

Water Code Section 13394 requires the development of Toxic Hot Spot Cleanup Plans for bays and estuaries of California. Each region with an enclosed bay or estuary is required to develop a priority ranking of toxic hot spots in these water bodies and prevention and mitigation strategies to address these problem spots. The State Board is required to develop a consolidated statewide toxic hot spot cleanup plan based on the regional plans.

The plans are required to contain the priority rankings, identification of probable sources, descriptions of remediation and management activities to be applied to each hot spot, and cost estimates for the cleanup activities. Revisions of waste discharge requirements (and NPDES permits) consistent with water quality control plans (including prevention strategies) is required.

Water Quality Planning Studies [Subsection 205(l)(2) and 604(b)]

Federal funds awarded through EPA are available through Subsection 205(j)(2) and 604(b) of the Clean Water Act for water quality management planning projects conducted by the State and Regional Boards and various State, Federal, regional, and local agencies. Projects eligible for these funds include identifying the most cost-effective facilities to maintain water quality objectives and determining the nature, extent, and causes of water quality problems in various areas of the State. Feasible water quality control measures resulting from these projects may be incorporated into the appropriate water quality control plan. In addition, these funds are used to fund studies for revising/establishing water quality objectives and for studies to predict, mitigate, and/or abate water quality problems. The process by which planning projects are selected and funded is specified in an implementation plan for each phase of the projects. The plan is approved by the State Board and submitted to EPA for approval prior to implementation.

As of January 1991, one phase of the planning program was complete and four phases were underway . Projects funded in Phases I through V represent a total of approximately \$12 million of Federal funds and include a total of 108 projects. Funding for the program is currently authorized through FFY 1994. The State Board is formulating priorities and procedures to implement future phases of the program. Under Subsection 205(j)(2) of the Clean Water Act local, regional (California Councils of Governments), and interstate organizations are ensured receipt of at least 40 percent of the 205(j)(2)/604(b) funds allocated to the State.

The State Board conducts implementation tracking of completed projects. Self-reported evaluations and State Board staff evaluations are used to determine what recommendations from the projects have, in fact, been implemented. Information developed in the 205(j)(2) projects is disseminated through public participation in each project. Most projects involve a technical advisory committee (TAC) to periodically review and discuss the project during its lifetime. Final self-reports are made available to TAC members, other interested parties, the affected Regional Board, and the EPA. Currently, program review and approval of Quality Assurance Plans prepared by the project participants is done by the Water Quality Planning Project Officers and the State or Regional Boards' Quality Assurance Officer, as appropriate.

ADOPTION OF STATE AND REGIONAL PLANS

Adoption of statewide plans requires public review. The State Board must hold a public hearing (Administrative Procedures Manual, Chapter VIII) before adopting a statewide plan (Water Code, Section 13147). At that time, Regional Boards, other affected public and private entities, and members of the public may comment on the draft statewide plan. Staff must respond to comments and provide a responsiveness summary before consideration for adoption.

Regional Boards must hold a public hearing (Administrative Procedures Manual, Chapter VIII) before adopting a basin plan or amendment (Water Code, Section 13244). Comments may be submitted by public

and private entities, and by members of the public. The State Board and EPA must approve basin plans or amendments before they become effective [Clean Water Act, Section 303(c)].

IMPLEMENTATION OF STATE AND REGIONAL PLANS

The State and Regional Boards implement statewide plans through the federally mandated NPDES permits, State waste discharge requirements (WDRs), and State-mandated enforcement actions. In specialized cases, such as the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan, plan objectives are implemented by the State Board through placing terms and conditions in water right permits and licenses held by water users within the Bay-Delta watershed. The regional water quality control plans are implemented through the permitting of waste discharges and subsequent regulation (enforcement) carried out by the Regional Boards.

All State policies must be taken into account, including the statement of Policy With Respect to Maintaining High Quality of Waters in California (Resolution 68-16). The guidance for implementing this policy is contained in the State Board Administrative Procedures Manual Chapter VIII (April 16, 1991).

STATEWIDE BASIN PLANNING UPDATE PROGRAM

The Governor's budget for fiscal year 1989-90 included \$5.88 million funding for the State Board to conduct a three year program to update the regional Basin Plans. The resources are to be used primarily by the Regional Boards for contract services to complete an update of the Basin Plans by the end of calendar year 1993. The objectives of the update are to:

1. Produce a statewide set of comprehensive, up-to-date, clear and concise Basin Plans that is readily accessible to regulatory agencies, the regulated community, and the general public.
2. Incorporate appropriate language in the Basin Plans to specifically recognize existing and new water quality management activities addressing nonpoint source problems.
3. Modify the format of the Basin Plans to facilitate continuous update and distribution of future amendments.

The Regional Boards identified priority Basin Plan update activities during the workplan development process and in the draft Water Quality Assessment. EPA approved the workplan and a grant for \$3.38 million in CWA Title II discretionary funds primarily for the purpose of incorporating appropriate nonpoint source management programs and related elements in the Basin Plans.

The Regional Boards then prioritized the activities and made estimates of funding and duration for each update activity. This information was used to compile the Statewide list of recommended update activities and to select the activities to be funded by the Program. Each Regional Board nominated priority activities, and these were partially evaluated utilizing the Clean Water Strategy Characterization Methodology. The proposed projects were ranked based on an evaluation of the proposed project water body resource values, condition factors, and the workplan feasibilities. After the evaluation process, efforts were made to ensure that the correct funding source was being proposed for each project and duplicate funding by other program activities was avoided.

Upon State Board approval of the allocation list, the Regional Boards developed detailed workplans for each activity and the projects. Once the workplans were approved by State Board management, the Regional Boards proceeded with the contracting process for each activity. The Basin Planning Update Program is scheduled for completion by December 1993.

STATE REVOLVING FUND (SRF) LOAN PROGRAM

The SRF Loan Program serves to provide funds to help meet water quality management plan objectives. Loan funds and other forms of assistance are available through the SRF Loan Program to construct wastewater treatment facilities and to implement nonpoint source, estuary enhancement, and storm water pollution abatement projects and activities.

To ensure effective use of the available funds to meet enforceable requirements, projects and activities eligible for assistance are prioritized based on the extent of the public health hazard, water quality problem, or other need. Information from the Water Quality Assessment assists in determining these priorities.

Development of the SRF Priority List is a three-step process. First, each Regional Board adopts a priority list for its Region or authorizes the Executive Officer to prepare the list. The Regional Board must invite and consider comments from local agencies and the public before submitting the list to the State Board. Second, the State Board works with 208 planning agencies to prepare the statewide SRF Priority List. The designated agencies may amend their 208 plans to include the latest priorities. Third, the State Board adopts a statewide SRF Priority List after reviewing the Regional Board priority lists. The Priority List, which is updated annually, covers a five-year planning period. The fundable portion of the list includes projects and activities scheduled for SRP assistance during the first year of the planning period. However, Federal law allows the State to fund any project on the State's Priority List.

Projects and activities on the SRF Priority List are assigned to one of the following classes, in descending order of priority.

Class A - Public Health Problems

Class B - Pollution of Impaired Water Bodies

Class C - Compliance with Discharge Requirements

Class D - Preventive Measures Against Additional Water Quality Degradation

Class E - Water Reclamation

Class F - All Other Eligible Projects

Projects are prioritized in each Class by readiness to proceed.

CLEAN WATER STRATEGY

The term "Clean Water Strategy" (CWS) refers to a State and Regional Board effort to ensure that available resources address the highest priority water quality issues. This effort has led to conducting a more comprehensive Water Quality Assessment to provide an inventory of issues, and to the improvement of criteria for determining priorities. These criteria include the following considerations:

- The relative importance of a water body compared to other similar waters in the State.
- The relative condition of water quality (magnitude of impairment or threat of impairment) in a water body compared to other similar waters in the State.
- The technical, financial, institutional, etc. feasibility of an action to successfully address an issue.
- The risks of inaction and the cost/benefits and spin-offs of actions.
- The balancing of efforts to ensure that short-term actions fit long-term needs.

These criteria are used to determine the priority for actions in the network of programs carried out by the State and Regional Boards.

The Water Quality Assessment is a dynamic process and is a key element of the CWS. The CWS is a decision-making process which uses all available water body information to assist in directing available resources (staff and money) to water quality improvement needs. The CWS has six steps: Water Quality Assessment, Need Characterization, Ranking, Allocation, Implementation, and Feedback.

WATER QUALITY MONITORING PROGRAM

California's water quality monitoring program consists of monitoring activities carried out by State and Federal regulatory and water resources agencies, dischargers, and research organizations. The regulatory agencies, assisted by research organizations for some program elements, conduct statewide, regional, and specialized (tailored to particular pollutants or geographic areas) monitoring. Dischargers must monitor their wastes to comply with NPDES permit conditions and waste discharge requirements. The State and Regional Boards also conduct compliance inspections, including monitoring of discharger facilities to ensure adherence to regulatory requirements.

The Water Quality Monitoring Program provides feedback to the planning process. Priority issues and geographic areas are determined based on surveillance, monitoring results, and the classification of surface water segments, and are defined in the biennial Water Quality Assessment Report to the U.S. Environmental Protection Agency (EPA) required under the Clean Water Act Section 305(b).

The following procedure is used to develop, select, and fund ambient monitoring projects. All organizational units of the State and Regional Boards submit monitoring study or contract proposals for consideration in the budget process. The Monitoring Coordinating Committee (MCC) is made up of staff from all nine Regional Boards and the State Board, and has the principal function of directing monitoring programs. The MCC reviews monitoring proposals with respect to how they fit in with regional monitoring plans and statewide priorities. The MCC then recommends specific projects to the Contract Review Committee (CRC). The CRC is composed of senior staff knowledgeable in statewide water quality problems, reviews all submittals using a standard format, develops a priority ranking of the requests, and determines which proposals will be funded.

The State's monitoring programs combine effluent and ambient water quality monitoring with analysis of levels of toxic materials in aquatic organism tissues to provide the desired understanding of water quality dynamics. The State's monitoring strategy is designed to achieve the following objectives:

1. To establish a long-term data base of tissue concentrations of pollutants
2. To identify new point and nonpoint source water quality problems.
3. To provide data to inform the public and U.S. Congress of changes in the State's water quality.
4. To provide data to assist the Regional Boards in establishing water quality objectives.
5. To provide a screening for toxics water quality problems throughout the State.
6. To assure that dischargers are complying with permit conditions.

Based on the results of monitoring, water quality conditions are summarized in the State's Water Quality Assessment.

The statewide, regional, and specialized monitoring program elements are described below.

STATEWIDE MONITORING PROGRAM

California's statewide monitoring program consists of the (1) surface water toxicity program, (2) freshwater toxic substances monitoring, (3) state mussel watch marine water quality monitoring, and (4) other monitoring programs. Chemical data developed by the surface water network and ground water monitoring programs are placed in the Federal STORET water quality data system. These data are also shared with other state agencies, including the Department of Water Resources (DWR).

Surface Water Toxicity Program

The Surface Water Toxicity Testing Program was established this year (1991) to address growing concern in the State regarding acute and chronic aquatic toxicity. The program has three objectives:

1. To identify the nature, source, and extent of aquatic toxicity in the State's brackish and fresh waters.
2. To improve the State Board's ability to evaluate aquatic toxicity problems.
3. To provide technical and analytical expertise and guidance to the Regional Boards.

The toxicity testing will be performed by the University of California, Davis. For many of the State's waters, EPA's three species chronic toxicity tests are appropriate. However, the State Board will develop and refine protocols that are more suitable to specific water quality conditions in the State. Chemical analyses and toxicant identification evaluations will be performed to identify toxic substances. The laboratory may also perform toxicity tests if the Regional Boards need quality assurance tests. The laboratory, in cooperation with the State Board, will also provide technical expertise to the Regions on issues pertaining to this developing field.

Toxic Substances Monitoring Program

This ongoing freshwater program has been operated continuously since 1977 by the State Board. Field and analytical work is performed under contract to the State Board by the Department of Fish and Game. Samples of predatory or forage fish species are collected annually at selected inland locations statewide and their flesh and vital organs are analyzed for toxic metals and synthetic organic substances such as lead, mercury DDT, and PCB. Each of the nine Regional Boards participates in the selection of sampling sites, which are annually reviewed and changed as needed to meet evolving needs for water quality data. The data are presented and evaluated in annual reports.

State Mussel Watch Marine Monitoring Program

This program has also been operated continuously since 1977 by the State Board. Field and laboratory work is performed under contract to the State Board by DFG. Samples of marine mussels, oysters, and clams are taken from various coastal locations such as bays, harbors and estuaries and analyzed to measure the levels of toxic substances that bioaccumulate in marine organisms. The mussel sampling locations are selected (1) in response to Regional Board permit requirements, (2) for their proximity to known or suspected sources of pollutant discharges, and (3) in relatively rural areas as background locations. Sample locations are reviewed annually in cooperation with the coastal Regional Boards and other concerned agencies. Limited discharger outfall monitoring is also performed, with the costs reimbursed by the dischargers. Data is published annually.

Other Monitoring Programs

In addition to the above programs, statewide monitoring includes:

1. Special Surveys (Regional Boards)
2. Lake Tahoe Cooperative Monitoring
3. Compliance and Self Monitoring
4. Cooperative Striped Bass Study

REGIONAL BOARD MONITORING

Monitoring programs of the Regional Boards comprise the largest portion of the State and Regional Boards' budgeted costs for surveillance and monitoring. Regional Board monitoring falls generally into two classes: (1) monitoring to determine compliance and establish enforcement cases against dischargers and
(2) special studies of localized areas or special water quality problems. A more detailed description follows.

Monitoring for Waste Discharger Compliance and Enforcement

This type of monitoring consists of compliance inspections, complaint investigations, and self-monitoring. The purpose of these monitoring activities is to determine if dischargers are complying with NODES permits and WDRs and to establish a case for enforcement actions against any dischargers that are in violation of requirements (determine non-compliance). Regional Boards may also require limited discharger self-monitoring of the receiving water at both a control station and a station that could be affected by the discharge. Data collected in these types of programs are available primarily at the Regional Board level for use in other parts of the surveillance and monitoring program.

Self-monitoring information from major NPDES dischargers is supplied to EPA, and EPA inputs data to the Program Compliance System.

Special Studies

Regional Boards conduct short-term special studies to determine if a water quality problem exists, the extent of known water quality problems, if past water quality cleanup efforts have been effective, or to develop data for use in establishing water quality objectives. Many such special studies and investigations are conducted through contracts with other agencies. Occasionally, the Regional Boards conduct these special studies and investigations using their own staff and laboratory services provided by either the Department of Health Services' laboratory or a private laboratory in their region.

SPECIALIZED MONITORING

There are several additional ongoing state Board programs that result in the gathering of water quality data, and these programs are described below.

Bay-Delta Program

In 1976, the State Board conducted a joint water right and water quality hearing to coordinate salinity standards for the Bay-Delta and Suisun Marsh. In 1978, that hearing culminated in the adoption of Water Right Decision 1485 and a Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh (Delta Plan) which contains water quality standards for salinity and flow. Because of uncertainty about future water project development and the need to review the 1978 standards, and because of the 1986 appellate court decision on the Delta water cases stemming from Decision 1485, the State Board started a three-year, three-phase proceeding in July 1987 to review the existing Bay-Delta standards.

Phase 1 has been completed and the remaining phases of the Bay-Delta proceedings are being altered to allow public scrutiny of the problems and solutions the State Board is considering. Throughout all stages of the proceedings, workshops and State Board hearings will offer an opportunity for public comment on the direction that staff is being instructed to take by the State Board in analyzing issues and alternatives concerning the Bay-Delta Estuary.

Succeeding phases have been renamed to clarify the purpose of each. These are:

- The Water Quality Phase
- The Scoping Phase
- The Water Right Phase

The Water Quality Phase concludes the review, revision and adoption of the Water Quality Control Plan for Salinity adopted May 1, 1991, and a Pollutant Policy Document (PPD) adopted June 21, 1990. The

PPD will serve as policy guidance to the San Francisco Bay Regional Board and the Central Valley Regional Board.

The Scoping Phase will include informational scoping hearings on such matters as the public trust, physical facilities, negotiated agreements and potential legislative actions. A draft Environmental Impact Report (EIR) will be developed and circulated after the Scoping Phase. Finally, the Water Right Phase will

combine a water right hearing with a hearing on adoption of a final draft EIR. The State Board expects to adopt a final EIR and Water Right Decision by December 1992.

In accordance with Water Code Section 13170, this Plan will supersede the Water Quality Control Plans for San Francisco Bay (Basin 2) and for the part of the Central Valley within the Bay-Delta Estuary (Basin 5B) to the extent of any conflict. This Plan is intended to complement the Basin 2 and Basin 5 Plans and other water quality control plans applicable to the waters of the estuary; it is not meant to supersede designation of beneficial uses, objectives, or other matters set forth in regional basin plans.

Lake Tahoe Program

The Lake Tahoe Program is a joint State/Federal/local/ university monitoring program originally established to implement Section 314 (Clean Lakes) of the Clean Water Act. The surveillance and monitoring parts of the program, which cover Lake Tahoe and its surrounding tributaries, identify water pollution sources and water quality trends for this oligotrophic lake which is deteriorating due to nutrient inputs from disturbed watersheds. We expect the Tahoe Regional Planning Agency to take the lead role in this program as of July 1992.

Consolidated Database for Bay Protection and Toxic Cleanup

Water Code Section 13392.5 requires the development and maintenance of a consolidated database which identifies and describes known and suspected toxic hot spots. Surveillance and monitoring programs are required to provide the database. DFG and DHS are members of an advisory task force designed to provide

technical assistance to the monitoring programs. All information in the database must be available to agencies and the public. The State Board has established the Bay Protection and Toxic Cleanup Program to implement the requirements of Section 13392.5 and related requirements for sediment quality objectives development, Toxic Hot Spot Cleanup Plan development, and amendments to the Enclosed Bays and Estuaries Plan. The Monitoring Task Force has been established and meets regularly. Surveillance and monitoring data needed for development of sediment quality objectives will be a major focus of the program, and additional information on water and tissue quality will be included in the database. The monitoring programs and database will provide the basis for assessment of remedial actions addressing sediment pollution, trend analysis of sediment, water and tissue quality, and serve as a foundation for the development of water quality control plan amendments and the toxic hot spot cleanup plans.

NONPOINT SOURCE PROGRAM

California's Water Quality Assessment has established that nonpoint sources (NPS) are the major cause of water pollution in California. In order to address the NPS pollution problem, the U.S. Congress incorporated Section 319 into the 1987 amendments to the Clean Water Act (CWA). Among other provisions, CWA Section 319 required California to prepare a NPS assessment and a NPS management plan. The State Board adopted California's assessment and management plan in November 1988, and EPA

subsequently approved both documents. California's NPS Assessment Report was incorporated into the Water Quality Assessment.

Three general management approaches are used by the State Board and the Regional Boards to address NPS problems:

1. Voluntary implementation of best management practices (BMPs).
2. Regulatory-based encouragement of BMPs.
3. Effluent requirements.

Coordination with public agencies that have NPS related authorities is an important implementation strategy. These agencies have either land management authority or technical or financial assistance capabilities. State and Regional Boards seek agreements with these agencies which will result in implementation of best management practices and targeting of technical and financial resources to high priority NPS projects. Management Agency Agreements (MAA) have been entered into with the U.S. Forest Service, the California Department of Forestry and Fire Protection, and the State Board of Forestry. Memoranda of Understanding (MOU) have been entered into with the California Department of Food and Agriculture regarding control of pesticides in surface waters and with U.S. Department of Agriculture-- Natural Resource Conservation Service regarding agricultural practices.

The expanding NPS Program at the State Board is managed by centralized NPS activities in the NPS Section. The emphasis has shifted from program development to program implementation. A broad range of watershed activities has been initiated, and staff has been assigned responsibility for coordinating the following NPS categories: silviculture, urban runoff, mining, agriculture, dairies, grazing, hydrologic modification, construction, and individual disposal systems. Program activities include: (1) outreach to individuals and governmental agencies in a position to effect improvement of water quality through NPS control (the use of grants and loans to correct NPS problems is emphasized during outreach activities); (2) management of and participation in grant funded projects; (3) education regarding NPS impacts; (4) targeting of impaired or threatened watersheds for intensive staff activity. This activity includes detailed assessment of NPS impacts in the watershed and followup regulatory and nonregulatory actions to correct identified problems.

The State Board is committed to promoting NPS implementation projects that improve water quality. NPS implementation activities include demonstration projects, technology transfer, training, education, technical assistance, and ordinance development. As project workplans are approved, they are considered amendments to the NPS Management Plan. Grants are available through CWA Sections 319, 205(j)(5), and 201(g)(1)(B). Loans are available through both the State Revolving Fund and the Agricultural Drainage Loan Program. The State Assessment Report, as incorporated in the State Water Quality Assessment, is used through the CWS to target all NPS funding .

CLASSIFICATION OF SURFACE WATERS

A Federal water quality standard defines the water quality goals of a water body by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses (40 CFR 131.2). Standards should protect public health or welfare, enhance the quality of water, and serve the purposes of the CWA. The "purposes of the Act" [Sections 101(a)(2) and 303(c)] means that standards should provide water quality for protection and propagation of fish and wildlife, provide for recreation in and on the water, and take into consideration water body use and value for public water supply and other purposes, including agriculture, industry, and navigation.

The classification of surface water segments involves defining the present water quality, evaluating whether basin plan narrative or numeric objectives are met, and determining if beneficial uses are being maintained. Water quality standards are not being met in the receiving water segment if:

1. Basin plan numerical water quality objectives are exceeded.

2. Basin plan narrative objectives, such as "no toxics in toxic amounts", are exceeded. This may be determined if toxicity tests of the receiving water show either that a toxic condition exists or if published scientific information provides evidence of a high probability that an adverse toxic effect on the beneficial use exists.
3. Designated beneficial uses are not protected. This may be determined in many ways depending on the individual use. For instance, accumulation of toxic substances in fish flesh may impair the propagation of fish and/or sport fishing or commercial use of the fish. Sport fishing may be impaired, for instance, if the local health department has restricted taking fish or shellfish or the measured levels exceed U.S. Food and Drug Administration or DHS limits, and DFG has issued health warnings concerning the consumption of fish taken from specific waters. This could be caused by either toxic chemicals and/or metals or bacteriological pollution. Another example would be impairment of instream uses as determined by observation of fish kills, significant reductions in biological populations, aquatic species' deformities, or other conditions primarily caused by poor water quality.

The determination of whether or not a surface water segment is meeting water quality standards is often a complex process. The Regional Board must exercise professional judgment, taking into consideration whether pollutant concentrations exceeding objectives are isolated events, or will continue to impair beneficial uses in the future. Similarly, when elevated levels of toxics are found in fish and wildlife, it must be determined whether this results in the impairment of designated beneficial uses.

WATER QUALITY LIMITED SEGMENTS

Federal law requires the identification of Water Quality Limited Segments (WQLS) [CWA, Section 303(d) and Federal Regulations 40 CFR 130] found as a result of the above water quality classification evaluation. California's WQLS list was first prepared in the mid-1970s as part of the basin planning process (Chapter 5 "Segment Identification and Classification" section). The FFY 1991 State/EPA Section 106 workplan includes a commitment to update the current WQLS list as part of the update of the State Water Quality Assessment.

Surface waters of the State that do not meet water quality standards must be added to the WQLS list. A WQLS is defined by regulation [40 CFR 130.2(i)] as "Any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by Sections 301(b) and 306 of the Act" (effluent quality levels equivalent to secondary treatment for publicly owned treatment works and best available technology economically achievable and best conventional pollutant control technology for all other point sources). In other words, permit limitations (water quality based effluent limitations) for point sources discharging to WQLS are dictated by the need to meet receiving water standards, when those needs go beyond the discharge quality as determined by technology based standards. It follows that WQLS with point source discharges will require waste load allocations for each discharger that is discharging the limiting pollutants. Regional Boards may also determine load allocations for nonpoint sources on WQLS.

Periodic updates to the WQLS list are made by the Regional Boards as part of the State's Water Quality Assessment to add or delete segments as water quality or other data become available.

TOTAL MAXIMUM DAILY LOADS (TMDLs) AND WASTE LOAD ALLOCATIONS (WLA s)

Federal regulations (40 CFR 130.7) require that the states perform WLAs for all water quality limited segments. California is preparing guidelines to prioritize the preparation of action plans for the water bodies on the WQLS list. In cases where severe impairment of water quality has been shown, WLAs have been performed without guidelines. Waste loads are calculated and allocated, as necessary, to meet water

quality standards. For example, TMDLs and WLAs for nitrogen were determined in order to protect the aesthetic and recreational beneficial uses (control algal growth) of the Truckee River (1978). It was determined that affected portions of the river would become water quality limited unless additional action was taken to control nitrogen discharges.

After completion of the updated WQLS list, the identified water bodies will be evaluated to decide if a determination of total maximum daily loads is feasible or if such a determination will be useful in controlling the sources of pollution causing the problem. For those water bodies with a positive answer to the above evaluation, a schedule will be developed to do TMDLs and WLAs for water bodies with planned and funded projects.

CONSISTENCY BETWEEN NPDES PERMITS, STATE REVOLVING FUND LOANS, AND WATER QUALITY MANAGEMENT PLANS

Waste discharges in California are regulated primarily through the issuance of Waste Discharge Requirements (WDRs) by the nine Regional Boards. WDRs issued for point source discharges of pollutants to surface waters also serve as NPDES permits in accordance with Section 402 of the CWA .

To maintain consistency between water quality control plans and implementation measures through issuance of WDRs, effluent limitations and other provisions are included in the adopted permits to: (1) protect the designated beneficial uses of the waters receiving the waste discharge; (2) assure compliance with water quality objectives to protect those uses; and (3) assure that requirements contained in the WDRs are consistent with the water quality control plan.

Facilities funded by the SRF Loan Program are designed to meet requirements expressed in WDRs for that facility. State and Regional Board review of facility plans for SRF loan projects includes assessing consistency with the WDR requirements and water quality control plan. Inconsistencies are resolved by changing either the facility plan, the WDR, or the water quality control plan.

The Administrative Procedures Manual was adopted by the State Board in 1985, and serves to define State and Regional Board procedures necessary for changing statewide and basin plans, implementing programs, etc. The manual outlines the interrelated roles of the basin planning, permitting, and enforcement programs in the following policy statement:

“It is the policy of the State Board to protect State waters through the development of water quality control plans, the issuance of requirements for discharges to such waters, and the implementation of a statewide compliance and enforcement program. It is also the policy of the State Board to ensure that the State Board and the nine Regional Boards operate in a manner consistent with Federal and State laws, regulations and policies”.

The Administrative Procedures Manual is updated as necessary (new programs or program changes) by circulating proposed revisions to the appropriate State and Regional Board staff for review.

DEFINITIONS OF TERMS AND PROCESSES

Identify Beneficial Uses: The beneficial uses of individual water bodies are identified and designated in statewide and basin plans . These beneficial uses are functionally equivalent to EPA designated uses as defined in 40 CFR 131.

Triennial Review and Other Identification of Need: Triennial review of a water quality control plan is a public process to solicit which portions of the Plans should be amended. Once the full range of issues is compiled the State or Regional Boards sets a priority on each issue raised and develops a workplan to address the identified high priority issues.

Identify Constituents and Set Priority: The constituents identified in the triennial review are further analyzed to determine if objectives should be developed. Many sources of technical information are used.

Technical Basis for Objectives: Activities include determination of constituent levels or concentrations (derived from scientific data) at which no impact on the aquatic resources being protected is likely to occur or where a specific risk level is likely to occur. These levels or concentrations are developed by a process which evaluates information on toxicity, exposure, environmental fate, and scientific uncertainty . This process also assesses the quality of available data and may identify data gaps requiring additional testing . The technical basis established is not an enforceable standard, but rather guidance for use in developing water quality objectives . The data developed can form the basis for numeric or narrative objectives. The values obtained are functionally equivalent to EPA 304 (a) criteria as defined in 40 CFR 131.3.

Water Quality Objectives: Water Quality Objectives are limits, levels or concentrations of water quality constituents or characteristics established for the reasonable protection of beneficial uses of water (Water Code Section 13 050) . Factors considered in establishing water quality objectives include scientific uncertainty, beneficial uses, site specific environmental characteristics, and economic considerations (Water Code Section 13241). Water quality objectives are incorporated into statewide or basin plans and together with associated beneficial uses become enforceable standards. Water quality objectives are functionally equivalent to EPA criteria (a part of a water quality standard) as defined in 40 CFR 131.

Effluent Limitations: Effluent limits are restrictions on constituent concentrations, rates of discharge, or acceptable effect levels which are incorporated into waste discharge permits. These limits may be numeric or narrative and are sufficiently sensitive to assure water quality objectives are maintained. Effluent limitations are infrequently used but can be adopted into statewide or basin plans.

Statewide or Basin Plan Amendment: The plan amendment containing new or revised water quality objectives, beneficial use determinations, and/or effluent limitations are adopted into the appropriate statewide or basin plan through a formal hearing process which includes public participation, Compliance with the California Environmental Quality Act (CEQA) is determined by the State Board for Statewide plans and the Regional Boards for basin plans. All plan amendments must be approved by the State Board and EPA.

Waste Load Allocation: Development of control strategies for individual water bodies may involve performing waste load allocations. A waste load allocation is a process by which receiving water maximum pollutant load is allocated to existing or future point sources of pollution.

Incorporate Objectives into WDRs/NPDES Permits: New or revised discharge permits or waste discharge requirements (FIR) are issued which contain effluent limits based upon the statewide or basin plan limitations or objectives. Discharge permits are issued through a process which includes public participation.

Compliance Determination: Compliance with discharge limitations is determined by a combination of discharger self-monitoring reporting and Regional Board compliance inspections.

Non-Compliance: Non-Compliance activities include and activities, with the exception of enforcement actions, undertaken to obtain compliance with requirements . These activities may include discussions with the discharger and development of a plan/schedule to correct the non-compliance.

Enforcement: Enforcement options available to the Regional Boards include, but are not limited to: time schedule orders, Cleanup and Abatement Orders, Cease and Desist Orders, assessment of civil liability, and referrals to the State Attorney General and District Attorney.

AB 982 Public Advisory Group

Discussed March 3 [and March 23-24](#), 2000

***Issues addressing the structure and effectiveness of the
SWRCB Water Quality Program as it relates to
Clean Water Act Section 303(d)***

Introduction

The State Water Resources Control Board (SWRCB) is required to report to the Legislature on the structure and effectiveness of its water quality control program as it relates to Section 303(d) of the Clean Water Act. The Public Advisory Group (PAG) has begun discussions on the issues that should be addressed by the SWRCB in reviewing the State's program. This is a compilation of the issues identified by the PAG.

[This document is separated into three sections: \(1\) an Introduction, \(2\) Consensus Points, and \(3\) Issues yet to be discussed fully. In parts \(2\) and \(3\) the](#) issues are organized under four headings: monitoring, listing, consistent Total Maximum Daily Load (TMDL) process, and consistent TMDL elements.

[Please note: This document is subject to revision.](#)

Points of Consensus

Monitoring

1. The State Water Resources Control Board should develop an umbrella program that monitors and interprets that data for each hydrologic unit at least one time every five years. By umbrella program, we mean a minimum baseline monitoring program that focuses on all waters of the State and does not focus on individual discharges or problems.
2. The Program will have consistent monitoring methods with respect to sampling and analysis, data quality objectives, and centralized reporting requirements.
3. The Regional Water Quality Control Boards should be able to conduct additional monitoring for Regional priorities and that monitoring shall be done in accordance with protocols and methodologies laid out in the Program. The Regional Boards shall utilize Statewide templates and protocols in developing their monitoring programs.
4. The Program shall require that to the extent possible, all existing data is verified, useable, and accessible to the public through a centralized location. Future data collected will be recorded along with methods and QA/QC documentation through some State issued template so that it is coordinated.

Listing

1. The State Water Resources Control Board should formally adopt a Policy, and a means to implement the Policy, for the Regional Water Quality Control Boards on what constitutes reasonable minimum acceptable credible information. The Policy should also include the methods for determining whether to list or delist water segments on the Section 303(d) list consistent with Federal law.
2. The State Water Resources Control Board should formally adopt a Policy to maximize the Regional Water Quality Control Boards consideration of existing data during the 303(d) process.

Issues Yet to be Discussed Fully

Monitoring

Objectives of a Statewide monitoring program

- The right questions
- Ambient vs. TMDL monitoring (source identification and effectiveness monitoring)
- Use monitoring to find problems, to find solutions, and to find the root cause
- Pollution prevention monitoring
- Monitoring in clean waterbodies
- Human health monitoring
- Effectiveness monitoring
- [Area-wide assessment of ambient conditions](#)
- [Source prevention/monitoring should have equal time allotted to them](#)
- [Goal is to have a plan that will achieve clean water in California](#)
- [Monitoring objective relationship to beneficial uses](#)
- [Monitoring objective for "habitat"](#)
- [Monitoring coverage \(data gaps\)](#)
- [Monitoring objective for TMDL development](#)

Monitoring to support Basin Planning efforts including development of water quality objectives

Monitoring for Stormwater/NPS discharges to fill data gaps

[Require federal government to monitor all or high risk waterbodies](#)

Setting priorities for monitoring

Monitoring: Who, where, when, how, funding?

[Need for comprehensive plan including expansion of existing programs](#)

[Involve UC/Cal State to help fill in data gaps where feasible](#)

[Three-tiered approach \(chemical, biological and physical monitoring\)](#)

Use of available information

Standardized monitoring protocols

- Scientific and statistically significant protocols
- Indicator species
- Accurate indicators
- Biological & physical monitoring

- Indicators in people
- [Need a template for Regional Monitoring](#)
- [Need a QA/QC for methodology for the Regional Boards](#)
- [Minimum Standards for Citizen monitoring](#)
- [Aquatic life references should be consistent](#)

Verification of water quality problems

- Confirmation of Impairment
- Update and confirmation of beneficial use determination
- Regional Boards should be able to conduct additional monitoring for Regional priorities in accordance with protocols/methodologies (templates) prescribed in the Statewide program

Background levels/reference conditions

Data management

- Baseline Protocol for database
- Data accessibility
- What happens to the data?
- Approach for making data accessible
- [Minimum statewide data requirements \(Baseline benchmark\)](#)
- [Consolidating existing data sets from agencies](#)
- [Data should be verifiable, useable, and accessible to the public through a centralized location](#)
- [All data collected will be recorded along with its supporting methods and QA/QC documentation \(metadata\) through a State template](#)

Database review by RWQCBs

Use of Geographical Information System

Funding sources for monitoring

Public involvement in monitoring activities

Voluntary proactive approaches

Integration of monitoring requirements with scientific advisory group

[Legal authority to take access on private property or to engage monitoring or take samples](#)

[Are data taken from private property considered public information?](#)

[Assessment of overall resource needs for monitoring](#)

[Levels of implementation \(RWQCBs, landowners/municipalities, and citizen\)](#)

Listing

Listing / Delisting Criteria

- Policy Considerations
- Scientific Considerations

Establishment of “warning levels”

Monitoring program support of listing determinations

Establishment of Minimum Data Requirements for Listing

- Data should support 303(d) listing process

Setting priorities:

- Within Watersheds
- Regional
- Statewide

Reasonable and credible information sources

- Define
- Use of historical data

Retroactive use of monitoring data

Funding sources for evaluating listing and delisting

Public involvement in listing activities

Consistent TMDL Process

How do State and Federal laws integrate?

Link between Porter-Cologne/CWA

TMDL Development Pace

Look at other State programs dealing with water quality issues

Multi-jurisdictional coordination of agencies and regions

Adaptive Management Process

Implementation Plans

Implementation Schedules

Private sector involvement

TMDL education

- Development
- Implementation

Funding for stakeholder processes

Federal/State buyoff on stakeholder processes

Interim Permit Limits Pending TMDL Adoption

Economic Impact Analysis

Environmental Benefits Analysis

Peer Review

TMDL Enforceability

Legal compliance with other statutes (e.g., CEQA)

Consistent TMDL Elements

Ensure Beneficial Uses adequately protected

TMDL Guidelines and Schedule

Waste Load Allocation

- Methods (data/model/best professional judgement)
- Linkage between water quality control measures, water quality impairment and expected benefits
- Stormwater downstream from sources
- Point, nonpoint, historical, local/global, atmospheric natural sources
- Unregulated sources
- Natural loading

Link between SWRCB NPS program and TMDLs

Point/nonpoint/historical sources

- Source identification
- Watershed Management Approach

Persistent Bioaccumulative Toxics

- Strategy for what PBTs to monitor for and where to monitor in all branches of the food web

The relationship between “watershed management” and TMDLs

Economic impact analysis

Pollution prevention

**Staff Report
by the Division of Water Quality**

319(h) NONPOINT SOURCE IMPLEMENTATION PROGRAM

The State Water Resources Control Board has administered the Federal Clean Water Act (CWA) section 319(h) Program for the U.S. Environmental Protection Agency since 1989. This program consists of providing funding for nonpoint source implementation projects in the State of California as well as inputting and maintaining a Grants Reporting and Tracking System (GRTS) to provide Congress with project information on an annual basis.

A document listing all open and pending 319(h) projects is attached for your information. For more information about the 319(h) Program, contact Lauma Jurkevics (916) 657-0518 or Pamela Parker (916) 657-3889.

**CWA SECTION 319(h) GRANT PROJECTS BY GRANT YEAR
1995, 1996, 1997, 1998, 1999, AND 2000**

OPEN AND PENDING CONTRACTS

<u>CONTRACTOR-GRANT YEAR</u>	<u>PROJECT TITLE</u>	<u>AMOUNT</u>
<u>1995</u>		
MARIN CO. RCD - 1995	DAIRY WASTE RECLAMATION USING AN ADVANCED INTEGRATED POND SYSTEM	\$87,631
COASTAL SLO RCD - 1995	CHORRO FLATS ENHANCEMENT PROJECT	\$300,000
CENTRAL VALLEY RWQCB - 1995	IMPLEMENT TMML FOR SAN JOAQUIN RIVER-STUDENT	\$149,150
COLUSA CO. RCD - 1995	COLUSA BASIN DRAIN SUB-WATERSHED PROJECT: HAHN ROAD WATERSHED	\$283,746
INLAND EMPIRE WEST RCD - 1995	SAN TIMOTEO CREEK RESTORATION	\$153,000
		\$973,527
<u>1996</u>		
MENDOCINO RCD - 1996	GARCIA RIVER WATERSHED	\$207,900
COASTAL CONSERVANCY - 1996	EEL RIVER WASTE	\$188,856
ALAMEDA RCD - 1996	EQUESTRIAN FACILITY	\$255,000
FOX CANYON GROUND WATER AUTH - 1996	WELLHEAD PROTECTION	\$255,000
CITY OF CALABASAS - 1996	MALIBU CREEK	\$93,984
SAN LUIS AND DELTA MENDOTA WATER AUTH - 1996	IMPLEMENT REGIONAL MGMT PLAN	\$255,000
THE NATURE CONSERVANCY - 1996	PHELAN ISLAND RESTORATION	\$265,904
CENTRAL MODOC RCD - 1996	UPPER PIT RIVER	\$167,000
LAHONTAN RWQCB/DOC - 1996	LEVIATHAN MINE	\$70,034
LAHONTAN RWQCB/UC DAVIS - 1996	LEVIATHAN MINE	\$91,966
TRPA - 1996	WATERSHED MANAGEMENT	\$144,000
SANTA ANA RWQCD - 1996	UPPER NEWPORT/SAN DIEGO CREEK	\$120,000
CITY OF SAN DIEGO - 1996	FAMOSIA SLOUGH	\$126,000
		\$2,240,644
<u>1997</u>		
REDWOOD COMMUNITY ACTION AGENCY - 1997	HUMBOLDT BAY WATERSHED	\$215,000
USFWS - 1997	KLAMATH RIVER WATERSHED RESTORATION	\$187,504
SOTOYOME-SANTA ROSA RCD - 1997	RUSSIAN RIVER WATERSHED	\$187,500
PENINSULA CONSERVATION FOUNDATION - 1997	SAN FRANCISQUITO CREEK	\$143,004
SAN MATEO CO. RCD - 1997	PESCADERO-BUTANO SEDIMENT	\$80,070
SANTA CRUZ CO. RCD - 1997	SAN LORENZO RIVER WATERSHED	\$120,700
WATERSHED INSTITUTE - 1997	SALINAS VALLEY-CARR LAKE	\$191,970
MONTEREY CO. WATER AGENCY - 1997	GROUND WATER	\$80,000
VENTURA CO. RCD - 1997	CALLEGUAS CREEK II	\$182,535
SANTA MONICA BAY FOUNDATION - 1997	LOWER ZUMA CREEK	\$77,950
PLACER CO. RCD - 1997	SACRAMENTO RIVER	\$219,000
PLUMAS CORP. - 1997	FEATHER RIVER	\$60,000
EL DORADO CO. - 1997	ANGORA CREEK WATERSHED	\$205,000
ORANGE CO. - 1997	DAIRY WASTE MGMT	\$210,656
ORANGE CO. - 1997	UPPER NEWPORT	\$125,000
SAN DIEGO CO. DPR - 1997	OTAY VALLEY	\$24,000
MISSION RCD - 1997	WILLOW GLEN NITRATE	\$11,109
UC REGENTS - 1997	RANGELAND	\$145,150
UC DAVIS - 1997	PROJECTS INVENTORY	\$35,000
		\$2,501,148
<u>1998</u>		
REDWOOD COMMUNITY ACTION AGENCY - 1998	HUMBOLDT BAY WATERSHED ENHANCEMENT	\$239,315
USFWS - 1998	KLAMATH RIVER WATERSHED RESTORATION	\$180,000
CITY OF SAN JOSE - 1998	IMPLEMENTATION OF THE SANTA CLARA BASIN WMP	\$130,000
ALAMEDA CO. FCWCD #7 - 1998	UPPER ALAMEDA CREEK WATERSHED MGMT	\$130,000
MONTEREY CO. RCD - 1998	SALINAS VALLEY EAST SIDE WATERSHED PROJECT	\$102,000
MONTEREY BAY NATIONAL MARINE SANCTUARY FOUNDATION - 1998	REDUCE NPS POLLUTION IN THE LOWER SALINAS R.	\$60,000
CENTER FOR MARINE CONSERVATION - 1998	MONTEREY BAY NATIONAL MARINE SANCTUARY	\$75,000
SANTA MONICA BAYKEEPER - 1998	THE BEACHKEEPER CITIZEN MONITORING PROGRAM	\$38,790
TEHAMA RCD - 1998	WQ IMPROVEMENT PROJECT-WESTSIDE TRIBUTARY	\$172,500
PLUMAS CORP. - 1998	FEATHER RIVER CRM WATERSHED MONITORING PROG.	\$221,560
SAN FRANCISCO BAYKEEPER/DELTAKEEPER - 1998	DETOX-DELTA TOXICITY EDUCATION PROJECT	\$70,000
TOWN OF MAMMOTH LAKES - 1998	MURPHY GULCH SILTATION BASIN #2	\$232,460
UC COOPERATIVE EXTENSION - 1998	AN EDUCATIONAL/EXTENSION PROGRAM FOR AG	\$130,000

OPEN AND PENDING CONTRACTS

<u>CONTRACTOR-GRANT YEAR</u>	<u>PROJECT TITLE</u>	<u>AMOUNT</u>
MORONGO CONSORTIUM OF COACHELLA VALLEY - 1998	COACHELLA VALLEY/SALTON SEA NPS PROJECT	\$150,000
RCD OF GREATER SAN DIEGO COUNTY - 1998	SWEETWATER WATERSHED SUMMIT-STUDENTS SOLV.	\$63,246
THE NATURE SCHOOL - 1998	CREEK RESTORATION & ECOLOGY ED FOR KIDS	\$50,000
CARCD - 1998	WILD ON WATERSHEDS: STEP TO STEWARDSHIP	\$128,823
ADOPT-A-WATERSHED - 1998	ADOPT-A-WATERSHED LEADERSHIP INSTITUTE	\$130,000
CAL POLY - 1998	MORRO BAY NATIONAL MONITORING PROGRAM	\$100,000
YOLO CO. RCD - 1998	COMBINING FORCES: BRINGING WATERSHED REST.	\$127,656
		\$2,531,350
<u>1999</u>		
HUMBOLDT CO. RCD - 1999	EEL RIVER COOPERATIVE SEDIMENT REDUCTION/WQ	\$248,751
SOUTHERN SONOMA CO. RCD - 1999	STEMPLE CREEK/ESTERO DE SAN ANTONIO	\$130,000
Sotoyome RCD - 1999	Sediment Reduction in Gualala River Watershed	\$342,250
FRIENDS OF THE ESTUARY - 1999	IMPLEMENTING A REGIONWIDE VOLUNTEER MONITORING RESOURCE CENTER	\$130,000
SAN MATEO CO. RCD - 1999	CHARACTERIZATION, MONITORING, AND BMPS IN PESCADERO WATERSHED	\$229,300
Marin Co. RCD - 1999	Walker Creek Watershed Enhancement Program	\$130,000
COMMUNITY ALLIANCE WITH FAMILY FARMERS - 1999	MONTEREY BAY REGIONAL MARKETING INITIATIVE	\$145,820
RCD of Monterey Co. - 1999	Erosion & Nutrient Mgt. in Salinas & Pajaro	\$311,000
VENTURA REGIONAL SANITATION DIST. - 1999	SEPTIC TANK NUTRIENT REMOVAL	\$130,000
FRIENDS OF THE LOS ANGELES RIVER - 1999	RIVERKEEPERS PROJECT	\$38,820
WESTSIDE RCD - 1999	STEWARDS OF THE ARROYO PASAJERO	\$202,400
PLACER CO. RCD - 1999	REDUCTION OF STREAM SEDIMENTATION	\$250,000
Community Alliance with Family Farmers - 1999	Protecting the San Joaquin River through Outreach	\$154,339
TRUCKEE RIVER HABITAT RESTORATION GROUP - 1999	TRUCKEE RIVER DAY AND ASSOCIATED PROJECTS	\$33,010
REGENTS OF THE UNIVERSITY OF CALIFORNIA - 1999	RANGELAND BMPS IN THE UPPER WEST WALKER RIVER WATERSHED	\$96,890
UC DAVIS, OFFICE OF RESEARCH - 1999	REVEGETATION AND MONITORING IN THE UPPER TRUCKEE WATERSHED	\$94,380
TAHOE REGIONAL PLANNING AGENCY - 1999	TRPA WATERSHED MANAGEMENT	\$240,000
UC Santa Barbara - 1999	Restoration of Riparian Habitat of Crowley Lake	\$244,941
IMPERIAL/DESERT WILDLIFE UNL. INC. - 1999	WETLAND PROJECT UTILIZING AGRICULTURAL DRAINAGE WATER CLEANING	\$130,000
CHINO BASIN WATER CONSERVATION DIST. - 1999	RIVERSIDE DRIVE DETENTION BASIN IMPROVEMENTS	\$240,000
EAST VALLEY RCD - 1999	RATHBUN CREEK/BIG BEAR LAKE SEDIMENTATION NUTRIENT CONTROL PROJECT	\$220,000
Municipal Water Dist. of Orange Co. - 1999	Orange County Landscape Performance Program	\$100,000
SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT - 1999	ASSESSING EFFECTIVENESS OF VARIOUS BMPS FOR UNDERWATER HULL CLEANING	\$42,000
USDA, CLEVELAND NATIONAL FOREST - 1999	ROBERTS RANCH WATERSHED RESTORATION	\$27,000
		\$3,910,901
<u>2000</u>		
Friends of Garcia River - 2000	Monitoring of Sediment Parameters: Garcia River	\$154,820
Trinity Co. Planning Dept. - 2000	Five County Effort: Sediment Reduction Phase II	\$348,000
Sonoma Ecology Center - 2000	Sediment Reduction in Sonoma Creek, option 2	\$309,500
Friends of Alhambra Creek - 2000	Alhambra Creek Erosion & Sediment Reduction	\$170,143
Alameda Co. RCD - 2000	Rangeland Stewardship in So. Alameda Creek	\$350,000
Alameda Co. RCD - 2000	Manure Mgmt at Equestrian Facilities	\$350,000
Southern Sonoma Co. RCD - 2000	Petaluma Watershed Sediment Retention	\$269,700
Alameda Co. Public Works - 2000	Sediment Reduction & Habitat Enhancement	\$350,000
Santa Cruz Co. RCD - 2000	Management Practices for Livestock Owners	\$121,140
Creative Environmental Education - 2000	Moro Cojo Slough: NPS implementation project	\$340,000
Cachuma Operation & Maintenance Board - 2000	Instream & Riparian Habitat Enhancement	\$48,339
Monterey Co. Resource Agency - 2000	Public Outreach & Education in Salinas Valley	\$288,000
Friends of the Estuary at Morro Bay - 2000	Morro Bay Volunteer Monitoring Program	\$240,000
Community Action Board of Santa Cruz Co. Inc. - 2000	Kings Creek Sediment Control Project	\$72,220
Rural Development Center - 2000	Demo Farm & Multicultural Outreach Program	\$345,600
So. California Marine Institute - 2000	Los Angeles Volunteer Monitoring & Education	\$95,000
Santa Monica Bay Restoration Foundation - 2000	Clean Marina & In-Water Hull Cleaner Program	\$87,382
Ducks Unlimited, Inc. - 2000	Conservation Easements for Agricultural Lands	\$130,000
Westside RCD - 2000	Panoche Creek Revitalization Project	\$350,000
Sustainable Cotton Project - 2000	Management Practices to Reduce Pesticide Use	\$349,484
Town of Truckee - 2000	Trout Creek Restoration Project	\$125,500
Water Education Foundation - 2000	Salton Sea Education Program	\$82,029

OPEN AND PENDING CONTRACTS

<u>CONTRACTOR-GRANT YEAR</u>	<u>PROJECT TITLE</u>	<u>AMOUNT</u>
Imperial Co. RCD - 2000	Imperial Valley Fiber Mat Technology BMP	\$125,000
UC Cooperative Extension - 2000	Erosion Reduction in the Salton Sea Watershed	\$113,605
UC Cooperative Extension - 2000	Irrigation Management Reduces Tailwater	\$264,902
Regents of UC, Riverside - 2000	Ag. BMP Implementation; San Diego Creek	\$349,794
San Diego BayKeeper - 2000	Citizen Watershed Monitoring Program	\$31,425
Regents of UC, Oakland - 2000	Nontoxic Recreational Boat Hull Paint Demo	\$129,283
Regents of UC, Davis - 2000	Rangeland Water Quality Management	\$236,910
		\$6,227,776