

Clean Estuary Partnership



FY 05/06 Annual Report

December 2006

Prepared by:

APPLIED *marine* SCIENCES

4749 Bennett Drive, Suite L
Livermore, CA 94551
www.amarine.com

Table of Contents

<i>Table of Contents</i>	<i>i</i>
1.0 Executive Summary	1
2.0 Introduction	2
3.0 Committee and Program Participants	2
3.1 Executive Management Board	2
3.2 Technical Committee	3
3.3 Administrative Committee	3
3.4 Participation & Outreach Committee (P&O)	3
4.0 Program Accomplishments	3
4.1 Program Management & Coordination	3
4.1.1 Program Planning Key Accomplishments	3
Multi-Year Work Plan	3
FY 06/07 Budget	4
CEP Re-design	4
4.1.2 Program Management Key Accomplishments	5
Executive Management Board Actions	5
CEP FY 05/06 Work Plan	5
Risk Reduction Work Team	5
Support for Basin Plan Amendments	6
Other	6
4.2 Technical Studies	7
4.2.1 Key Accomplishments	7
New Technical Projects in FY 05/06	8
Ongoing Projects	8
CEP Project Relationships Table	8
4.2.2 TMDL & Water Quality Attainment Efforts	8
Mercury	8
PCBs	10
Cu/Ni	11
Selenium	13
Diazinon Toxicity	14
Dioxin/Furans	16
Legacy Pesticides	16
Cyanide	17
Multi-Pollutant Projects & Special Studies	18
4.3 Administration	19
4.3.1 Key Accomplishments	19
CEP Support of Basin Plan Amendments	19
FY 04/05 Annual Report	19
FY 05/06 Budget	19
Policy and Procedures Guideline	19
CEP Appropriation of Technical Studies Contingency Funds (Task 4.46)	19
Other	20
4.3.2 FY 05/06 Financial Analysis	20
Revenues & Budget	20

Expenditures	20
Contracting	21
4.3.3 New Administrative Procedures & Guidelines	21
4.4 Participation & Outreach	22
4.4.1 Key Accomplishments	22
Risk Reduction Work Team	22
4.4.2 Coordination of Outreach to Key Stakeholders	22
CEP Technical Symposium Planning	22
4.4.3 Development of Public Outreach Materials	23
Preparation of Diazinon/toxicity in Creeks TMDL Media outreach	23
4.4.4 Support for Water Board Stakeholder Meetings and Related Activities	23
Web Site	23
Public Meetings for the Mercury TMDL	24
Water Board Request for Feedback on Stakeholder Outreach Efforts	24
4.4.5 New Participation and Outreach Procedures	24
Review of Proposed Revisions to the CEP Website	24
Other	24
5.0 Appendices	24
5.1 Table of Relationships Among CEP Technical Projects	24
5.2 CEP Policies and Procedures Manual	24
5.3 Coordinator's Reports	24
5.4 Committee Meeting Minutes	24
5.4.1 Executive Management Board	24
5.4.2 Technical Committee	24
5.4.3 Administrative Committee	24
5.4.4 Participation & Outreach Committee	24
I. Introduction	1
II. Policies	1
1.0 Memorandum of Understanding (MOU)	1
2.0 CEP Committee Operating Policies	1
2.2 Executive Management Board (EMB)	2
2.2.1 Organizational Participation and Representation	2
2.2.2 Commitment to Process	2
2.2.3 Decision-Making Process	2
2.2.4 Information-Sharing	3
2.2.5 Legal Authority	3
2.2.6 Public Comment	3
2.3 Technical Committee	3
2.3.1 Goal and Objectives	3
2.3.2 Membership	4
2.3.3 Initial Tasks	4
2.4 Administrative Committee	4
2.4.1 Role and Responsibilities	4
2.4.2 Membership	5
2.5 Participation and Outreach Committee	5
2.5.1 Overall CEP Stakeholder Participation and Public Outreach Program	5
2.5.2.1 Mission	5
2.5.2.2 Membership	6
2.5.2.3 Tasks	6

3.0 CEP Contracting	7
3.1 Consulting Service Contracting (CSC)	7
3.2 Qualified Contractors Roster	7
4.0 Appropriating Funds for Technical Projects	8
5.0 Distribution of CEP Documents	8
<i>III. Procedures and Guidelines</i>	8
1.0 General CEP Procedures and Guidelines	8
1.1. Committee / Work Group Structure and Decision-Making Process	8
1.1.1 Voting Members	8
1.1.2 Participating Stakeholder	9
1.1.3 Other Members of the Public	9
1.2 Development and Funding of CEP Projects	9
2.0 Individual Committee Procedures and Guidelines	11
2.1 Executive Management Board (EMB)	11
2.2 Technical Committee	11
2.2.1 Technical Work Groups	11
2.2.2 Reviewing and Managing Unsolicited Proposals	11
2.2.3 Peer Review Process	12
2.2.3.1 Background	12
2.2.3.2 Internal Review	13
2.2.3.3 External Review	13
2.2.4 Developing Conceptual Scopes of Work (CSOW)	16
2.2.5 Developing Detailed Scopes of Work (DSOW)	18
2.2.6 Submittal of Monthly Project Progress Reports	20
2.2.7 Technical Committee Distribution of Documents	21
2.2.7.1 Background	21
2.2.7.2 Distribution of Draft Technical Documents	21
2.3 Administrative Committee	22
2.3.1 Appropriation of Incidental Funds from Task 4.46 (Technical Studies Contingency Funds) by the Technical committee	22
2.3.2 Equipment Inventory Tracking	22
2.3.3 Annual Administrative Calendar	24
2.3.4 Preparation of Annual Report	25
2.4 Participation and Outreach Committee	25
2.4.1 Establishment of CEP Environmental Technical Representative	25
2.4.1.1 Background on Environmental Technical Representative Position	25
2.4.1.2 Selection Criteria	25
2.4.1.3 Scope of Work	26

1.0 Executive Summary

The mission of the Clean Estuary Partnership (CEP) is to use sound science, adaptive management, and public collaboration to develop and implement technically valid and cost-effective strategies including TMDLs that result in identifiable, sustainable water quality improvements for San Francisco Bay. In Fiscal Year 05/06 (FY 05/06) program participants consisted of the Bay Area Stormwater Management Agencies Association (BASMAA), the Bay Area Clean Water Agencies (BACWA), and the San Francisco Bay Regional Water Quality Control Board (Water Board). In addition, the Western States Petroleum Association (WSPA) was an active participant and Pacific Gas and Electric Company was an additional financial participant in the Program. Neither are signatories to the Memorandum of Understanding (MOU) establishing the CEP. This report presents a summary of the activities undertaken during FY 05/06, the fifth year of the Clean Estuary Partnership (CEP). The Fiscal Year commenced on July 1, 2005 and ended June 30, 2006.

Highlights for the year included:

Management and Coordination (Executive Management Board)

- Conducted review of CEP accomplishments and initiated program redesign to improve effectiveness;
- Established a position through the Association of Bay Area Governments (ABAG) to provide basin planning staff support for the Water Board;
- Reviewed and approved project definitions for three Bay listings (selenium, diazinon/toxicity, and legacy pesticides) that were used as part of public workshops with interested stakeholders.

Technical Studies (Technical Committee)

- Initiated three (3) new technical projects or activities, including the development and evaluation of options for mitigating risks of public health impacts due to pollutants in fish;
- Continued work on nineteen (19) technical projects or activities initiated in previous fiscal years;
- Completed eight (8) technical projects;

Program Administration (Administrative Committee)

- Developed, adopted, and modified a FY 05/06 budget to support Program needs and direction;
- Prepared and adopted a FY 04/05 annual report;
- Developed and adopted an initial FY 06/07 budget;
- Assisted BACWA contract through ABAG to support a TMDL Basin Planning position at the Water Board;
- Assisted BACWA contract with the Rose Foundation for Communities and the Environment to support the NGO Technical Representative position to the CEP.

Program Annual Finances (Cash Basis)

- Total actual revenues received from CEP participants and other sources in FY 05/06 were \$1,063,949.79;
- FY 05/06 available funds were \$1,307,778.48, including carryover from FY 04/05
- Total Program expenditures within the fiscal year (utilizing FY 02/03 through FY 05/06 funds) were \$607,025.82;
- Accounts receivable of \$32,000 from participant pledges that were not received by the close of the FY were carried forward into FY 06/07;
- \$531,507.80 in unspent and unencumbered funds were transferred forward to the FY 06/07 budget.

Public Participation & Outreach (P&O Committee)

- Strengthened ties with the environmental/environmental justice community;
- Further established and expanded the Environmental-NGO Technical Representative Position;
- Continued maintenance of the CEP Website and Consolidated Stakeholder Database;
- Provided support for a series of facilitated stakeholder meetings to review project definitions to address listings for selenium, diazinon/toxicity, and legacy pesticides;
- Obtained financial support of the Pacific Gas and Electric Company for the CEP;
- Provided media outreach support for Diazinon/toxicity in Urban Creeks TMDL.

Information Management

- The CEP Website was maintained and operational all year and continued to be a valuable tool in disseminating Program information;
- Continued to develop CEP publications section on the website for interested parties to access CEP publications, including adopted final reports;
- Worked with Water Board to use web site to address revised public notice requirements relative to the use of electronic mail instead of the US Postal Service.

2.0 Introduction

The development of Total Maximum Daily Loads (TMDLs) for certain pollutants in San Francisco Bay is required because the Bay and its tributaries have been designated as impaired water bodies under Section 303(d) of the federal Clean Water Act [303(d) list]. The San Francisco Bay Regional Water Quality Control Board (Water Board), the Bay Area Clean Water Agencies (BACWA), and the Bay Area Stormwater Management Agencies Association (BASMAA) have signed a Memorandum of Understanding (MOU) reflecting their belief that a collaborative approach for developing TMDLs will be the most effective method for achieving sustainable water quality benefits for the Bay. The Clean Estuary Partnership (CEP) has been formed to implement the intent of this Memorandum of Understanding.

The mission of the CEP is to use sound science, adaptive management, and public collaboration to develop and implement technically valid and cost-effective strategies including TMDLs that result in identifiable, sustainable water quality improvements for San Francisco Bay. The CEP comprises four program elements: Coordination, Administration, Participation and Outreach, and Technical Projects. For additional information about the CEP, visit www.cleanestuary.org.

3.0 Committee and Program Participants

3.1 Executive Management Board

Voting Members: Bruce Wolfe, Chairperson (Water Board); Donald P. Freitas (BASMAA); Jim Kelly (BACWA). Alternate Representatives: Jim Scanlin (BASMAA); Michael Carlin (BACWA); Tom Mumley and Dyan Whyte (Water Board).

Active Participants: Larry Bahr (Fairfield-Suisun Sewer District), Geoff Brosseau (BASMAA), Rebecca Bryson (CONCUR/CEP), Kevin Buchan (WSPA), Sejal Choksi (San Francisco Baykeeper), Dan Cloak (NGO Technical Representative), Mike Connor (SFEI), Andy Gunther (AMS/CEP Program Coordinator), Richard Looker (Water Board), Tom Mumley (Water Board), Adam Olivieri (BASMAA), Michele Plá (BACWA), Jim Scanlin (BASMAA), David Tucker (City of San Jose), Andria Ventura (Clean Water Action), Dyan Whyte (Water Board).

3.2 Technical Committee

Voting Members: David Tucker, Chairperson (BACWA); Tom Mumley (Water Board); Arleen Feng (BASMAA). Alternate Representatives: Jim Kelly and Ben Horenstein (BACWA); Richard Looker (Water Board); Chris Sommers (EOA, Inc., representing BASMAA).

Active Participants: Bryan Bemis (AMS/Committee Coordinator), Dan Cloak (Environmental-NGO Technical Representative), Mike Connor (San Francisco Estuary Institute), Jay Davis (San Francisco Estuary Institute), Jessie Denver (City of San Jose), Eric Dunlavey (City of San Jose), Andy Gunther (AMS/CEP Program Coordinator), Fred Hetzel (Water Board), Richard Looker (Water Board), Armand Ruby (CEP), Paul Salop (AMS/CEP), Susan Schwartz (Friends of Five Creeks), Chris Sommers (EOA, Inc., representing the Santa Clara Valley Urban Runoff Pollution Prevention Program).

3.3 Administrative Committee

Voting Members: Donald P. Freitas, Committee Chairperson (EMB); Chuck Weir (BACWA); Robert Davidson (BASMAA); Dyan Whyte (Water Board). Alternate representatives: Tom Mumley (Water Board); Michele Plá (BACWA).

Active Participants: Andy Gunther (AMS/CEP Program Coordinator), Jay Johnson (AMS/Committee Coordinator), Michele Plá (BACWA).

3.4 Participation & Outreach Committee (P&O)

Voting Members: Chuck Weir, Committee Chairperson (BACWA); Laura Speare (); Geoff Brosseau (BASMAA). Alternate representatives: Dyan Whyte (Water Board); Michele Plá (BACWA).

Active Participants: Larry Bahr (BACWA), Rebecca Bryson (Committee Coordinator, CONCUR), Sejal Choksi (San Francisco Baykeeper), Julia Fishman (O'Rorke, Inc.), Andy Gunther (AMS/CEP Program Coordinator), Russell Hoyle (Water Board), Michele Plá (BACWA), Andria Ventura (Clean Water Action).

Minutes of all Committee meetings for FY 05/06 can be found on the CEP website at www.cleanestuary.org.

4.0 Program Accomplishments

4.1 Program Management & Coordination

4.1.1 Program Planning Key Accomplishments

Multi-Year Work Plan

The EMB continued its process (initiated in FY04/05) to update the Multi-Year Work Plan (MYP) by both (1) streamlining it for use as an outreach tool and (2) using this updating process as an opportunity to discuss and reach agreement on some of the issues identified in the Mid-Course review, such as adaptive implementation and long term financial commitments.¹ The approach involved developing an *ad hoc*

¹ At the January 24th EMB meeting, the EMB asked CEP Program Staff to move forward with restructuring the CEP Activities and Schedule section of the Multi-year Plan (MYP) to make it more useful to CEP participants. A draft format for this restructuring was reviewed by the EMB on the March 21, 2005, and in May 2005 a draft section on selenium was reviewed and the EMB approved the format, which was crafted to serve as a "project definition" pursuant to the Statewide TMDL Guidance Document.

Work Team, with representation drawn from each of the CEP member organizations and the NGO community, to develop a description, for each listed contaminant, of the “the nature of the problem” and “the nature of the solution.” This material was then used in an informal workshop setting to elicit stakeholders issues/concerns relative to the proposal, providing stakeholders with the early opportunity to hear other’s concerns and giving the Water Board a good initial understanding of the issues surrounding a given listing.

These discussions were based upon the *Conceptual Model/ Impairment Assessment Reports* prepared for the specific contaminants in question in previous fiscal years and available on the CEP web site (<http://www.cleanestuary.org/publications/index.cfm>), and the draft Project Definitions approved by the EMB. Using these documents as a basis for discussion, the meetings provided an opportunity for stakeholders to discuss:

1. Nature of the problem and the nature of the potential solution;
2. Key findings from the CM/IA report and how they should inform TMDL development;
3. Anticipated elements of the regulatory documents, including type of numeric targets to be used in the TMDL and concepts for TMDL implementation;
4. Expected benefits and potential obstacles associated with the likely implementation actions.

As part of the discussion, each party had the opportunity to present its concerns and underlying interests with respect to both the technical aspects of the proposed TMDL as well as potential implementation actions. The meeting for selenium was held on August 10, 2005, for Diazinon/toxicity in the Bay on October 31, and for Legacy Pesticides on February 14, 2006.

The EMB approved a draft MYP section for selenium in June of 2005 (the end of FY04/05), and the CEP sponsored a workshop in August 2005 to review this draft MYP section. This process was repeated for diazinon/toxicity in the Bay and legacy pesticides later in FY05/06.

FY 06/07 Budget

In June, the EMB adopted a budget for the first half of FY 06/07. Given the uncertainties regarding the nature of the redesigned CEP, this budget assumed no new revenue for FY06-07, but instead was based upon only unspent funds from previous fiscal years rolling over into the new fiscal year. Proposed expenditures were relatively modest, consistent with instructions from the EMB to minimize expenditures until the redesign is completed. The plan is to revise the budget in the fall of FY06/07 to cover the complete fiscal year.

CEP Re-design

In the fall of 2005, after the remand of the mercury TMDL by the State Board, the EMB reviewed the strengths and weaknesses of the CEP, how well the program is achieving its objectives, and how the CEP might be more successful. There was general agreement that in order to achieve the objective of getting basin plan amendments adopted to address the 303(d) list, the CEP would need to focus more upon reaching policy agreements and less on developing technical information. This would likely require some re-organization of the CEP so that there is some regular input from the EPA, State Board, and NGO community. It was acknowledged, however, that it was more difficult for the CEP to be effective for those contaminants that started the TMDL process before the CEP was formed (i.e., mercury, PCBs, urban creeks). It is possible that for later contaminants (e.g., selenium or legacy pesticides), which are starting with stakeholder review of a project definition, the CEP may be more effective at developing policy approaches that a broad group of stakeholders can accept.

The EMB held a special meeting on December 12, 2005, at the EMBUD watershed center in Orinda. Based on this and follow up discussions, the EMB agreed to the following key summary points:

- The CEP, in its current format, has been unsuccessful in fostering the adoption of TMDLs with broad-based support.
- Despite this, no one is advocating for returning to the “pre-CEP” state in which there was no forum for discussion and collaboration on TMDL development and implementation.
- Any type of on-going forum should:
 - be streamlined, eliminating the complex Committee structure stipulated in the MOU, if possible;
 - have a stronger agreement-seeking component to improve effectiveness;
 - provide an opportunity for evaluation and ranking of implementation actions at the same time as TMDL development.
- The Conceptual Model/Impairment Assessment Reports have been very helpful, and the recently implemented process of vetting project definitions and developing project plans shows promise.
- Because TMDLs, by definition, consider single pollutants, it would be valuable to integrate a multi-pollutant focus into identifying/evaluating/prioritizing implementation actions.

4.1.2 Program Management Key Accomplishments

Executive Management Board Actions

The CEP is governed by the EMB, which is comprised of representatives of the MOU signatories, and is supported by a Program Coordinator. (A competitive solicitation was conducted after execution of the MOU to hire a Program Coordinator. A consulting team, headed by Applied Marine Sciences, Inc. (AMS; www.amarine.com) was contracted to provide these services.) Three standing committees (Technical, Administrative, and Participation and Outreach) and several technical work groups report to the EMB. Additional technical work groups may be established in the future as the CEP technical program expands to address additional pollutants.

CEP FY 05/06 Work Plan

At the July EMB meeting the EMB requested that the Program Coordinator report in August regarding the expected deliverables/accomplishments expected in FY 05/06 for Tasks 1 (Coordination), 2 (Administration), 3 (Participation & Outreach), and 4 (Technical Projects). The Coordinator prepared the *Clean Estuary Partnership FY 05/06 Work Plan* in response to this request. This report was intended to provide a general description of the activities and projects to be undertaken by the Clean Estuary Partnership in FY 05/06.

Risk Reduction Work Team

To develop and manage the CEP's activities with regard to risk reduction, the Program Coordinator formed a Risk Reduction Work Team (RRWT) that reports directly to the EMB, and includes members of BACWA, BASMAA, Water Board, Department of Health Services (DHS), Office of Environmental Health and Hazard Assessment (OEHHA), the environmental and environmental justice community, and the CEP Environmental-NGO Technical Representative. The primary focus of the RRWT is to identify, prioritize, and support California State actions, where practicable, to reduce risks to vulnerable populations that consume fish caught from San Francisco Bay.

The RRWT presented a written report to the EMB that recommended two concepts for CEP action: (1) convening a technical panel to provide advice on identifying at-risk populations and methods to address the risks, and (2) funding grants to Community Based Organizations (CBOs) to support work in at-risk communities. There was strong support for convening a technical panel to identify ways to better characterize affected populations, as well as identify and evaluate ways to address the risks of at-risk populations. The EMB then requested that the RRWT to develop a detailed Scope of Work and series of questions/issues for the technical panel to address as the Work Team's next step. The CEP subsequently funded a new task, CEP Task 4.44, entitled "Developing and Evaluating Options for Addressing Risks of Public Health Impacts Due to Pollutants in Fish", in order to support continued work in this area.

Support for Basin Plan Amendments

It was agreed that one of the primary objectives for the CEP for FY 05/06 was to finalize several of the TMDLs/SSOs that are nearing completion, in order to show progress to constituent organizations. It was noted that while the basin plan amendment processes for several pollutants seem to be near the final stages of completion, there are many steps at the end of the regulatory process that require significant amounts of time and staff resources. These include conducting a public scoping session, considering stakeholder comments, finalizing a proposed Basin Plan amendment and staff report, obtaining official peer review, formally responding to peer review comments, scheduling Board hearings, preparing a Board package, considering and responding to public comments, preparing a final version for a Board vote and completing the administrative record for delivery to the State Board. All of these steps must be completed in a manner consistent with the State of California's official Administrative Procedures.

It was agreed that one of the most useful activities that CEP could fund would be a full-time staff position to support the Water Board Basin Planning Unit. This person would support the preparation and review of all documents associated with the adoption of Basin Plan Amendments (BPA) for those regulatory projects that are furthest along: cyanide, copper/nickel, PCBs and potentially mercury. It was agreed that this would need to be a full time position in order to successfully move along each of these basin plan amendment processes in a timely manner and attract qualified professional staff.

As requested, CEP staff prepared a draft Scope of Work for such a position, in conjunction with the Water Board, for review and consideration by the EMB at their Sept 26th, 2005 meeting. The position was finally filled late in the fiscal year.

Other

- In May, the EMB determined that new projects (e.g., Selenium, Legacy Pesticides, and Diazinon/Pesticide-Related Toxicity in the Bay) would start with the development of a project definition that would be reviewed by interested stakeholders in a workshop setting. The project definition will describe both the "nature of the problem" and the "nature of the solution" to indicate possible implementation activities required to achieve water quality standards. In addition, the EMB agreed to review and approve detailed Scopes of Work on future WQAS projects.

4.2 Technical Studies

4.2.1 Key Accomplishments

There were nineteen (19) active projects at the beginning of FY 05/06 (Table 1).

Table 1: Active FY 05/06 Projects

Pollutant	Project #	Project Title
Mercury	4.02	Small Tributary Loads: Guadalupe River Assessment; Yrs 1 and 2
	4.12	Feasibility Assessment: Options and Expected Benefits from Urban Stormwater Implementation Actions
	4.24	Refine Mercury Conceptual Model
PCBs	4.10a	Existing Data on PCB Concentrations of Nearshore Sediments and Assessment of Data Quality
	4.25	Refine PCB Conceptual Model
	4.26	Develop Multi-Box Model
	4.27	Complete Food Web Model for Human Health and Wildlife Protection and Refine Sediment Targets
	4.28	Refine PCB Implementation Scheme
Copper and Nickel	4.11	Impairment Assessment for Cu/Ni North of Dumbarton Bridge
Diazinon / Toxicity (urban creeks)	4.39	Supplemental Monitoring for Diazinon/Pesticide-Related Toxicity in Urban Creeks
Diazinon / Toxicity (Bay)	4.40	Prepare Water Quality Attainment Strategy of Diazinon Toxicity in the Bay
Legacy Pesticides	4.43	Prepare Water Quality Attainment Strategy for Legacy Pesticides
	4.44	Developing and Evaluating Options for Addressing Risks of Public Health Impacts Due to Pollutants in Fish
Dioxins		
Selenium	4.32	Develop Conceptual Model and Impairment Assessment for Selenium
	4.42	Prepare Water Quality Attainment Strategy for Selenium
Multiple Pollutants	4.18	Project Management
	4.19	Peer Review
	4.36	Meeting Support for CEP Tasks Associated with Legacy Pesticides, Dioxin, Diazinon, and Selenium in SF Bay
Special Technical Projects	4.45	Conceptual Model and Impairment Assessment for PBDEs

Of these projects, eight (8) were completed in FY 05/06. These were Tasks 4.02, 4.10a, 4.24, 4.25, 4.27, 4.28, 4.32, and 4.39. Appendix 5.1 lists all these projects, along with summary findings and internet links to project final reports on the CEP website.

New Technical Projects in FY 05/06

Three new or expanded projects were developed and funded by the CEP in FY 05/06. These included Task 4.44, which was expanded in scope and re-titled “Develop and Evaluate Options for Mitigating Risks of Public Health Impacts Due to Pollutants in Fish”, Task 4.47 “Basin Plan Amendment Assistance to Water Board (ABAG Contract) for 11/05-10/06 (12 months)” and Task 4.48 “Copper Management Actions for Urban Runoff and Marine Coatings (Expert Write-ups)”.

Ongoing Projects

Nineteen (19) projects originally initiated and funded in FY 02/03 through FY 04/05, in support of one or more pollutants of concern, were continued in FY 05/06. These included three projects for mercury (4.02, 4.12, and 4.24), seven for PCBs (4.02, 4.10a, 4.12, 4.25, 4.26, 4.27, and 4.28), one for copper/nickel (4.11), one for legacy pesticides (4.43), two for diazinon/pesticide-related toxicity (4.39 and 4.40), two for selenium (4.32 and 4.42), and five for multiple pollutants (4.18, 4.19, 4.36, 4.41, and 4.45).

CEP Project Relationships Table

In FY 04/05, the TC developed a document to clarify the relationships among CEP projects. This document was revised in FY 05/06. The completed document (Appendix 5.1) lists CEP technical projects by pollutant, and indicates start and end dates, task description, objectives, findings, URL links to completed reports on the CEP website, and an explanation of how each project supports TMDL development and implementation.

4.2.2 TMDL & Water Quality Attainment Efforts

Mercury

San Francisco Bay is considered impaired by mercury because fish tissue collected from the Bay often contains relatively high concentrations of mercury. OEHHA has issued fish consumption advisories warning people to limit their consumption of San Francisco Bay fish. In addition, studies have shown that birds consuming fish and other organisms from San Francisco Bay pass mercury to their eggs, potentially contributing to reproductive failures. Sources of mercury include runoff from inactive mines, urban runoff, wastewater discharges, atmospheric deposition, and resuspension of historic deposits of mercury-laden sediment already in San Francisco Bay.

The Water Board issued the Preliminary Mercury TMDL Project Report in June 2000, prior to the formation of the CEP. The Final Mercury TMDL Project Report was released in June 2003. In April 2004, the Water Board issued a draft Basin Plan Amendment and Staff Report, the formal steps for adopting the TMDL. In March 2005, the State Board decided to table consideration of the San Francisco Bay Mercury TMDL. The key concern of the State was to address EPA’s comment that the Mercury TMDL will not result in attainment of the water quality objective for mercury contained in the Basin Plan. The Water Board prepared a revised amendment to the Basin Plan to address this issue, and conducted a Public Workshop (CEQA Scoping Session) on January 31, 2006. Adoption of the revised Basin Plan Amendment is expected on August of 2006.

Work Group

Work Group members included: Paul Salop (CEP Staff), Ben Horenstein (EBMUD), Bill Johnson (Water Board), Carrie Austin (Water Board), Chris Sommers (EOA/SCVURPPP/BASMAA), Dan Cloak (Environmental-NGO Technical Representative), Dave Drury (SCVWD), Dave Tucker (City of San Jose), Geoff Brosseau (BASMAA), James Ervin (City of San Jose), James Downing (City of San Jose), Kevin Buchan (WSPA), Larry Bahr (FSSD/BACWA), Rich Sandman (WSPA), Richard Looker (Water Board), and Trish Mulvey (Clean South Bay).

Implemented Projects

No new mercury projects were implemented in FY 05/06.

Continued Projects

The following projects were continued in FY 05/06 with Tasks 4.02 and 4.24 being completed by the end of the FY.

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
Mercury & PCBs <i>(Mercury)</i>	1) What is the pollutant load from small tributaries to the Bay? 2) What is the Guadalupe River load to the Bay in light of sediment removal in the lower watershed and the uncertainty with this number?	4.02	<i>Guadalupe River Loads Assessment (Year 1 & Year 2):</i> This project monitored mercury and other pollutant loads into the depositional zone of the Guadalupe River. The two primary pollutants of concern are mercury and PCBs.
Mercury <i>(Mercury)</i>	How much of the urban stormwater mercury load may be avoided through current and planned stormwater program activities?	4.12	<i>Feasibility Assessment: Options and Expected Benefits from Urban Stormwater Implementation Actions:</i> This project will produce a report summarizing the strategies available to urban runoff programs for reducing mercury loads, including an assessment of their costs and load reduction benefits. The assessment will describe how site specific factors, such as location, geography, climate, and land use affect the costs and benefits of each strategy. The report will describe the extent to which these strategies are currently utilized throughout the Bay Area, and estimate the total mercury load avoided through current implementation of the strategies. The report will conclude by forecasting how loads avoided can be increased through expansion of current strategies and / or development of new strategies, and what new costs are associated with those expansions.
Mercury <i>(Mercury)</i>	1) What is the relative bioavailability of mercury from different sources to San Francisco Bay? 2) At what locations are current methylation rates and methylmercury flux the highest? 3) Can existing wetlands be managed or new wetlands be designed to minimize net methylation rates, or limit exposure to methylmercury that is produced? 4) Given various scenarios for	4.24	<i>Refine Mercury Conceptual Model:</i> Using references identified by the work group and other sources, this project develops/refines the conceptual model using the format and approach developed by the Technical Committee.

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
	management actions, when will we likely see improvements in sediment and tissue concentrations? 5) How should we best monitor to detect changes in mercury concentrations in sediment and tissue (i.e., on what time and spatial scale should we expect results, and what indicators should we monitor)?		

PCBs

In 1994, the State issued a sport fish consumption advisory cautioning people to limit their consumption of fish caught in San Francisco Bay. This advisory is due in part to concerns about high concentrations of polychlorinated biphenyls (PCBs) found in sampled fish. PCBs were manufactured in the United States and used widely from the late 1920s through the 1970s. They are of particular concern because they are toxic, persist in the environment, and accumulate in the tissue of fish, wildlife, and humans.

Addressing the PCBs problem illustrates the challenges of dealing with "legacy" pollutants. A significant proportion of PCBs pollution in San Francisco Bay happened decades ago, before the potential health effects of PCBs were widely known. Because PCBs degrade very slowly in the environment, their toxic effects are still with us today, and removing large quantities of PCB-contaminated sediment from San Francisco Bay for disposal in hazardous waste facilities will be very costly. The Water Board issued the Preliminary PCB TMDL Project Report in February 2004.

Work Group

Work group members included: Paul Salop (CEP Staff), Andy Jahn (Port of Oakland), Ben Greenfield (SFEI), Ben Horenstein (EBMUD), Betsy Elzufon (LWA), Dan Cloak (Environmental-NGO Technical Representative), Dave Tucker (City of San Jose/BACWA), Derek Edge (BBL), Eric Dunlavey (City of San Jose), Fred Hetzel (Water Board), Jay Davis (SFEI), John Prall (Port of Oakland), Jon Konnan (EOA/SMCSTOPP/BASMAA), Kelly Moran (TDC), Ken Jenkins (BBL), Kevin Buchan (WSPA), Peter Mangarella (Geosyntec), and Tom Grieb (TetraTech).

Implemented Projects

No new PCBs projects were implemented in FY 05/06.

Continued Projects

The following projects (initiated in FY 02/03 through FY 04/05) were continued in FY 05/06 with Tasks 4.10a, 4.25, 4.27, and 4.28 being completed by the end of the FY.

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
PCBs <i>(PCB)</i>	How should implementation be prioritized in order to achieve the targets?	4.10a	<i>Existing Data on PCB Concentrations of Nearshore Sediments and Assessment of Data Quality:</i> This project focused on one of two data gaps identified during development of the TMDL project report for PCBs in San Francisco Bay. This first data gap was the concentrations of

Pollutants (Work Group)	Management Questions	Project #	Project Title & Information
			PCBs in surface sediments of the nearshore environment, which will help further characterize PCB concentrations in the Bay and may help select interim numeric targets for PCBs in sediments. This project attempted to fill this data gap by compiling and summarizing existing data and assessing whether additional sampling and analysis were needed if existing data were not sufficient.
PCBs (PCB)	How should implementation be prioritized in order to achieve the targets?	4.12	<i>Feasibility Assessment: Options and Expected Benefits from Urban Stormwater:</i> (This project also involved mercury as a potential pollutant. See the discussion for Project 4.12 under Mercury above).
PCBs (PCB)	Is there evidence of impairment of beneficial uses of the Bay?	4.25	<i>Conceptual Model and Impairment Assessment:</i> Using references identified by the work group and other sources, this project will develop/refine the conceptual model using the format and approach developed by the Technical Committee.
PCBs (PCBs)	1) How much will concentrations of a pollutant in the sediment and water column change in response to a given percentage reduction in inflowing load? 2) How will beneficial uses (related to concentrations in biota) be affected by changes in the sediment and water column concentration? 3) Are there differences in the effectiveness of alternative loading reduction strategies? 4) How long will it take for the responses to become apparent?	4.26	<i>Develop Multi-box Model of San Francisco Bay with Bathymetric Analysis of South Bay</i>
PCBs (PCB)	What is the sediment target for PCBs that is protective of the beneficial uses of the Bay?	4.27	<i>Complete Food Web Model for Human Health and Wildlife Protection and Refine Sediment Targets:</i> This project expanded the existing Bay food web model so that it includes sensitive wildlife species as endpoints (as required by USFWS for TMDL development).
PCB's (PCB)	How should implementation be prioritized in order to achieve the targets?	4.28	<i>Refine PCB Implementation Scheme; Development of a Detailed Scope of Work.</i>

Cu/Ni

San Francisco Bay was placed on the 1998 303(d) list for copper and nickel because ambient concentrations of these metals exceeded existing water quality standards established to ensure protection of sensitive species of aquatic life. The concern was that observed concentrations of copper and nickel in San Francisco Bay may adversely affect the Bay ecosystem and associated beneficial uses. Sources of copper and nickel to San Francisco Bay include in-Bay sediment sources, urban runoff, and treated wastewater discharges.

Investigations of copper and nickel toxicity in San Francisco Bay have indicated that adopted water quality standards over-predict the toxic effects of these metals in the estuary. Given that the beneficial use is currently protected (e.g., no toxicity apparent) at copper and nickel concentrations slightly above existing objectives, the State has selected the development of site-specific objectives (SSOs) as the appropriate strategy to attain water quality standards for these pollutants in San Francisco Bay. This process is being completed in two phases for San Francisco Bay, with the first phase addressing the Bay south of the Dumbarton Bridge, and the second phase addressing the rest of the Bay.

Work Group

Work group members included: Paul Salop (CEP Staff), Arleen Feng (ACCWP), Arleen Navarret (SFPUC), Ben Horenstein (EBMUD), Betsy Elzufon (LWA), Dan Cloak (Environmental-NGO Technical Representative), Dave Tucker (City of San Jose), Geoff Brosseau (BASMAA), Kacey Karmendy (City of San Mateo), Karen McDonough (City of San Jose), Kelly Moran (TDC), Kevin Buchan (WSPA), Kristine Corneillie (LWA), Larry Bahr (FSSD/BACWA), Michelle Plá (BACWA), Peter Schafer (City of San Jose), Ray Arnold (CDA), Richard Looker (Water Board), Steve Moore (Water Board), Steve Overman (WSPA), Tom Grovhoug (LWA), Tom Hall (EOA), and Trish Mulvey (Clean South Bay).

Implemented Projects

The following project was initiated in FY 05/06.

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
Copper /Nickel <i>(Cu/Ni)</i>	1. What management actions could be implemented by stormwater programs in reference to identified priority sources, to maintain concentrations of copper in SF Bay below the SSOs? 2. What management actions could be implemented by managers or regulators of shoreline activities in reference to marine antifouling coatings, to maintain concentrations of copper in SF Bay below the SSOs? 3. What sequencing and reporting metrics for these management actions could ensure cost-effective and protective implementation by stormwater programs and shoreline managers?	4.48	<i>Copper Management Actions for Urban Runoff and Marine Coatings (Expert Write-ups).</i>

Continued Projects

The following project (initiated in FY 02/03) was continued in FY 05/06.

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
Copper /Nickel <i>(Cu/Ni)</i>	1) What information beyond that already compiled for the 2002 303(d) listing process and the Lower South Bay (LSB) Impairment Assessment Report is needed to make a determination of whether or not there is impairment North of Dumbarton for copper and nickel? 2) How are we going to monitor and interpret data to assess condition? 3) What are appropriate pollution prevention strategies, both baseline and more stringent ones to be triggered by specific conditions measured through monitoring program? 4) Based on the Water Effects Ratio report information, what are appropriate Site-Specific Objectives (SSOs)? 5) To what extent can the LSB SSO Basin Plan amendment "package" be used as a template for the North of Dumbarton SSO Basin Plan Amendment package?	4.11	<i>Impairment Assessment for Cu/Ni North of Dumbarton Bridge:</i> The overall project objective is to develop and provide the necessary technical and administrative documentation to support adoption of site-specific saltwater aquatic life-based water quality objectives for copper and nickel in San Francisco Bay north of the Dumbarton Bridge. A key implementation objective is to conduct the project as efficiently and expeditiously as possible by making maximum use of work already conducted on copper and nickel in San Francisco Bay.

Selenium

The Bay is listed for selenium because of potential reproductive impacts to diving ducks and other wildlife in the estuary. In addition, OEHHA issued a human health advisory regarding consumption of two species of ducks by hunters. The Department of Fish and Game measured selenium in scoter and scaup at concentrations above those known to cause reproductive harm in other bird species. The accumulation of selenium in fish and birds appears to have been exacerbated by the introduction of the Asian Clam (*Potamocorbula amurensis*), because its prodigious filter-feeding and large populations have moved considerable mass of selenium into the benthic food web and thus to diving ducks and large fishes such as sturgeon.

Work Group

The Technical Committee served as the work group for Selenium.

Implemented Projects

No new selenium projects were implemented in FY 05/06.

Continued Projects

The following projects (initiated in FY 03/04 through FY 04/05) were continued in FY 05/06 with Task 4.32 being completed by the end of the FY. Further work on Task 4.42 has been placed on hold by the Executive Management Board pending completion of re-design of the CEP.

Pollutants (Work Group)	Management Questions	Project #	Project Title & Information
Selenium (TC)	What do we know about sources, pathways, and loads of selenium in San Francisco Bay?	4.32	<i>Develop Conceptual Model and Impairment Assessment for Selenium:</i> Using references identified by the work group and other sources, this project developed/refined the conceptual model using the format and approach developed by the Technical Committee. This project was completed in FY 04/05.
Selenium (TC)	1) Based upon the current state of knowledge, what are the known or potential management actions that are needed to resolve the impairment or potentially reduce the degree of the impairment? 2) What are the technical feasibility and economic implications for each of these actions? 3) What regulatory mechanisms may be used to implement the management actions, and what is the relative ease or difficulty of their use? 4) Are there key gaps in our understanding of the impairment or related ecosystem processes that limit our ability to make an informed decision on management actions? 5) Which knowledge gaps need to be resolved in the short-term in order to guide early implementation actions, and which can be addressed on a longer time frame?	4.42	<i>Prepare Water Quality Attainment Strategy for Selenium:</i> This project develops a package of potential implementation actions for selenium. The project builds off of the Conceptual Model / Impairment Assessment report for selenium in San Francisco Bay.

Diazinon Toxicity

Diazinon and unknown pesticide-related toxicity have been identified as causing impairment in both urban creeks and in the Bay. These two areas are addressed separately in the CEP process. CEP projects addressing each area were identified for implementation in FY 03/04 and FY 04/05.

Urban Creeks. San Francisco Bay Area urban creeks exceed water quality standards for aquatic toxicity, primarily due to runoff of the common insecticide diazinon. Diazinon is a common insecticide used

throughout the Bay Area to manage a broad spectrum of pests, such as ants and grubs. Although only a small fraction of the diazinon applied outdoors reaches surface water, that fraction is sufficient to result in diazinon concentrations that are toxic to test organisms. The Water Board issued the Preliminary Project Report for Diazinon and Pesticide-related Toxicity in Urban Creeks in September 2002. Thus, implementation actions will mainly involve monitoring the decline of diazinon concentrations and determining of aquatic toxicity declines as well.

San Francisco Bay. San Francisco Bay was listed as impaired for diazinon in 1998 due to concern that toxicity observed in the Bay was caused by diazinon draining from agricultural and urban lands in runoff. Pulses of diazinon have been documented traveling down the San Joaquin River and entering the estuary, and episodes of toxicity in the North Bay (Napa east to Antioch) and in sloughs draining urbanized watersheds have been documented by the Regional Monitoring Program. The listing recognizes that other pesticides could be contributing to the toxicity. There has been no work completed on the TMDL for Diazinon/Toxicity in San Francisco Bay as of June 2003. Given that recent data show significant declines in diazinon concentrations in the Bay and the cessation of episodes of toxicity, it may be that the project to be completed will be de-listing rather than a TMDL.

Work Group

Work group members included: Armand Ruby (CEP Staff), Arleen Feng (ACCWP), Bhupinder Dhaliwal (Central Contra Costa Sanitary District/BACWA), Bill Johnson (Water Board), Cathy Johnson (US Fish & Wildlife Service), Chris Sommers (SCVURPPP), Dan Cloak (Environmental-NGO Technical Representative), Daniel Oros (SFEI), Dave Tucker (City of San Jose), Geoff Brosseau (BASMAA), Jack Betourne (Vallejo Sanitary and Flood Control District), Janet O'Hara (Water Board), Jessie Denver (City of San Jose), Jim Scanlin (ACCWP), Kelly Moran (TDC, UP3 Project), Nan Singhasemanon (Department of Pesticide Regulation), Pete Schafer (City of San Jose), Scott Ogle (Pacific Eco-Risk), Steven Osborn (City of San Jose), and Tom Mumley (Water Board).

Implemented Projects

No new Diazinon projects were implemented in FY 05/06.

Continued Projects

The following projects (initiated in FY 03/04 through FY 04/05) were continued in FY 05/06 with Task 4.39 being completed before the end of the FY. . Further work on Task 4.40 has been placed on hold by the Executive Management Board pending completion of re-design of the CEP.

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
Diazinon / Toxicity (Urban Creeks) <i>(Diazinon/ Toxicity)</i>	1) Are the diazinon concentration targets met? 2) Are the toxicity targets met? 3) If not, is pesticide-related toxicity still a problem in urban creeks (i.e., is the toxicity caused by a pesticide or something else)? 4) If the toxicity target is not met because of a pesticide (other than diazinon), how do the toxicity and the concentrations of the toxic pesticide vary in time and magnitude across urban watersheds?	4.39	<i>Supplemental Monitoring for Diazinon/Pesticide-Related Toxicity in Urban Creeks</i> This project assures that sufficient funding will be available during 2004-05 to provide the monitoring specified in the Monitoring Plan prepared by CEP Project #4.13. The funding for supplemental urban creeks monitoring will complement the relevant monitoring activities of Bay Area stormwater agencies and other regional and local monitoring efforts, for which funding has

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
			already been designated independently for the 2004-05 wet season. This project involves collaboration with various stormwater NPDES permittees.
Diazinon / Toxicity (Bay) <i>(Diazinon/ Toxicity)</i>	1) What management actions should be implemented to maintain concentrations of diazinon in San Francisco Bay below toxicity threshold levels? 2) What additional measures should be implemented to prevent the occurrence of toxic effects from pesticides within San Francisco Bay? 3) What are the expected costs of the recommended management actions? 4) What mechanisms should be used to implement the recommended management actions? 5) What additional information should be obtained to assess whether the recommended management actions have been implemented, and whether the implemented management actions have been effective?	4.40	<i>Prepare Water Quality Attainment Strategy for Diazinon/Pesticide-Related Toxicity in the Bay</i> This project develops a package of potential implementation actions for diazinon/toxicity. The project builds off of the Conceptual Model / Impairment Assessment report for diazinon/toxicity in San Francisco Bay.

Dioxin/Furans

In 1998, the US EPA added “dioxin-like compounds” to California’s 303(d) list due to EPA’s analysis of available data that indicated potential human health risk from eating fish contaminated with these pollutants. EPA concluded that the fish consumption beneficial use of San Francisco Bay is being impaired, and that narrative standards that prohibit the discharge of toxic pollutants in amounts that adversely affect beneficial uses are not being met. Because the State had already included dioxin-like PCBs in its submittal to EPA, the practical effect of EPA’s decision was to add dioxins and furans to the list. The specific compounds included are 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD. There is significant uncertainty regarding future regulatory action for these compounds. The Water Board is not planning to prepare a TMDL for dioxin/furans.

Work Group

The Technical Committee served as the work group for Dioxins/Furans.

Continued & Implemented Projects

There were no existing or new projects for dioxins/furans in FY 05/06.

Legacy Pesticides

Legacy pesticides refer to the organochlorine pesticides DDT, dieldrin, and chlordane, that (in most applications) are no longer legal to use. Like PCBs, these substances are resistant to degradation and

accumulate in biota, and the concentration of these substances in some sport fish samples from San Francisco Bay exceed human health screening values. The Bay was listed as impaired for these substances in 1998 by the USEPA due to concern about human health impacts from eating contaminated fish from the Bay.

Work Group

The Technical Committee served as the work group for Legacy Pesticides.

Implemented Projects

There were no new projects for Legacy Pesticides in FY 05/06.

Continued Projects

The following project (initiated in FY 04/05) was continued in FY 05/06. Further work on Project 4.43 (beyond initial scoping) has been put on hold by the Executive Management Board pending completion of re-design of the CEP.

Pollutants <i>(Work Groups)</i>	Management Questions	Project #	Project Title & Information
DDTs, chlordanes and dieldrin <i>(TC)</i>	1) Based upon the current state of knowledge, what are the known or potential management actions that are needed to resolve the impairment? 2) What are the technical feasibility and economic implications for each of these actions? 3) What regulatory mechanisms may be used to implement the management actions, and what is the relative ease or difficulty of their use? 4) Are there key gaps in our understanding of the impairment or related ecosystem processes that limit our ability to make an informed decision on management actions? 5) Which knowledge gaps need to be resolved in the short-term in order to guide early implementation actions, and which can be addressed on a longer time frame?	4.43	<i>Prepare Water Quality Attainment Strategy for Legacy Pesticides:</i> This project develops a package of potential implementation actions for legacy pesticides. The project builds off of the Conceptual Model/Impairment Assessment report for legacy pesticides in San Francisco Bay.

Cyanide

The 1995 Basin Plan set the San Francisco Bay saltwater cyanide (acute) objective at 5 mg/L, even though the U.S. Environmental Protection Agency (EPA) had established a saltwater chronic criterion of 1.0 mg/L in 1984. The U.S. EPA reestablished the 1.0 mg/L cyanide criterion for San Francisco Bay when it promulgated the California Toxics Rule (CTR) in May of 2000. This more stringent criterion may not be appropriate for San Francisco Bay for a number of reasons, and recent work in Puget Sound led the State of Washington to develop and adopt a site-specific chronic cyanide criterion of 2.8 mg/L for parts of Puget Sound.

Since the four species tested in Puget Sound are also resident to San Francisco Bay, Water Board staff has tentatively reviewed and recommended a cyanide site-specific chronic objective of 2.9 mg/L for San

Francisco Bay. A substantial body of technical work has been produced in support of SSOs for cyanide in the Bay, and submitted to Water Board staff.

Work Group

The Technical Committee served as the work group for Cyanide.

Continued & Implemented Projects

No existing or new projects for Cyanide were conducted in FY 05/06. Water Board Water Board

Multi-Pollutant Projects & Special Studies

From time to time projects are required that may pertain to more than one pollutant or may be designed to examine processes that affect numerous pollutants.

Work Group

Depending on the principal water quality parameter of concern, any of the standing work groups may propose or oversee a multiple pollutant project. In addition, the TC may act as the work group for the project.

Implemented Projects

The following new project was implemented in FY 05/06

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
Multi-Pollutant (TC)	What effective programs can be developed and implemented to control and reduce contaminant-related risks to humans and wildlife.	4.44	<i>Developing and Evaluating Options for Addressing Risks of Public Health Impacts Due to Pollutants in Fish.</i>
Multi-Pollutant (TC)		4.47	<i>Basin Plan Amendment Assistance to WATER BOARD (ABAG Contract) for 11/05-10/06 (12 months)</i>

Continued Projects

The following projects (initiated in FY 02/03 through FY 04/05) were continued in FY 05/06. Task 4.36 was completed in FY 05/06 and Tasks 4.18 and 4.19 are regular ongoing annual tasks.

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
Multi-Pollutant (TC)		4.18	<i>Project Management</i>
Multi-Pollutant (TC)		4.19	<i>Peer Review</i>
Multi-Pollutant (TC)		4.36	<i>Meeting Support for CEP Tasks Associated with Legacy Pesticides, Dioxin, Diazinon, and Selenium in SF Bay</i>
PBDEs (TC)	1) How do existing and forecast concentrations of PBDEs in San Francisco Bay compare to	4.45	<i>Develop Conceptual Model and Impairment Assessment for PBDEs:</i>

Pollutants <i>(Work Group)</i>	Management Questions	Project #	Project Title & Information
	potential regulatory guidelines for PBDEs? 2) What are the important sources and loadings of PBDEs to the estuary? 3) What is known about the sources, distribution, fates, and effects of PBDEs in the estuary ecosystem that would help us decide what, if any, portions of the Bay are impaired, and which sources of PBDEs are the most amenable to control?		This project develops a Conceptual Model / Impairment Assessment for PBDEs in San Francisco Bay. A limited amount of targeted environmental sampling may be conducted to clarify environmental pathways in San Francisco Bay. This project involves collaboration with, and partial funding by, the RMP.

4.3 Administration

4.3.1 Key Accomplishments

CEP Support of Basin Plan Amendments

CEP authorized additional funding and extended a contract with the Association of Bay Area Governments (ABAG) to provide manpower assistance for one year (12-months) for one full-time position to support Water Board in preparing Basin Plan Amendments.

FY 04/05 Annual Report

An Annual Report for FY 04/05 was prepared and adopted, summarizing the accomplishments, actions, and financial activities that occurred during the fiscal year.

FY 05/06 Budget

The FY 05/06 Budget was established prior to July 1 and revised in November 2005. The November revision was prepared to reflect final technical program task allocations and revised funding projections.

Policy and Procedures Guideline

At the request of the Technical Committee, CEP staff assembled all CEP adopted Policies and procedures into a single document for their reference. The document was reviewed and approved by all Committees and adopted by the EMB. A copy of the document is appended to this Annual Report (Appendix 5.2).

CEP Appropriation of Technical Studies Contingency Funds (Task 4.46)

The Administrative Committee adopted the following Policy to simplify the Technical Committee's need to appropriate small sums of additional funding to support approved technical project scope changes.

The Technical Committee is allowed to appropriate up to \$5,000 from Task 4.46 (Technical Studies Contingency Funds) on projects and tasks without the need to go through the established formal funding approval process from the Administrative Committee and the EMB. These appropriations will undergo a simple consent calendar approval. Any need by the Technical Committee to appropriate funds greater than \$5,000 from these contingency funds will require a formal funding request to the Administrative Committee.

Other

Administrative Committee meetings continued to be held by teleconference. The Committee met a total of three times (August, September, and November) in FY 05/06. The use of teleconferences resulted in reduced meeting costs to the Program and saved invaluable time for Committee members by eliminating any need to travel.

4.3.2 FY 05/06 Financial Analysis

Revenues & Budget

In FY 05/06, the total new revenues received, on a cash basis, by CEP from partners, interested parties, and bank interest was \$1,063,949.79. This total included \$945,861.58 in new participant contributions, of which \$10,000 was a special contribution by BACWA to initiate a Risk Reduction Effort within the CEP, \$24,568.20 in interest and \$93,520 in late FY 04/05 participant contributions. In addition, \$243,828.70 in unspent FY 04/05 funds were moved forward into FY 05/06 and \$32,000 in accounts receivable (FY 04/05 contributions pledged but not received by the close of the FY) were moved into FY 06/07. Although the FY 05/06 budget was established in June 2005 at \$1,206,685.00 by the EMB, the actual FY 05/06 revenue base (actual funds available for expenditure) was \$1,307,778.48 (Table 2).

Table 2: Clean Estuary Partnership Revenues for FY 05/06

Carryover Funds from FY 04/05	\$243,828.70
FY 05/06 Partner Contributions	\$913,518.37
FY 05/06 Contributions from WSPA, PG&E and other interested parties	\$22,343.21
FY 04/05 WSPA Contributions Received in FY 05/06	\$93,520
BACWA Pledged Additional Funds for Risk Reduction Activity	\$10,000
Interest Earned	\$24,568.20
Total FY Revenues	\$1,307,778.48
CEP FY 05/06 Accounts Receivable (carried over from FY 04/05)	\$32,000

Expenditures

Fiscal Year 05/06 expenditures totaled \$607,025.82 and were paid out to Applied Marine Sciences, Inc. (AMS) and its thirty-one subcontractors, Bay Area Clean Water Agencies (BACWA) management and administration contractors, the East Bay Municipal Utility District (EBMUD), and the Rose Foundation for Communities and the Environment, in support of CEP activities. The monies used to cover these expenditures consisted of both FY 05/06 revenues and encumbered FY 02/03 through FY 04/05 funds. Of the FY 05/06 funding, a total of \$644,820 was either directly expended or encumbered for projects or activities approved by the EMB during the fiscal year. Some of these projects were still actively working on project deliverables in accordance with the project schedule at the end of the Fiscal Year and will continue in FY 06/07. Following the year-end reconciliation, \$531,507.80 was moved forward into the FY 06/07 budget, as unspent and un-encumbered funds. In addition, \$32,000 in accounts receivable were also moved forward into the FY 06/07 budget.

Since FY 01/02, the CEP has expended \$3,767,190 to facilitate the development of TMDLs for targeted pollutants. This includes more than 33 technical studies and scientific efforts, at a cost of \$2.1 million, directly targeting specific pollutants of concern (Table 3).

Table 3: CEP Expenditures for Each TMDL Pollutant of Interest

<i>Pollutant</i>	<i># Technical Studies</i>	<i>Expenditures \$</i>
Mercury	5	\$363,709
PCBs	7	\$783,384
Copper/Nickel	2	\$263,919
Legacy Pesticides	3	\$89,763
Diazinon/Toxicity	4	\$188,516
Dioxin	1	\$35,000
Selenium	2	\$79,953
Multiple Pollutants	8	\$265,884
PBDEs	1	\$32,940
<i>TOTAL</i>	33*	\$2,058,069

* Many of the technical studies involve more than one pollutant.

Contracting

AMS entered into or maintained sub-contracts with thirty-one companies or individuals in order to execute authorized studies, projects or tasks (Table 4). In addition, BACWA, on behalf of the CEP, entered into contracts with the Association of Bay Area Governments (ABAG) and the Rose Foundation for Communities and the Environment, to provide needed on-site technical support to the WATER BOARD and to provide the Environmental-NGO Technical Representative to the CEP, respectively. Table 4 provides an alphabetic listing of the organizations and individuals who were contracted to conduct work for the CEP in FY 05/06.

Table 4: Organizations contracted to conduct work for the CEP in FY 05/06.

Association of Bay Area Governments (ABAG)	Dr. Thomas E. McKone
Dr Ann Blake	Pacific EcoRisk (PER)
Dr. Joel Baker	Public Affairs Management (PAM)
Center for Ecosystem Management & Restoration	Rose Foundation for Communities and the Environment
Concur, Inc.	Dr. Armand Ruby
CRG Laboratories	San Francisco Estuary Institute (SFEI)
EOA, Inc.	Dr. Donald Stevens
Formula Design	Syracuse Research Corporation
GeoSyntec Consultants	TDC Environmental, LLP
Dr. Frank Gobas	TEG Oceanographic Services, Inc.
Dr. Roger Green	Tetra Tech, Inc.
Dr. Bill Warren-Hicks	Dr. John Toll
Hydroconsult Engineers	United States Geological Survey (USGS)
Dr. Amy Kyle	Ms. Christine Werme
Larry Walker Associates (LWA)	Dr. Jack Word
Levine Fricke Recon (LFR), Inc.	

4.3.3 New Administrative Procedures & Guidelines

The Administrative Committee adopted the following Policy to simplify the Technical Committee's need to appropriate small sums of additional funding to support approved technical project scope changes.

The Technical Committee is allowed to appropriate up to \$5,000 from Task 4.46 (Technical Studies Contingency Funds) on projects and tasks without the need to go through the established formal funding approval process from the Administrative Committee and the EMB. These appropriations will undergo a simple consent calendar approval. Any need by the Technical Committee to appropriate funds greater than \$5,000 from these contingency funds will require a formal funding request to the Administrative Committee.

4.4 Participation & Outreach

4.4.1 Key Accomplishments

Risk Reduction Work Team

To develop and manage the CEP's activities with regard to risk management, a Risk Reduction Work Team (RRWT) that reports to the EMB was authorized in FY 04/05 and formed in FY 05/06 that includes members from BACWA, BASMAA, Water Board, DHS, OEHHA, the environmental and environmental justice community and the CEP Environmental-NGO Technical Representative. The primary focus of this group is to identify, prioritize, and support California State actions, where practicable, in order to reduce risks to vulnerable populations that consume fish caught from San Francisco Bay. The formation and support of the work group was facilitated through the P&O Committee.

In October 2005 The Risk Reduction Work Team completed development of a draft Conceptual Scope of Work (CSOW) for Project 4.44 (previously called *Effects of Contaminants on Community Health* but now renamed *Develop and Evaluate Options for Mitigating Risks of Public Health Impacts Due to Pollutants in Fish*). This project would help develop a regional approach to risk reduction activities by having the Risk Reduction Work Team, in conjunction with a technical facilitator, recruit, convene and oversee a Multidisciplinary Panel with a charge to identify and evaluate methods to better distinguish and characterize at-risk populations for the purpose of targeting risk-reduction efforts and addressing individual health and community health issues. The Work Team forwarded the scope to the EMB for consideration.

4.4.2 Coordination of Outreach to Key Stakeholders

CEP Technical Symposium Planning

The P&O Committee developed a draft query letter to stakeholders to determine potential interest and attendance at a proposed one-day Technical Symposium to be held in late 2005 or early 2006. The Technical Committee, P&O Committee, and EMB reviewed the draft document before it was distributed to stakeholders. The purpose of the Symposium would be to present how the CEP's work is being used to develop and implement TMDLs in the San Francisco Bay and how these activities fit into larger regulatory efforts to address water quality issues in the Bay. The discussion at the Symposium would also help to inform attendees on future projects and priorities of the CEP. The primary audience is the representatives of CEP member organizations and other affiliated organizations who are interested in TMDL issues and who may be responsible for implementation.

On July 18th, a survey of seven basic questions was distributed to the entire CEP mailing list of almost 2,000 subscribers to gauge interest in a proposed technical symposium. Thirty-six responses were received, mostly from consultants and government agencies, including DFG, EPA and the Department of

the Environment in San Francisco. There were 13 responses from staff of the CEP member agencies (five Water Board staff, five wastewater, and three stormwater). Only one of those responses was from a regular attendee of CEP meetings.

Of those that responded, the majority said they were highly interested and that at least one or two people from their organization would attend. There was a preference for a half-day meeting in the February timeframe. The topic of most interest to respondents was recent scientific developments related to listed pollutants in the Bay. There was also strong interest in how CEP studies have informed TMDL development and how these studies and other CEP activities fit into larger efforts to address water quality in the Bay. There were quite a lot of other potential topics suggested. These additional topics seemed to fall into two categories: those related to the science and potential implementation issues, and others related to the CEP (and the TMDL process in general) and how that could be improved.

At the direction of the EMB and given the pending CEP redesign, the technical symposium was postponed until some date in the future.

4.4.3 Development of Public Outreach Materials

Preparation of Diazinon/toxicity in Creeks TMDL Media outreach

The general media strategy for the Diazinon in Urban Creeks TMDL was not to do a media pitch at the Oct 19, 2005 Board meeting, but to be prepared with talking points for the various CEP spokespeople if the media calls. Then at the November Board Meeting, at which the Board was expected to adopt a TMDL, a press release would be issued with a full-scale media pitch to key reporters. The Committee agreed on three major themes to convey:

- Pesticide pollution is a very real issue, and we must break the vicious cycle of pesticide use, pollution, banning, and replacement with pesticides that continue pollution problems.
- The TMDL strategy being considered by the Regional Water Board represents a proactive, collective approach.
- The solutions to addressing the problems lie in linking pesticide regulation in the future to water quality impacts and building on several successful programs already in place.

These programs are designed to educate consumers and retailers about the less-toxic products, which are often a better, more effective choice. The Regional Water Board approved the TMDL on November 6, 2005, and it will subsequently be considered by the State Water Resources Control Board and the U.S. EPA.

4.4.4 Support for Water Board Stakeholder Meetings and Related Activities

Web Site

The Water Board has been using the CEP web site (and associated stakeholder database) to officially notify interested stakeholders about TMDL-related activities. The Water Board was advised by legal staff that they are required to mail paper copies of all TMDL-related public notices of meetings, hearings, and deadlines to individuals, unless they have received explicit written consent from those parties, stating that notification by email is preferred. The EMB approved CEP funds to be used to assist the Water Board staff by modifying the CEP stakeholder database such that it could differentiate individual preferences for receiving official state notifications, assist Water Board staff in obtaining individual stakeholder preference for receiving official state notifications, and imputing this information into the CEP stakeholder database.

Public Meetings for the Mercury TMDL

The P&O Committee assisted with a series of one-on-one meetings with different stakeholder groups in July and August regarding stakeholders' comments on the Basin Plan Amendment (BPA) language for the Mercury TMDL. The objective had been to discuss and move toward general agreement in concept on the key issues raised by stakeholders pursuant to the June Board Hearing, and then translate those agreements into specific proposed text changes in the BPA language. The Committee also assisted in preparations for the Water Board hearing and compiling the administrative record.

Water Board Request for Feedback on Stakeholder Outreach Efforts

The Committee prepared a survey to provide feedback on the Water Board's stakeholder participation efforts as part of its annual report to ABAG.

4.4.5 New Participation and Outreach Procedures

Review of Proposed Revisions to the CEP Website

The P&O Committee reviewed revisions to the CEP website proposed in order to help users more easily locate final CEP documents and link to the contractor roster.

Other

- The Committee did not meet in FY 05/06

5.0 Appendices

5.1 Table of Relationships Among CEP Technical Projects

5.2 CEP Policies and Procedures Manual

5.3 Coordinator's Reports

(located on-line at www.cleanestuary.org)

5.4 Committee Meeting Minutes

(located on-line at www.cleanestuary.org)

5.4.1 Executive Management Board

5.4.2 Technical Committee

5.4.3 Administrative Committee

5.4.4 Participation & Outreach Committee

Appendix 5.1 Description of CEP Projects (Completed or in Process) and Their Relationship to TMDL Development/Implementation

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
Mercury (also PCBs, legacy pesticides)	4.02	Small Tributary Loads: Guadalupe River	9/02	8/05	<p>Description: This project combines monitoring of flow and suspended load with discreet grab samples for chemical analysis to assess pollutant loads from a significant tributary that is impacted by both legacy mining and urban industrial uses. This project involves collaboration with and partial funding by the RMP.</p> <p>Objectives: Use a direct measurement approach to reduce uncertainties associated with watershed load estimates derived using the “Simple Method,” which relies on land-use specific estimates of runoff and rainfall, and to model pollutant loads.</p> <p>Findings: The project details concentrations and loads of mercury, PCBs, and OC pesticides during water years 2003-2004. The project also makes hypotheses about the possible physical processes of release and transport of total mercury in the watershed in both space and time (including those related to climatic forcing), which are important issues for the design of programs to reduce loads. Future years of sampling (to be funded outside the CEP) will provide further information on source, release, and transport processes for pollutants of concern (including PBDEs and methyl mercury).</p> <p>Report URLs: http://www.cleanestuary.com/publications/files/Task%204%2E02%20Yr%201%2Epdf http://www.cleanestuary.com/publications/files/Task4%2E02%2DGuadalupeRiverYr2%2Epdf</p>	The information for mercury, PCB, and organochlorine pesticide loads from the Guadalupe River Watershed is essential for the source analysis contained (or to be contained) in the TMDLs for these pollutants. This project also demonstrates a feasible and accurate method for estimating loads, and provides a data set that can be used to determine our ability to detect change. The dataset will also be a valuable baseline for assessing future changes in loading in the watershed.

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
Mercury	4.05	Refine Mercury TMDL Implementation Scheme	8/02	12/04	<p>Description: This project develops implementation information for each category of mercury source.</p> <p>Objectives: Define foreseeable actions needed to attain proposed numeric targets in the Bay, expected outcomes of those actions, associated uncertainties, and approaches to reduce those uncertainties.</p> <p>Findings: Seven individual project reports provide detailed recommendations on the feasibility of potential management strategies for mercury dischargers from different source categories.</p> <p>Report URLs: http://www.cleanestuary.com/publications/files/Task4%2E05%2DWetlandImpl%2Epdf http://www.cleanestuary.com/publications/files/Task4%2E05%2DURbRunoffImpl%2Epdf http://www.cleanestuary.com/publications/files/Task4%2E05%2DInactiveMinesImpl%2Epdf http://www.cleanestuary.com/publications/files/Task4%2E05%2DToxCleanupSites%2Epdf http://www.cleanestuary.com/publications/files/Task4%2E05%2DDraftAirborneDep%2Epdf http://www.cleanestuary.com/publications/files/Task4%2E05%2DDraftWastewaterImpl%2Epdf</p>	<p>Individual reports were prepared for wastewater, urban runoff, atmospheric deposition, wetlands, toxic cleanup sites, the Guadalupe River, and inactive local mines. These were used by Water Board staff during preparation of the Mercury TMDL basin plan amendment, and are cited in the associated staff report.</p>

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
Mercury (also PCBs, legacy pesticides)	4.12	Feasibility Assessment: Options and Expected Benefits from Urban Storm Water Implementation Actions	12/03	TBD	<p>Description: This project performs a literature review and conducts modeling to assess the feasibility and expected benefits of possible implementation actions to control pollutant discharge in urban runoff. This project was envisioned as a starting point for this issue, with more advanced analysis to be provided by a project initiated in 2005 at SFEI (funded by a Prop 13 grant).</p> <p>Objectives: (1) Describe how site specific factors, such as location, geography, climate, and land use affect feasibility and benefits; (2) Estimate the total mercury load avoided through current implementation of the strategies; (3) Forecast how loads can be decreased through expansion of current strategies and/or development of new strategies, and what new costs are associated with those expansions.</p> <p>Findings: <i>Project in progress</i></p>	The mercury TMDL (and likely the PCB TMDL) call for major reductions in pollutant loading from urban runoff, but it is not clear how these reductions can be achieved. An assessment of the feasibility and expected benefits from various TMDL implementation actions for urban runoff will be essential for identifying how load reductions can be achieved.
Mercury	4.24	Refine Mercury Conceptual Model	12/03	TBD	<p>Description: This project expands on a draft conceptual model developed and revised in FY02-03 according to comments submitted by the mercury Work Group.</p> <p>Objectives: Answer 5 key management questions: (1) What is the relative bioavailability of mercury from different sources to San Francisco Bay? (2) At what locations are current methylation rates and methylmercury flux the highest? (3) Can existing wetlands be managed or new wetlands be designed to minimize net methylation rates, or limit exposure to methylmercury that is produced? (4) Given various scenarios for management actions, when will we likely see improvements in sediment and tissue concentrations? (5) How should we best monitor to detect changes in mercury concentrations in sediment and tissue (i.e., on what time and spatial scale should we expect results, and what indicators should we monitor)?</p> <p>Findings: <i>Project in progress</i></p>	By describing the technical projects that could be implemented to answer the management questions, this project will help identify the steps to be taken as part of adaptive implementation of the mercury TMDL. The results of studies identified in this report are expected to be influential when the Water Board reconsiders the mercury TMDL in future years.

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
PCBs	4.10a	Existing Data on PCB Concentrations of Nearshore Sediments and Assessment of Data Quality	11/02	11/05	<p>Description: This project helps to quantify PCB concentrations in San Francisco Bay.</p> <p>Objectives: (1) Determine whether existing data are sufficient to quantify PCB concentrations in the sediment of the nearshore environment of central and south San Francisco Bay; (2) Collect additional monitoring data, if necessary, to quantify PCB concentrations in the nearshore sediments of central and south San Francisco Bay.</p> <p>Findings: Existing data are sufficient to quantify PCB concentrations in the sediment of the nearshore environment of central and south San Francisco Bay, but complex spatial patterns related to discharge and advection from onshore sources make it extremely difficult to assign a single concentration to describe nearshore background PCBs.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/4%2E10a%20Final%20Report%2Epdf</p>	<p>This project was valuable to characterize PCB concentrations in the nearshore portions of the Bay that are normally the first regions to receive contaminated discharge. The project was originally conceived to support selection of interim numeric targets for PCBs in sediments as part of the TMDL. The results from this work contributed to the Water Board's decision to use a tissue concentration as the numeric target for the PCB TMDL.</p>
PCBs	4.10b	Existing Data on PCB Concentrations of Sediments in Trapping Zones	11/02	12/04	<p>Description: This project helps to characterize PCB concentrations in Bay margin trapping zones.</p> <p>Objectives: (1) Identify areas along the Bay margins that may act as traps for PCB-polluted sediments discharged from upland spills; (2) Estimate the mass of PCBs in identified or suspected Bay margin trapping zones.</p> <p>Findings: The project does not find Bay deposits with substantial concentrations (i.e., 100 ppm or greater) of PCBs in relatively small areas, despite a sampling plan that was geared toward sites that might have been expected to exhibit high concentrations.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/CEP%5F4%2E10B</p>	<p>This project is a first step in assessing the feasibility of strategic dredging as a PCB TMDL implementation alternative. Removal or isolation of PCB hot spots could have resulted in significant, cost-effective improvements to the recovery rate of San Francisco Bay.</p>

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
					%5Freport%2Epdf	
PCBs	4.25	Refine PCB Conceptual Model	1/04	TBD	<p>Description: This project complements the technical information contained in the TMDL Project Report for PCBs in San Francisco Bay.</p> <p>Objectives: Prepare: (1) an “executive summary” of issues for a nontechnical audience; (2) an overview for a more technical audience of important concepts related to PCBs in the Bay; and (3) a “state-of-the-science” discussion of technical uncertainties, priorities among them, and means of addressing them.</p> <p>Findings: http://www.cleanestuary.org/publications/files/PCB%20CMIA%20FINAL%2Epdf</p>	<p>This project will provide (1) an accessible summary for interested parties of the existing knowledge regarding PCBs in San Francisco Bay, including information on sources, concentrations in biota, and the role of key ecological processes in the fate of PCBs in the Bay, and (2) develop consensus regarding key assumptions and uncertainties that must be tested as part of adaptive implementation of the TMDL.</p>
PCBs (also mercury, legacy pesticides)	4.26	Develop Multi-Box Model	2/05	TBD	<p>Description: This project is a multi-year program that builds on model development efforts already underway to construct a basic mechanistic model to: (1) advance our understanding of pollutant behavior in the Estuary; and (2) provide a new predictive tool for water quality management. This project involves collaboration with and partial funding by the RMP, and is based upon work conducted previously by the RMP and the USGS.</p> <p>Objectives: (1) Develop a better tool for predicting future pollutant concentrations and testing potential management actions; (2) Clarify uncertainty of existing model predictions; (3) Identify key areas where field work can be done to reduce the uncertainties; (4) Conduct key field work; (5) Develop unambiguous documentation regarding the model for future professionals working on these issues as part of adaptive implementation.</p>	<p>The multi-box model integrates our knowledge of the physical and chemical processes that affect the fate, transport and residence times of pollutants in the Estuary in five major geographic segments (Extreme South Bay, Lower South Bay, Central Bay, San Pablo Bay, and Suisun Bay). The construction of this multi-box model will provide the opportunity to perturb the system, evaluate the response, and gauge uncertainty associated with predicted outcomes. A critical set of perturbations to study will be proposed management actions, as with a validated and credible model, stakeholders will have the</p>

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
					<p>Findings: Independent testing of the model has been completed and includes the following recommendations: (1) review and modify input data sets to address incomplete historical data; (2) evaluate possible impacts of sea level rise at the Golden Gate on PCB flushing from the Bay; (3) analyze effects on PCB transport of the model's overestimation of suspended solids concentrations in the Lower South Bay; (4) evaluate the effects of model spin-up period on PCB transport; (5) evaluate the model's tendency to over-predict the amount of PCBs measured in the Bay's water and sediment; and (6) evaluate the appropriateness of simulating a single PCB congener in the model.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/Testing%5Fof%5FSEI%20modelv3%2Epdf</p>	<p>opportunity to gauge the response of the Estuary to proposed long-term management strategies.</p>
PCBs (also legacy pesticides)	4.27	Complete Food Web Model for Human Health and Wildlife Protection and Refine Sediment Targets	12/03	9/05	<p>Description: This project expands the existing Bay food web model so that it includes sensitive wildlife species as endpoints.</p> <p>Objectives: Expand the capability of the model to predict the maximum concentration of PCBs in sediments that will result in safe levels of PCBs in Bay wildlife (beyond its present capability to predict safe levels of PCBs in edible fish tissue for human consumption).</p> <p>Findings: The model-predicted PCB concentration distributions show that there is a substantial probability that various human health and ecological risk criteria are currently exceeded in the Bay.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/Task4%2E27%2DFoodWebModel%2Epdf</p>	<p>The model produced by this project will allow the Water Board to produce a TMDL containing load reductions that are predicted to address both the impairment of sport fish and the potential impairment of wildlife. US Fish and Wildlife Service have stated their expectation that the TMDL will evaluate the potential effects of PCBs on wildlife. USEPA is unlikely to approve a Bay PCBs TMDL that does not address wildlife species, as it will eventually need to obtain a biological opinion from USFWS on the TMDL prior to approval. Using the model, the Water Board can link changes in sediment PCB concentrations caused by load reductions to changes in tissue concentrations.</p>

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
PCBs	4.28	Refine PCB Implementation Scheme	12/04	TBD	<p>Description: This project drafts a strategy for mitigating PCB "hot spots."</p> <p>Objectives: (1) Draft a strategy detailing the technical and regulatory framework for evaluating and implementing remedial actions at PCBs "hot spots"; (2) Evaluate other actions to mitigate for past PCBs discharges to the Bay where clean up is not feasible; (3) Promote a public agency/private sector cooperative process for addressing "hot spots" in stormdrains, watershed sites, and the Bay margin.</p> <p>Findings: http://www.cleanestuary.org/publications/files/pcb4%2D28%5Ffinal%2Epdf</p>	<p>This project will begin to develop the technical and regulatory strategy under which mitigation of "hot spots" can occur in a timely manner. Such a strategy will also result in greater certainty and detail for a key part of the TMDL implementation plan.</p>
Copper-Nickel	4.11	Impairment Assessment for Cu/Ni North of Dumbarton Bridge	5/03	TBD	<p>Description: This project assists adoption of site-specific water quality objectives for copper and nickel in San Francisco Bay north of the Dumbarton Bridge by providing necessary documentation to the Water Board. This work is in conjunction with ongoing work to develop Action Plans for prevention of unacceptable changes in copper and nickel concentrations in the Bay. For purposes of efficiency, the project is conducted as a focused "extension" of the South Bay impairment assessment work, using the documents prepared for the South Bay as a foundation. This project continues work funded previously by BACWA and BASMAA.</p> <p>Objectives: (1) Prepare and provide to the Water Board documentation necessary for adopting site-specific saltwater aquatic life-based water quality objectives for copper and nickel in San Francisco Bay north of the Dumbarton Bridge. (2) Support the development and adoption of strategies to attain water quality standards for copper and nickel in San Francisco Bay.</p> <p><i>Continued next page</i></p>	<p>This project has delivered technical reports on water quality translators, Site Specific Objective (SSO) derivation, SSO justification pursuant to the State Implementation Program (SIP), and a conceptual model/impairment assessment, all of which are being used by the Water Board to prepare a Basin Plan amendment and staff report. The project has also prepared other technical information that will be used to develop a long-term copper management strategy.</p>

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
Copper-Nickel	4.11 (cont.)	Impairment Assessment for Cu/Ni North of Dumbarton Bridge	5/03	TBD	<p>Findings: Aquatic life impairment due to water column levels of dissolved copper and nickel in San Francisco Bay is unlikely. The dominant source of loadings of copper and nickel to the Bay is benthic remobilization from sediments, with riverine loadings next most important. Choosing copper and nickel translators for the Bay north of Dumbarton Bridge (to convert dissolved criteria into total recoverable effluent limits) needs to be addressed on a regional basis by dischargers, permit writers, Basin Plan staff, and TMDL staff. A number of municipal and industrial dischargers operating secondary or advanced secondary treatment plants will suffer compliance problems based on existing water quality objectives for copper in the Bay, and industrial plants may suffer compliance problems relating to nickel. Action to consider and adopt science-based site-specific copper and nickel saltwater objectives for San Francisco Bay north of Dumbarton Bridge is warranted and complies with requirements of the State Implementation Policy and other regulatory requirements.</p> <p>Report URLs: http://www.cleanestuary.com/publications/files/Fish%20olfaction%20SJESD%2Epdf http://www.cleanestuary.com/publications/files/CuSourcesReportCEP%2DT%2D4Ver2%2Epdf http://www.cleanestuary.com/publications/files/CEP%20SIP%20Justification%20030705%2Epdf http://www.cleanestuary.com/publications/files/CEP%20CMIA%2Epdf http://www.cleanestuary.com/publications/files/CEP%20SSO%20Derivation%20030705%2Epdf http://www.cleanestuary.com/publications/files/CEP%205FTranslator%20030705%2Epdf</p>	See previous page
Legacy Pesticides	4.20	DDT Analysis of Previously Collected Sediment Samples	1/03	5/03	<p>Description: This project supports analysis of DDTs in a set of sediment samples during calibration of the food web model.</p> <p>Objectives: Analyze DDTs in sediment samples collected by SFEI</p>	These data will be used to calibrate the food web model for DDTs, allowing a demonstration of how water quality standards will be achieved when the

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
					<p>to calibrate the food web model for use in the legacy pesticides TMDL.</p> <p>Findings: Results of chemical analyses delivered to SFEI (Contact Jay Davis for more information).</p>	<p>legacy pesticides TMDL is developed.</p>
<p>Legacy Pesticides</p>	<p>4.29</p>	<p>Develop Conceptual Model and Impairment Assessment for Legacy Pesticides</p>	<p>11/03</p>	<p>1/05</p>	<p>Description: This project develops a Conceptual Model / Impairment Assessment for legacy pesticides in San Francisco Bay.</p> <p>Objectives: (1) Develop a conceptual model for legacy pesticides in San Francisco Bay to integrate existing knowledge regarding the sources of these substances, the loads to the Bay, and the ecological processes that link loads with impacts on beneficial uses. (2) Develop an assessment of the impairment to San Francisco Bay caused by legacy pesticides, highlighting key assumptions or uncertainties that are relevant to management alternatives.</p> <p>Findings: Water and fish data indicate continued impairment of the use of the Bay for fishing and fish consumption, although long-trends indicate declining pesticide concentrations in the Bay. There is less evidence of impairment of other uses of the Bay (preservation of rare and endangered species, fish spawning, or wildlife and estuarine habitat). Runoff from the Central Valley and the local watershed introduce the largest loads of legacy pesticides to the Bay.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/Legacy%20Pesticides%20Final%2Epdf</p>	<p>The report produced by this project establishes the scientific foundation for a water quality attainment strategy for legacy pesticides in San Francisco Bay.</p>
<p>Legacy Pesticides</p>	<p>4.43</p>	<p>Prepare Water Quality Attainment Strategy for Legacy Pesticides</p>	<p>4/05</p>	<p>TBD</p>	<p>Description: This project develops a package of potential implementation actions for legacy pesticides. The project builds off of the Conceptual Model/Impairment Assessment report for legacy pesticides in San Francisco Bay.</p> <p>Objectives: Develop actions that could be taken to protect/restore beneficial uses currently impaired, potentially including: (1)</p>	<p>By incorporating key components of the CMIA report along with potential implementation actions into a document, this project will provide a unified and technically-justified description of the potential scenarios for addressing the listing. It will form the basis of the</p>

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
					<p>monitoring status and trends of impairment; (2) confirming effectiveness of practices or technologies; (3) continuing public education and outreach; and (4) promoting preventive or corrective regulatory actions.</p> <p>Findings: <i>Project in progress</i></p>	<p>regulatory project implemented by the Water Board to address the listing of the Bay for legacy pesticides.</p>
Diazinon-Toxicity	4.13	Develop Stream Monitoring Program for Pesticides and Toxicity	11/03	12/04	<p>Description: This project designs a monitoring plan to provide support for adaptive implementation of the Diazinon and Pesticide-Related Toxicity in Urban Creeks Water Quality Attainment Strategy and Total Maximum Daily Load (“the WQAS”).</p> <p>Objectives: Develop a monitoring program to support adaptive management of diazinon/pesticide-related toxicity in Bay Area urban creeks in accordance with the WQAS. Address the proposed WQAS implementation requirements regarding program design, watershed characterization, site selection / sample collection, and analytical tests.</p> <p>Findings: The developed monitoring plan establishes a process through which monitoring data can be used effectively in adaptive management, by directly addressing the following sequential management questions delineated in the WQAS: (1) Are the diazinon concentration targets met? (2) Are the toxicity targets met? (3) If not, is pesticide-related toxicity still a problem in urban creeks (i.e., is the toxicity caused by a pesticide or something else)? (4) If the toxicity target is not met because of a pesticide (other than diazinon), how do the toxicity and the concentrations of the toxic pesticide vary in time and magnitude across urban watersheds? Adaptive development of the urban creeks monitoring program involves coordinating the monitoring planned by agencies for 2004-05, supplemented by funding available from the CEP (Project #4.39), and using the 2004-05 data as a screening tool to plan for monitoring in subsequent years. Also during 2004-05, a set of representative monitoring locations are selected for Bay Area urban creeks, and provisions made for standardized monitoring at the</p>	<p>Developing and conducting this monitoring program will be a key component of implementation for the Diazinon in Urban Creeks TMDL and the Water Quality Attainment Strategy for pesticide-related toxicity.</p>

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
					selected sites in 2005-06 and subsequent years. Report URL: http://www.cleanestuary.com/publications/files/Task%204%2E13%20Urban%20Creek%20Monitoring%2Epdf	
Diazinon-Toxicity	4.30	Develop Conceptual Model and Impairment Assessment Report for the Diazinon/Pesticide-Related Toxicity in San Francisco Bay	6/03	2/05	<p>Description: This project develops a Conceptual Model / Impairment Assessment for diazinon/pesticide-related toxicity in San Francisco Bay.</p> <p>Objectives: (1) Develop a conceptual model for diazinon/pesticide-related toxicity in San Francisco Bay to integrate existing knowledge regarding the sources of these substances, the loads to the Bay, and the ecological processes that link loads with impacts on beneficial uses. (2) Develop an assessment of the impairment to San Francisco Bay caused by diazinon/pesticide-related toxicity, highlighting key assumptions or uncertainties that are relevant to management alternatives.</p> <p>Findings: Impairment of San Francisco Bay by diazinon is unlikely. Based on observed decreased applications of diazinon in Bay watersheds, decreased concentrations and toxicity in upstream tributary waters of the Bay, and apparent disappearance of previously-documented ambient water toxicity in the Bay, it appears that the water quality objectives of maintaining the Bay's water free of toxic substances in toxic concentrations are being met. However, use of replacement pesticides for diazinon (particular pyrethroids) may be causing toxicity in sediments. Surface runoff from agricultural pesticide use in the Sacramento River and San Joaquin River watersheds is the major source of diazinon (and most other current-use pesticides) in the Bay.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/TASK%204%2E30%29%2D%20DIAZINON%20CMIA%2EPDF</p>	This project evaluated data in light of listing/delisting criteria to assist the Water Board design a regulatory project to address the listing. The results of this project contributed to a decision by the State Board to propose de-listing of the Bay for diazinon in October 2005.

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
Diazinon-Toxicity	4.39	Supplemental Monitoring for Diazinon/Pesticide-Related Toxicity in Urban Creeks	11/04	TBD	<p>Description: This project assures that sufficient funding will be available during 2004-05 to provide the monitoring specified in the Monitoring Plan prepared by CEP Project #4.13. The funding for supplemental urban creeks monitoring will complement the relevant monitoring activities of Bay Area stormwater agencies and other regional and local monitoring efforts, for which funding has already been designated independently for the 2004-05 wet season. This project involves collaboration with various stormwater NPDES permittees.</p> <p>Objectives: Provide: (1) measurements of water, sediment and/or tissue chemistry; (2) results of water and/or sediment toxicity tests; (3) results of TIEs; and (4) assessment and reporting of monitoring data.</p> <p>Findings: http://www.cleanestuary.org/publications/files/CEP%5F4%2D39%5FUrbanCR%5FTech%5FMemo%2Epdf http://www.cleanestuary.org/publications/files/CEP%5F4%2D39%5FdiaztoxMP%5F05%2D06%2Epdf</p>	The results of the supplemental monitoring will be important for adapting existing stream monitoring programs and guiding implementation of the urban creeks diazinon TMDL and the water quality attainment strategy for pesticide-related toxicity in urban creeks.
Diazinon-Toxicity	4.40	Prepare Water Quality Attainment Strategy for Diazinon/Pesticide-Related Toxicity in the Bay	4/05	TBD	<p>Description: This project develops a package of potential implementation actions for diazinon/pesticide-related toxicity. The project builds off of the Conceptual Model / Impairment Assessment report for diazinon/pesticide-related toxicity in San Francisco Bay.</p> <p>Objectives: Develop actions that could be taken to protect/restore beneficial uses currently impaired, potentially including: (1) monitoring status and trends of impairment; (2) confirming effectiveness of practices or technologies; (3) continuing public education and outreach; and (4) promoting preventive or corrective regulatory actions.</p> <p>Findings: <i>Project in progress</i></p>	By incorporating key components of the CMIA report along with potential implementation actions into a document, this project will provide a unified and technically-justified description of the potential scenarios for addressing the listing. It will form the basis of the regulatory project implemented by the Water Board to address the listing of the Bay for diazinon, and the concomitant development of a Water Quality Attainment Strategy to address the ongoing impact of pesticides being used as replacements for diazinon.

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
Dioxins	4.31	Develop Conceptual Model and Impairment Assessment for Dioxins	8/03	2/05	<p>Description: This project develops a Conceptual Model / Impairment Assessment for dioxins/furans in San Francisco Bay.</p> <p>Objectives: (1) Develop a conceptual model for dioxins/furans in San Francisco Bay to integrate existing knowledge regarding the sources of these substances, the loads to the Bay, and the ecological processes that link loads with impacts on beneficial uses. (2) Develop an assessment of the impairment to San Francisco Bay caused by dioxins/furans, highlighting key assumptions or uncertainties that are relevant to management alternatives.</p> <p>Findings: Available fish and water data indicate a possible impairment of the Bay for sport fishing. Because there is so little information, there is virtually no evidence of impairment of other beneficial uses. Model estimates of the degradation and transport rates for dioxins suggest that current inputs of dioxins to the Bay may be sufficient to continue the current level of impairment.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/Task%204%2E31%20DDioxins%20Final%20CMIA%20Epdf</p>	This report could be used as the scientific foundation for a water quality attainment strategy for dioxin/furans in San Francisco Bay.
Selenium	4.32	Develop Conceptual Model and Impairment Assessment for Selenium	10/03	8/05	<p>Description: This project develops a Conceptual Model / Impairment Assessment for selenium in San Francisco Bay.</p> <p>Objectives: (1) Develop a conceptual model for selenium in San Francisco Bay to integrate existing knowledge regarding the sources of these substances, the loads to the Bay, and the ecological processes that link loads with impacts on beneficial uses; (2) Develop an assessment of the impairment to San Francisco Bay caused by selenium, highlighting key assumptions or uncertainties that are relevant to management alternatives.</p> <p>Findings: There is possible impairment of the Bay by selenium, as evidenced by a continued health advisory against the consumption of diving ducks (one of the beneficial uses of the Bay). There is no</p>	This report will establish the scientific foundation for a water quality attainment strategy for selenium in San Francisco Bay.

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
					<p>impairment of Bay Protection Toxic Cleanup Program (BPTCP) sites by selenium, and a de-listing of these sites is warranted. The major sources of selenium to the North Bay are the Sacramento River, San Joaquin River, and discharges from oil refineries, whereas the major sources to the South Bay are POTWs.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/Final%5FSelenium%5FCMIA%2Epdf</p>	
Selenium	4.42	Prepare Water Quality Attainment Strategy for Selenium	4/05	TBD	<p>Description: This project develops a package of potential implementation actions for selenium. The project builds off of the Conceptual Model / Impairment Assessment report for selenium in San Francisco Bay.</p> <p>Objectives: Develop actions that could be taken to protect/restore beneficial uses currently impaired, potentially including: (1) monitoring status and trends of impairment; (2) confirming effectiveness of practices or technologies; (3) continuing public education and outreach; and (4) promoting preventive or corrective regulatory actions.</p> <p>Findings: <i>Project in progress</i></p>	By incorporating key components of the CMIA report along with potential implementation actions into a document, this project will provide a unified and technically-justified description of the potential scenarios for addressing the listing. It will provide valuable input to the Water Board as it develops its regulatory project relative to the listing of the Bay.
Multiple Contaminant Projects	4.07	Assess Future TMDL Modeling Needs	5/03	12/04	<p>Description: This project provides information necessary to evaluate modeling approaches in the development and implementation of TMDLs.</p> <p>Objectives: Provide the information necessary to evaluate the efficacy of alternative modeling approaches, using both: (1) a review of existing approaches applied in the Bay (especially Cu/Ni in the South Bay and PCBs for the entire bay); and (2) interaction with national experts brought in to review existing Bay models and suggest how existing or alternative models might be used to best address key management questions in a cost-effective manner.</p> <p>Findings: The project report provides a detailed analysis of the</p>	The project provided essential background information on the role of numerical models in the development and implementation of TMDLs, and allowed for the design of a project to develop a multi-box model of the Bay. The project also assisted with the peer review of the revised food web model, a key part of the PCB TMDL.

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
					<p>application of models to the TMDL process in San Francisco Bay, including the role of conceptual and numerical models, modeling issues and definitions, potentially applicable models, and model evaluation criteria.</p> <p>Report URL: http://www.cleanestuary.com/publications/files/Use%20of%20Num%20moels%5F5%2D10%2D04%2Epdf</p>	
Multiple Contaminant Projects	4.44	Developing and Evaluating Options for Addressing Risks of Public Health Impacts Due to Pollutants in Fish	TBD	TBD	<p>Description: This project, still in the conceptual stage, will convene a multi-disciplinary panel to help identify, on a regional basis, actions that can be taken to reduce the health risk posed by the consumption of contaminated fish from the Bay. The project will focus in particular on impacts of consumption in the most exposed and vulnerable communities.</p> <p>Objectives: <i>This project has yet to be implemented</i></p> <p>Findings: <i>Project in progress</i></p>	<i>This project has yet to be implemented</i>
Cyanide	4.33	Cyanide Basin Plan Amendment Technical Assistance	9/03	6/05	<p>Description: This project provides support for Water Board staff in developing the draft Basin Plan amendment for cyanide in San Francisco Bay.</p> <p>Objectives: Support Water Board staff in developing CEQA-equivalent documentation and conducting necessary environmental and economic analysis in support of a Basin Plan amendment for a site-specific water quality objective for cyanide in San Francisco Bay.</p> <p>Findings: The draft basin plan amendment and associated staff report regarding a site-specific objective for cyanide is expected to be released by the Water Board in November 2005.</p>	This project accelerated the production the draft Basin Plan amendment for cyanide, and tested a model for how the CEP can provide technical assistance to the Water Board for preparation of Basin Plan amendments.

Pollutant	Task #	Title	Start Date	End Date	Description, Objectives, and Findings	How Project Supports TMDL Development & Implementation
<p>Special Technical Projects</p>	<p>4.45</p>	<p>Develop Conceptual Model and Impairment Assessment for PBDEs</p>	<p>12/04</p>	<p>TBD</p>	<p>Description: This project develops a Conceptual Model / Impairment Assessment for PBDEs in San Francisco Bay. A limited amount of targeted environmental sampling may be conducted to clarify environmental pathways in San Francisco Bay. This project involves collaboration with and partial funding by the RMP.</p> <p>Objectives: (1) Develop a conceptual model for PBDEs in San Francisco Bay to integrate existing knowledge regarding the identification of sources of these substances, transport pathways to the Bay, load contributions from sources, and the ecological processes that link loads with suspected impacts on beneficial uses. (2) Develop an assessment of the impairment to San Francisco Bay caused by PBDEs, highlighting key assumptions or uncertainties that are relevant to management alternatives.</p> <p>Findings: <i>Project in progress</i></p>	<p>Through creation of the conceptual model based on new monitoring being undertaken by the RMP, stakeholders will work together to clarify the facts regarding PBDEs in San Francisco Bay, and identify important uncertainties in the existing knowledge. The model will establish the scientific foundation for a potential water quality attainment strategy for PBDEs in San Francisco Bay, which many expect will be necessary soon.</p>

Clean Estuary Partnership

Compilation of Policies and Procedures/Guidelines

May 31, 2005

Prepared by:

APPLIED *amarine* SCIENCES

4749 Bennett Drive, Suite L
Livermore, CA 94551
www.amarine.com

Table of Contents

<i>I. Introduction</i>	<i>1</i>
<i>II. Policies</i>	<i>1</i>
1.0 Memorandum of Understanding (MOU)	1
2.0 CEP Committee Operating Policies	1
2.2 Executive Management Board (EMB)	2
2.2.1 Organizational Participation and Representation	2
2.2.2 Commitment to Process	2
2.2.3 Decision-Making Process	2
2.2.4 Information-Sharing	3
2.2.5 Legal Authority	3
2.2.6 Public Comment	3
2.3 Technical Committee	3
2.3.1 Goal and Objectives	3
2.3.2 Membership	4
2.3.3 Initial Tasks	4
2.4 Administrative Committee	4
2.4.1 Role and Responsibilities	4
2.4.2 Membership	5
2.5 Participation and Outreach Committee	5
2.5.1 Overall CEP Stakeholder Participation and Public Outreach Program	5
2.5.2.1 Mission	5
2.5.2.2 Membership	6
2.5.2.3 Tasks	6
3.0 CEP Contracting	7
3.1 Consulting Service Contracting (CSC)	7
3.2 Qualified Contractors Roster	7
4.0 Appropriating Funds for Technical Projects	8
5.0 Distribution of CEP Documents	8
<i>III. Procedures and Guidelines</i>	<i>8</i>
1.0 General CEP Procedures and Guidelines	8
1.1. Committee / Work Group Structure and Decision-Making Process	8
1.1.1 Voting Members	8
1.1.2 Participating Stakeholder	9
1.1.3 Other Members of the Public	9
1.2 Development and Funding of CEP Projects	9
2.0 Individual Committee Procedures and Guidelines	11
2.1 Executive Management Board (EMB)	11
2.2 Technical Committee	11
2.2.1 Technical Work Groups	11
2.2.2 Reviewing and Managing Unsolicited Proposals	11
2.2.3 Peer Review Process	12
2.2.3.1 Background	12
2.2.3.2 Internal Review	13
2.2.3.3 External Review	13
2.2.4 Developing Conceptual Scopes of Work (CSOW)	16
2.2.5 Developing Detailed Scopes of Work (DSOW)	18

2.2.6 Submittal of Monthly Project Progress Reports	20
2.2.7 Technical Committee Distribution of Documents	21
2.2.7.1 Background	21
2.2.7.2 Distribution of Draft Technical Documents	21
2.3 Administrative Committee	22
2.3.1 Appropriation of Incidental Funds from Task 4.46 (Technical Studies Contingency Funds) by the Technical committee	22
2.3.2 Equipment Inventory Tracking	22
2.3.3 Annual Administrative Calendar	24
2.3.4 Preparation of Annual Report	25
2.4 Participation and Outreach Committee	25
2.4.1 Establishment of CEP Environmental Technical Representative	25
2.4.1.1 Background on Environmental Technical Representative Position	25
2.4.1.2 Selection Criteria	25
2.4.1.3 Scope of Work	26

I. Introduction

This manual represents a compilation of documents describing the purpose, organization, and operation of groups within the Clean Estuary Partnership (CEP). The documents are organized by their application as either Policies or Procedures/Guidelines. For the purposes of this manual, a Policy provides guidance that is broadly applicable to multiple groups within the CEP. In contrast, the focus of a Procedure/Guideline is more narrow, and provides guidance specific to one group (e.g., Technical Committee). Policies can only be established by the Executive Management Board, whereas Procedures/Guidelines are established by the individual group to either implement a Policy or to act as a guide to their activities.

II. Policies

1.0 Memorandum of Understanding (MOU)

See Attachment 1.

2.0 CEP Committee Operating Policies

2.1 Membership and Participation in the CEP

2.1.1 Membership and Participation

There are three types of participation in the CEP:

- Signatories to the MOU (Federal, state or local government organizations or groups representing governmental organizations)
- Supporting Participants (Non-signatories who provide funds for CEP)
- Interested Participants (all other participating stakeholders)

All CEP participants acknowledge and accept the collaborative process, as pursued by the CEP, is the most efficient and effective way to develop TMDLs for San Francisco Bay. Furthermore they commit to:

- Respecting the personal integrity, values and legitimacy of the interests of each participant.
- Participating regularly and in person (if possible) and to being well informed on the issues under discussion.
- Honoring any commitments or agreements made and to not use delay as a tactic to avoid an undesired result.
- Working in a cost effective and timely fashion to develop sound scientific products

2.1.2. Voting

Voting membership of the EMB and CEP Committees is restricted to organizations that are signatories to the MOU, although the opinions of all participants are considered and respected. It is further the hope and intent that all CEP Committee and workgroup decisions can be made by consensus of all voting members.

2.1.3 CEP Funding

Funding support is welcomed and encouraged from all participants. Budget and funding decisions are made by the EMB based upon recommendations from the Administrative, Technical, and Participation & Outreach Committees.

2.2 Executive Management Board (EMB)

The Executive Management Board of the Clean Estuary Partnership has adopted the following policies to ensure that its operations support achievement of the Program's goals:

2.2.1 Organizational Participation and Representation

The Executive Management Board (EMB) includes representatives from each signatory of the August 2001 MOU regarding "Development of Water Quality Attainment Strategies for San Francisco Bay-Delta and Tributaries (Attachment 1)." Consistent with the MOU, each organization will designate a policy-level representative who also has the technical expertise and availability necessary to oversee the development of the Five-Year CEP Plan. As of March 2005, signatory organizations include:

- San Francisco Bay Regional Water Quality Control Board
- Bay Area Clean Water Agencies
- Bay Area Stormwater Management Agencies Association

Each organization will designate a primary representative as well as one or two alternates. Additional members may be added with the concurrence of all current members.

2.2.2 Commitment to Process

All EMB representatives will seek to accurately represent the interests of his or her participating organization in the development and implementation of the CEP. To that end:

- The personal integrity, values and legitimacy of the interests of each participant will be respected by other participants. Everyone will participate; no one will dominate.
- Representatives commit to participating regularly and in person (if possible) and to being well informed on the issues under discussion. For the sake of maintaining continuity, each participant will ensure their designated alternates are informed and up-to-date. Attendance by members and alternates at EMB meetings is encouraged.
- Every representative is responsible for communicating his or her interests and for disclosing pertinent information on issues under consideration.
- Commitments will not be made lightly and will be kept. Delay will not be employed as a tactic to avoid an undesired result.
- Each member organization commits to provide a monetary contribution and/or "in-kind" services to support the program as needed.

2.2.3 Decision-Making Process

- All decisions of the EMB will be made by consensus.
- All parties participating in the Program will commit the time, effort and resources necessary to strive to resolve disputes and reach agreement on the proposed process and implementation plan.

- In the event consensus is not reached on a proposed decision, the representatives will systematically propose and consider alternatives that may resolve the dispute.
- All EMB representatives will have the authority necessary to represent their respective organizations in EMB deliberations.
- All EMB representatives will inform their respective decision-making bodies in a timely manner of developments in the proposed program. All EMB representatives will notify the EMB when a decision-making body's approval is required to enter any formal commitment and will work to secure approval for EMB initiatives from these bodies.

2.2.4 Information-Sharing

- Individual EMB representatives are free to discuss the work of the CEP with other EMB representatives outside of EMB meetings.
- EMB representatives will strive to share pertinent, high quality information on discussions in other forums that may impact the EMB's deliberations.
- Claims of privileged, proprietary or confidential information are expected to be rare, and will not be asserted lightly. Any privileged, proprietary, or confidential information will be clearly identified and treated as such.
- The EMB will honor any member's request for a closed session to present proprietary, privileged or confidential information. However, every effort will be made to devise a strategy to make public such information, as it is recognized that public access to information used by the EMB will be essential for retaining public credibility and support for the CEP.

2.2.5 Legal Authority

These policies do not modify the authority, right or duty of any member under applicable law.

2.2.6 Public Comment

It is the intent to post EMB meeting agendas 72 hours in advance. Public comment is welcome on any items on the agenda. Each regularly scheduled EMB meeting will include time for public comment. The public will be requested to be concise and to provide copies of comments in writing, if possible.

2.3 Technical Committee

2.3.1 Goal and Objectives

The goal of the Technical Committee is to ensure that all research, monitoring, and other scientific or technical endeavors conducted by the CEP are of the highest quality and utility. To achieve this goal, the Technical Committee will pursue the following objectives:

- Verify that all proposed projects are properly designed to provide information that is valuable for policy decisions, using appropriate and defensible scientific methods;
- Verify that the technical products of the CEP are of the highest scientific quality;
- Assist the Program Coordinator with development of the technical components of the CEP Work Plan;
- Coordinate CEP with other research and monitoring programs;
- Provide technical advice as required to the Program Coordinator;
- Assist Program Coordinator with identification of scientific peer reviewers and a peer review process;

- Advise the Program Coordinator regarding data management, including data archiving and public access to data.

2.3.2 Membership

Membership on the Committee should include representation from all MOU signatories plus other key stakeholders, to allow a complete sharing of views regarding issues of research, monitoring, and other technical information. In addition to understanding the substance of issues, Committee members must commit to engage in professional discourse, prepare adequately for meetings, investigate multiple opinions and explore integrative solutions. Members include (one of these representatives should be a member of the EMB):

- One EMB member
- BACWA appointee
- BASMAA appointee
- RWQCB appointee
- Environmentalist's technical representative

2.3.3 Initial Tasks

The key tasks for the Technical Committee include:

- Advise Program Coordinator on development of the technical elements of 5 year Work Plan;
- Advise Program Coordinator regarding integration/coordination with the RMP and other closely related research and monitoring programs;
- Assist Program Coordinator with identifying high priority technical studies that could be part of the CEP.
- Assist Coordinator with provision of technical representation to the environmental community.
- Review project proposals and draft reports.

2.4 Administrative Committee

2.4.1 Role and Responsibilities

The role of the CEP Administrative Committee is to keep the CEP on schedule and budget. The Committee also has the role of ensuring that the CEP promotes a meaningful dialogue among all stakeholders, and that scientific information used in policy decisions is accessible and understandable to interested members of the public. To fulfill these roles, the Administrative Committee will assume the following responsibilities:

- Develop in a timely fashion, annual budgets for approval by the EMB;
- Track expenditures to verify the Program remains on budget and sound financial footing
- Maintain and update the CEP Program Plan, which will incorporate key milestones;
- Ensure CEP programs are completed in accordance with approved budgets;
- Provide oversight of the Coordinator's contract, including approval of subcontracts;
- Development and administration of the contracting process for RFQs and RFPs;
- Establish, maintain, and regularly update a Qualified Contractor's Roster
- Prepare and approve an annual program report which outlines all activities and expenditures within each fiscal year;
- Advise on the strategy for securing external sources of funding; assist with grant proposals.

2.4.2 Membership

Membership on the Administrative Committee will include a representative from each MOU signatory. In addition to understanding the substance of issues, Committee members must commit to engage in professional discourse, prepare adequately for meetings, investigate multiple opinions and explore integrative solutions. Membership will include:

- One EMB member
- BASMAA Representative
- BACWA Representative
- RWQCB Representative
- Other Program signatory Representatives, as they occur
- Program Coordinator

2.5 Participation and Outreach Committee

2.5.1 Overall CEP Stakeholder Participation and Public Outreach Program

The purpose of the overall CEP stakeholder participation and public outreach program is to:

- Coordinate introduction of the CEP and its 5-year work plan in a fashion that encourages support for the proposed approach by key environmental and industry stakeholders as well as the public at large, and helps them understand the benefits, challenges and how they can best contribute.
- Develop stakeholder participation plans for each TMDL that provide the opportunity for key stakeholders to participate in the development and implementation of each TMDL.
- Coordinate development and dissemination of consistent messages regarding TMDL development and implementation by CEP member organizations.
- Foster an environment in which the range of key environmental and industry stakeholders and the public at large actively contribute to the achievement of water quality goals.

2.5.2.1 Mission

The mission of the CEP Public Outreach Committee is to help ensure that the environmental community, dischargers, elected officials, resource agencies, and the general public are informed of and engaged in the process of developing and implementing strategies to attain water quality standards in the Bay-Delta.

To accomplish this mission, the Public Outreach Committee will serve two primary roles. The first will be to assist the Executive Management Board (EMB) and provide support and direction to the Program Coordination Team in developing strategies designed to encourage the participation of key stakeholders in the TMDL process. The second will be to serve as a forum for CEP staff engaged in public outreach efforts that facilitates strategic planning, information sharing, coordinated dissemination of key messages, and joint development of outreach activities and materials, as appropriate.

To fulfill this mission, key tasks in each area are:

2.5.2.1.1 Key Stakeholder Involvement

- To assist the EMB and provide direction and support to the Program Coordination Team with the development and review of the Public Outreach/Stakeholder Involvement Plan
- To assist the EMB and provide direction and support to the Program Coordination Team in identifying key environmental and industry stakeholders and developing strategies to encourage their open participation in specific TMDL efforts.
- To establish lines of communication with select groups of key stakeholder organizations to vet proposed approaches/activities
- To coordinate with Technical Committee, as needed, to anticipate potential issues related to specific TMDLs and develop strategies for addressing issues with key stakeholders, as needed

2.5.2.1.2 General Public Outreach

- To assist the EMB and provide direction and support to the Program Coordination Team on development of presentations or workshops designed to educate interested members of the general public about the scientific findings of specific TMDLs and regulatory processes related to implementation
- To serve as a clearinghouse of information that develops and disseminates consistent messages regarding TMDL development and implementation
- To help prepare and coordinate dissemination of promotional/educational materials that explain the program's structure and objectives, as well as progress of specific TMDLs
- To provide direction and review the draft Information Management Plan
- To provide direction and review the content, format, and function of the CEP web site and ensure that materials available through the web are also available to those without web access.
- To identify/solicit TMDL-related public outreach or advocacy initiatives from external organizations and assess if and how the CEP could support and/or coordinate with such initiatives.

2.5.2.2 Membership

Membership on the CEP Public Outreach Committee will include a representative from each CEP member organization as well as key staff/contractors responsible for public outreach and/or stakeholder involvement activities who work for CEP member organizations. In addition to understanding the substance of issues, Committee members must commit to engage in professional discourse, prepare adequately for meetings, investigate multiple opinions and explore integrative solutions.

The Committee will also form a task force of committed representatives from Bay-Area environmental, homeowner and industry organizations engaged in water quality and pollution prevention activities that will be kept apprised of the Committee's activities and will be used as a sounding board prior to roll-out of major initiatives.

Possible participants would include but not be limited to:

- Friends of the Estuary, Save-the-Bay and other large membership environmental organizations
- A representative from the environmental justice community or subsistence fishing community
- Other organizations that have a water quality and/or bay and creek stewardship focus
- USEPA
- Regional Air Quality Management Districts

2.5.2.3 Tasks

The key initial tasks for the Public Outreach Committee are as follows:

- To assist the EMB and provide direction and support to the Program Coordination Team on preparation of the Stakeholder Involvement Plan
- To assist the EMB and provide direction and support to the Program Coordination Team to launch Year One stakeholder involvement and public outreach activities
- To assist the EMB and provide direction and support to the Program Coordination Team with the 5 Year Work Plan and introduction of the CEP to the broader Bay-Area community

3.0 CEP Contracting

3.1 Consulting Service Contracting (CSC)

CSC will be implemented, in accordance with the following considerations, in order to perform the purposes of the Memorandum of Understanding (MOU) and provide continuity to CEP activities:

1. CSC shall be in accordance with procedures of the State of California to reflect the regional nature and purposes of the MOU.
2. CSC by the CEP and its Program Coordinator will include a provision to terminate for convenience on 30 days' notice. This provision is based on the nature of CEP's annual budgeting and to ensure conservation and effectiveness of limited resources to address Executive Management Board (EMB) decisions.
3. The CEP does not employ staff. At the direction of the EMB, as a substitute for staff, staff-like functions will be performed by CEP organizations or contracted for long term through CSC in order to provide continuity and professionalism to accomplish the purposes of the MOU. Services performed under this provision shall include day-to-day administrative and technical support and be incorporated into the annual work plan and budget.
4. CSC to provide support for significant individual projects not included in the annual work plan and budget and in excess of \$100,000 shall be open to consideration of all qualified candidates.
5. CSC shall provide diversification to reflect the public constituency of CEP participating agencies.
6. To better support CSC, the CEP will regularly engage in the solicitation and identification of qualified technical firms to perform required technical studies and support services as identified in the annual work plans. Organizations identified as "qualified" to perform work for the CEP shall be pre-qualified for a period of three years.

3.2 Qualified Contractors Roster

The Clean Estuary Partnership (CEP) maintains a Qualified Contactor's Roster (the Roster), from which firms and individuals are selected to provide scientific, analytical and other support services to the CEP's technical, administrative and public outreach programs. The Roster is composed of firms with demonstrated experience and qualifications who have established their superior skills within a specific specialty discipline by participating in a formal evaluation process.

Once on the roster, firms or individuals can be selected to provide specific tasks for the CEP either on a sole-source basis or after some formal or informal RFP or RFQ process to determine which firm or individual is best qualified to perform the required task. Individuals or firms not on the Roster may perform work as a subcontractor to a firm or individual who is listed on the Roster.

In addition to selecting contractors from the Roster, the CEP reserves the right to put any project or task out to open and competitive bid to Roster listed companies and individuals as well as non-Roster listed companies and individuals.

4.0 Appropriating Funds for Technical Projects

For technical projects that require the development of a detailed scope of work, which clearly defines the principal tasks and schedule for the project, the Administrative Committee will recommend to the Executive Management Board (EMB) that they appropriate the requested funding for both the development of the detailed scope of work and implementation of the project as described in the funding request. Such appropriations will be made with the understanding that development of the detailed scope of work will not exceed 10% of the requested funds without a detailed explanation and justification for the additional cost submitted to the Program Coordinator for approval.

The Technical Committee, in conjunction with the Program Coordinator, will be responsible for managing the execution of the project according to the detailed scope of work. The only time the Administrative Committee and EMB will need to reconsider the funding for the project is if additional funds beyond those originally appropriated are required, or if there is a significant change in the task description or focus. The Administrative Committee will be kept apprised regarding the progress of all projects.

5.0 Distribution of CEP Documents

Initial Policy Adopted December 2002:

CEP documents should be distributed to respective Committee members only. Final drafts, when sent to the EMB for adoption or acceptance, become available to the general public. All working draft documents are products in process and should only be shared by workgroup and interested Committee members.

III. Procedures and Guidelines

1.0 General CEP Procedures and Guidelines

1.1. Committee / Work Group Structure and Decision-Making Process

Note: The following draft language has not been approved by the CEP.

Participation within CEP Committees and Work Groups activities may include different tiers of involvement:

1.1.1 Voting Members

Voting members will include representatives of all MOU signatories. Voting members will be responsible for representing the views of their organizations within group discussions and may be responsible for obtaining rapid turn-around on requested Work Group activities. Voting members may choose to identify an alternate representative who will participate in the decision making process in the absence of the identified representative.

1.1.2 Participating Stakeholder

Participating stakeholders can choose the level of involvement they would like to maintain with the Committee / Work Group. They may elect to attend Committee / Work Group meetings to participate in the decision making process regarding specific issues or all issues, participate as observers, or monitor Committee / Work Group activities via the avenues mentioned below that are open to any member of the public.

1.1.3 Other Members of the Public

Others may elect to monitor Committee / Work Group activities without participating in Committee / Work Group decision-making process. This involvement may occur through signing up for automatic document distribution through the CEP Website or by requesting inclusion on the specific Committee or Work Group email distribution list (if applicable).

The voting members and participating stakeholders that make up CEP Committees and Work Groups will strive for a consensus decision-making process. In the event that a consensus decision is unable to be made, the voting members of the Committee / Work Group may take on the decision-making role for the Committee / Work Group, or the Committee or Work Group may elect to refer the decision to a higher CEP authority (e.g., a Technical Work Group may refer an issue to the Technical Committee, the Admin Committee may refer an issue to the Executive Management Board).

1.2 Development and Funding of CEP Projects

In FY 02/03, the CEP developed and adopted a process for identifying and funding technical projects (Figure 1). In spring of each year, the Technical Committee adopts a recommended budget identifying projects to be implemented in the coming fiscal year. Each technical project in this budget is tied closely to a prioritized set of management questions that were developed and reviewed by the Committee and its Work Groups. Each project is briefly described in a standard format that identifies the management question, the expected project deliverables, how those deliverables will address the management question, and an estimated budget. At this phase, the estimated budgets for projects are normally based upon professional judgment of Work Group members or CEP staff, or informal bids received from potential contractors.

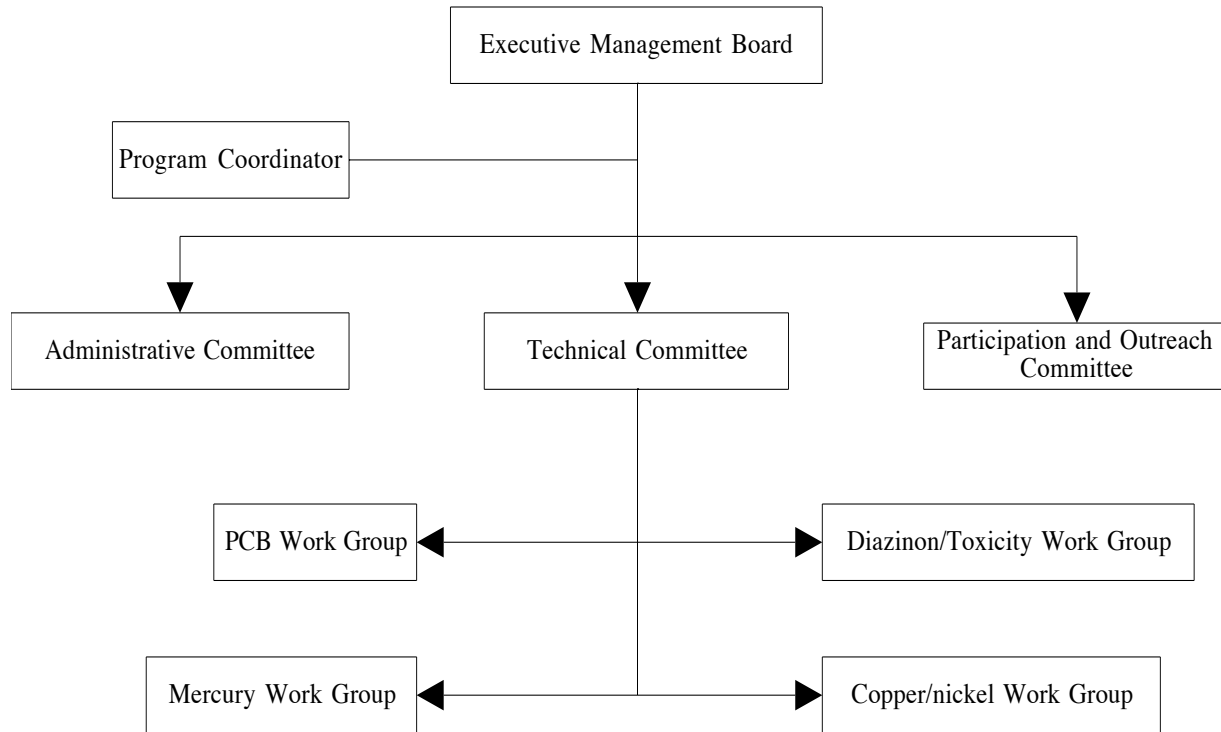


Figure 1 - Organization of the Clean Estuary Partnership

The Administrative Committee integrates the Technical Committee's recommendations with those from the Participation and Outreach Committee to prepare an overall budget for adoption by the Executive Management Board. This budget presents an estimate of revenue for the fiscal year (including carryover from the previous fiscal year), and the estimated expenditures for the CEP by task in each program area (Coordination, Administration, Participation and Outreach, Technical).

While this budget describes how the EMB expects funds to be allocated, it is considered a plan and does not authorize the expenditure of funds. The Administrative Committee makes separate recommendations for each task in each program area, to authorize the expenditure of funds. In the CEP, these are termed *appropriations*. Appropriations can cover the entire fiscal year for a particular task or project, a portion of the year, or only certain tasks within a project.

To appropriate funds for technical projects, the Technical Committee establishes priorities for implementation of the projects identified in the adopted technical budget. For each project, the next step is preparation of a conceptual scope of work that describes the project in some detail, including a statement of work, description of deliverables, and suggested contractors to perform the work. As appropriate, conceptual scopes of work are developed by technical Work Groups or CEP staff. The Technical Committee reviews conceptual scopes of work (Section 2.2.4), revises them as necessary, and approves them for funding. The conceptual scope of work is then forwarded to the Administrative Committee, and it serves as the request for appropriation of funds.

Prior to implementation of the project, a detailed scope of work is prepared (Section 2.2.5). This document expands on the conceptual scope as requested by the Committee, normally including a more detailed budget and schedule of deliverables. This document is typically developed as the first task by the

contractors selected to perform the project, with no more than 10% of the appropriated funds. The Technical Committee reviews and approves the detailed scope of work prior to initiation of the project.

2.0 Individual Committee Procedures and Guidelines

2.1 Executive Management Board (EMB)

2.1.1 Annual Performance Review of Program Coordinator (new text describing EMB directive)

The EMB will conduct a performance review of the Program Coordinator on at least an annual basis. More frequent review can be conducted as deemed appropriate by EMB members.

2.1.2 Production of Coordinator's Report

The Program Coordinator will distribute six days prior to each EMB meeting a report that summarizes the current and planned CEP activities and provides the agenda and associated documentation for the upcoming meeting. The agenda and Coordinator's Report will be made publicly accessible a minimum of 72 hours prior to the EMB meeting.

Note: Guideline to be prepared which reflects EMB actions and approach

2.2 Technical Committee

2.2.1 Technical Work Groups

Note: The following is draft language describing the work group process.

The Technical Committee may elect to establish Technical Work Groups (Work Groups) to address technical uncertainties regarding specific pollutants. In the absence of a Work Group for a specific pollutant, the Technical Committee will serve as the Work Group for that pollutant. Specific activities of Work Group members include identification of management questions, development of conceptual scopes of work for requested tasks, and review of draft products produced by contractors. In some instances contractors may be used to assist with development of these tasks.

Membership on Work Groups can include representation from all MOU signatories plus other key stakeholders. Any member of the public may, at their request, be placed upon the Work Group email distribution list to allow them to participate in any Work Group activities. Work Groups will strive to reach consensus on technical issues. However, when consensus is unable to be achieved, representatives of MOU partners are considered voting members of the Work Groups and will lead the decision-making process. If a Work Group is unable to make a decision on a technical issue, it may request guidance from the Technical Committee through CEP staff.

2.2.2 Reviewing and Managing Unsolicited Proposals

Background

At the 3/5/03 Committee meeting, CEP staff reported that an unsolicited proposal had been received and recommended that a process be developed for consideration of such proposals. This process was reviewed and accepted by the Technical Committee at its May 7, 2003 meeting.

1. If CEP staff or CEP representatives receive an unsolicited technical proposal, they should forward it to the CEP Coordinator and staff supporting the CEP Technical Committee.
2. CEP Program Coordinator/staff should review the proposal, compare its purpose and objectives with CEP technical management questions, and provide the proposal and a brief (1-page) analysis of that comparison to the chair of the appropriate CEP technical Work Group.
3. CEP Coordinator/staff should brief the Technical Committee Chair.
4. The Work Group chair should ensure that the proposal and the management question analysis is considered by the Work Group, and that a response is developed in a timely way.
5. CEP Coordinator/staff should provide the Work Group's response regarding whether the proposal merits further CEP consideration to the proposer and the Technical Committee Chair.
6. If the Work Group response is that the proposal merits further CEP consideration, then it should be entered into the normal project development, review, and approval process on a schedule recommended by the Work Group.
7. If an unsolicited proposal is recommended for funding by the Technical Committee, the Executive Management Board will be notified that the project was unsolicited when it is considered for approval.
8. CEP Coordinator/staff should keep a database of basic information (e.g., title, proposer, date, Work Group, response, and fate) on unsolicited technical proposals.

2.2.3 Peer Review Process

2.2.3.1 Background

Based upon discussions at the 12/8/02 Technical Committee meeting, CEP staff presented a draft of this guideline to the Technical Committee on 1/8/03 as part of a larger Scope of Work for Technical Coordination, Project Management, and Peer Review. The guideline was finalized by the Technical Committee at its May 7, 2003 meeting.

Peer review will be performed on scopes of work and written reports related to CEP technical projects and TMDL project reports prepared by the Water Board. Peer review is an essential component of the technical activities of the CEP, and is tightly integrated into the process of CEP technical project development, implementation, and application of project findings (Figure3). Peer review occurs at different points in the process, depending upon the type of the document being reviewed. Peer review might be "internal," meaning that first or "internal" draft documents are reviewed by various local experts participating on CEP Committees or Work Groups. Peer review also might be "external" to the CEP, in which case documents that have received internal review are revised and delivered to independent scientific experts for critical review (Table 1).

It is envisioned that as part of the CEP four types of documents will require peer review: (1) Detailed project scopes, (2) Sampling and analysis plans, (3) CEP Project reports, and (4) Preliminary and Final TMDL Project Reports produced by the Water Board. While all documents will receive internal peer review through the activities of CEP Work Groups and Committees, it is likely that not all documents will

require external peer review. CEP staff will make recommendations regarding review as part of the quarterly report to the Technical Committee (see below).

2.2.3.2 Internal Review

The goal of the first stage, internal review, is to ensure that the goals and proposed methods presented in scopes, or the facts and interpretations presented in reports are accepted as correct by CEP partners. Internal review is initiated by CEP staff, who distribute a draft document to the appropriate CEP Work Group, along with a deadline for submittal of comments. If an external peer review also is planned, CEP staff also will direct Work Group members to consider focusing questions and qualified reviewers for the next review stage. The CEP pollutant Work Group is the single point of contact for internal review; Work Group representatives of CEP partners will be expected to distribute documents to any additional parties who should read and comment on the draft document, and to collect their comments by the deadline.

Comments are returned to CEP staff, who will collate them and forward them to the project principal. The project principal responds to comments and revises the document accordingly, and returns the responses and revised document to CEP staff. Revised documents are then distributed to the responsible Work Group to verify comments have been adequately addressed. If Work Group comments have been addressed to the satisfaction of the Work Group, then the revised document is presented to the Technical Committee, along with a recommendation to approve the document for either external peer review or immediate posting to the website for public distribution, as appropriate. This completes the internal peer review.

2.2.3.3 External Review

The goal of external peer review is to ensure that the technical interpretations presented in reports (including representation and assessment of uncertainties), or goals and methods presented in scopes, are valid. CEP staff or one of the CEP representatives may

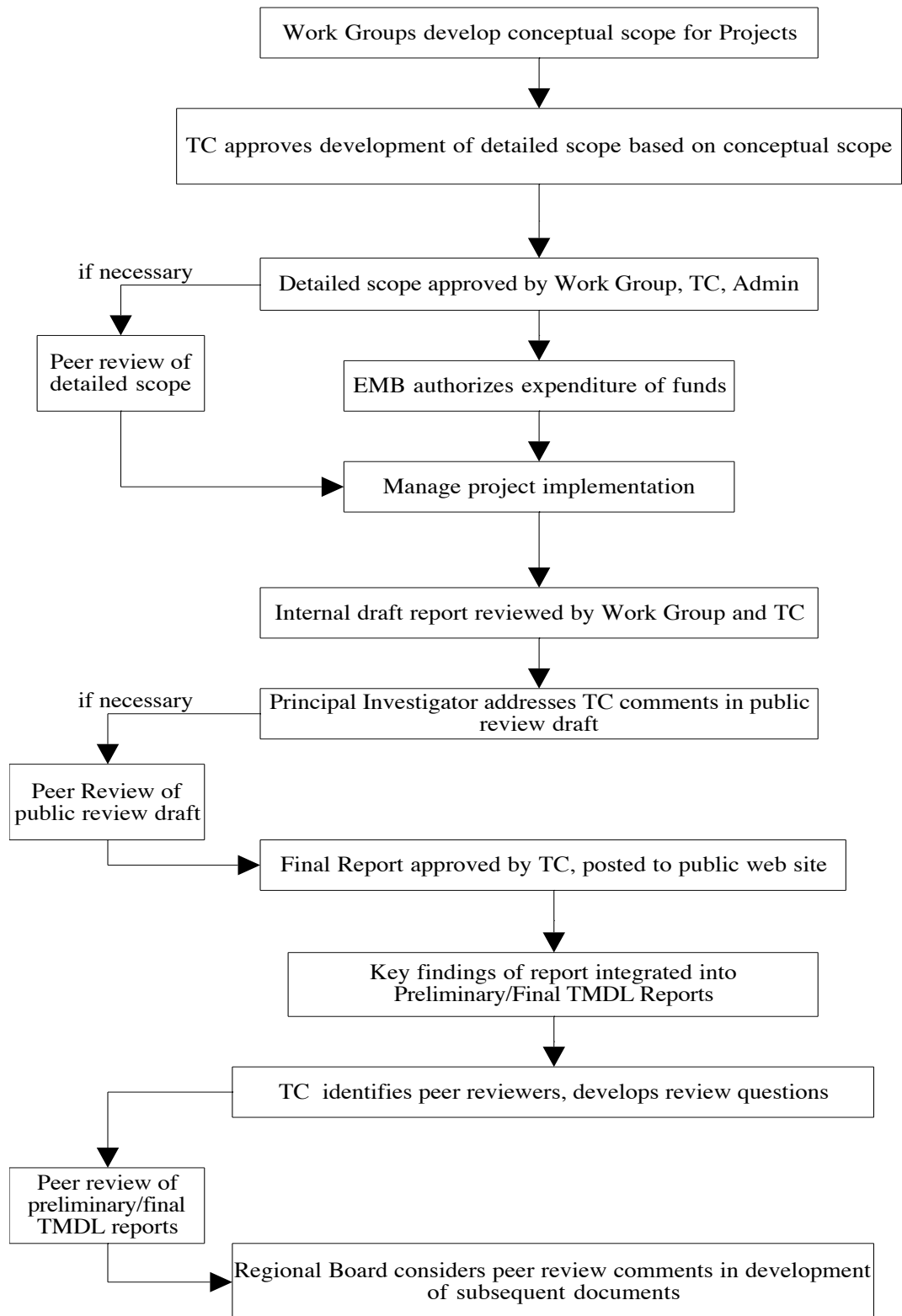


Figure 2 - Relationship of external peer review with the CEP project development process.

Table 1 - Levels of review and peer review activities applied to each type of document.

Peer Review Process	Level of Review Given	
	Internal Review	External Peer Review
Documents Reviewed	Detailed SOWs Sampling and Analysis Plans (SAPs) Project Reports Water Board Technical Reports	Detailed SOWs (perhaps) SAPs (perhaps) Project Reports Water Board Technical Reports
Activities:		
Develop Focusing Questions		X
Select and Coordinate Reviewers		X
Solicit Comments	X	X
Collate & Distribute Comments	X	X
Document Incorporation of Comments	X	X

initiate the call for external peer review. The decision to conduct external peer review will be made via the CEP's decision-making procedures (project scope/plan recommended by the Technical Committee; funding recommended by the Administrative Committee; and approval action by the Executive Management Board).

The call for external peer review must be supported with reason and appropriate justification. Reasons may include, but are not limited to, the following:

1. To help ensure that third parties will accept or support findings and results generated by the CEP that will be used in regulatory actions. Although CEP participants all may agree with findings and results, there is the challenge that third parties may perceive that the results are biased because they were produced with discharger funding. For example, this was one of the reasons for external peer review in the South San Francisco Bay Cu/Ni Project.

2. To help ensure that CEP partners will accept or support findings and results generated by the CEP that will be used in regulatory actions. If the internal review process does not result in consensus or acceptance by all CEP partners, it may be necessary to conduct an external peer review.

3. To help ensure that, when deemed appropriate, selected CEP products used to support regulatory actions incorporate the knowledge and experience of appropriate regional and national experts not associated with the CEP.

In all of these cases the specific findings or results subject to the request for external review should be specified along with a discussion of the reasons and justifications for supporting external review. Suggested focusing questions for the external peer review process should also be provided to the relevant Work Group for their consideration.

Upon approval, external peer review is initiated by CEP staff, which will submit to the technical committee for approval a proposed list of reviewers and focusing questions developed by the Work Group. CEP staff will confirm the availability and interest of proposed reviewers prior to consideration by the technical committee. Upon approval by the technical committee, CEP staff distributes the draft document and focusing questions to the reviewers, and set a deadline for response. CEP staff will collect reviewer comments, transmit them to project principal and the Technical Committee and/or a designated Work Group, and determine whether responses to comments and document revisions are satisfactory in conjunction with the Technical Committee and/or a designated Work Group. The external peer review stage is completed when the technical committee considers and approves CEP staff's recommendation to release the document for public distribution through the website and other media as appropriate. Review of TMDL preliminary and final project reports, produced by Water Board staff, follows the same process as other documents, except that the technical committee does not have the authority to approve or disapprove of project reports produced by the Water Board.

CEP staff will prepare a quarterly report for the Technical Committee's review, revision, and approval. The quarterly reports will summarize the status of CEP products, suggest priorities for peer review, propose peer reviewers, and forecast review schedules. Peer review comments also will be posted to the program management section of the CEP web site so that program participants can track the peer-review process for each project.

In addition to review of documents, external technical support or consultation may be sought to help the CEP clarify key technical uncertainties and the proper methods to address them. For example, the Technical Committee may convene experts in workshop settings to discuss issues important to the CEP. An example of a high priority issue that could be addressed in this manner is the use of numerical modeling in strategy development.

2.2.4 Developing Conceptual Scopes of Work (CSOW)

Conceptual Scopes of Work (CSOWs) may be developed at the request of the Technical Committee, a technical Work Group, or as an unsolicited proposal. CSOWs may be developed by CEP Staff, contractors representatives of the Technical Committee or a Work Group, or other party. CSOWs will be submitted in the format of the following template.

CEP Task #
Task Name

Management Questions

Background

Statement of Work

Activities and Deliverables

Task	Deliverable / Milestone (if applicable)	Submission Date	Task Budget

CEP TC Advocate

Budget Estimate

Estimated Future Funding Needs

Recommended Contractor

Alternate Contractor

References

2.2.5 Developing Detailed Scopes of Work (DSOW)

Detailed Scopes of Work (DSOWs) will be developed at the request of the Technical Committee following approval of a Conceptual Scope of Work (CSOW). DSOWs may be developed by CEP Staff, representatives of the Technical Committee or a technical Work Group, a contractor, or other party (e.g., in the case of an unsolicited proposal). DSOWs may include subtasks to support formal and informal communication with CEP participants and production of a draft, revised, and final work product, where the revised product incorporates comments of the appropriate technical Work Group(s), and the final product incorporates Technical Committee comments. DSOWs will be submitted in the format of the following template.

CEP Task #
Task Name

Management Questions

Background

Objectives

Statement of Work (By Task)

Related Efforts (CEP and non-CEP)

Roles of CEP Partners and Anticipated In-kind Participation

Activities and Deliverables

Task	Deliverable / Milestone (if applicable)	Submission Date	Task Budget (\$)
Communication with CEP Partners			
Total			

CEP TC Advocate

Review and Oversight (Oversight groups and anticipated responsibilities)

Budget

Go / No-Go Decision Points

Recommended Contractor

Alternate Contractor

References

Document preparation and review history

Date – Conceptual SOW approved by (Name) Work Group

Date – Conceptual SOW approved by TC.

2.2.6 Submittal of Monthly Project Progress Reports

Progress Report – Month Year

CEP Task #

Task Name

Contractor Name

1.0 Tasks Completed This Month

2.0 Tasks Planned for Next Month

3.0 Project Schedule

Task	Deliverable / Milestone (if applicable)	Planned Finish Date	Revised Finish Date	Task Budget (\$)	Spent To- date (\$)
Communications with CEP					
Project Mgmt					
Total					

4.0 Issues/Complications

2.2.7 Technical Committee Distribution of Documents

2.2.7.1 Background

When the CEP web site is used to distribute the TC agenda packet, this material goes (as of December 2004) to 139 subscribers (including some out of state). The TC believes it is not appropriate or useful to distribute draft material to such a wide audience. However, the technical products that the CEP produces are going to be most effective when true collaboration exists in their development and execution.

The TC's Work Groups are a key part of document review. Work Groups consist of the technical representatives of CEP partners, CEP staff, and CEP technical contractors. There are currently Work Groups for mercury, PCBs, diazinon/toxicity, and copper/nickel. If no Work Group exists for a project, the Technical Committee acts as a Work Group. The Work Groups are charged with development and refinement of project concepts and scopes of work, and review of draft deliverables. The TC has retained the responsibility for approving detailed scopes of work and accepting project deliverables as final.

Draft documents are first circulated to the appropriate Work Group for comment, and then these comments are delivered with the draft document to the TC for review. In some instances, the TC may decide that external peer review of a document would be valuable, in which case reviewers are sought and the review conducted. Comments are compiled, instructions to the author are prepared if necessary, and the compiled comments are delivered to the author for revision.

There is consensus that the CEP must remain committed to a transparent public process in which all stakeholders have an opportunity to contribute. However, providing any and all individuals access to draft materials whenever requested is unreasonable in terms of staff time and the need to streamline our process. To make our process more effective, products should be distributed gradually so that the most widely distributed materials represent a broadening technical consensus.

2.2.7.2 Distribution of Draft Technical Documents

The TC has therefore decided that draft materials should first be distributed to the Work Groups, TC (including the Environmental Technical Representative), and other reviewers as identified by the TC. A project deliverable will be included in the TC agenda packet for widest distribution when being brought before the TC for acceptance.

Alternatives to the above, such as review by stakeholders who are not regular participants in the CEP, may be considered as part of a project specific document distribution plan approved by the TC. The TC has also authorized the Program Coordinator to distribute draft documents to any stakeholder who requests a copy, when the intent of the request is stated and clear and within the spirit of collaboration and with the understanding that these stakeholders accept the responsibility to review the material promptly and deliver comments to the appropriate group within the CEP. CEP staff will make sure recipients of draft materials are aware of these responsibilities. The typical review process for products produced through CEP Technical Tasks is described in Section 2.2.3.1 Internal Review.

2.3 Administrative Committee

2.3.1 Appropriation of Incidental Funds from Task 4.46 (Technical Studies Contingency Funds) by the Technical committee

The Technical Committee is allowed to appropriate up to \$5,000 from Task 4.46 (Technical Studies Contingency Funds) on projects and tasks without the need to go through the established formal funding approval process from the Administrative Committee and the EMB. These appropriations will undergo a simple consent calendar approval. Any need by the Technical Committee to appropriate funds greater than \$5,000 from these contingency funds will require a formal funding request to the Administrative Committee.

2.3.2 Equipment Inventory Tracking

#	1	2	3
Description			
Manufacturer			
Model #			
Serial Number			
Purchase Cost			
Purchase Date			
Equipment Life			
Project/ Task #			
Contractor Purchasing			
Location of Equipment			
Notes			
#	4	5	6
Description			
Manufacturer			
Model #			
Serial Number			
Purchase Cost			
Purchase Date			
Equipment Life			
Project/ Task #			
Contractor Purchasing			
Location of Equipment			
Notes			
#	7	8	9
Description			
Manufacturer			
Model #			
Serial Number			

Purchase Cost			
Purchase Date			
Equipment Life			
Project/ Task #			
Contractor Purchasing			
Location of Equipment			
Notes			

2.3.3 Annual Administrative Calendar

<i>Month</i>	Technical Committee	Administrative Committee	Executive Management Board
<i>Meeting Date</i>		<i>2nd Monday of each month</i>	<i>4th Monday of each month</i>
July		Start of new fiscal Program year Receive status report on participants financial contributions to the Program	
August			
September		Close Program books for previous fiscal year Receive draft Audit findings	
October		Receive official published audit findings from auditor (October-November)	
November	Adopt technical work plan for next fiscal year		
December	Approve technical work plan for next fiscal year	Receive Technical and Administration Committee's proposed work plans for next fiscal year for consideration	Adopt technical, administrative and public outreach programs for next fiscal year
January		Adopt budget for next fiscal year and send to EMB for consideration Confirm meeting dates for entire year	Approve technical, administrative and public outreach programs for next fiscal year Adopt annual budget and CEP Program Coordinator's contract for next fiscal year
February		Approve annual budget and send annual budget and CEP Program Coordinator's annual contract to EMB for approval	Approve annual budget and CEP Program Coordinator's contract for next fiscal year
March			
April		Mail participant billing's for next fiscal year	
May			
June		Establish available unspent Program monies from completed past year tasks Initiate financial audit of CEP Contracts	

2.3.4 Preparation of Annual Report

An Annual Report will be prepared for each fiscal year that outlines key-events, activities, and decisions of the CEP, that occurred during the previous fiscal year, along with a financial report. This document is intended primarily as a summary source document for the CEP and to assist financial auditors in their annual program audit.

2.4 Participation and Outreach Committee

2.4.1 Establishment of CEP Environmental Technical Representative

2.4.1.1 Background on Environmental Technical Representative Position

The Rose Foundation shall retain an Environmental Technical Representative who shall be responsible for reviewing and providing input on the proposed technical aspects of developing TMDLs in the San Francisco Bay. The representative is responsible for forthrightly communicating to the CEP the environmental/EJ community's perspectives on all technical issues under consideration. Voicing these perspectives is essential to enable meaningful dialogue and full consideration of the issues.

Selection of the consultant shall be coordinated with the San Francisco Baykeeper and the Environmental Justice Coalition for Water (EJCW) with the concurrence of the Clean Estuary Partnership (CEP).

The Rose Foundation shall manage the technical consultant and shall be available to meet with CEP staff, as needed, to discuss the consultant's progress on the tasks described below. The Rose Foundation, the Environmental Technical Representative, the CEP program manager, and the environmental/EJ Community Representative (to be selected by the San Francisco Baykeeper and EJCW) shall meet after 6 months and after 12 months for a performance review to determine the effectiveness of work undertaken pursuant to this Grant. The Rose Foundation shall provide quarterly reports describing the technical consultant's activities to date, and upcoming activities.

The Environmental Technical Representative shall work closely with the Environmental/ EJ Community Representative selected by San Francisco Baykeeper and EJCW.

2.4.1.2 Selection Criteria

The following are the selection criteria for the environmental technical representative:

1. Technical capability in his/her respective scientific discipline with ability to work across disciplines
2. Technical objectivity, as reflected by their willingness/ ability to understand diverse viewpoints
3. Ability to work collaboratively and forthrightly and experience with stakeholder processes
4. Ability to communicate clearly and effectively verbally and in writing
5. Familiarity with contaminants in the environment for example, sources, effects, and/or geochemical cycles
6. Familiarity with water quality regulatory process
7. Familiarity with development and use of conceptual models
8. Ability to convey complex technical concepts to a non-scientific audience
9. Availability
10. Proven track record of meeting deadlines

11. Broad acceptability by all the community interest groups, concurrence of the CEP
12. Ability to communicate effectively with environmental, environmental justice and other community-based organizations

2.4.1.3 Scope of Work

The Environmental Technical Representative's scope of work shall be as follows:

Task 1. Support Development of the Technical Aspects of Bay TMDL Processes and Ensure Technical Understanding of these Processes by Environmental/EJ Community Interest Groups.

- A. Attend and participate in monthly CEP Technical Committee meetings and subcommittee meetings, as appropriate.
- B. Confer at least once a month with the Environmental/EJ Community Representative, either through phone conference or meeting, to provide information about significant technical developments and work products related to Bay Area TMDLs, answer questions about the technical aspects of the TMDL process, identify potential questions/concerns of the Environmental Coordinators, and prioritize upcoming activities.
- C. Participate in additional meetings and discussions, as determined by the Environmental/EJ Community Representative
- D. Review all appropriate technical materials, including proposals, recommendations, and draft and final reports, relating to the following tasks planned for the Bay TMDL processes and related activities:
 1. Development of conceptual models
 2. Assessments of pollutant levels, loadings, and levels of
 3. Recommendations for short and long-term studies
 4. Scopes of work and proposals for Bay TMDL-related analysis
 5. Implementation of short-term studies
 6. Using and enhancing existing 2-D models
 7. Evaluation of potential 3-D models
 8. Model calibration and validation
 9. Model simulations
 10. Preparation of feasibility analysis
 11. Preparation of the recommended TMDL

Task 1 Deliverables (to be submitted to Environmental/EJ Community Representative and CEP Technical Committee)

1. Periodic summary of significant CEP Technical Committee work products and formal recommendations that have been submitted to the CEP on behalf of the environmental/EJ community.
2. Periodic memoranda summarizing the technical review of proposed scopes of work and reports conducted under tasks 1D, including identification of issues of concern.

Task 2. Ensure Dissemination and Provide Coordinated Input to CEP Technical Committee Tasks and Work Products.

- A. Coordinate with the Environmental/EJ Community Representative on the review and analysis of issues pending before the TMDL workgroup.
- B. At the direction of the Environmental/EJ Community Representative assist with development of positions and responses to TMDL technical issues as specified in nos. 1-11 above.

- C. Provide information about significant technical developments and work products related to Bay Area TMDL efforts to community interest groups via quarterly meetings with members of the environmental/environmental justice community.

Task 2 Deliverables:

1. Quarterly presentations to members of the environmental/EJ community.
2. Work with Environmental/EJ Community Representatives to prepare a written response on behalf of the environmental/environmental justice community to be presented at CEP Technical Meetings.