



SECTION 8

POLLUTANTS OF CONCERN CONTROL PROGRAMS

8. POLLUTANTS OF CONCERN CONTROL PROGRAMS WORK PLAN

INTRODUCTION

This section summarizes Program tasks planned for FY 08-09 that are designed to assist Co-permittees in reducing and/or controlling the discharge of pollutants of concern (POCs) in stormwater. Task summaries are included for pesticide toxicity, trash, mercury, polychlorinated biphenyls (PCBs) and copper control programs. Tasks described build upon previously submitted work plans and strategies, and include those that will likely assist Co-permittees in complying with provisions in the Municipal Regional Permit (MRP), which is scheduled for adoption in 2008.

PESTICIDE MANAGEMENT PROGRAM

The Program's approach to pesticide management focuses on source control and pollution prevention. Program BMPs for pesticide management have included significant outreach efforts to residents, businesses, and municipal staff to provide education and achieve behavior changes relative to uses of pesticides and less toxic pest control methods. Outreach efforts have been supplemented by monitoring studies to define the problem; participation in regional monitoring and organizations to address pesticide issues; and development of local pest management plans.

The Program submitted its original Pesticide Management Plan (Pesticide Plan) to the Water Board in 2001. The Pesticide Plan was then revised several times in subsequent fiscal years. The objective of the Pesticide Plan is to control pesticide-related toxicity in urban water bodies in the Santa Clara Valley, by minimizing pesticide use and reducing the amount of pesticides in storm water and landscape runoff to the maximum extent practicable. The Pesticide Plan identifies the goals of each work plan element, actions, monitoring mechanisms and schedules; and indicates whether actions will be implemented at the Program or Co-permittee level. Program-level actions in the Plan form the basis of the Program's Work Plan. The details of municipality actions and schedules are provided in individual Co-permittee pest management plans submitted with the Co-permittees' Annual Reports and future tasks are provided in the Co-permittees' work plans.

FY 08-09 Implementation Tasks

Building on tasks completed in previous fiscal years, the following will be completed by the Program in FY 08-09 during implementation of the SCVURPPP Pesticide Management Plan:

- The Program will continue to assist Co-permittees in developing or revising IPM policies or ordinances as needed, and revising model standard operating procedures (SOPs) for implementing IPM policies or ordinances.
- Program will coordinate with BASMAA and/or other agencies to conduct training for municipal staff as needed.
- Program will assist Co-permittees in developing and/or modifying model contract specifications for municipal contractors as needed.
- Program will participate and track CASQA, BASMAA, and UPC activities, and if requested, submit comment letters on pesticide and water quality related policies in

development by the USEPA and California Department of Pesticide Regulation (DPR).

- Program staff will assist Co-permittees in evaluating the effectiveness of control measures through the assessment of water quality and sediment quality data collected in Santa Clara Valley Creeks and the Bay Area.
- The Program will continue implementing the following outreach tasks:
 - Implement Our Water Our World Store Partnership Program in participating Santa Clara County stores.
 - Provide information on how to hire a structural or landscape pest control operator.
 - Provide information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention.
 - Conduct outreach about the OWOW program.
 - Continue to coordinate with County HHW Program to facilitate appropriate pesticide water disposal, conduct education and outreach, and promote appropriate disposal.
 - Provide IPM training to landscapers through the “Green Gardener” program, if resources are available.

TRASH REDUCTION

On November 14, 2001, the Water Board released the document entitled Proposed Revisions to Section 303(d) List of Priorities for Development of Total Maximum Daily Loads for the San Francisco Bay Region Report. This report stated that “between now and the next 303(d) listing cycle, municipalities will be expected to assess trash impairments in their jurisdiction ...” In a proactive response to the 303(d) Staff Report, the Program’s Management Committee formed a Trash AHTG that developed a Work Plan (submitted March 1, 2003) to identify a strategy for addressing trash problem areas that occur in or near urban streams and waterways of the Santa Clara Basin.

Since FY 03-04, the Program has completed the following Work Plan tasks: 1) Document and evaluate existing trash management practices implemented by municipalities and agencies within the Program’s jurisdiction; 2) Develop a strategy to conduct trash evaluations in or near creeks; 3) Assist municipalities in identifying trash problem areas and sources of trash; 4) Conduct trash evaluations at a subset of identified trash problem areas; 5) Identify and begin to implement or refine existing trash control measures, where feasible, to address trash problem areas; and 6) Develop a standardized reporting format for documenting and evaluating trash management and monitoring activities.

In October 2006, Program staff developed a *Draft Trash Management and Effectiveness Assessment Strategy* (Strategy), which was reviewed by the Trash AHTG. The Strategy includes four main areas of Program activity associated with trash:

- 1) Identifying trash problem areas and sources;
- 2) Selecting and implementing appropriate control measures at high priority problem areas;

- 3) Assessing the effectiveness of control measure implementation; and
- 4) Providing administrative support to the Trash AHTG.

Recent and current activities related to these tasks are briefly summarized below.

Identification of Trash Sources and Pathways

To gain a better understanding of the sources, pathways, extent and effects of trash on urban creeks and waterways within the Santa Clara Basin, the Program developed a summary of its conceptual understanding (“Conceptual Model”) of potential trash sources and pathways to urban creeks. Defining source and pathway categories will assist the Program in:

- Developing consistent terminology for effective communication between Co-permittees, regulatory agencies and other stakeholders;
- Continuing to build its conceptual understanding of trash source types present in watersheds; and how these sources enter creeks and waterways; and,
- Determining the most optimal and cost effective control points to implement control measures.

Source and pathway categories are based on knowledge gained through numerous trash evaluations conducted in Santa Clara County creeks and the Program’s general knowledge of how trash is deposited and transported to local waterways. The Conceptual Model includes an easy-to-read illustration of trash sources and pathways to urban creeks.

Prioritization of Trash Problem Areas

Program staff is currently developing a memorandum that will begin to assist Co-permittees in the identification and prioritization (for future evaluation) of on-land trash problem areas (i.e., source areas) and watersheds based on risks to creeks. This information will be used to inform future control measure implementation at the most problematic areas; and help to identify successful future monitoring and effectiveness assessment methods and sites. The initial memorandum will be completed in 2008.

Pilot Demonstration Projects (Trash Full Capture Devices)

Co-permittees with assistance from Program staff, have launched two (San Jose and Sunnyvale) Pilot Trash Structural Treatment Control Studies (Pilot Studies) in the Santa Clara Valley where approximately 75 StormTek™ “full capture” treatment devices have been purchased and installed within the Cities of San Jose and Sunnyvale. Both studies are designed to answer the following management questions:

- 1) What are the trash loading rates from specific land uses to the stormwater conveyance systems?
- 2) What is percentage of different types of materials (e.g., trash, sediment, leaves, grass) removed by selected treatment devices?
- 3) What is the maintenance frequency needed for proper operation of selected BMPs?
- 4) What are the overall costs of treatment per amount (volume or weight) of trash removed?

Findings to-date from the Pilot Studies will be included in the Program's FY 07-08 Annual Report.

FY 08-09 Implementation Tasks

Building on tasks completed in previous fiscal years, the following will be completed by the Program in FY 08-09 during implementation of the SCVURPPP *Trash Management and Effectiveness Strategy*:

- Program staff will continue to assist Co-permittees in identifying high priority trash loading areas and opportunities where BMPs can be implemented. Task includes GIS-related tasks, modeling, field visits and meetings with individual Co-permittees.
- Program staff will assist Co-permittees in selecting catchments where full capture treatment devices would be best sited, and where enhanced trash treatment controls would be most effectively implemented.
- Program staff will develop guidance on the implementation of enhanced trash management practices and full capture devices.
- Program will provide on-going technical and management support to Co-permittees on issues associated with trash control measures and implementation.

MERCURY AND PCBs CONTROL PROGRAMS

The Program's current NPDES permit states that municipal stormwater discharges may be causing or contributing to exceedances of water quality standards for mercury and PCBs. Both contaminants have been found in relatively high concentrations in some types of fish caught in the Bay and may threaten the health of humans consuming those fish. These concerns prompted the Program to develop ongoing work plans for controlling PCBs and mercury. Brief descriptions of these work plans and summaries of recent tasks are described below. FY 08-09 tasks are also provided.

Mercury Pollution Prevention

In an attempt to reduce the concentration of mercury in fish and wildlife, a total maximum daily load (TMDL) for mercury in the San Francisco Bay has been adopted and approved. Consistent with implementation actions for urban runoff in the TMDL and current permit requirements, the Program continues to revise and implement the SCVURPPP Mercury Pollution Prevention Plan (Mercury Plan). The Mercury Plan includes the goals of each work plan element, actions, monitoring mechanisms and schedules; and, indicates whether actions will be implemented at the Program or Co-permittee level. Program-level actions in the Plan form the basis of the Program's Work Plan. The details of municipality actions and schedules are provided in individual Co-permittee pest management plans submitted with the Co-permittees' Annual Reports and future tasks are provided in the Co-permittees' work plans.

The Mercury Plan addresses five general goals:

- 1) **Municipal Use of Mercury-Containing Products** – Eliminate all unnecessary municipal use of mercury-containing products and establish proper disposal methods for products that cannot be eliminated.

- 2) **Household Hazardous Waste Collection** – Provide mercury-containing product disposal services through household hazardous waste (HHW) collection programs for residents and small businesses, and encourage use of these programs.
- 3) **Monitoring and Science** – Participate in coordinated monitoring efforts to support mercury TMDL development and implementation, including assessment of air pollution sources of mercury and concentrations of mercury in sediment.
- 4) **Regional, State, and Federal Coordination** – Actively participate in regional, state and federal coordination efforts to achieve a reduction in the amount of mercury in urban runoff and air emissions.
- 5) **Public Education and Outreach** – Increase awareness of proper disposal of mercury-containing products and available non-mercury containing alternatives.

Mercury Plan tasks recently completed by the Program include:

- Guidelines for Reduction and Management of Mercury-Containing Products;
- Conducting mercury pollution prevention outreach activities;
- Collecting and analyzing water and sediment samples from selected Santa Clara Valley watersheds as part of its receiving waters monitoring and assessment program. and,
- Financially and technically supporting special studies completed via the Clean Estuary Partnership (CEP) and the RMP.

PCBs Control Program

During the past several years, the Program has annually described tasks our work plans to reduce PCBs in urban runoff. These tasks included:

- Leading a regional study, referred to as the Joint Stormwater Agency Project (JSAP), which characterized the distribution of mercury, PCBs and chlorinated pesticides in storm water conveyance sediments in Bay Area watersheds.
- Funding BASMAA, the Clean Estuary Partnership (CEP), and the San Francisco Estuary Regional Monitoring Program (RMP).
- Participating in selected stakeholder, BASMAA, CEP and RMP committees and work groups.
- Collecting and analyzing water and sediment samples from selected Santa Clara Valley watersheds as part of its receiving waters monitoring and assessment program.
- Performing PCBs case study work with the City of San Jose in six urban areas in where elevated concentrations of PCBs were found during the JSAP study.
- Developing guidance documents on performing PCBs case studies to assist other Bay Area storm water agencies.
- Preparing a preliminary list of known sites where PCBs were used, stored and/or released in Santa Clara County.

- Completing a review of efforts to develop methods of controlling discharges of PCBs from Bay Area urban runoff conveyances.

FY 08-09 Implementation Tasks

Building on tasks completed in previous fiscal years, the following will be completed by the Program in FY 08-09 during implementation of the SCVURPPP Mercury and PCBs Control Programs. Many of these tasks are regional in scope and may likely be coordinated through a Regional Monitoring Collaborative (RMC). As the RMC is better defined, more detailed work plans will likely be developed to better define tasks, deliverables and schedules for completion.

Mercury and PCBs

- Program will develop (likely thorough a regional project) training materials for industrial inspections and incorporate into training work shops for industrial inspectors conducted by the Program.
- Program plans to identify and begin conducting pilot projects in drainage area(s) with elevated concentration of PCBs and/or mercury. Pilot projects will likely include:
 - Identifying potential PCB/Hg source areas and areas where PCB/Hg contaminated sediment accumulates;
 - Ranking and mapping potential PCB/Hg source areas within each drainage; and
 - Conducting sampling and analysis in selected drainage areas as needed to identify more specific source areas and potential BMPs.
- Program plans to begin conducting (likely through participation in a regional project) a study to evaluate the cost-effectiveness of high-efficiency street sweepers in reducing pollutant loads and developing recommendations for follow-up studies.
- Program plans to begin conducting (likely through participation in a regional project) a study to evaluate the feasibility and potential effectiveness of implementing on-site stormwater treatment through retrofits.
- Program plans to begin conducting (likely through participation in a regional project) a study to evaluate the feasibility and potential effectiveness of diverting dry weather and/or first flush flows to public owned treatment works (POTWs).
- Program plans to continue participating (likely through regional project) in a risk reduction program implemented throughout the region.
- Program will assist in developing (likely a regional study through BASMAA) methods for calculating mercury prevented from entering the San Francisco Bay through Co-permittee implementation of pollution prevention, and source and treatment controls.

PCBs

- Program plans to provide a staff person to represent BASMAA in PCBs portion of Proposition 50-funded Taking Action for Clean Water project, which is designed to assist Co-permittees in evaluating ways to manage PCB-containing wastes/materials during building demolition and renovations.

COPPER CONTROL PROGRAM

In FY 05-06, Program staff, in consultation with Water Board staff, decided that the SCBWMI Bay Modeling and Monitoring (BMM) Subgroup did not need to conduct semi-annual reviews of the Copper Action Plan (CAP) due to the pending related activities of the Clean Estuary Partnership (CEP) and Water Board regarding the Municipal Regional Permit (MRP). In addition, the Basin Plan Amendment adopting the North of Dumbarton Bridge Copper site-specific water quality objectives (SSOs) and translators, and the Bay-wide Copper Management Strategy (CMS) was approved by the Water Board in June 2007. The Bay-wide CMS is intended to replace the language that was adopted in the Basin Plan in 2002 as part of the South San Francisco Bay copper and nickel SSO project. The copper control measures and monitoring program has a Bay-wide scope. Therefore, the majority of existing Basin Plan language pertaining to the implementation of copper and nickel objectives in South San Francisco Bay will be replaced by the CMS.

FY 08-09 Implementation Tasks

Building on tasks completed in previous fiscal years, the following tasks, which are consistent with the requirements in the CMS, will be completed by the Program in FY 08-09.

- The Program plans to continue assisting Co-permittees in establishing local ordinance authority to prohibit discharges from copper architectural features and pools/spas, and developing/revising BMPs.
- Program will assist Co-permittees in updating (likely through a regional project) training materials for industrial inspections to identify facilities which may use and discharge copper, and incorporate into training workshops for industrial inspectors conducted by the Program.
- Program plans to discuss the need to begin developing/conducting a study (likely through a regional project) to assess copper-related sediment toxicity in the San Francisco Bay and sub-lethal effects of copper on salmonids.