

## **8. POLLUTANTS OF CONCERN CONTROL PROGRAMS WORK PLAN**

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### **INTRODUCTION**

This section summarizes Program tasks planned for FY 09-10 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 2009.

### **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' Work Plans and Annual Reports.

#### FY 09-10 Implementation Tasks

The Diazinon TMDL and Pesticide Toxicity Water Quality Attainment Strategy for Urban Creeks in the San Francisco Bay Area establishes minimal implementation requirements for Bay area stormwater programs, including SCVURPPP, and the proposed MRP further defines these requirements. In an effort to meet these requirements, and well as implement ongoing tasks in the Pesticide Plan, the Program intends to conduct the following tasks::

- Survey and review existing Co-permittee IPM policies/ordinances and develop suggested improvements, as needed, along with modifications to written standard operating procedure for pesticide use for implementation of the IPM ordinance/policies, as needed;.
- Coordinate with BASMAA and/or other agencies to conduct training for municipal staff as needed.
- Track the California Department of Pesticide Regulation (DPR) pesticide evaluation activities as they relate to surface water quality and, when necessary, encourage

DPR to coordinate implementation of the California Food and Agriculture Code with California Water Code and to accommodate water quality concerns within its pesticide evaluation process.

- Support, participate in, and track CASQA's Pesticide Subcommittee, BASMAA, and UPC activities and develop letters of support to USEPA and California DPR on re-registration, reevaluation and other actions relating to pesticides of concern for water quality..
- 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.
- Continue implementing the following outreach tasks (see Section 6 for more detail):
  - Implement Our Water Our World Store Partnership Program in participating Santa Clara County stores.
  - Provide information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest control.
  - Continue to coordinate with County HHW Program to conduct outreach about and promote appropriate disposal of pesticides.
  - Provide IPM training to landscape maintenance workers through the "Santa Clara Valley Green Gardener Program".

## 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.

#### Pilot Demonstration Projects (Trash Full Capture Devices)

Co-permittees, with assistance from Program staff, have launched two Pilot Trash Structural Treatment Control Studies (Pilot Studies) within the Cities of San Jose and Sunnyvale. Both studies, which involve the purchase and installation of approximately 95 StormTek™ “full capture” treatment devices within catch basins in both Cities, 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 08-09 Annual Report.

#### FY 09-10 Implementation Tasks

As described by Water Board staff and presented in the draft MRP (12/14/07 version), trash assessment and management should be considered a high priority in FY 09-10. Based on recent discussions with Water Board staff, MRP requirements are likely to fall into two broad

categories: 1) identification, cleanup and assessments of trash hotspots; and, 2) installation of trash full capture treatment devices to effectively treat a minimum land area. The Program intends to conduct the following tasks:

- Identify Trash Hotspots and Dominate Pathways - The MRP will likely require each Co-permittee to identify a minimum number of “in-creek” trash hotspots that will be the focus of required future trash cleanups and assessments. In coordination with Co-permittee staff, Program staff intend to select trash hotspots and identify dominate pathways of trash to these sites, which will help direct effective management activities. This task will include the analysis of existing data and may involve some additional field work to identify and verify appropriate hotspots and pathways.
- Conduct On-going Trash Assessments - Based on discussion with Water Board staff, it is assumed that at least one trash assessment per year will be required at each trash hotspot. Therefore, the Program intends to conduct trash assessments at selected hotspots, develop quality assurance plans, manage trash data, and develop an initial technical report on the condition and trends of trash at selected hotspots.
- Identify and Prioritize Trash Full Capture Treatment Areas - It is assumed that a majority of Co-permittees will be required to implement trash full capture devices during the term of the MRP. As a first step to identifying the most optimal and feasible locations to implement trash full capture devices, Program staff will assist and guide applicable Co-permittees by analyzing existing information and prioritizing land areas based on information such as estimated trash loading rates, site specific features and feasibility. Program staff will coordinate this task with direct input from Co-permittees via the Trash AHTG.
- Develop a Pilot Watershed Management and Assessment Plan for Trash - Throughout discussions with Co-permittees on the proposed MRP Trash requirements, the concept of utilizing a “watershed approach” to managing and assessing trash impacts on creeks was consistently supported. As a follow-up to trash source and pathway analyses conducted in FY 08/09 and proposed for FY 09/10, the Program intends to develop Pilot Watershed Management and Assessment Plans (and guidance) for Trash in two watersheds (i.e., one within San Jose, such as Coyote Creek, and Stevens Creek). To the extent possible, these watershed-based trash plans will identify trash hotspots, sources and pathways of trash to the creek, recommended management activities to reduce trash, and key stakeholders and participants, as well as develop a robust trash assessment strategy aimed at tracking and evaluating effectiveness over time. These pilot watershed plans will serve as models and guidance for all Co-permittees to use in other watersheds in the Santa Clara Basin. (The Program will seek input from the county-wide trash work group and incorporate such input, where appropriate, to help guide future county-wide efforts.)

## 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.

### 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 mercury pollution prevention plans submitted with the Co-permittees' Work Plans and Annual Reports.

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;
- Mercury pollution prevention outreach activities (see Section 6);
- Collection and analysis of water and sediment samples from selected Santa Clara Valley watersheds as part of the Program's receiving waters monitoring and assessment program; and
- Financial and technical support of 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 in its work plans to characterize PCBs in urban runoff and develop methods to reduce their discharge. 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.
- Providing funding to 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 the Program's receiving waters monitoring and assessment program.
- Performing PCBs case study work within the City of San Jose in urban areas where elevated concentrations of PCBs were found during the above-described 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 storm water conveyances.
- Representing BASMAA during the Taking Action for Clean Water Proposition 50 project. This project is partnering with BASMAA and its member cities to develop Bay Area-specific Best Management Practices to prevent release of PCBs from building materials into urban runoff during renovation, maintenance and demolition of structures.
- Representing BASMAA's interests during development of the San Francisco Bay PCBs TMDL, including reviewing the latest revisions of the staff report and Basin Plan Amendment, assisting BASMAA to prepare comments, working with Regional Water Board staff to revise these documents, and testifying on behalf of BASMAA at Regional Water Board hearings on the PCBs TMDL.

#### FY 09-10 Implementation Tasks

Building on tasks completed in previous fiscal years, the following will be completed by the Program in FY 09-10 during implementation of the SCVURPPP Mercury and PCBs Control Programs. Many of these tasks are regional in scope and will likely be coordinated and implemented through a Regional Monitoring Collaborative (RMC) that will include the Program and other BASMAA agencies. As the RMC and MRP requirements are better defined, more detailed work plans will likely be developed to better define levels of regional collaboration, tasks, deliverables and schedules for completion.

- *Develop training materials and train municipal inspection staff to identify PCBs and PCB-containing equipment* - The Program intends to work with BASMAA agencies on developing training materials and conducting training workshops for municipal staff on how to identify PCBs and PCB-containing equipment during routine commercial/industrial facility inspections.

- Evaluate PCBs Management Opportunities during Building/Structure Demolition and Renovation Activities - Program staff intends to continue to provide in-kind support to the above-mentioned Taking Action for Clean Water Proposition 50 project that is intended to characterize PCBs in building materials and (if needed) develop BMPs that can be reasonably implemented by Co-permittees in the future.
- Conduct Pilot Projects to Investigate Mercury and PCBs Sources in High Priority Drainages - In FY 09-10, Program staff intends to identify and prioritize drainages for pilot projects. Proposed activities included in this task are: 1) interviewing municipal staff and reviewing municipal databases, other agency files, and available information to identify potential PCBs source areas and areas where PCB-contaminated sediment accumulates, including within stormwater conveyances; 2) Qualitatively ranking and mapping potential PCBs source areas within the pilot project drainage(s); and, 3) Conducting surveys of the drainage(s) and collecting information concerning past or current use of PCBs to further identify potential source areas and determine whether runoff from such locations is likely to convey soils/sediments with PCBs to municipal stormwater conveyances. These efforts will be driven by identifying PCBs source areas, but investigation of mercury (Provision C.11.c.) shall be included where appropriate.
- Conduct Pilot Projects to Evaluate Enhanced Sediment Management - Program staff intend to evaluate ways to enhance sediment management practices and the effectiveness of high efficiency street sweepers for PCBs and mercury removal. This task will likely be conducted in collaboration with BASMAA.
- Conduct Pilot Projects to Evaluate Dry Weather Diversion Feasibility - Program staff intends to select potential locations where diversions of dry weather flows to sanitary sewers would appear to have the highest potential to be most beneficial for PCBs and mercury removal (possibly other POCs as well). Program staff intends to work with local POTWs on a watershed, Program, or regional level on the feasibility of diverting such flows. The feasibility analysis shall include, but not be limited to, costs, benefits, and impacts on the stormwater and wastewater agencies and the receiving waters relevant to the diversion and treatment of the dry weather flows.
- Develop a Risk Reduction Work Plan - Program staff intends to participate in a regional project to manage human health risks from PCBs in Bay fish consumed by humans. In FY 09-10, as an initial step, Program staff (likely in collaboration with BASMAA) will submit a work plan that defines information needs and describes the studies to be performed with a schedule. This work effort will be coordinated with the Program's public education and outreach efforts (see Section 6).
- Develop a Mercury and PCBs Fate and Transport Studies Work Plan - As required by the Mercury and PCBs TMDLs, Program staff, working with Co-permittees, intends to develop a pollutant fate and transport studies work plan, focused on PCBs and mercury. This task will need to be completed at the regional level, in coordination with BASMAA.
- Develop a Loads-Avoided Formula for PCBs and Mercury - As required by the Mercury and PCBs TMDLs, Program staff, working with Co-permittees, intend to develop a loads-avoided calculation methodology that is intended to assess progress towards waste load allocations included in the TMDLs. This task will need to be completed at the regional level, in coordination with BASMAA.

## COPPER CONTROL PROGRAM

In FY 05-06, Program staff, in consultation with Water Board staff, decided that the SCBWM 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.

The Bay-wide CMS establishes minimal implementation requirements for Bay area stormwater programs, including SCVURPPP, and the proposed MRP further defines these requirements.

### FY 09-10 Implementation Tasks

The Program will implement the following tasks for copper control in FY 09-10:

- Continue to track and participate in the Brake Pad Partnership efforts for developing state legislation; and
- Investigate the need for and alternatives to model ordinances prohibiting copper architectural features and identify appropriate BMPs to minimize copper discharges from these sources (in coordination with BASMAA).