

**EFFECTIVELY INTEGRATING URBAN RUNOFF MANAGEMENT
AND WATERSHED MANAGEMENT:**

**THE SANTA CLARA VALLEY URBAN RUNOFF PROGRAM AND
THE SANTA CLARA BASIN WATERSHED MANAGEMENT INITIATIVE**

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Introduction

The Santa Clara Valley Urban Runoff Pollution Prevention Program (“Program”) is an association of 13 cities and towns in Santa Clara Valley, the County of Santa Clara, and the Santa Clara Valley Water District (“Co-permittees”) that share a common permit to discharge stormwater to South San Francisco Bay. The Program is organized, coordinated, and implemented based on a Memorandum of Agreement (MOA) signed by the Co-permittees in 1990 and 1999. The Regional Water Quality Control Board (Regional Board) issued the Program its first NPDES permit in 1990, and reissued the permit in 1995 and 2001.

The Program’s goals, objectives and tasks are described in its 1997 *Urban Runoff Management Plan* (URMP). The URMP consists of an area-wide plan and individual Co-permittee plans describing what the 15 Co-permittees will do, collectively and individually, to reduce urban runoff pollution. The URMP contains performance standards for illicit connections/illegal dumping elimination, industrial/commercial discharge control, streets operation and maintenance (O&M), storm drain O&M, water utility O&M, new development planning procedures, and construction inspection that are implemented by the Co-permittees. In addition, the URMP presents a framework for Program area-wide and Co-permittee-specific Public Information/Participation (PI/P) activities, and the Program’s approach to monitoring and watershed management measures.

The Program is a stakeholder and active participant in the Santa Clara Basin Watershed Management Initiative (SCBWMI). This presentation describes how the Program is working through the SCBWMI to integrate its urban runoff management goals and actions with a watershed management process. This approach is one that can be applied in other watersheds in which a municipal stormwater management program is operating and is a key stakeholder.

Vision for a Watershed Management Approach

The requirement to investigate, consider, and implement watershed management measures first appeared in the Program’s 1995 NPDES permit and is also a requirement of the Program’s current NPDES permit. As part of its application for the current permit, the Program developed a “Watersheds 2000 Vision” (December 1999) that outlines the principles and approaches that the Program and its Co-permittees will use to support better management of the Santa Clara Basin through the implementation of urban runoff control measures. The vision statement also defines the relationship between and the roles of the Program and the SCBWMI in this context.

The Program’s approach for supporting watershed management and the SCBWMI is based on the following principles:

- ◆ The goal of the Program and its Co-permittees is to maintain water quality and protect the beneficial uses of the waterbodies in the Santa Clara Basin through the implementation of control measures to the maximum extent practicable.
- ◆ Successful watershed management must be a community-wide, stakeholder-driven effort that includes regulatory agencies, the business community, environmental advocates, and local government.
- ◆ The Co-permittees recognize it can be difficult to separate many urban runoff “issues” from the general impacts of urbanization resulting from the cumulative effects of land development.
- ◆ The Co-permittees understand that municipal agency activities have the potential to impact water quality and beneficial uses; conversely such activities can create opportunities to improve water quality and enhance aquatic resources.

Given those principles, the Co-permittees envision the roles of the Program and that of the SCBWMI as follows:

- ◆ The Program’s activities pursuant to the NPDES permit assist Co-permittees and other local agencies to incorporate appropriate watershed management recommendations into their decision-making and specific watershed protection approaches into their day-to-day operations.
- ◆ The SCBWMI, as a stakeholder process, provides the tools to identify community goals and issues, and facilitates the development of common ground between stakeholders to recommend to policy-makers the actions needed to better manage watershed resources.

The Program seeks to create an avenue by which the SCBWMI’s broad stakeholder goals and objectives can be incorporated into the daily operations of the Co-permittees. The Co-permittees will strive to apply their resources and powers to preserve and enhance the watershed. To do this most effectively, the Program and Co-permittees need to translate SCBWMI stakeholder recommendations into specific actions that are reasonable, practical, and that can be incorporated into their missions and services. In addition, the Program will work with Regional Board staff to apply a regulatory strategy that allows Co-permittees to find ways to coordinate with other agencies within a specific watershed — to protect and enhance beneficial uses.

Continuous Improvement Process

An important feature of a mature Phase I municipal stormwater management program like the Santa Clara Valley Program is a process for continuous improvement. As shown in the attached figure from the Program’s 1997 URMP, continuous improvement is implemented through two feedback “loops.” The loop on the left emphasizes programmatic measures to gage the performance of the Co-permittees and the overall Program (and includes participation in regional efforts such as the San Francisco Bay Regional Monitoring Program for Trace Substances). The loop on the right emphasizes watershed assessment and management conducted jointly with other stakeholders in the SCBWMI¹.

¹ The continuous improvement process concept was developed as part of the Program’s 1997 Urban Runoff Management Plan to more effectively integrate urban runoff and watershed management.

This two-pronged approach facilitates the Regional Board's responsibility for fairly measuring regulatory compliance while encouraging a watershed management approach. The continuous improvement process has been utilized by the Program over the past five years to successfully integrate programmatic monitoring indicators, which provide the best basis for measuring permit compliance, with watershed management measures (including environmental monitoring), which provides the best context for considering the effects of stormwater runoff on the environment and measures to improve the health of the watershed.

Stakeholder Involvement & Input

A significant factor in the success of the continuous improvement program has been the active involvement of and input from the Program and Co-permittees in the Santa Clara Basin Watershed Management Initiative. For example, the Program had a major role in preparing the Watershed Characteristics Report, the lead role in conducting the assessment of Coyote Watershed, a continuing leadership role in the Land Use Subgroup as well as the Bay Monitoring and Modeling and Regulatory Subgroups, and continued support of the SCBWMI Core Group efforts. A number of individual Co-permittees, including the Santa Clara Valley Water District and the Cities of San Jose, Sunnyvale, and Palo Alto, have provided and continue to provide leadership and resources to the success of the WMI.

As the Program and SCBWMI move forward towards completing ongoing assessments, initiating new assessments, identifying impediments to maintaining and improving water quality, and identifying actions to improve water quality, the continuous improvement process and input from stakeholders will become even more important to shape the actions and priorities for the future. As illustrated in attached figure, the most advantageous time to provide effective input to the Program and Co-permittees is through the review of their Annual Reports, submitted to the Regional Board on September 15 of each year. Timely comments on these reports allows work plans and budgets for future fiscal years to include recommended improvements. The Program and Co-permittees continued involvement in the SCBWMI will also generate new ideas and avenues for effective integration² of urban runoff management into the overall management of the Santa Clara Basin watersheds. The SCBWMI's Watershed Action Plan (under development) will help document how the Program's current activities benefit watershed management and identify future actions that are appropriate for the Program to fund and/or implement.

Watershed Education and Outreach

Background

The goals of the Public Information and Participation (PI/P) Element of the Program's 1997 Urban Runoff Management Plan are to:

- Increase the understanding and appreciation of streams and the Bay, leading to a change in values.
- Change specific behaviors which adversely affect water quality.

For the past ten years, the Program and the Co-permittees have conducted extensive regional and local PI/P efforts focused on increased understanding of urban runoff, storm drain systems and their connection to creeks and the Bay, and the impacts of certain behaviors on water

² See the Program's report entitled "Watershed Management and Urban Runoff Management Integration Report -- Permit Provision C.10.", June 29, 2001 for further discussion.

quality. Recent years' efforts have expanded from general outreach to include targeted outreach (pollution prevention messages targeting a specific audience), outreach through educational institutions, and citizen participation.

The vision of the Program's role in watershed management includes a new strategy for watershed education and outreach. Citizens that are educated about the interconnectedness of the natural resources of their watershed and the impacts of their behaviors within their watershed will be more motivated to change their behaviors to protect the watershed and participate in watershed stewardship.

Watershed Education and Outreach Strategy

In FY 98-99, the Program funded development of a watershed education and outreach strategy that is consistent with the Program's goals and the outreach efforts of the SCBWMI. As part of the strategy's development, a baseline survey was conducted to determine the general public's level of awareness of watershed issues. The results of the survey indicated that residents have very little understanding of the basic facts about what watersheds are, how water flows through the Santa Clara Basin, and how individual behavior impacts pollution in the Basin. The survey also helped identify the target audiences, the most effective messages, and the best types of media for communication.

During FY 99-00, the strategy was finalized and approved by both the Program Management Committee and the SCBWMI Core Group. The goals of the strategy are to:

1. Educate residents about the Santa Clara Basin and its watersheds and how to protect them.
2. Promote public involvement in watershed stewardship.
3. Change behaviors that negatively impact watersheds.

The strategy contains specific measurable objectives and key messages for reaching the target audiences. The primary audiences include Santa Clara Basin adults, school children, and underserved (primarily Spanish-speaking) communities, with secondary audiences being community leaders and businesses.

The core strategy consists of implementation of a 3-4 year coordinated watershed outreach campaign beginning FY 00-01. In approximately FY 04-05, a post-campaign awareness survey will be conducted to assess any changes in public awareness and/or behavior as a result of the campaign and guide future outreach efforts by the Program and Co-permittees.

The Watershed Watch Campaign

After a year of planning, development of materials, and establishing partnerships with local media, the "Watershed Watch" Campaign was launched. Elements of the campaign include:

- A Watershed Watch kit, including an educational brochure, watershed stewardship pledge card and discount card;
- Radio and television advertising in English and Spanish languages using a number of media organizations;
- Development of three TV advertisements and a Watershed Watch song (using donated services of media partners KNTV and KBWB and KBWB's entertainers Lori & RJ);

- A school outreach program that includes performances by the entertainment troupe ZunZun of a show with watershed education messages at school assemblies;
- A website (www.watershedwatch.net) with numerous pages of information and links and an information hotline (1-866-WATERSHED);
- Participation in a variety of local events, including home and garden shows, auto shows, and Earth Day and creek cleanup events;
- Partnerships with many local and regional organizations including:
 - The Don Edwards San Francisco Bay National Wildlife Refuge
 - Paramount's Great America Amusement Park
 - Happy Hollow Zoo
 - Western Car Wash Association
 - Keep America Beautiful
 - Creek Connection Action Group

The watershed messages are beginning to spread. To date, over 3,500 English and 1,100 Spanish kits have been distributed, and the website is receiving an average of 90 hits per day. Media partners have provided nearly \$40,000 worth of bonus (free) advertising spots, and thousands of magnets for children with simple pollution prevention steps will be distributed.

The Watershed Watch Campaign further bridges the activities of the Program to the goals and objectives of the SCBWMI. The products and action plans of the SCBWMI will be better understood, more readily accepted, and more willingly implemented by a public knowledgeable about watersheds.