

Attachment 4-3



Santa Clara Valley
Urban Runoff
Pollution Prevention Program

MONITORING PROJECT SUMMARY

*Watershed Monitoring &
Assessment Summary and Water
Body/Watershed Characterization*

Purpose: To analyze data collected during implementation of the Program's FY 05-06 Annual Monitoring Program Plan, summarize results and recommend next steps regarding data collection and watershed management; and to characterize watersheds and associated water bodies that are scheduled to be monitored in FY 07-08, according to the Program's Multi-Year Receiving Waters Monitoring Plan.

Background: Since FY 02-03, the Program has developed and implemented Annual Monitoring Program Plans (Annual Plans) in fulfillment of Provision C.7 of its NPDES Permit. The Annual Plans identify monitoring activities that are implemented each year as part of the Program's Revised Multi-Year Receiving Waters Monitoring Plan (Revised Multi-Year Plan). Annual Plans have previously been implemented in the Lower Penitencia and Coyote Creek watersheds (FY 02-03); San Tomas and Adobe Creek watersheds (FY 03-04 and FY 04-05); Matadero/Barron Creeks, Calabazas Creek and Sunnyvale Channel watersheds (FY 04-05 and FY 05-06); and Stevens and Permanente Creeks (FY 05-06).

In accordance with Provision C.10 (b), the Program annually develops a Watershed Monitoring and Assessment Summary Report (Summary Assessment Report) that summarizes the results and analyses of baseline data collected during the implementation of the Program's Annual Plans. These data are generated through ambient surface water quality monitoring; physical habitat assessment studies and bioassessment studies. The Summary Assessment Reports provide information on possible beneficial use impacts to the extent possible (based on the study design and available data) and suggests next steps for monitoring/assessments and developing strategies to control potential impacts. In September 2005, the Program developed a Summary Assessment Report for monitoring activities that occurred during FY 04-05 in the San Tomas, Adobe, Calabazas and Matadero/Barron Creek watersheds and Sunnyvale East and West Channels.

In FY 06-07, the Program will summarize and analyze data collected during FY 06-07 in the Stevens, Permanente, Calabazas and Matadero/Barron Creek watersheds and Sunnyvale East and West Channels. In addition, the Program will conduct a brief characterization of Adobe and/or Matadero/Barron Creek watersheds, which have been identified in the Multi-Year Plan as water bodies the Program will monitor in FY 07-08. Watershed characterization will consist of compilation of existing data sources and a stream survey to understand the physical and biological attributes of these water bodies and watersheds. The characteristics may include the geologic and geomorphic setting, vegetation, land uses and associated water quality issues, status of biological communities and relevant beneficial uses that occur in each watershed. These data sources will be used to identify appropriate monitoring parameters and locations for implementation of the Program's FY 07-08 Annual Plan.

Scope Summary:

1. Analyze data collected in Stevens, Permanente, Calabazas and Matadero/Barron Creek watersheds and Sunnyvale East and West Channels as part of the FY 05-06 Annual Monitoring Program Plan and summarize results.
2. Compile and collect information to characterize the general physical and biological attributes of Adobe and/or Matadero/Barron Creek watersheds.

Products: Technical Memorandum (Watershed Characterization); Technical Report (Watershed Monitoring and Assessment Summary)

Schedule: July 2006 – June 2007

Program Staff: Chris Sommers, Paul Randall, Lucy Buchan



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MONITORING PROJECT SUMMARY

*Watershed Analysis (i.e.,
Sediment Assessment) in Coyote
Creek Watershed*

Purpose: To conduct watershed analyses by: 1) initiating a rapid sediment budget in Upper Penitencia Creek if results of the limiting factors analysis warrant further investigation of sediment sources in the watershed; 2) beginning to conduct a limiting factors analysis (or similar method) and sediment management practice assessment in Coyote Creek to determine if the watershed is impaired by sediment production from erosion due to anthropogenic activities; and, 3) initiating planning, development and implementation of a pilot monitoring approach in Coyote Creek designed to begin assessing the effectiveness of hydromodification management plan (HMP) controls.

Background: In fulfillment of SCVURPPP NPDES Permit Order No. 01-024 Provision C.9.f.iii paragraph two, the Program submitted a sediment assessment work plan to RWQCB staff on August 30, 2002. The sediment assessment work plan contains two separate phases. Phase I includes conducting a Limiting Factors Analysis (LFA) and sediment management practices assessment. Phase II includes conducting a rapid sediment budget, which will only be conducted when the Phase I study results indicate that excessive sediment from anthropogenic sources is impairing beneficial uses in the watershed. In FY 03-04, Phase I was implemented in the Stevens Creek watershed. Based on results of the LFA, the Watershed Analysis AHTG recommended that Phase II was not warranted in the Stevens Creek watershed. The Upper Penitencia Creek watershed was identified as the next high priority watershed for a sediment assessment. As a result, a LFA was initiated in this watershed in November 2004. During FY 05-06, Program staff will conduct a sediment management practices assessment for the Upper Penitencia Creek watershed. In addition, the Watershed Analysis AHTG will review results of the Upper Penitencia Creek LFA to determine if Phase II is warranted. If sediment is determined to not be a significant limiting factor in the Upper Penitencia Creek watershed, analyses will be initiated in the Coyote Creek watershed. All Watershed Analysis AHTG recommendations will be reviewed and approved by the Management Committee prior to implementation.

Scope Summary:

1. If sediment from anthropogenic sources in the Program's jurisdiction is determined to be a significant limiting factor in the Upper Penitencia Creek watershed, the Program will initiate work on a rapid sediment budget within the watershed.
2. Coyote Creek sediment analyses to include:
 - a. Begin conducting watershed analysis of anthropogenic sediment impacts (described in Task 1 of Work Plan).
 - b. Inventorying, documenting and evaluating the effectiveness of existing sediment management practices (described in Task 2 of Work Plan).
 - c. Initiating planning, development and implementation of a pilot monitoring approach designed to assess the effectiveness of controls implemented through the Program's Hydromodification Management Plan (HMP).
3. Plan, organize and facilitate meetings with consultants and Watershed Analysis AHTG members.

Products: As related to Upper Penitencia Creek - Technical Report (Rapid Sediment Budget), or, as related to Coyote Creek - Technical Report (Limiting Factors Analysis) and Technical Memorandum (Sediment Management Assessment).

Schedule: July 2006 – June 2007

Program Staff: Chris Sommers and Paul Randall



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MONITORING PROJECT SUMMARY

*Bay Area Macroinvertebrate
Bioassessment Information
Network (BAMBI)*

Purpose: Provide coordination assistance and staff support to the Bay Area Macroinvertebrate Bioassessment Information Network (BAMBI)

Background: In February 2002, Program staff participated in a workshop for information sharing and discussion of recent and ongoing rapid bioassessment (benthic macroinvertebrates) studies in the Bay Area. The network of individuals participating in the workshop was named the Bay Area Macroinvertebrate Bioassessment Information Network (BAMBI). BAMBI's purpose is to coordinate and share bioassessment information throughout the Bay Area. In particular, BAMBI is interested in stormwater programs that include rapid bioassessments in their watershed monitoring and assessment programs. Since the initial workshop, the Program has assisted (with planning and coordination) and participated in four annual BAMBI workshops (through 2005).

Each workshop has included presentations of technical information on existing and planned bioassessment studies conducted within the San Francisco Bay Area. Workshop participants also reviewed and discussed potential BAMBI goals and objectives in the development of an Index of Biotic Integrity (IBI) for Bay Area Creeks, with the goal of developing a regional bioassessment tool necessary to provide context to data collected in Santa Clara Basin creeks. A draft BAMBI IBI Work Plan was presented at the 2005 BAMBI Workshop. Since FY 04-05, Program staff has provided in-kind services to implement specific tasks identified in the work plan.

Scope Summary:

1. Assist in the planning and coordination of the sixth annual BAMBI workshop.
2. Continue to provide in-kind services to implement specific tasks identified in the BAMBI IBI Work Plan.
3. Coordinate with other agencies and stormwater programs in further development and implementation of bioassessment tools and sharing of bioassessment data.

Products:

- o BAMBI meeting summary(s) and staff presentations
- o Draft IBI for San Francisco Bay Area Creeks

Schedule: July 2006 – June 2007

Program Staff: Chris Sommers, Paul Randall, Lucy Buchan



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*MONITORING
PROJECT SUMMARY*

Implement Trash Work Plan

Purpose: Implement Trash Work Plan

Background: 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 states that “between now and the next 303(d) listing cycle, municipalities will be expected to assess trash impairments in their jurisdiction ...”, Water Board staff will review information concerning trash in the next listing cycle to determine whether specific water bodies warrant 303(d) listing. In a proactive response to the 303(d) Staff Report, the Program’s Management Committee formed a Trash AHTG (first meeting on February 21, 2002). The Trash AHTG 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.

During FY 03-04, the Program assisted Co-permittees in completing the following Work Plan tasks: 1) document existing trash management practices implemented by municipalities and agencies within the Program’s jurisdiction; 2) identify and map high priority trash problem areas and sources of trash in Santa Clara Basin watersheds; 3) develop a strategy to conduct trash evaluations in or near creeks; 4) sponsor a training workshop on how to use existing trash assessment tools (i.e., RWQCB Rapid Trash Assessment Protocol (Version 7.0) and Keep America Beautiful (KAB) Litter Index); and 5) develop standardized reporting format for documenting and evaluating trash management and monitoring activities.

During FY 04-05, Co-permittee staff and volunteers from watershed stakeholder groups conducted trash evaluations at a subset of the identified trash problem areas. The RWQCB Rapid Trash Assessment Protocol (Version 7.0) was used to qualitatively assess trash conditions in wadeable creeks and the Keep America Beautiful Litter Index was used to evaluate trash problem areas not located in creeks. Summary results from Co-permittee trash evaluations conducted during FY 04-05 were provided within the FY 04-05 Annual Report. Work Plan tasks identified for FY 05-06 included the following: 1) continue conducting trash evaluations in a subset of identified trash problem areas; 2) identify and begin to implement or refine existing trash control measures, as appropriate, to address trash problem areas within high priority areas; and 3) begin to develop a long-term strategy for trash conditions in urban streams and waterways.

The Work Plan tasks for FY 06-07 will focus on continued implementation and evaluation of trash evaluations and management practices.

Scope Summary

- Implement Pilot Demonstration Project which focuses on documenting type and volume of trash that can potentially be conveyed through the storm drain system;
- Assist Co-permittees with evaluating trash problem areas in urban streams and waterways and other potential sources that may contribute trash to those areas;
- Report information on trash evaluation results and trash management practices implemented by Co-permittees using standardized reporting format.
- Develop an effective strategy for reducing trash in urban streams and waterways;
- Revise trash problem areas list, as appropriate; and
- Develop Trash Fact Sheets, as appropriate.

Products: Technical memorandum providing implementation strategy for Pilot Demonstration Project; technical memorandum providing enhanced trash evaluation and reporting formats; technical memorandum providing trash evaluation results and analyses; enhanced and updated database.

Schedule: July 2006 – June 2007

Program Staff: John Fusco and Paul Randall



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MONITORING PROJECT SUMMARY

Stream Studies Inventory Update

Purpose: Provide update to the Santa Clara Basin Watershed Management Initiative's (SCBWMI) Stream Studies Inventory (SSI) database.

Background: The Watershed Assessment and Monitoring Subgroup (WAMS) of Santa Clara Basin Watershed Management Initiative (SCBWMI), has a mission to provide the SCBWMI with a solid scientific foundation for watershed planning. One of WAMS's tasks is to coordinate the SCBWMI's data collection and data management efforts with stream monitoring studies within the Basin. The Stream Studies Inventory (SSI) is a result of this task and was initially prepared by the Program in November 1998. The purpose of the SSI is to promote inter-agency awareness of environmental investigations within riparian corridors and to facilitate coordination of related data collection and management. It also describes stream-related multi-stakeholder studies and projects that were in-progress in the Santa Clara Basin. The SSI was updated, revised and reissued in February 2000 (version 2.0), July 2001 (version 3.0), August 2002 (version 4.0), November 2003 (version 5.0) and June 2005 (version 6.0). The Program funded the initial development of the SSI and each of the annual updates. During FY 06-07, a general update of the SSI (version 7.0) will occur. In FY 07-08, the second substantial update of the SSI (version 8.0) will occur. The first substantial update previously occurred with version 4.0.

Scope Summary

- The Program will update, revise and reissue a Stream Studies Inventory (SSI) in coordination with the SCBWMI.

Products: Updated Stream Studies Inventory

Schedule: July 2006 – June 2007

Program Staff: Paul Randall and Chris Sommers