



SECTION 8

NEW AND REDEVELOPMENT CONTROL MEASURES

8. NEW AND REDEVELOPMENT CONTROL MEASURES

INTRODUCTION

This section describes the Program's efforts during FY 08-09 to assist Co-permittees to control the impacts of development on stormwater quality and flow through the development project planning, review and approval process. Tasks related to construction inspection are described under Section 2, Co-permittee Guidance, and Section 2, Performance Standards.

BACKGROUND

On October 17, 2001, the Water Board adopted Order 01-119 which amended the Program's Permit Provision C.3. (New and Redevelopment Requirements) to contain significant new requirements. These requirements include:

- Numeric design standards for sizing stormwater treatment controls;
- Limits on increases in peak stormwater discharge rates and/or durations from new or redevelopment sites ("hydromodification") that may result in increased potential for erosion or other adverse impacts in creeks;
- Requirements for operation and maintenance of stormwater controls;
- Requirements for site design and source control measures;
- Definition of a minimum project size, based on amount of impervious surface created, for which the design standards, control measures, peak flow limitations, and maintenance requirements apply;
- Requirements for changes to General Plans and environmental review processes to provide authority to implement the requirements; and
- Reporting requirements.

These requirements are now applicable to "Group 1" projects (those with one acre or more of impervious surface) and "Group 2" projects (those with 10,000 square feet or more of impervious surface).

To assist Co-permittees in completing and implementing these requirements, Program staff prepared the *Guidance for Work Plan Tasks Related to Implementation of Permit Provision C.3. (New and Redevelopment Requirements)* in March 2002¹. This guidance identified proposed actions to meet the requirements of Provision C.3. and whether the actions would be implemented at the Program level, Co-permittee level or both. All of the Program and Co-permittee "start up" tasks have been completed, and Co-permittees are in the ongoing implementation phase.

In February 2003, the Water Board adopted and/or amended the stormwater permits for the Contra Costa, Alameda, and San Mateo countywide stormwater programs with different requirements than those in the Program's permit. The Water Board Executive Officer stated the Board's intention to make all of the permits consistent, and as a result, extended the deadlines for implementation of certain C.3. provisions². In addition, the Program submitted a letter to the Water Board on September 22, 2003 proposing an alternative Group 1 and Group 2 project

¹ See www.scvurppp-w2k.com/pdfs/0102/SC33.24_c3_new_and_redevelopment.pdf

² Letter to Beau Goldie, SCVURPPP Management Committee Chair, from Loretta K. Barsamian, Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, Re: Extension of Specified Deadlines in Order 01-119, May 12, 2003.

definition consistent with the other stormwater programs' permits³, which was accepted by the Water Board in a letter dated January 29, 2004⁴. On July 20, 2005, the Water Board adopted a Tentative Order⁵ (which amended portions of Provision C.3. in Order 01-119) to further conform the permit language to that of the other permits in the region, amend the Group 2 requirements to include a revised alternative Group 2 definition, and incorporate key provisions in the Hydromodification Management Plan (HMP) Report.

The adopted Order No.R2-2005-0035 allows a phased implementation of C.3. at Group 2 projects based on land use and potential for pollution. Group 2A consists of projects under one acre and greater than 10,000 square feet of impervious surface that have one of the following land use categories: gas stations; auto wrecking yards; loading docks or parking lots greater than 10,000 square feet; and other industrial or commercial uses where potential pollutant loading cannot be mitigated by post-construction source control and site design practices. Implementation for Group 2A projects began on October 20, 2005. Group 2B consists of all other land uses in the same size category and implementation for Group 2B began on August 15, 2006.

Order R2-2005-0035 also adopted the key provisions of the Program's HMP Report. The key provisions, including management standard, performance criteria, and applicability criteria, are presented in Attachment A to the Order, and an applicability map is presented in Attachment B. The Order required Co-permittees to begin implementation of the HMP on October 20, 2005.

To summarize, on October 15, 2003, Co-permittees began implementing the C.3. requirements for Group 1 projects (i.e., those projects that included creation or replacement of one acre or more of impervious surface). On October 20, 2005, Co-permittees began implementing the HMP requirements and C.3. requirements for Group 2A, and on August 15, 2006, Co-permittees began (or continued) implementing C.3. requirements for all Group 2 projects (i.e., those projects that included creation or replacement of 10,000 square feet or more of impervious surface).

IMPLEMENTATION OF FY 08-09 C.3. TASKS

During FY 08-09, Program efforts continued to focus on assistance to Co-permittees with C.3. and HMP implementation, conducting training workshops for municipal staff and the development community, and participation with Water Board staff on the development of the new and redevelopment requirements for the Municipal Regional Permit (MRP).

Table 8-1 presents the status of the Program's new and redevelopment (C.3.) tasks scheduled for completion or ongoing in FY 08-09. The table includes tasks outlined in the *FY 08-09 Work Plan*, including some remaining tasks from the original *C.3. Work Plan Guidance* (the numbered tasks) and some new tasks identified for FY 08-09.

³ Letter to Loretta Barsamian, Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, from Beau Goldie, Chair, SCVURPPP Management Committee, Re: Revised Request for Regional Board Approval of an Alternative "Group 2 Project" Definition, September 22, 2003.

⁴Letter to Beau Goldie, SCVURPPP Management Committee Chair, from Bruce Wolfe, Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, Re: Approval of the Proposed Alternate Group 2 Project Definition, January 29, 2004.

⁵Order No. R2-2005-0035, NPDES Permit No. CAS029718, Amendment Revising Order No. 01-119 (Provision C.3., New and Redevelopment Requirements), July 20, 2005.

Highlights of accomplishments and evaluation of effectiveness of some of the key tasks are provided below.

Ad Hoc Task Group and Work Group Participation

In FY 01-02, the Program formed the C.3. Provision Oversight Ad Hoc Task Group (C3PO AHTG) to oversee, coordinate, and discuss Program guidance on implementation of C.3. tasks. During FY 08-09, the C3PO AHTG continued to meet approximately bimonthly and received updates on C.3. and HMP issues and projects; received updates on and discussed the proposed C.3. provisions in the draft Municipal Regional Permit (MRP); helped plan the annual workshop; and shared information on implementation of C.3. The C3PO AHTG provided valuable assistance to Program staff in development of the C.3. implementation tools and continues to be a useful forum for discussion of experience with implementing the C.3. requirements.

A number of work groups have been formed to work on specific issues under C.3. The list of AHTG and work group members, and the missions of each group, are provided in Section 2, Table 2-2. During FY 08-09, there were limited work group meetings, as Program and Co-permittee efforts were focused on development of the MRP. The HMP Implementation Work Group met once in the fall of 2008 to discuss several work products. A new group, the Soil Specifications Work Group, was formed in a joint effort with the Alameda Countywide Clean Water Program, and met twice to discuss development of engineered soil specifications for biotreatment facilities such as bioretention.

C.3. Implementation Products

In 2004, the Program completed a document entitled *Developments Protecting Water Quality: A Guidebook of Site Design Examples* (Guidebook) that provides information on local projects or areas where innovative design measures which protect water quality have been applied. In FY 05-06, Program staff collected information on approximately ten additional projects installed after the completion of the original Guidebook and completed the process of updating the Guidebook to include these examples in FY 06-07. The February 2007 version is available on the Program's website (www.scvurppp.org)

In 2006, the Program began an awards program for exemplary site designs to protect water quality. This awards program recognizes Santa Clara Valley's public agency and private development community leaders who are solving site design challenges, reducing stormwater pollution and runoff quantity, and meeting the requirements of the NPDES permit. Applications for the awards program also help provide information on additional site design examples for updating the Guidebook. An Awards Committee consisting of Program staff, Co-permittee representative(s), local consultant(s), and an environmental group representative reviews the submittals and selects the winners.

The Program continued the awards program in 2009, and the following award winners were announced at the June 17, 2009 C.3. Workshop:

- Private Project, Large Residential – First Community Housing, Casa Feliz Studios, San Jose
- Private Project, Small Residential – Susan Rosenberg, Rosenberg Residence, Palo Alto
- Public Project – City of San Jose, Roosevelt Community Center, San Jose

- Honorable Mention –HMH Engineers, Hampton Park Phase I Townhomes, San Jose

A fact sheet summarizing the 2009 award-winning projects is provided in Appendix G-1. An awards ceremony is being planned for Fall 2009, and the Site Design Guidebook will be updated in FY 09-10 to include the award-winning projects from the last few years.

C.3. Workshops

During FY 08-09, the Program conducted and/or co-sponsored four workshops to assist Co-permittees with implementation of Provision C.3. and requirements for construction site management and inspection:

- Construction Site Management Workshop, November 20 and 21, 2008 (Cupertino), co-sponsored by the San Francisco Estuary Program;
- Workshop on the Revised Draft Statewide Construction General Permit, May 27, 2009 (San Jose);
- Workshop on San Mateo County's "Sustainable Green Streets and Parking Lots" Design Guidebook, May 29, 2009; and
- The Annual C.3. Workshop, entitled *Stormwater Management for New Development and Redevelopment Projects: New Challenges, New Tools, and New Ideas*, June 17, 2009 (San Jose).

The Annual C.3. Workshop attracted 145 participants. The workshop was designed to address topics of interest to municipal and private planning/engineering staffs. The morning sessions featured updates on stormwater regulations; demonstration of the Stormwater Treatment BMP Design Tool; discussion and self-guided tour of the stormwater management features of the Roosevelt Community Center; and case studies of implementation of C.3. on a variety of projects. The afternoon session was split into two tracks: Stormwater Treatment 101, which provided an overview of the C.3. regulations, selection of BMPs, and design and maintenance considerations for treatment BMPs; and Advanced C.3. Topics, which included discussion of linkages between stormwater management and green building rating systems, incentives for sustainable development, and rainwater harvesting. The workshop also featured exhibits for four vendors of stormwater control measures and related products and one exhibit featuring products of the SCBWWI Land Use Subgroup (which also participated in planning the Advanced C.3. Topics afternoon track). The agenda and evaluation summary for the workshop are presented within Appendix A-10.

Treatment BMP Operation and Maintenance Verification Programs

Provision C.3.e of the Program's NPDES permit requires each Co-permittee to implement a stormwater treatment BMP Operation and Maintenance (O&M) Verification Program. To address Provision C.3.e, the BMP O & M Verification Work Group was formed (by the C3PO AHTG) to develop guidance for implementing an O&M verification program. In FY 02-03 and FY 03-04, Program staff and Work Group developed a total of eight guidance documents to assist Co-permittees in implementing a BMP O&M Verification Program. Information from these documents was included in Chapter VI of the *C.3. Stormwater Handbook* (rev. May 2006)⁶. In FY 04-05, the Program provided assistance to Co-permittees that were setting up verification

⁶ See www.scvurppp-w2k.com/permit_c3_docs/C3_Handbook/Handbook_May_2006-Oct_update.pdf

programs, conducted a training workshop on O& M verification; and continued work on defining database and reporting requirements. Program staff and the Work Group also developed an approach to use standardized data fields to track treatment BMPs and relevant inspection results, ensured consistent data collection among Co-permittees, and began developing a data collection form which includes the standardized fields.

During FY 05-06, Program staff and the Work Group completed the “Standard Stormwater Treatment BMP Inspection Data Collection Form” and guidance on what inspection data should be included in future Annual Reports. Co-permittees are expected to use the form or a form with similar standardized fields while conducting BMP O&M verification inspections. The June 2006 C.3. Workshop featured a session for inspectors on how to use the standardized form. During FY 06-07, Co-permittees began conducting BMP O&M inspections using the standardized inspection form.

In FY 08-09, Co-permittees continued to use the standardized form, and submitted inspection data to the Program using the Treatment BMP Inspection Activity Report form, for compilation. Appendix G-2 presents an example of this form containing all of the data submitted by the Co-permittees for FY 08-09. Appendix G-3 contains an Inspection Activity Summary Report of submitted data. A total of 84 inspections were conducted at approximately 44 sites. The Summary Report summarizes the information by Co-permittee, reason for inspection, project type, BMP type, inspection results and enforcement action.

The BMP O&M Verification Work Group continued to coordinate efforts and share information with the Santa Clara County Vector Control District. District staff regularly attends Work Group and/or C3PO AHTG meetings. The Program provides the Vector Control District a copy of the Annual Report tables that list the locations of BMPs. In addition, Co-permittee inspection staff is instructed to refer problem BMP sites (e.g., those with standing water) to the Vector Control District. The Standard Stormwater Treatment BMP Inspection Data Collection Form includes fields to indicate when the BMP being inspected appears to provide potential mosquito breeding habitat.

Hydromodification Management

Background

Provision C.3.f. requires the Co-permittees to manage increases in runoff peak flows and volumes from Group 1 development projects through the implementation of a Hydromodification Management Plan (HMP). A detailed history of the Program’s HMP development has been provided in previous annual reports. During the period FY 01-02 to FY 05-06, the Program and its consultants: developed a work plan; conducted a literature review; conducted watershed hydrologic and geomorphic assessments of three subwatersheds in Santa Clara Valley; produced six technical memoranda on key technical issues; completed four interim and draft HMP reports; conducted a series of public meetings; and completed the final report. All products are available on the Program’s website (www.scvurppp.org)

The Final *Hydromodification Management Plan Report* was submitted to the Water Board on April 21, 2005 and the key provisions adopted as part of a Tentative Order by the Water Board on July 20, 2005. The Order required Co-permittees to implement the HMP provisions within three months of adoption (by October 20, 2005). All Co-permittees have policies and/or ordinances in place requiring the implementation of the HMP, if applicable.

To assist Co-permittees with implementation of the approved HMP, the Program formed a HMP Implementation Phase (HIP) Work Group in FY 05-06. With direction and assistance from the HIP Work Group, Program staff has developed: 1) an HMP fact sheet; 2) Chapter V of the *C.3. Stormwater Handbook* that includes the key provisions of the HMP and implementation guidance; 3) and a list of qualified consulting firms that can design stormwater flow and treatment controls (updated September 2008). In addition, Program staff conducted a series of “HMP 101” workshops in FYs 05-06 and 06-07 for Co-permittee staff that covered the basic principles of hydromodification management.

FY 08-09 Accomplishments

During FY 08-09, Program staff efforts focused on: 1) working on proposed revisions to the HMP applicability criteria; 2) participating in the HMP Instream Projects Work Group; and 3) tracking other HMP development efforts around the State.

Revised HMP Applicability Criteria

The key provisions for HMP applicability adopted by the Water Board on July 20, 2005 were considered interim provisions until the MRP adopted consistent criteria for all Phase I Bay Area municipal stormwater programs. During the Fall of 2007, Program staff, with the assistance of Co-permittee staff, developed a proposed, revised HMP applicability map that addressed many of the Water Board staff concerns about the interim map. After numerous meetings with Water Board staff and changes to the proposed map, a final draft map and associated criteria were completed and issued as part of the MRP Tentative Order on December 4, 2007.

The final draft map includes designation of some catchment and subwatershed areas as “Under Review” because of the potential inaccuracy of the impervious surface data for these areas. During FY 08-09, Program staff worked with the City of Palo Alto and Stanford University to incorporate updated impervious surface data into GIS mapping layers and determine applicability of the HMP to one catchment and one subwatershed near San Francisquito Creek. In both cases, the average percent imperviousness for these areas was found to be greater than 65%, which is the threshold above which the HMP requirements do not apply. Both Palo Alto and Stanford requested changes to the HMP applicability map in accordance with these findings in their comment letters to the Water Board on the revised draft MRP.

Bay Area Hydrology Model (BAHM): The Program, along with the San Mateo and Alameda County stormwater programs, jointly funded the development of a tool for simulating pre- and post-project hydrology and automatically sizing flow control facilities to meet HMP requirements. Clear Creek Solutions (CCS), the consulting firm who developed the Western Washington Hydrology Model, was contracted to develop a Bay Area version, based on the HSPF watershed hydrology model. The Program contracted separately with CCS to perform local calibration of the model to two watersheds in Santa Clara Valley. The BAHM was completed in July 2007 and the final calibration report is available on the Program’s website.

The BAHM has the ability to model common site design (including LID) and treatment control measures and quantify the reduction in flow duration due to these measures. A “BAHM Project Book” with more than 20 example projects was completed by CCS and made available to Co-permittee agencies from the three partnering programs (and copies will be available for sale to the general public). A number of trainings on the use of the BAHM were co-sponsored by SCVURPPP during FY 07-08.

HMP Instream Projects Work Group: The HMP Instream Projects Work Group, consisting of Santa Clara Valley Water District, City of San Jose and Program staff, was formed to explore the feasibility of allowing developers of projects requiring hydromodification controls to contribute to regional stream restoration and/or hydromodification control projects in lieu of installing controls on-site. The work group continues to meet as needed to review potential funding mechanisms, review lists of District projects, and discuss approaches for linking instream projects to potential development projects in the contributing watersheds. In FY 07-08, a potential project was identified and explored but could not be carried forward due to institutional issues. The Work Group is planning to resume discussions in August 2009.

Next Steps

The Program's approach to hydromodification control will continue to be improved through lessons learned from implementation experiences, use of the BAHM, and review of approaches proposed by other Bay Area stormwater programs. Chapter 7 of the Final HMP Report, HMP Implementation Guidance, describes the anticipated next steps towards addressing remaining implementation issues, refining the guidance and coordinating with other Bay Area programs and Water Board staff in development of a consistent, regional approach. An updated list with a description of activities completed and a schedule of next steps is provided in Table 8-2.

Other Tasks

Other tasks that Program staff accomplished during FY 08-09 include the following:

- Program staff continued to spend significant effort reviewing and commenting on the draft C.3. section of the MRP, and attending several meetings with BASMAA and Water Board staff on this topic.
- Program staff gave the following presentations on the permit requirements for new and redevelopment projects and other Program elements:
 - California Stormwater Quality Association (CASQA) Pre-Conference Planning Workshop, Oakland, CA, presentation by Jill Bicknell entitled "Green Building Rating Systems and Low Impact Development: How to Score Points with Stormwater Permit Compliance" (September 22, 2008);
 - Water Boards Training Academy, Hydromodification 101 Workshop, Roseville, CA, presentation by Jill Bicknell entitled "Flow Duration Control Approaches" (May 19, 2009).
- Program staff continued to chair the BASMAA BMP Sizing Tools Work Group, a group overseeing a BASMAA Task of Regional Benefit to develop an automated, web-based BMP sizing tool. The Program is helping to fund the project and overseeing the consultant contract. The BMPs selected for the tool include vegetated swale, pervious paving, infiltration trench, and bioretention area. The tool is under development and expected to be completed in September 2009.

EVALUATION OF EFFECTIVENESS

The process for working with the Co-permittees to implement C.3. has worked well. As mentioned above, the C3PO AHTG and its work groups have provided valuable assistance to Program staff in development of the C.3. implementation tools. In addition, the C3PO AHTG has also been a useful forum for discussion of development review processes used by the various Co-permittees and sharing of ideas and lessons learned about implementing C.3. requirements.

On July 18, 2007, the Program received comments from Water Board staff on the New Development and Redevelopment element of the FY 05-06 Annual Report (Program and Co-permittee sections). In the letter, Water Board staff commended the Program for its work and leadership in implementing the C.3. O&M requirements, particularly the "comprehensive, user-friendly Standard Stormwater Treatment BMP Inspection Data Collection Form." They also commended the Co-permittees for providing more detailed and comprehensive information in the New and Redevelopment reporting tables and for beginning to perform and report BMP O&M verification inspections. The Co-permittees continued to implement these procedures in FY 07-08 and FY 08-09. No comments have been received from Water Board staff on the FY 07-08 Annual Report.

The evaluation summaries from the Program's C.3. workshop and related workshops are provided within Appendices A-4 and A-10. Based on the evaluations, the workshops were successful overall and the expectations of most attendees were met. Comments on the evaluation forms will be used in planning subsequent workshops.

During FY 08-09, a significant amount of Program and Co-permittee staff time was expended working with Water Board staff on the development of the MRP, including participation in special BASMAA meetings and Water Board stakeholder meetings. While this work was important and usually productive, this shifting of resources prevented the Program from making more progress on C.3. and HMP implementation tasks.

Program staff will continue to work with the Co-permittees and Water Board staff to evaluate the C.3. planning and implementation process and products during future C3PO AHTG meetings and C.3. workshops.

**Table 8-1
Status of FY 08-09 C.3. Implementation Tasks**

<u>FY 08-09 Work Plan Task</u>	<u>Updated Schedule</u>	<u>Status</u>
C.3.a. Performance Standards		
<ul style="list-style-type: none"> Update the model Planning Procedures Performance Standards to reflect the requirements in the MRP. 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009).
C.3.c. Requirements for Group 1 and Group 2 Projects		
<ul style="list-style-type: none"> Prepare guidance on implementing changes to Provision C.3. in the MRP, and updates to the C.3. Handbook to reflect those changes. 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009).
<ul style="list-style-type: none"> Provide additional guidance on proper design/construction of pervious paving systems and use of pervious areas for infiltration. 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009). Design information is included in the BASMAA BMP Sizing Tool, which will be available in September 2009.
<ul style="list-style-type: none"> Promote/facilitate regional roundtable meetings with SCVURPPP agency staff and other stormwater programs to share information about implementation strategies and experience. 	Ongoing	Completed/Ongoing – SCVURPPP agencies shared information on implementation of C.3. on specific projects at internal meetings of the C.3. Provision Oversight (C3PO) Ad Hoc Task Group (AHTG). In addition, Program and some Co-permittee staff attended sessions at the CASQA conference related to new development. The BASMAA New Development Committee did not meet in FY 08-09.
<ul style="list-style-type: none"> Continue development of model standards and specifications for preferred BMPs. 	6/10	To Be Done – This task was deferred to FY 09-10 due to staff time needed to review, comment on and participate in stakeholder meetings for the Municipal Regional Permit (MRP). Standards and specifications will be included in FY 09-10 updates to the C.3. Handbook.
<ul style="list-style-type: none"> Continue assistance with the C3PO AHTG meetings and action items. 	Ongoing	Completed/Ongoing – Program staff conducted and prepared meeting summaries for four AHTG meetings in FY 08-09 (approximately bimonthly). In June, the C.3. workshop substitutes for the AHTG meeting.
<ul style="list-style-type: none"> Conduct one workshop on a C.3-related topic (to be determined). 	6/09	Completed – The Program's annual C.3. workshop, held on June 17, 2009 featured presentations covering updates on stormwater regulations, the BMP sizing tool, case studies of C.3. implementation on various projects, basic C.3. concepts, green building standards, and rainwater harvesting.

**Table 8-1, continued
Status of FY 08-09 C.3. Implementation Tasks**

<u>FY 08-09 Work Plan Task</u>	<u>Updated Schedule</u>	<u>Status</u>
<u>C.3.e. Operation and Maintenance of Treatment BMPs</u>		
<ul style="list-style-type: none"> Assist Co-permittees to report on treatment BMP O&M verification programs in each annual report, including organizational structure, evaluation of effectiveness, and planned improvement to the program. 	Annually	Completed/Ongoing –In FY 06-07, Co-permittees began to conduct BMP O&M verification inspections on recently constructed projects. Program staff provided an inspection data collection form and guidance for data collection. Program staff also completed a database for compiling the results of Co-permittee BMP O&M inspections and collected data from the Co-permittees for the Annual Report. These activities continued in FY 08-09.
<ul style="list-style-type: none"> Develop Program-wide database to assist with BMP O&M verification reporting and effectiveness analysis. 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009).
<ul style="list-style-type: none"> Continue assistance with SCVURPPP agencies' implementation of BMP O&M verification programs. 	On going	Completed/Ongoing – Program staff provided assistance to individual Co-permittees as needed, and made a presentation at the C.3. workshop on BMP O&M verification.
<u>C.3.f. Hydromodification Management Plan</u>		
<ul style="list-style-type: none"> Assist Co-permittees with impervious surface data analysis, as needed, to revise the HMP applicability map. 	4/09	Completed – Program staff worked with the City of Palo Alto and Stanford University to incorporate updated impervious surface data into GIS mapping layers and determine applicability of the HMP to one catchment and one subwatershed near San Francisquito Creek
<ul style="list-style-type: none"> Prepare submittal to Water Board on map changes. 	4/09	Completed – Information on map changes was submitted to the Water Board in MRP comment letters from Palo Alto and Stanford.
<ul style="list-style-type: none"> Create Co-permittee-specific HMP applicability maps. 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009).
<ul style="list-style-type: none"> Provide guidance on any changes to HMP requirements in the MRP, and update the HMP and C.3. Stormwater Handbook to reflect these changes; 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009). Program and Co-permittee staff worked with Water Board staff to develop revised HM requirements for the MRP.
<ul style="list-style-type: none"> Conduct one workshop on HMP implementation and hydromodification control measures; 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009).

**Table 8-1, continued
Status of FY 08-09 C.3. Implementation Tasks**

<u>FY 08-09 Work Plan Task</u>	<u>Updated Schedule</u>	<u>Status</u>
<ul style="list-style-type: none"> Continue to provide guidance and conduct trainings on the Bay Area Hydrology Model (BAHM); 	6/10	To Be Done – This task was deferred until adoption of the MRP (expected late 2009).
<ul style="list-style-type: none"> Continue to assist with the HMP Implementation Phase (HIP) Work Group meetings and action items; 	Ongoing	Completed/Ongoing -- The HIP Work Group met once during FY 08-09 to discuss several work products. Other meetings were deferred as Program and Co-permittee staff focused on working with Water Board staff on the MRP C.3. requirements.
<ul style="list-style-type: none"> Continue to meet with the HMP Instream Measures Work Group and work toward progress on HMP “next steps” (Table 8-2). 	Ongoing as needed	Completed/Ongoing – See Table 8-2.
<ul style="list-style-type: none"> Continue to assist Co-permittees on implementation of HMP requirements for Group 1 projects that may cause increased erosion or other related impacts (See also Table 8-2). 	Began implementation 10/05; Ongoing	Completed/Ongoing – On July 20, 2005, the Water Board adopted a Tentative Order approving key provisions of the HMP Report (Order R2-2005-0035). The Order requires implementation of HMP requirements by October 20, 2005. In order to implement the HMP, Co-permittees amended their ordinances and policies as needed. San Jose has begun implementation by requiring flow controls in the conceptual planning phases of large development projects, and one project (Hitachi) completed construction of two combination flow duration basins/parks. (Other Co-permittees have not had any projects for which the HMP was applicable.) Program staff have assisted with guidance on implementation; reviewed conceptual design submittals to meet HMP requirements for projects in San Jose; and updated a list of qualified consulting firms that can design stormwater flow and treatment controls for use by Co-permittees and developers.
<ul style="list-style-type: none"> Conduct programmatic monitoring tasks identified in Section 7.8 of the HMP Report (tracking projects, documenting BMP design and inspection, self-evaluation). 	Annually	Completed/Ongoing – Co-permittees have been tracking and reporting information on projects subject to HMP requirements as part of their annual reporting tasks.

**Table 8-1, continued
Status of FY 08-09 C.3. Implementation Tasks**

<u>Task</u>	<u>Updated Schedule</u>	<u>Status</u>
<u>C.3.j. Site Design Measures Guidance and Standards Development</u>		
<ul style="list-style-type: none"> (New C.3.i.): Begin to work with BASMAA and/or other stormwater programs to develop standard specifications for lot-scale treatment BMPs. 	TBD	To Be Done – This task was deferred until adoption of the MRP (expected late 2009).
<u>C.3.n. Reporting Requirements</u>		
<ul style="list-style-type: none"> (New C.3.j.): If needed, prepare pilot study plan for collection of impervious surface data for Water Board submittal, and assist designated Co-permittees with guidance on data collection and reporting. 	N.A	Task Eliminated – The revised draft MRP, issued February 11, 2009, no longer contains the requirement for Co-permittees to collect and report impervious surface data for small projects.
<ul style="list-style-type: none"> Provide information described in Table 1 of Provision C.3. in annual reports (and any additional information required by the MRP) 	Annually	Completed/Ongoing – Program staff provided guidance for reporting within the memorandum entitled <i>FY 08-09 Annual Report Preparation Guidance</i> dated June 8, 2009. Co-permittees are instructed to collect data on C.3. Summary Data Forms and report data using Group 1 and 2 reporting forms (PPPS and Attachment VII-3 of <i>C.3. Stormwater Handbook</i> .) These forms will be revised when a reporting format is established for the MRP.

Table 8-2
SCVURPPP HMP - Summary of Next Steps (Updated 9/15/09)

Task ¹	Anticipated Completion Date ²	Status
1. Develop the following: a. a funding mechanism ³ such that projects can utilize in-stream control options b. a methodology for determining developer contributions based on the stream changes expected to result from changes in project runoff conditions.	TBD TBD	In Progress - The HMP Instream Projects Work Group, consisting of Water District, City of San Jose and Program staff, will continue to meet in FY 09-10. The Work Group will focus on development of a pilot regional project for hydromodification management, including project siting, funding strategy, and how to assign regulatory credits.
2. Work with City/County planning and public works departments and the Water District to determine the timing and method of notifying District staff during the development review process about HMP projects that may need in-stream controls, in a manner that does not unreasonably prolong the review process. Further, look at ways to improve method to provide early communication on Group 1 project reporting.	6/10	In Progress – This task was delayed pending decisions by the HMP Instream Projects Work Group. Some Co-permittees already have a process for involving Water District staff in development project review. Program staff will document current practices and develop guidance for other Co-permittees, in consultation with Water District staff.
3. Facilitate review of District’s MDL analysis, both by the Co-permittees and the Expert Panel, and work with the Management Committee to determine the need to integrate some or all of the MDL analyses into implementation of the HMP.	N.A.	Eliminated – This task is no longer needed to implement the HMP. A revised HMP applicability map was developed by the Program based on other criteria, negotiated with Water Board staff, and will likely be adopted. The Management Committee voted to remove this action item from the list at its December 20, 2007 meeting.
4. Conduct additional studies of implementation of site design, integrated management practices, and/or basins at example development sites in Santa Clara Valley.	Completed	In Progress – In FY 06-07, the Program contracted with GeoSyntec Consultants to do a comparison of flow basin sizing using the HEC-HMS and HSPF models. The results provided guidance on model use and sizing procedures and assisted development of the BAHM. In addition, the Program also contracted with GeoSyntec to develop a methodology for estimating

¹ Tasks are from Chapter 7 of April 2005 HMP Report. *Tasks in italics have been added.*

² All dates depend on availability of resources and cooperation/collaboration of numerous staff from different agencies and may change because of circumstances beyond the control of the Program. The Program periodically updates the Management Committee regarding schedule changes and will transmit updates schedules to Water Board staff.

³ The intent is to describe a mechanism agreeable to Co-permittees and next steps for implementation.

**Table 8-2
SCVURPPP HMP - Summary of Next Steps (continued)**

Task ¹	Anticipated Completion Date ²	Status
		costs for the purpose of determining impracticability of hydromodification management measures (i.e. the 2% cost cap). Both products were completed and are available on the Program's website.
<i>Bay Area Hydrology Model (BAHM) Development Project – Regional Model, Local Calibration, Training</i>	Completed 7/07; Ongoing	Completed/Ongoing –The BAHM was completed in July 2007. The Program participated with the Alameda and San Mateo countywide stormwater programs in the development of the regional component of the BAHM, and also contracted with the software developer, Clear Creek Solutions, to calibrate the model to two watersheds in Santa Clara Valley. Local calibration was completed in May 2007, and the final calibration report was completed in October 2007. A series of trainings were conducted in July and November, 2007. The BAHM includes the ability to model common site design (including LID) and treatment control measures and quantify the reduction in flow duration due to these measures. A BAHM Project Book that provides design examples was completed and distributed to Co-permittees in August 2008.
5. During implementation of the HMP, obtain feedback/suggestions for further refinement and implementation guidance	As needed/ Ongoing	Completed/Ongoing – The HMP Implementation Work Group has been meeting on a regular basis, and has been an effective forum to share experience with HMP implementation and obtain suggestions for additional HMP guidance. Members of the development community have also attended these meetings. Program staff have reviewed several conceptual design submittals to meet HMP requirements for projects in San Jose and discussed these with the work group. Additional guidance will be prepared on HMP implementation following adoption of new requirements in the MRP (expected late 2009).

