# Chapter 6: POST CONSTRUCTION STORM WATER MANAGEMENT PROGRAM

## BMP #PC-1: On City Owned Property, No New City Development Projects Shall Be Permitted Within 30 feet of a Wetland Without An Approved Project-specific Habitat Management Pan and a Site-specific Water Quality Management Plan

Measurable Goals:
Formalize and implement strategy

**Year 3 Summary:** This strategy was formalized by incorporating it into the mandatory storm water BMPs/ Design Standards for Development and Remodeling Projects when this BMP brochure was revised in June 2010. The BMP brochure is posted on the City website at:

http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=4424.

Effectiveness: goal met
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-2: Revise Mandatory Storm Water BMPs/Design Standards Brochure

Scheduled for Year 2

Measurable Goals:
1. Revision to require more effective BMPs to treat parking lot runoff
2. Revision to clarify that all development projects per General Permit Attachment 4 will be subject to structural or treatment control BMP requirements
3. A process for project applicants to follow to identify structural or treatment control BMPs that will effective in removing a development project's pollutants of concern

**Year 3 Summary:** The BMP brochure was revised in June 2010. It is posted on the City website at: http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=4424. A paper copy is available upon request.

Effectiveness: goal met early in Year 1
Proposed Modifications: none
Planned Year 4 Activities: This goal was accomplished in Year 1.

## BMP #PC-3: Derive Municipality-Specific Criteria for Controlling Hydromodification in New and Redevelopment Projects Using Water Board-Approved Methodology Developed through the Joint Effort.

Scheduled for Joint Effort Q8

Measurable Goals:
Hydromodification Control Criteria

**Year 3 Summary:** This year, as in Permit Year 2, the City continued to participate in the RWQCB Regional Joint Effort to Develop Hydromodification Control Standards (JE). During the course of the JE process, the quarters and schedule were adjusted by the RWQCB. The City will abide by the recently RWQCB approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (Resolution approved on September 6, 2012).

Effectiveness: NA/timetable revised
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-4: Select Applicability Thresholds for Applying Hydromodification Control Criteria to New and Redevelopment Projects. Applicability Thresholds Will Be Consistent with Long-Term Watershed Protection.

Scheduled for Joint Effort Q8

Measurable Goals:
Applicability Thresholds

**Year 3 Summary:** Same as BMP #PC-3 above

Effectiveness: NA/timetable revised
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-5: Develop and Enact a Strategy for Implementing LID and Hydromodification Control for New and Redevelopment Projects.

Scheduled for Joint Effort Q2-Q9

Measurable Goals:
Implementation Strategy for LID and Hydromodification Control:

*Guidance*

1. Develop, advertise and make available LID BMP Design Guidance suitable for all stakeholders (Q4)

2. Specific guidance on how to achieve and demonstrate compliance with the hydromodification control criteria and LID requirements made available to new and redevelopment project applicants (Q8)

*Education and Outreach*

1. Documentation of goals, schedules, and target audiences for education and outreach the municipality will conduct in support of the following strategic objectives: enforceable mechanisms, hydromodification control criteria, applicability thresholds, LID BMP design, and compliance with LID and hydromodification control criteria (Q2)

2. Tracking Report indicating municipality's accomplishments in education and outreach supporting implementation of LID and hydromodification control for new and redevelopment projects (Q8)

*Interim LID Implementation*

1. Apply LID principles and features to all applicable new and redevelopment projects (Q2-Q8).
2. Tracking Report, for the period Q2 to Q8, identifying LID design principles and features incorporated into each applicable new and redevelopment project (Q9).

**Year 3 Summary:**

*Guidance*

1. The City has revised its mandatory BMPs for Development and Remodel projects several times since the Joint Effort commenced. This year, as reported below, the mandatory BMPs were revised in September 2011 and again in March 2012 to incorporate the JE LID standards and an LID checklist.

In addition, as reported in Chapter 4, the City is currently funding and partnering with the Resource Conservation District of Santa Cruz County (RCD) to conduct a Low Impact Development (LID) education program for residents within the City. Highlights of the program include the following:

- ♦ Distribution of the RCD home drainage guide "Slow It. Spread It. Sink It!" in 3 local nurseries and landscape supply stores;
- ♦ Public education workshops at various public forums;
- ♦ Booths and/or tabling at special events such as Earth Day Santa Cruz, Garden Fairs, etc;
- ♦ Distribution of the RCD home drainage guide "Slow It. Spread It. Sink It!" by RCD and City staff to residents upon request who heard about the brochure either by word of mouth, info cards from local nurseries, or from the RCD or City web sites;
- ♦ Distribution of the RCD home drainage guide "Slow It. Spread It. Sink It!" by RCD to development project applicants by the PW Development Plan Reviwer.

2. This year, as in Permit Year 2, the City continued to participate in the RWQCB Joint Effort to Develop Hydromod Control Standards (JE). During the course of the JE process, the quarters and schedule were adjusted by the RWQCB. Thus, the City will develop specific guidance on how to achieve and demonstrate compliance with the hydromodification control criteria and LID

requirements per the recently RWQCB approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region.

*Education and Outreach*:
1. This goal was accomplished in Permit Year 2. At the end of the Joint Effort Q2, the City submitted a "LID Education and Outreach Schedule" to the RWQCB. This table is included below with a "Status" column to provide an update on the accomplishments for this Annual Report:

## City of Santa Cruz
## Joint Effort: LID Education and Outreach Summary

| Target Audience | LID: Public Education & Outreach Efforts | Estimated Schedule | Status |
|---|---|---|---|
| **Residents** | | | |
| | City funds the Santa Cruz Resource Conservation District (RCD) to conduct a LID education program for residents w/in the city. A brief description of this program is provided in text below* and some of the specific work elements are included in this table. | Q1-Q9 | Done & Continuing |
| | City website, Environmental Programs web pages, provides storm water information for residents including a section entitled "Managing Storm Water Runoff." This section includes a link to the RCD LID guidance manual "Slow it. Spread it. Sink it! A Homeowner's Guide to Greening Storm Water Runoff" | Q1-Q9 | Done & Continuing |
| | Santa Cruz Neighbors meeting on 3/23/11, City and RCD gave a presentation to 28 residents on LID design. Also discussed and distributed the RCD LID guidance manual "Slow it. Spread it. Sink it!" storm water pollution prevention brochures for residents, info on the Water Dept Rain Barrel Program, and info on the GG program-class series. | Q2 | Done |
| | Tabling at the Earth Day Santa Cruz 2011 event on April 16. Outreach and distribution of the RCD guidance manual "Slow it. Spread it. Sink it! were conducted at both the City PW and RCD booths at the event. | Q3 | Done |
| | Tabling at the Santa Cruz Garden Fair on April 26, 2011 by RCD staff, co-funded by City, on LID methods & distribution of the RCD LID guidance | Q3 | Done |

| Target Audience | LID: Public Education & Outreach Efforts | Estimated Schedule | Status |
|---|---|---|---|
| | manual "Slow it. Spread it. Sink it! | | |
| | City Rain Barrel Program: The City Water Department is offering Moby 65 gallon rain barrels, valued at $149, to service area residents for $50 each. Program outreach promotes water conservation, runoff pollutant control, and green gardening. During the Spring 2011 offer, approx. 196 rain barrels were distributed. Program may be continued in the Fall or Spring 2012 | Q2-Q3 and in Permit Year 3 | Done |
| | Related work: City website, Environmental Programs web pages, includes information for residents re "Ocean Friendly Landscaping" classes which are co-sponsored by the City. | Posted on web- Q2 Classes held-Q3 and in Permit Year 3-Spring | Done |
| **Architects, Developers, Building Contractors, Design Consultants, etc:** | | | |
| | City Mandatory BMPs for Development and Remodeling Projects distributed to development permit applicants | Q1-Q9 | Continuing |
| | Potential: Article in Builder's Exchange newsletter, Downtown Association newsletter/email, or other trade organization. (Article written by City of Watsonville & Soquel Water District staff, courtesy of/printed in *The Sentinel* newspaper; article revised and submitted to Builder's Exchange by MRSWMP staff) | Q3-Q5 | Done |
| | Potential: Workshop co-sponsored by Santa Cruz municipalities | Q7 | Pending |
| **All: Residents & Architects, Developers, Building Contractors, Design Consultants, etc:** | | | |
| | City Mandatory BMPs for Development and Remodeling Projects posted on City website | Q1-Q9 | Done & Continuing |
| | City Mandatory BMPs for Development and Remodeling Projects available at Planning Dept. public counter | Q1-Q9 | Done & Continuing |
| | City co-funds Ecology Action and the Santa Cruz Adult School to conduct a Green Gardner education program for landscapers and residents. This spring, a series of "Ocean Friendly Landscaping" classes are being held re | Q3 and Permit Year 3-Spring | Done |

| Target Audience | LID: Public Education & Outreach Efforts | Estimated Schedule | Status |
|---|---|---|---|
| | landscaping skills that conserve water and reduce runoff pollutants such as: ecological landscape design, rainwater and gray water harvesting, proper installation of irrigation systems, less toxic pesticide control, etc. | | |
| | Article/informational piece on LID published in the local newspaper, *The Sentinel.* The article was published on April 30, 2011. | Q3 | Done |
| | LID BMP Design Guidance piece | Q4 | Done |
| | Specific guidance on how to achieve & demonstrate compliance with the hydromodification control criteria and LID requirements made available to new and redevelopment project applicants | Q8* | Q8* |
| **City Council and/or Public Works Commission** | | | |
| | Potential: Agenda items at one or more meetings re new and/or modified enforceable mechanism (e.g. revised municipal code or mandatory Development BMPs) for applicable new and redevelopment projects. | Q7-Q8** | Q7-Q8** |

**The City is currently funding and partnering with the Resource Conservation District of Santa Cruz County (RCD) to conduct a Low Impact Development (LID) education program for residents within the City. Highlights of the program include the following:*

- *Distribution of the RCD home drainage guide "Slow It. Spread It. Sink It!" in 3 local nurseries and landscape supply stores;*
- *Public education workshops at various public forums;*
- *Booths and/or tabling at special events such as Earth Day Santa Cruz, Garden Fairs, etc;*
- *Distribution of the RCD home drainage guide "Slow It. Spread It. Sink It!" by RCD and City staff to residents upon request who heard about the brochure either by word of mouth, info cards from local nurseries, or from the RCD or City web sites.*

*** Schedule dependent upon the Joint Effort and RWQCB approved Post-C0nstruction development requirements.*

2. This year, as in Permit Year 2, the City continued to participate in the RWQCB Joint Effort to Develop Hydromod Control Standards (JE). During the course of the JE process, the quarters and schedule were adjusted by the RWQCB. Thus, the City will develop a Tracking Report indicating the accomplishments in education and outreach supporting implementation of LID and hydromodification control for new and redevelopment projects in accordance with the recently RWQCB approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region.

However, the table above entitled "Joint Effort: LID Education and Outreach Summary" does provide a snapshot of the LID outreach measures taken since commencement of the Joint Effort. In addition, during Permit Year 3, the City revised the mandatory "Storm Water BMPs for Development and Remodel Projects" on September 2011 in order to incorporate mandatory LID standards and a LID checklist into the BMP brochure. Thus, currently all new development and qualifying remodel sites must consider LID and implement LID standards according to the project's "tier" level. The mandatory BMP brochure was again revised and republished in March 2012 to make minor clarifications to the LID checklist.

*Interim LID Implementation*

Measurable Goals:

1. Apply LID principles and features to all applicable new and redevelopment projects (Q2-Q8).
2. Tracking Report, for the period Q2 to Q8, identifying LID design principles and features incorporated into each applicable new and redevelopment project (Q9).

1. As reported in the previous Annual Report, the City has been applying LID principles to all applicable new and redevelopment projects as required since Q2 and even to specific projects prior to the start of Q2. In June 2010, the City revised the mandatory "Storm Water BMPs for Development and Remodel Projects" and the revisions included the addition of a LID section. The BMPs are mandatory for all applicable projects per the Storm Water General Permit Attachment 4, plus all commercial and industrial developments and remodels equal to or greater than 1 acre. In addition, the revised BMPs require all development and remodeling projects to comply with the specified Low Impact Development requirements. This applies to all projects including residential (including single and duplex dwellings), commercial, and industrial projects. Thus, the City asks even small (less than ½ acre) residential projects to consider LID although these may request an exemption if LID is not feasible at the site.

As mentioned, during Permit Year 3, the City revised the mandatory "Storm Water BMPs for Development and Remodel Projects" on September 2011 in order to incorporate mandatory LID standards per the Joint Effort and a LID checklist into the BMP brochure. Thus, currently all new development and qualifying remodel sites must implement LID standards according to the project's "tier" level. The mandatory BMP brochure was again revised and republished in March 2012 to make minor clarifications to the LID checklist. The BMP brochure is posted on the City website at: http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=4424.

2. Although JE quarters and schedule were adjusted by the RWQCB, during Permit Year 3 PW Staff worked with the City's IT Department to make changes to the City's permit and parcel

tracking database (TrakIt) so that water quality, LID, and Maintenance Agreements requirements could be tracked for new development and redevelopments projects.

The "TrakIt" Tracking Report indicates that, during the permit year, there were a total of 37 project applications for development or remodel sites in various stages, such as in process, under review, permits issued, or finaled. Some of the sites which had issued or "finaled" permits had actually applied a year or more ago prior to the current development and JE LID requirements.

For example, there were applications for 4 development or remodel sites that were "finaled" during the permit year. All of these sites were residential projects and all elected to disconnect their roof downspouts and have roof runoff drain to landscaping. All except the Rocky Road site were less than an acre in parcel size. A summary is provided below:

| Address | Disconnect Roof Runoff | Permeable Pavement | Bio-Retention Facilities | Retention/ Detention | Runoff directed to impervious surface | Bio-Swale |
|---|---|---|---|---|---|---|
| Rocky Road | x | x | | x | | |
| High Street | x | x | | | | |
| Bay Street | x | | | | x | |
| Sunnyside | x | | | | | |

In addition, there were 21 applications for development or remodel sites which had permits issued but not yet "finaled" during the permit year. These 21 applications, plus the other 12 "in process," are comprised of both residential and commercial projects of various sizes.

A copy of the overall Trakit Report for the permit year will be furnished upon request. The City will submit a Tracking Report identifying LID design principles and features incorporated into each applicable new and redevelopment project in accordance with the recently RWQCB approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (approved on September 6, 2012).

During the Permit Year 2, the most significant development project application received and evaluated by the City was a new multi-acre residential development project located on Isbel Drive. This very large project, which was still under construction in Permit Year 3, includes the construction of new condo units and homes. The project plans underwent extensive review by City staff and a portion of the plans were sent to Dr. Darla Inglis, of the LID Initiative, UC Davis Extension, for initial feedback on the proposed LID measures. This project application was also the "demo project" for the LID Design training session for City staff given by Dr. Inglis on Nov. 17, 2010, which was provided courtesy of the Regional Joint Effort. During this training session, City staff (including a City Planner, the PW Plan Reviewer, and PW storm water staff) evaluated this project application's assessment of site conditions, site design, and LID measures with Dr. Inglis. This development project includes extensive bio-swales and other BMPs.

Lastly, as in Permit Years 1-2, the City has contracted with an outside consultant, Mr. Dan Cloak, to assist in the review of development project plans, specifically related to LID, as needed.

Effectiveness: All goals met & timetable revised
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-6: Review and Evaluate the City's General Plan and Other Watershed Protection Planning Efforts (i.e. land use policies, plans, ordinances, development review procedures, etc). In Conjunction, Develop Where Feasible Quantifiable Measures That Indicate How the City's Watershed Protection Efforts Related to Storm Water Management Achieve Desired Watershed Conditions.

Scheduled for Year 4-5

Measurable Goals:
1. Determination if long-term watershed management and protection efforts are addressed and, if not, identification of sections needing revisions. (Year 4-5)
2. Quantifiable Measures (Year 4-5)

**Year 3 Summary:** NA- Scheduled for Year 4-5

Effectiveness: NA
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-7: PW Staff Will Inspect Installation of Post-Construction Treatment Systems and Storm Water Retention Devices at Development Sites Greater Than or Equal to One Acre

Measurable Goals:
Inspect 100% of development sites greater than or equal to one acre (same as BMP #CON-2)

**Year 3 Summary:** There were 4 sites greater than or equal to one acre which were inspected by PW staff as follows:

1) Delaware Avenue: Commercial development. This site was inspected by PW staff on 11/22/11. However, work was temporarily halted and no construction is occurring. Future work is planned to be done in phases.

2) Refugio Road: Residential single family development. This site was inspected by PW staff on 11/22/11 and 3/15/12. Although this parcel is greater than one acre, the soil disturbance was less than one acre.

3) Isbel Drive: Residential, condos and homes, development. This site was issued a grading permit on 6/30/11. This site was inspected multiple times by PW staff on 10/6/11, 11/29/11, and 1/12/12.

4) Schaffer Road: Commercial development for storage units. This site was inspected multiple times on 5/09/11, 5/11/11, 5/16/11 and 5/2311. It was most recently inspected on 8/1/12.

Effectiveness: goal met
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-8: Implement Program to Ensure Long-term BMP Inspection and Maintenance. Spot Inspections Will Be Conducted

In order to ensure that all applicable development projects submit a signed Maintenance Agreement, the City is instituting a policy that return of the signed maintenance agreement is a condition of approval for the project's building permit. The condition of approval will be placed on the project by the Department of Public Works. The Building Permit will not be issued until this signed maintenance agreement is received by the Public Works and the condition removed from the project's permit application (by Public Works).

Measurable Goals:
1. Develop an electronic database or spreadsheet to better track & assess sites over time (Year 1)
2. Enforce the proof of annual BMP inspection and maintenance requirement at 100% of sites (Year 1-5)
3. Implement a spot inspection program at 10% of sites annually (Year 2-5)

**Year 3 Summary:**
1. During Permit Year 1, City staff created an Excel spreadsheet to track and assess sites that must submit proof of annual storm water BMP inspection and maintenance. In Permit Years 2 and 3, Staff continued to use this spreadsheet and updated it as necessary.

2. The City requires that a BMP Maintenance Agreement be signed by the property owner/developer for all applicable projects per the City's mandatory BMPs for Development and Remodeling Projects. Currently, the City has 21 signed maintenance agreements.

Because in Permit Year 1 the City did not receive proof of BMP maintenance from any sites by Dec. 1st as required, the City developed and sent a reminder letter to the responsible parties during the Fall in Permit Year 2. As this proved to be effective in getting most sites to submit proof of BMP maintenance by the due date, storm water staff sent reminder letters out again in Fall of Permit Year 3.

A Reminder Letter was sent to 17 built sites (of the current 21 sites) on November 22, 2011. However, 4 sites were not sent a letter because they were either under construction or had not yet started construction. Of the 17 sites sent letters, six sites did not respond and SW staff either

called or emailed these sites in winter and spring 2012 in order to follow up. Eventually all sites came into compliance except for one non-responsive site. SW staff is investigating potential enforcement actions regarding this site with the City Attorney. This one non-responsive site (4 condo unit) was not required to have a Maintenance Agreement per the State Storm Water MS4 General Permit Attachment 4.

This year, there was a significant improvement in BMP Maintenance Log submittal rates due to the fall season Reminder Letter, and the personal contact by SW staff to each site. Again this year, Staff spent time educating the appropriate people at many of the sites as the managers, contacts, or the facilities staff change with time and the new personnel may be unfamiliar with the requirements. In some cases, there may be a new site owner who is unfamiliar with the Maintenance Agreement requirements, especially in the case of a foreclosure sale. During the permit year, Staff also made a significant effort to obtain email addresses from the Maintenance Agreements' responsible parties in order to facilitate contact with them.

Staff has also had difficulty contacting and inspecting condominiums and multi-office buildings in particular because once the property is leased or sold to multiple residents or occupants, it is difficult to track who is responsible if the City has not been notified of any changes and the attempts to contact have failed.

3. During the permit year, 4 sites (greater than 10%) were inspected on the following dates: 1) November 22, 2011; 2) February 23, 2012; 3) March 17, 2012; 4) May18, 2012; and 5) May 8, 2012 (second time at one site). All four sites were found to have the BMPs clean, maintained and in good working order. The site inspections are summarized as follows:

1) Cedar Street: Multi-unit office building inspected on 2/23/2012. The oil & sediment trap and bio-swales along the parking lot looked are clean and the bio-swale plants appeared healthy. This site is a great example of a LID measure as an amenity.

2) Delaware: Multi-unit commercial site (where construction has been halted) was inspected on 11/22/11 (from the fence as site was locked). The flat site was buttoned up for winter and BMPs were in place.

3) Frederick Street: This condo site was inspected twice during the permit year. The oil and sediment trap was inspected on 3/7/12 and it looked clean. The bio-swale was inspected on 5/8/12.

4) Soquel Drive: This site is now a large grocery store, which during the remodeling project installed multiple LID measures including bio-swales and a sediment trap in the parking lot. The site was inspected on 5/8/12 and found to be well maintained, and a great example of LID as an amenity.

Effectiveness: All goals met.
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-9: Implement Corrective Measures and Enforcement Procedures As Needed in Accordance with the City Municipal Code

Measurable Goals:
Implement corrective actions, as appropriate, for 100% of sites where a violation is detected

**Year 3 Summary:** As mentioned above in BMP #PC-8, SW staff is investigating potential enforcement actions with the City Attorney regarding one non-responsive site (4 condo units) that has not submitted proof of BMP Maintenance. However, this site was not required to have a Maintenance Agreement per the State Storm Water MS4 General Permit Attachment 4.

During the year, there was one site that received a construction related written Correction Notice was issued by Building Inspection staff for a site on West Cliff Drive upon confirmation of BMP failures. The Written Correction Notice, dated May 24, 2012, required implementation of BMPs for dirt piles. Compliance was obtained after written Correction Notice.

During the year, there were no new sites requiring enforcement actions by the Planning Department's Code Compliance Division. Please see Chapter 5, BMP #CON-4 for more details as Code Compliance continues to monitor sites issued enforcement actions in Permit Year 1.

Effectiveness: goal met
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP #PC-10: Develop and/or Modify Enforceable Mechanisms That Will Effectively Implement Hydromodification Controls and LID. Enforceable Mechanisms May Include Municipal Codes, Regulations, Standards, and Specifications.

Scheduled per the Regional Joint Effort (to develop hydromodification control criteria) in Joint Effort quarters Q2-Q9

Measurable Goals:
1. An analysis of all applicable codes, regulations, standards, and/or specifications that identifies modifications and/or additions necessary to effectively implement hydromodification controls and LID (Joint Effort Q2)

2. Approved new and/or modified enforceable mechanisms that effectively resolve regulatory conflicts and implement hydromodification controls and LID in new and redevelopment projects (Joint Effort Q8)

3. Apply new and/or modified enforceable mechanisms to all applicable new and redevelopment projects (Joint Effort Q9)

**Year 3 Summary:**
1. This task was accomplished in Permit Year Two. As reported, as part of the regional Joint Effort, the City conducted a thorough GAP Analyses review of all City codes and submitted the Gap Analyses Report to the RWQCB (on April 27, 2011) as required by April 30, 2011. The Gap Analysis Report included an overview letter and two tables, one which identified all the codes reviewed and the other that detailed specific code items and potential LID impediments.

The Gap Analysis resulted in five possible obstacles to implementing Low Impact Development (LID) contained in the City regulations. Three of these gaps are regarding existing street/curb design standards that could prevent the use of bio-systems adjacent to the street. One gap concerns the required parking ratios for office buildings. The last identified gap concerns how surface runoff is to be directed.

2. In Permit Year 3, PW Staff met and determined that there were no real regulatory conflicts between implementation of the new LID controls/standards and the Municipal Code, particularly as all development projects are routed through one Public Works development project plan reviewer. PW staff concurred that the mandatory "Storm Water BMPs for Development and Remodel Projects," which are codified by the Municipal Code/Storm Water Ordinance, are currently the best method to implement the new requirements.

3. This year, the City continued to participate in the RWQCB Joint Effort to Develop Hydromodification Control Standards (JE). The City will abide by the recently RWQCB approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (Resolution approved on September 6, 2012). During the course of the JE process, the quarters and schedule were adjusted by the RWQCB.

In addition, the City revised the mandatory "Storm Water BMPs for Development and Remodel Projects" on September 2011 in order to incorporate mandatory LID standards and a LID checklist into the BMP brochure. A copy of the revised BMPs was submitted to the RWQCB on September 29, 2011. Thus, currently all new development and qualifying remodel sites must consider and implement LID standards according to the project's "tier" level. The mandatory BMP brochure was again revised and republished in March 2012 to make minor clarifications to the LID checklist. Thus, in the future, the City will make additional revisions to the mandatory BMPs per the recently RWQCB approved Post-Construction Stormwater Management Requirements for Development Projects.

Effectiveness: goal met
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP # PC-11: Distribute BMP Brochure

The BMP brochures are distributed to all discretionary project applicants by the Public Works Plan Reviewer. The brochures have also been available at the public counters of both the Planning and Public Works Departments since 2004. In addition, the "BMPs for Development and Remodeling Projects" are posted on the City's website.

Measurable Goals:
Distribute to 100% of discretionary project applicants

**Year 3 Summary:** The BMPs were distributed to all discretionary project applicants by the Public Works Plan Reviewer. Generally this was done either by email, or given to the project developer during project planning meetings.

In addition, the BMP brochures are available at both the Planning and Public Works' public counters. SW staff periodically checks the stock available at the Planning public counter to ensure that there is a sufficient supply. In Permit Year 3, at least 48 BMPs for Development and Remodeling Projects brochures were given out at the Planning Department public counter. At the Public Works public counter, copies are kept in the counter file box and are given out by counter staff per inquiries regarding potential development projects. In addition, the "BMPs for Development and Remodeling Projects" are posted on the City website at:

http://www.cityofsantacruz.com/Modules/ShowDocument.aspx?documentid=4424.

Effectiveness: goal met
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP # PC-12: Hold Educational Workshop on LID and Hydromodification Control Requirements

Scheduled for approximately Joint Effort Q8

Measurable Goals:
One educational workshop after the hydromodification control criteria have been developed (Approx. Joint Effort Q8)

**Year 3 Summary:** This year, as in Permit Year 2, the City continued to participate in the RWQCB Joint Effort to Develop Hydromod Control Standards (JE). During the course of the JE process, the quarters and schedule were adjusted by the RWQCB. Thus, the City will hold one or more educational workshops per the recently RWQCB approved Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (Resolution approved on September 6, 2012).

Effectiveness: NA-schedule adjusted by RWQCB
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP PC #13: Develop and Implement an Education Program Addressing the Restoration and Protection of Riparian and Wetland Areas

Scheduled for Years 4 & 5

Measurable Goals:
1. Complete development of program plan
2. Implementation of educational measures, i.e. hold workshops, distribute brochures

**Year 3 Summary:** NA- Scheduled for Years 4 & 5

Effectiveness: NA
Proposed Modifications: none
Planned Year 4 Activities: continue

## BMP # PC-14: Provide Training to Appropriate Planning & Public Works Staff

Measurable Goals:
1. Train 100% of appropriate staff every two years.
2. Train new Inspectors and Plan Reviewers within 3 months of the beginning of employment.
3. Additional training on new or changed BMPS as needed

**Year 3 Summary:**
1. In Permit Year 3, staff was trained as follows:

   1) PW Storm Water staff: Staff attended an onsite training class on construction site BMPs and storm water regulations on 8/30/11. Training was done by hired consultant;

   2) PW Plan Reviewer was trained on LID Design-Green Streets & Parking Lots using the Sustainable Green Streets and Parking Lots Design Guidebook prepared by San Mateo County;

   3) PW Storm Water staff was also trained on the above on 5/1/12; and

   4) PW Inspector was trained using the new City PowerPoint presentation on Storm Water BMPs for Municipal Operations on 5/5/12.

In Permit Year 2, 100% of Planning and Building Staff were trained on construction site BMPs and storm water regulations. The onsite training class was held on August 30, 2011 by a hired consultant. 1 PW SW staff, 1 PW Inspector, 4 Building Inspectors, 5 Planners, and 1 temporary Green Building Specialist were trained at class. Three additional temporary Planning staff also attended the class. One Building Inspector was out sick and given the training class PowerPoint presentation and City BMPs for Construction Work instead. The PW Plan Reviewer also trained by reviewing class presentation and City BMPs.

2. During the permit year, there were no new Inspectors or Plan Reviewers. There was a new permanent Green Building Specialist hired, however, this position was filled by hiring the staff

person already working in this position as a temp. This staff person had received training in Permit Year 2 and was trained again this year on June 19, 2012.

3. There were additional training events on BMP or storm water topics during the permit year as follows:

1) 2 PW Storm Water and 2 Planning staff attended an APWA Complete Streets/Green Streets workshop on Oct 12, 2011 in Watsonville;

2) 2 PW Storm Water and 1 Planning staff attended the RWQCB Joint Effort for Hydromodification Control and LID-Workshop #1 on 2/15/12 in Watsonville; and

3) Planning staff was trained by a City Planner on 11/8/11 on the City's newly revised Development BMPs including LID revisions and LIDI Plant Guidance for Bio-retention Technical Assistance Memo. All Current Planning and Code Enforcement staff (10 people) attended.

Effectiveness: goal met
Proposed Modifications: none
Planned Year 4 Activities: continue