

Post-Construction Storm Water Management

BMP PC-1: Land Use Policies in the General Plan

i. General Summary

Post Construction storm water facilities usually consist of a series of collection and conveyance systems, detention/retention basins, and or treatment facilities such as a clarifier. A maintenance program is essential to ensure that these facilities continue to function as designed.

ii. Status of Measurable Goals

PC-1A: *Annually inspect all completed projects for implementation of post construction runoff controls. (Ongoing)*

The City requires post construction runoff controls on all projects that are 1 acre or greater in size. These devices are inspected during construction as part of the building permit. There are currently 3 facilities with post construction runoff controls, two underground retention basins and one detention basin. The other post construction control devices are on projects that have not been developed.

The City has not inspected the post construction controls that have been built nor does it have the authority or staffing to inspect such devices on private property. The City would like to modify this BMP as described below to have a self-certification program for post construction devices.

PC-1B: *Post construction requirements as identified in attachment 4 of the General Permit will be included in a Post Construction Storm Water Ordinance. The Post Construction Storm Water Ordinance will address certain types of discretionary development projects (Year 4).*

A draft Post Construction Ordinance has been written but was not adopted in Year 3 as planned. The City is currently in the process of developing a LID Design Manual that will identify additional projects that will be subject to LID requirements in addition to the attachment 4 requirements. The draft Post Construction Ordinance will be revised to include references to the LID Design Manual once it is adopted.

Although the City has not adopted a Post Construction Ordinance, the City does require post construction treatment controls on new development. Grading permit applicants are required to submit Project Information Sheet which lists the post construction runoff controls that the project will have. (See PC 4.) Additionally, the City Engineer notes on all conditionally approved projects that Low Impact Development should be used. See Appendix E for an example of a Project Information Sheet.

iii. Appropriateness

Post construction measures are known to reduce the impacts of development to receiving waters. The Post Construction Ordinance will clearly define the Attachment 4 requirements and other LID requirements that the City develops.

iv. Effectiveness

The City is currently at CASQA Level 1: Documenting if the program is being implemented

v. Proposed Modifications

The City would like to modify PC-1A as follows: A self-certification program for post construction runoff controls on private property will be developed and the authority to require the annual certifications included in the Post Construction Ordinance (Year 4). A form will be developed and sent to the responsible party. Annual certifications will be required to be completed by the property owners or their agents for the inspection and maintenance of post construction devices prior to the rainy season. The City will report the number of post construction runoff controls installed and the number of certifications received (Year 5).

vi. Briefly summarize the storm water activities you plan to undertake during the next reporting cycle

The City will continue to require post construction devices to be installed on all new proposed projects and will inspect any post construction storm water controls while under construction through the building permit inspection program. The City will develop the annual self-certification program for post construction devices.

BMP PC-2: City Policy and Process Revisions

i. General Summary

This BMP is intended to have the City projects include post construction devices.

ii. Status of Measurable Goals

PC-2A: Evaluate all City funded projects for construction and implementation of water quality control measures through the term of the permit.

The City did not design or construct any projects that required post-construction measures in this reporting Year.

PC-2B: Evaluate all City funded projects on a yearly basis for proper functioning and maintenance of water quality measures through the term of the permit.

No post-construction measures have been incorporated into City projects since the SWMP was approved. Therefore there are not any facilities to inspect.

PC-2C: Track the number of enforcement actions taken on conditioned projects such as correction notice, stop work order, and collection of any bonds, and the time frame for developer to take corrective steps to resume work through the term of the permit (Ongoing).

There were no enforcement actions taken on conditioned projects this reporting year.

PC-2D: Revise the Construction Guidelines of the City's Standard Details and Specifications to be consistent with LID Design manual which will include the

provisions in Attachment 4 of the General Permit.

In May 2008 the Engineering Standard Details and Specifications was reviewed for consistency with Attachment 4. A water quality section will be added into this document that will include any necessary references to Attachment 4 and LID measures. It should be noted that the Engineering Standard Details and Specifications pertain only to work done on City owned property or private projects in the City right-of-way.

iii. Appropriateness

The intent of PC-2A and 2B is to ensure that City projects include post construction devices. However, the City has not built any projects that these types of devices would be included nor are there any large Capital Improvement Plans scheduled for the next two Years. While it is appropriate to expect the City to include post construction devices to protect water quality, the lack of planned Capital Improvement Projects (CIP) makes these BMPs inappropriate. Furthermore, PC-2D, revising the construction standards in the Engineering Standard Details and Specifications to include requirements for Attachment 4 and the LID Design Manual would ensure that City funded projects have water quality control measures. Since this document pertains only to City owned property or private projects within the City right-of-way.

PC-2C is related to the construction process and not related City funded projects or post construction. Additionally it is redundant of CS-1 (tracking the # and % of enforcement actions). Therefore, this is not an appropriate BMP for Post construction.

PC-2D is appropriate. Revising the construction standards in the Engineering Standard Details and Specifications to be consistent with Attachment 4 is important. Since the Engineering Standard Details and Specifications are projects in the City right-of-way, these revisions would ensure that post construction runoff controls would be included on City funded projects.

iv. Effectiveness

The effectiveness of PC-2A and 2B cannot be rated since there are no City facilities with post construction runoff controls.

PC-2C: is consistent with CASQA Level 1: Documenting Activities.

v. Proposed Modifications

BMPs PC-2A and 2B are not effective BMPs. The City does not have plans for any CIP projects and as stated above, if the Engineering Standard Details and Specifications are revised to include requirements for Attachment 4 and the LID Design Manual, this would ensure that City funded projects would have water quality control measures. The City proposes replacing this BMP with a new one that would require contractors hired for City funded construction projects to submit a storm water and illicit discharge plan to the CIP Engineer prior to the start of work, regardless of size. This plan would consist of a form developed by the City for the contractor to describe how they will control storm water pollution, non-storm water discharges and how they will handle illicit discharges. The City would track how many plan received, how many storm water or illicit discharge violations noted at City funded sites. This would be BMP ID-5.

BMP PC-2C is not related to City funded projects nor is it related to post construction.

As stated above, this BMP is related to construction and is redundant of CS-1 (tracking the # and % of enforcement actions). Therefore, this information is collected in CS-1. This BMP should be eliminated.

PC-2D is related to designing, installing and maintaining post construction runoff controls at City funded projects. The wording of other post construction BMPs listed are for tracking storm water violations on private projects. Modifying the Engineering Standard Details and Specifications will ensure that the City enforces storm water/water quality requirements on City owned projects. This BMP will remain under BMP-2.

vi. Briefly summarize the storm water activities you plan to undertake during the next reporting cycle.

The City will revise the construction standard in the Engineering Standard Details and Specifications, to be consistent with Attachment 4 requirement and LID measures that the City adopts.

BMP PC-3: Development Requirements

i. General Summary

Develop post construction storm water control ordinance that identifies and requires City design standards consistent with the LID Design Manual and provisions in Attachment 4.

ii. Status of Measurable Goals

PC-3A: Prepare a draft ordinance in Year 2 to include the requirement to implement Low Impact Development as required for Attachment 4 in the General Permit and not already addressed in other revisions to City policies and ordinances.

The City prepared a draft post construction storm water ordinance in year 2. However, the City is in the process of developing and adopting a LID Design Manual and will revise the draft post construction ordinance to include that Attachment 4 requirements and references for the LID Design Manual once it is adopted. The City will adopt the post construction ordinance in conjunction with the adoption of the LID Design Manual.

PC-3B: Establish a tracking program of innovative projects designed to protect/improve water quality.

The tracking sheet was posted on the City's storm water web site to make it more accessible to the public. There have not been any hits on this page since it was posted in April 2008. Of the 5 projects that are listed only three of the projects have been completed; The Ford Dealership, Coastal Crop care, and Davis Apartments. Two of these facilities installed underground retention basins and the other installed a retention basin.

iii. Appropriateness

PC-3A is appropriate to give the City the authority to enforce the Attachment 4 requirements and to ensure the LID Design Manual is followed.

v. Effectiveness

PC-3A is currently at CASQA Level 1: Documenting if the program is being implemented.

PC-3B is not effective. Underground retention basins and detention ponds are not considered innovative storm water controls. These types of controls are very common and are not good examples of innovative projects. Furthermore, the BMP requires the City to take photos of the facility in operation. It is not possible to photograph an underground device.

v. Proposed Modifications

PC-3B should be modified to develop a tracking system of post construction devices to ensure that they are annually certified.

vi. Briefly summarize the storm water activities you plan to undertake during the next reporting cycle.

The City will incorporate the requirement for Attachment 4 requirements and place a reference to the LID Design Manual into the draft Post Construction ordinance and will adopt the ordinance.

BMP PC-4: Permitting Process

i. General Summary

Developing a post construction storm water quality checklist for use during the plan review process will help to assure that post construction storm water quality standards are being applied consistently and address the projects pollutants of concern.

ii. Status of Measurable Goals

PC-4: Develop a post construction storm water quality checklist that will be utilized by developers and track the number of permit application that are returned or rejected due to insufficient assessment of the project's impacts on storm water quantity and quality or due to inadequate inclusion of post construction controls for storm water.

A Project Information Sheet must be submitted with every grading permit application for sites greater than or equal to 1 acre. This sheet collects information on the type of project, planned BMPs, and Post Construction BMPs. No projects were returned out of the 7 grading permits issued for not having adequate BMPs. If storm water runoff will have a negative effect on water quality or neighboring properties, the project does not receive a permit until satisfactory storm water controls are included on the plans. See Appendix E for examples of the Project Information Sheet.

iii. Appropriateness

A post construction storm water quality checklist can help assure that post construction storm water quality standards are being applied consistently.

iv. Effectiveness

The City is currently at CASQA Level 1: Documenting if the program is being implemented.

v. *Proposed Modifications*

No modifications are proposed.

vi. *Briefly summarize the storm water activities you plan to undertake during the next reporting cycle.*

The City will continue tracking the number of permit applications returned or rejected.

Table 13. Post-Construction Storm Water Management

BMP	Description	Measurable Goal	Status						
			Implemented	On Schedule	Exceeded	Modified	Effective	Not Effective	Unknown
PC1	Land Use Policies in the General Plan	PC-1A: Annually inspect all completed projects for implementation of post construction runoff controls. (Ongoing) PC-1B: Amend the Engineering Standard Details and Specifications to include attachment 4 criteria and a Low Impact Development Design Manual. (Begin Year 2, complete Year 4) PC-2A: Evaluate all City-funded project designs for consistency with MEP standards. (Ongoing) PC-2B: Inspect the performance of all City-funded projects for proper function. (Ongoing)	No	No					
			Yes	No					X
			Yes	Yes					X
			Yes	Yes					X
PC2	City Policy and Process Revisions	PC-2C: Track number of enforcement actions taken on conditioned project and the time to take corrective steps to resume work. (Ongoing) PC-2D: Develop post construction storm water control design standards and revise the Construction Guideline of the City's standard Details and Specifications to be consistent with LID Design manual and Attachment 4. (Year 3)	Yes	No					
			Yes	Yes					
			Yes	Yes					
			Yes	Yes					
PC3	Development Requirements	PC-3A: Prepare a post-construction draft ordinance that complies with Attachment 4 standards. (Year 2) PC-3B: Establish a tracking program of innovated projects designed to protect/improved water quality. (Ongoing)	Yes	No					
			Yes	Yes				X	
PC4	Permitting Process	PC-4: Develop a post-construction storm water quality checklist to be used during the plan review process (Year 2) and track the # and% of projects returned/rejected based on inadequate post-construction storm water quality controls. (Ongoing)	Yes	Yes			X		