



City of Santa Cruz  
Transportation and  
Public Works Commission  
Agenda Report

DATE: October 21, 2013

AGENDA OF: November 18, 2013

DEPARTMENT: Public Works

SUBJECT: City Storm Water Best Management Practices – Changes to Best Management Practices for Development and Remodeling Projects

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RECOMMENDATION: That the Transportation and Public Works Commission recommend that the City Council accept the report.

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**BACKGROUND:** In April 2009, the City of Santa Cruz received coverage under the State Municipal General Permit for Storm Water Discharges (Storm Water Permit) and approval of its Storm Water Management Plan (SWMP) from the Central Coast Regional Water Quality Control Board (Regional Board). In September 2010, the Regional Board required the City to develop and implement interim hydromodification control criteria, also called “Post-Construction Requirements,” for development projects. The criteria have been incorporated into our Storm Water Best Management Practices for Development and Remodeling Projects. Post-Construction Requirements are conditions the City must impose on new developments and redevelopment projects so that the property maximizes the infiltration of clean storm water into the ground and minimizes runoff volumes and rates. The purpose of these requirements is to reduce the physical and ecological impacts of increasing impervious surfaces on creeks and watershed processes.

Over the past four years, the City participated in the Regional Board’s Joint Effort for Hydromodification Control (Joint Effort) – an effort to create a methodology for developing long-term hydromodification control criteria; derive specific criteria; and support implementation of the resulting criteria for new and redevelopment projects. On July 12, 2013, the Regional Board adopted the Post-Construction Requirements for Development Projects (Resolution No. 2013-0032), which requires municipalities in the Central Coast Region to implement the requirements to all applicable projects by March 6, 2014.

**DISCUSSION:** The Regional Board’s Post-Construction Requirements apply to all development and redevelopment projects that create or replace at least 2,500 square feet of impervious area. The Post-Construction requirements are tiered, with cumulative performance requirements based on the amount of impervious surface area created or replaced by a project. Requirement tiers are as follows:

- Tier 1: Projects that create or replace at least 2,500 square feet of impervious area must meet a qualitative site design and runoff reduction requirement. Site design measures include management strategies such as land preservation, minimizing impervious areas, and use of pervious pavements.
- Tier 2: Projects that create or replace at least 5,000 square feet of impervious area, except single-family homes, must meet a quantitative water quality requirement (the 85<sup>th</sup> percentile rainfall event). This requirement emphasizes the use of Low-Impact Development (LID) methods (e.g., bioretention and biofiltration) over conventional water quality treatment approaches. Projects subject to this requirement must submit a Storm Water Control Plan (SWCP) with their plans for development approval and/or building permit. The SWCP includes project site physical and drainage information, information on how applicable performance requirements are addressed, drainage and sizing calculations, and information on operation and maintenance of storm water structures.
- Tier 3: Projects that create or replace at least 15,000 square feet of impervious area, including single-family homes, must meet a quantitative runoff retention requirement (the 95<sup>th</sup> percentile rainfall event in most of the City). Retention means that for storms smaller than the 85<sup>th</sup> or 95<sup>th</sup> percentile event, runoff will not be discharged from the property but instead will be managed onsite via infiltration, evapotranspiration and/or rainwater harvesting and reuse. Projects located within the designated “Urban Sustainability Area” and meeting certain minimum density requirements can be exempted from this requirement.

The Urban Sustainability Area corresponds to areas of the City identified in the General Plan 2030 as community and regional business centers and primary transportation corridors where higher density mixed-use development is encouraged. These areas are designated in the City’s General Plan Land Use Map (see attached Urban Sustainability Area map) as:

- Community Commercial (CM)
  - Regional Visitor Commercial (RVC)
  - Mixed-Use Medium Density (MXMD)
  - Mixed-Use High Density (MXHD), and
  - Mixed-Use Visitor Commercial (MXVC).
- Tier 4: Projects that create or replace at least 22,500 square feet of impervious area must meet a quantitative storm flow peak management requirement. For those projects, post-development peak runoff flows shall not exceed pre-project peak flows for the 2- through 10-year storm events. This requirement does not apply to sites whose runoff flows directly or via an underground storm drain to continuously armored creeks, the San Lorenzo River, or the ocean. This is because these water bodies are minimally affected by higher storm flows.

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The City is updating its Mandatory Storm Water Best Management Practices for Development and Remodeling Projects (Mandatory BMPs) to incorporate the Regional Board's Post-Construction Requirements. The Mandatory BMPs are now separated into Chapters 6A and 6B. Chapter 6A covers Storm Water BMPs for single-family homes that create or replace less than 15,000 square feet of impervious surface. For these projects, the requirements have been simplified into an easy-to-understand guide covering the most common ways to reduce runoff in residential areas, including directing roof downspouts to landscaping, using pervious pavement, and simple rain gardens.

Chapter 6B of the Mandatory BMPs covers the more complex and engineering-intensive requirements for all other private and public development projects. This chapter covers all the tiers of the Regional Board's Post Construction Requirements and provides a step-by-step process for meeting the requirements in the City.

In order to facilitate the transition to these new requirements, the Public Works Department is also updating its Standard Details to include a Bioretention Standard Detail. The Public Works Department is also working with Dan Cloak Environmental Consulting to develop a model that will help engineers to size bioretention facilities to meet Tier 3 (runoff retention) and Tier 4 (peak flow management) of the requirements.

In accordance with Regional Board requirements, the revised Mandatory BMPs will go into effect on March 6, 2014. This means that the Mandatory BMPs will apply to all projects that require a grading or building permit unless, if applicable, the project has already received its discretionary permit approval as of the effective date.

In preparation for this change in requirements, City Public Works staff has been alerting Engineering firms submitting plans for review about the Regional Board's new requirements. Additionally, on October 9, 2013, a workshop was held on the draft revisions to the Mandatory BMPs where design and engineering firms, and developers were invited. The workshop covered major technical changes to the requirements and offered an opportunity for questions. A workshop for the general public will be held in February 2014. The new revised Mandatory BMPs will be available on the City website's LID page starting in December and will be available in printed format at the Planning and Public Works counters starting in March 2014.

**FISCAL IMPACT:** Staff time for plan review and site inspection for commercial and larger residential projects will be lengthened due to these new requirements. Plan review, coordination and inspection for projects triggering the water quality performance requirement (Tier 2) is anticipated to require 4 to 6 hours of staff time depending on the complexity of the project; larger projects triggering the runoff retention (Tier 3) and/or peak flow management (Tier 4) requirements may require between 8 and 12 hours of staff time. Consequently, starting in March 2014, the Public Works Department will begin to charge the Storm Water Review fee that was approved by City Council 2009. For projects that only trigger Tier 1 of the requirements, no fee will be assessed; projects

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triggering Tier 2 of the requirements will be assessed a \$330 fee; projects triggering Tiers  
3 and/or 4 of the requirements will be assessed a \$550 fee.

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Attachments:

Chapter 6A Storm Water Best Management Practices for Single Family Homes on  
Small Lots

Chapter 6B Storm Water Best Management Practices for Private and Public  
Development Projects

Urban Sustainability Area Map