

**Staff Report for Resolution No. R3-2012-0025
ATTACHMENT 1**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California**

RESOLUTION NO. R3-2012-0025

**APPROVING POST-CONSTRUCTION STORMWATER MANAGEMENT REQUIREMENTS
FOR DEVELOPMENT PROJECTS IN THE CENTRAL COAST REGION**

The Central Coast Regional Water Quality Control Board (Central Coast Water Board) finds that:

Background

1. On December 8, 1999, USEPA promulgated regulations, known as Phase II, requiring permits for stormwater discharges from small MS4s and from construction sites disturbing one and five acres of land. On April 30, 2003, the State Water Resources Control Board adopted the National Pollutant Discharge Elimination System (NPDES) General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems, Order No. 2003-0005-DWQ (Phase II Municipal General Permit). Regulated small MS4s are required to apply to obtain coverage under the Phase II Municipal General Permit and complete a Storm Water Management Plan (SWMP). The Central Coast Water Board implements the Phase II Municipal General Permit to be consistent with its Water Quality Control Plan, Central Coast Region (Basin Plan) to ensure protection of water quality, beneficial uses, and the biological and physical integrity of watersheds in the Central Coast region. The Central Coast Water Board Executive Officer requires specific conditions for MS4s' SWMPs pursuant to the federal Clean Water Act, the Basin Plan, and the Phase II Municipal General Permit.
2. The Phase II Municipal General Permit requires regulated small MS4s to develop and implement a SWMP that includes BMPs, measurable goals, and timetables for implementation, designed to reduce the discharge of pollutants to the maximum extent practicable (MEP) and to protect water quality. The Phase II Municipal General Permit requires regulated small MS4s to address stormwater runoff from development and redevelopment projects through post-construction stormwater management requirements. Phase II Municipal General Permit section D, requires the Permittee to incorporate changes required by or acceptable to the Central Coast Water Board Executive Officer into the Permittee's SWMP and adhere to its implementation.
3. On February 15, 2008, the Central Coast Water Board Executive Officer notified un-enrolled traditional, small MS4 stormwater dischargers and two un-enrolled non-traditional, small MS4 stormwater dischargers (University of California at Santa Barbara and Santa Cruz) of the process the Central Coast Water Board would follow for enrolling the MS4s under the Phase II Municipal General Permit. In the February 15, 2008 correspondence, the Central

Coast Water Board Executive Officer stated his intent to require MS4s to include in their SWMPs a schedule for development and adoption of hydromodification control standards. Subsequently, the Executive Officer required the MS4s' SWMPs to include provisions for development and implementation of hydromodification control criteria. For MS4s previously enrolled, the Central Coast Water Board Executive Officer generally required those MS4s' SWMPs to be updated with hydromodification control provisions.

4. On August 4, 2009 and October 20, 2009, the Central Coast Water Board Executive Officer notified the MS4s of the option to participate in the Central Coast Joint Effort for developing hydromodification control criteria (Joint Effort) as a means to meet the hydromodification control criteria development, adoption, and implementation commitments in the MS4s' SWMPs. MS4s agreeing to participate in the Joint Effort (Joint Effort MS4s) submitted a written declaration of their intent to meet the terms of participation.
5. Between January and August 2010, Central Coast Joint Effort MS4s amended their SWMPs to include Best Management Practices (BMPs) to codify steps the Central Coast Water Board Executive Officer required of them to participate in the Joint Effort. These BMPs include development and implementation of hydromodification control criteria and selection of applicability thresholds pursuant to the Joint Effort.
6. On September 28, 2010, the Central Coast Water Board Executive Officer notified the Joint Effort MS4s of the commencement of the Joint Effort.
7. On December 2, 2009, the City of Salinas requested to participate in the Joint Effort. On May 17, 2011, Central Coast Water Board Executive Officer outlined to the City of Salinas the steps they needed to take to formalize participation in the Joint Effort. On August 16, 2011, the City of Salinas modified its SWMP to include these steps. On May 3, 2012, the Central Coast Water Board approved Order No. R3-2012-0005, NPDES Permit No. CA0049981, Waste Discharge Requirements for City of Salinas Municipal Stormwater Discharges. Order No. R3-2012-0005, Provision J requires the City of Salinas to revise its Stormwater Development Standards to incorporate the Post-Construction Requirements, developed by the Joint Effort.

Stormwater Management to Protect Beneficial Uses

8. Prior to the Joint Effort, information on the local characteristics of Central Coast watersheds was inadequate for MS4s to develop Post-Construction Requirements that protect watershed processes so that beneficial uses of receiving waters are maintained and, where applicable, restored. The Central Coast Water Board secured funds from the State Water Quality Control Board's Cleanup and Abatement Account to support acquisition and assessment of information to inform the development of hydromodification control criteria and related Post-Construction Requirements. These funds were used to establish an expert team of scientists that would characterize the Central Coast region's watersheds and help create a methodology for developing Post-Construction Requirements based on that characterization. The Post-Construction Requirements included in this Resolution (Attachment 1) are based on the methodology, which has been summarized in the Technical Support Document for Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (Technical Support Document) (Attachment 2).

9. The Technical Support Document (Attachment 2) contains rationale, justification, and explanation for the Post-Construction Requirements. This information is hereby incorporated by reference.
10. Urban runoff is a leading cause of pollution throughout the Central Coast region. Development and urbanization increase pollutant loading and volume, velocity, frequency, and discharge duration of stormwater runoff. First, natural vegetated pervious ground cover is converted to impervious surfaces such as highways, streets, rooftops and parking lots. While natural vegetated soil can both absorb rainwater and remove pollutants, providing an effective natural purification process, impervious surfaces, in contrast, can neither absorb water nor remove pollutants, and thus the natural purification characteristics are lost. Second, urban development creates new pollution sources as the increased density of human population brings proportionately higher levels of vehicle emissions, vehicle maintenance wastes, pesticides, household hazardous wastes, pet wastes, trash, and other anthropogenic pollutants, which can either be washed or directly dumped into the MS4. As a result, the runoff leaving the developed urban area is significantly greater in pollutant load than the pre-development runoff from the same area. These increased pollutant loads must be controlled to protect downstream receiving water quality. Additionally, the increased volume, increased velocity, and discharge duration of stormwater runoff from developed areas, has the potential to accelerate downstream erosion, reduce groundwater recharge, and impair stream habitat in natural drainages.
11. A higher percentage of impervious area correlates to a greater pollutant loading, resulting in turbid water, nutrient enrichment, bacterial contamination, organic matter loads, toxic compounds, temperature increases, and increases of trash or debris.
12. The discharge of pollutants and/or increased flows from MS4s can cause or threaten to cause exceedances of applicable receiving water quality objectives, impair or threaten to impair designated beneficial uses, and result in a condition of pollution (i.e., unreasonable impairment of water quality for designated beneficial uses), contamination, hazard, or nuisance.
13. Maintenance and restoration of watershed processes impacted by stormwater management is necessary to protect water quality and beneficial uses. Watershed processes affected by stormwater, by actions to manage stormwater, and/or by land uses that alter stormwater runoff patterns include the following: 1) overland flow, 2) groundwater recharge, 3) interflow, 4) evapotranspiration, 5) delivery of sediment and organic matter to receiving waters, and 6) chemical and biological transformations. These watershed processes must be maintained and protected in order to support beneficial uses throughout the Central Coast region's watersheds. Restoration of degraded watershed processes, impacted by stormwater management, is necessary to protect water quality and re-establish impacted beneficial uses. New development, redevelopment, and existing land use activities create alterations to stormwater runoff conditions which in turn result in changes to watershed processes that can cause or contribute to impairment of beneficial uses and violations of water quality standards. Future growth planned within the Central Coast region will degrade watershed processes if not managed properly.
14. Low Impact Development (LID) is an effective approach to managing stormwater to minimize the adverse effects of urbanization and development on watershed processes and beneficial uses resulting from changes in stormwater runoff conditions. LID strategies can achieve significant reductions in pollutant loading and runoff volumes as well as greatly enhanced

groundwater recharge rates. The proper implementation of LID techniques results in greater benefits than single purpose stormwater and flood control infrastructure.

15. Controlling urban runoff pollution by using a combination of onsite source control and LID BMPs augmented with treatment control BMPs before the runoff enters the MS4 is important for the following reasons: 1) many end-of-pipe BMPs (such as diversion to the sanitary sewer) are typically ineffective during significant storm events, but onsite source control BMPs can be applied during all runoff conditions; 2) end-of-pipe BMPs are often incapable of capturing and treating the wide range of pollutants which can be generated on a sub-watershed scale; 3) end-of-pipe BMPs are more effective when used as polishing BMPs, rather than the sole BMP to be implemented; 4) end-of-pipe BMPs do not protect the quality or beneficial uses of receiving waters between the source and the BMP; and 5) offsite end-of-pipe BMPs do not aid in the effort to educate the public regarding sources of pollution and their prevention.
16. The risks associated with infiltration can be properly managed by many techniques, including: 1) designing landscape drainage features that promote infiltration of runoff, but do not "inject" runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil), 2) taking reasonable steps to prevent the illegal disposal of wastes, 3) protecting footings and foundations, and 4) ensuring that each drainage feature is adequately maintained in perpetuity. However, in some circumstances, site conditions (e.g., historical soil contamination) and the type of development (i.e., urban infill) can limit the feasibility of retaining, infiltrating, and reusing stormwater at sites.
17. Redevelopment projects involve work on sites with existing impervious surfaces and other disturbances that contribute pollutants to receiving waters and potentially impact watershed processes such as infiltration. Though implementation of infiltration based LID measures may be constrained by these conditions, post-construction stormwater management applied to redevelopment projects still holds the potential to partially mitigate these existing impacts as well as the impacts associated with the new or expanded portions of the project.
18. Providing long-term operation and maintenance of structural flow/volume control and treatment BMPs is necessary so that the BMPs maintain their intended effectiveness at managing runoff flow/volume and removing pollutants. If BMPs are not properly maintained, new development and redevelopment will cause degradation of watershed processes.
19. When water quality impacts are considered during the planning stages of a project, new development and many redevelopment projects can more efficiently incorporate measures to protect water quality and beneficial uses. Planning decisions should account for potential stormwater impacts to reduce pollutant loading and manage flows in order to maintain and restore watershed processes as necessary to protect water quality and beneficial uses.
20. Infiltration and subsurface flow are the dominant hydrologic processes across all intact watersheds of the Central Coast region. Different physical landscapes, defined by their surface geology and slope, respond differently to the changes in watershed processes imposed by urbanization, but the shift from infiltration to surface flow is ubiquitous.
21. The Post-Construction Requirements' emphasis on protecting and, where degraded, restoring key watershed processes is necessary to create and sustain linkages between hydrology, channel geomorphology, and biological health necessary for healthy watersheds. These linkages cannot be created by fine-tuning any particular flow attribute (e.g., peak,

duration) or reconstructing a desired geomorphic feature alone. Instead, these critical linkages only occur where key watershed processes are intact.

22. Section 402 (p) of the Clean Water Act requires the Administrator of the United States Environmental Protection Agency (USEPA) or her designated agent, in this instance, the Central Coast Water Board, to require as part of the stormwater program "controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." [USC Section 1342 (p)(3)(B)]. The maximum extent practicable (MEP) standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP. Reducing the discharge of stormwater pollutants to the MEP in order to protect beneficial uses requires review and improvement, which includes seeking new opportunities, such as establishing these Post-Construction Requirements.

Establishing Post-Construction Requirements

23. This Resolution enacts Post-Construction Requirements which fulfill the Joint Effort BMPs in the Joint Effort MS4s' SWMPs requiring development of hydromodification control criteria and applicability thresholds.
24. The Post-Construction Requirements enacted by this Resolution protect the beneficial uses of Waters of the United States. The intent of the Post-Construction Requirements enacted by this Resolution is to focus on those discharges that threaten beneficial uses, and to require implementation of BMPs to reduce stormwater pollutant discharges to the MEP and protect water quality and beneficial uses. The Post-Construction Requirements enacted by this Resolution are consistent with the evolving MEP standard.
25. This action to adopt this Resolution is exempt from the provisions of the California Environmental Quality Act (Public Resources Code §21100, et seq.) in accordance with section 13389 of the Porter-Cologne Water Quality Control Act (Porter-Cologne, Division 7 of the California Water Code).
26. The Post-Construction Requirements, developed by the Joint Effort, will become effective upon approval of this Resolution by the Central Coast Water Board.

Stakeholder Involvement

26. On August 27, 2009, September 3, 2009, and September 8, 2009, Central Coast Water Board staff held stakeholder workshops around the Central Coast region to provide an opportunity for stakeholders to help select project milestones for the two-year Joint Effort process. At the October 23, 2009, December 9, 2010, December 11, 2011, and March 15, 2012 Central Coast Water Board Meetings, staff provided updates on the Joint Effort to the public and Board Members. Central Coast Water Board staff established the Joint Effort Review Team (JERT), consisting of stakeholders representing the regulated governmental agencies, environmental management agencies, developers, and technical consultants, to provide review of Joint Effort project deliverables. The JERT met for the first time December 15, 2010, and held its seventh meeting March 28, 2012. On February 9 and October 31, 2011, Central Coast Water Board staff distributed to stakeholders Joint Effort updates and

status reports. In December 2011 and January 2012, Central Coast Water Board staff conducted outreach to Joint Effort MS4s on the status of the Joint Effort. On February 15 and 16, 2012, Central Coast Water Board staff conducted workshops to provide updates on the Joint Effort.

27. Central Coast Water Board staff implemented a process to inform interested persons and the public and solicit comment on the Post-Construction Requirements developed through the Joint Effort. On June 5th and 6th, 2012, Central Coast Water Board staff conducted workshops on the Post-Construction Requirements. On May 14, 2012, staff issued a public notice indicating that the Central Coast Water Board would consider adoption of the Post-Construction Requirements. The public notice provided the public a 53-day public comment period preceding the Central Coast Water Board hearing. Central Coast Water Board staff responded to oral and written comments received from the public. All public comments were considered. Public notice of the public hearing was given by electronic mail on May 14, 2012. Relevant documents and notices were also made available on the Central Coast Water Board website.
28. On September 6, 2012, in San Luis Obispo California, the Central Coast Water Board held a public hearing and heard and considered all public comments and evidence in the record.

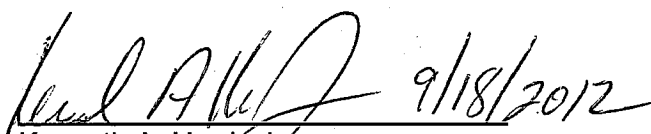
THEREFORE, be it resolved that:

1. The Post-Construction Requirements, as defined in Attachment 1 are appropriate and effective requirements for small MS4s subject to the post-construction requirements of the current and subsequent Phase II municipal General Permits to apply to development projects, in order to protect watershed processes so that beneficial uses of receiving waters affected by stormwater management are maintained and, where applicable, restored.
2. The Central Coast Water Board adopts the Post-Construction Requirements, as defined in Attachment 1, as the minimum post-construction criteria that Central Coast Joint Effort MS4s must apply to applicable new development and redevelopment projects in order to protect water quality and comply with the MEP standard and Phase II Municipal General Permit section D, which requires implementation of the SWMP and its incorporated BMPs.
3. As minimum criteria, MS4s may establish criteria more stringent than the Post-Construction Requirements as defined in Attachment 1. The MS4 may determine the need for greater stringency based on specific factors and conditions affecting implementation of the Post-Construction Requirements. Greater stringency may be achieved by lower applicability thresholds where practical; additional site design and runoff reduction requirements; and more rigorous flow control (peak management) criteria than indicated in the Post-Construction Requirements as defined in Attachment 1.
4. Central Coast Joint Effort MS4s shall amend or attach the Post-Construction Requirements, as defined in Attachment 1, to their SWMP, so that the Post-Construction Requirements are a part of the SWMPs. The Central Coast Water Board Executive Officer, through the certification of this Resolution, hereby approves these modifications to the SWMPs.
5. By September 6, 2013, the Central Coast Joint Effort MS4s shall apply the Post-Construction Requirements to all regulated projects as defined in Attachment 1. Central Coast Joint Effort MS4s shall continue to apply the Post-Construction Requirements to all

regulated projects as defined in Attachment 1, pursuant to subsequent Phase II Municipal General Permits, unless the Central Coast Water Board Executive Officer requires otherwise.

6. The Central Coast Water Board adopts the Post-Construction Requirements, as defined in Attachment 1, as the minimum post-construction criteria that the City of Salinas must apply to applicable new development and redevelopment projects in order to protect water quality and comply with the MEP standard and Order No. R3-2012-0005, NPDES Permit No. CA0049981, Waste Discharge Requirements for City of Salinas Municipal Stormwater Discharges.

I, Kenneth A. Harris Jr., Interim Acting Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of the resolution adopted by the California Regional Water Quality Control Board, Central Coastal Region on September 6, 2012.



Kenneth A. Harris Jr.
Interim Acting Executive Officer

ATTACHMENT 1: Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region

ATTACHMENT 2: Technical Support Document for Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region