



June 27, 2008

Mr. Roger Briggs  
Executive Officer  
Central Coast Regional Water Quality Control Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401-7906

**Subject: 2/15/08 Letter regarding Notification to Traditional Small MS4s on Process for Enrolling under the State's General NPDES Permit for Storm Water Discharges**

Dear Mr. Briggs:

The California Stormwater Quality Association (CASQA) would like to take this opportunity to submit this comment letter regarding the subject notification and, in particular, Central Coast Regional Water Board staff's "expectations" for Phase II Stormwater Management Program (SWMP) content to receive approval for complying with the State's April 2003 Phase II General Permit.

CASQA is composed of stormwater quality management organizations and individuals, including cities, counties, special districts, industries, and consulting firms throughout California. Our membership provides stormwater quality management services to over 26 million people in California and includes most every Phase I and many Phase II municipal programs in the State. CASQA was formed in 1989 to recommend approaches for stormwater quality management to the State Water Resources Control Board (State Water Board).

CASQA typically refrains from commenting on issues associated with a specific Regional Water Board. However, the implications of your notification letter are significant and we believe inconsistent with the current standard of practice of stormwater quality management.

Beginning on page 4 of the subject 2/15/08 notification letter, Central Coast staff outlines its expectations for the smaller MS4s within the Central Coast region for meeting the following "conditions":

- Maximize infiltration of clean stormwater and minimize runoff volume and rate,
- Protect riparian areas, wetlands, and their buffer zones,
- Minimize pollutant loadings, and
- Provide long term watershed protection.

Our concerns primarily regard staff's expectations for meeting the first "condition." These are nearly identical to proposed requirements from the draft<sup>1</sup> Phase I Ventura permit written by Los

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<sup>1</sup> Draft Tentative Order Ventura County MS4 permit, 4/29/08, Los Angeles Regional Water Board staff

Angeles Regional Water Board staff. Many of these draft proposed Phase I requirements have not been finalized and adopted by any Water Board. In fact, many of the draft proposed Phase I requirements are the subject of much scientific and technical study and discussion, and accordingly, are being debated and contested by a large number of municipalities and industry representatives. The final outcome of these discussions will likely not be known before December 2008.

We want to recognize and express our support for the Central Coast Regional Water Board's decision to support the implementation of Low Impact Development (LID) through the establishment of an endowment and provision of LID and hydromodification design and implementation services as needed. However, based on the knowledge gained by the Phase I MS4s with the most experience with LID and hydromodification, focusing on implementation before establishing technically sound and integrated criteria and approaches is akin to putting the cart before the horse. As a result, CASQA firmly believes that Central Coast staff has created requirements that the Phase II MS4s will be at a considerable disadvantage, compared to Phase I MS4s, to meet (and may never be able to meet due to technical and economic reasons). We make this statement based on the following insights:

- Hydromodification criteria – Phase I programs have been expending significant effort on the technical challenge of developing appropriate hydromodification criteria for a number of years. Since 2001 the San Francisco Bay Area Phase I permittees have been working to address this issue, yet there is still no accepted common approach (witness the different approaches between the Santa Clara and Contra Costa Counties). Given the need to establish an accepted approach that is fully integrated into water quality management programs, the Southern California Stormwater Monitoring Coalition and the Southern California Coastal Water Research Project have initiated grant-funded efforts to evaluate stream impacts and to develop a series of hydromodification management tools. These tools will support implementation of appropriate hydromodification management actions to better protect the physical, chemical, and biological integrity of streams and their associated beneficial uses<sup>2</sup>. This study is currently in year two of a three-year schedule. These tools will ultimately assist both Phase I and II municipalities in developing appropriate hydromodification management approaches. Consequently requiring Phase II communities in the Central Coast region to independently develop their own criteria/approach to this technically complex subject is unreasonable.
- Effective impervious area – The possible creation of “Effective Impervious Area (EIA)” threshold requirements as a “driver” for LID approaches is currently the subject of intense controversy within the stormwater quality management/science community as well as among planners and practicing landscape architects. Specifically, there is disagreement as to: whether this EIA criterion should be used (and, if used, whether it should be translated from its originally conceived watershed scale and applied on a site-by-site or regional basis) along with the implications upon urban redevelopment – whether it is compatible with smart growth concepts, and possibly increase urban sprawl. For example, underground storage vaults for urban runoff may not be technically feasible on many project sites. Locations with shallow groundwater or underground contamination (i.e.,

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<sup>2</sup> SCCWRP Research Project A6 – Assessment and Management of Hydromodification Effects.

brownfields) may not be able to install tanks to hold stormwater. There are other methods that permittees can use to meet maximum extent practicable (MEP) requirements that should not be eliminated with an EIA criterion. These requirements need thorough evaluation to ensure that societal goals, such as redevelopment of brownfields and infill development are not interfered with, but rather encouraged, by the permit.

Additionally, it is not clear that there is a reasoned technical basis to require such a relatively restrictive site design rule. The concept of total impervious area on a watershed scale has been shown to have a deterministic relationship with channel enlargement in the receiving stream. The studies that have demonstrated this relationship have been in watersheds without contemporary hydromodification mitigation controls. A recent study on this issue (Coleman et. al., 2005)<sup>3</sup> notes that effective impervious area is one of the recommended management strategies to be considered, depending on the current conditions of the receiving stream and the future anticipated conditions. The report notes that in-stream strategies are more appropriate for application where the stream course alignment has been altered or there are other drainage improvements in the watershed.

This debate has been taking place on several tracks (e.g., technical, policy) at the local, statewide, and national scales. The recent deliberations of the California Ocean Protection Council (OPC) are particularly noteworthy because the OPC has taken the recent lead on examining from a broader perspective the status of the development and use of LID as a BMP strategy in California. OPC commissioned a report<sup>4</sup>, held two OPC meetings and two public staff workshops, and adopted a resolution last month promoting the use of LID principles, including planned and recommended actions. *Appendix A: Options for Enhancing LID in California Policies* in the report on LID policies provides a list of about 50 recommended “Opportunities and Action Items” (Legislative, Aspirational, and Funding) through which LID can be promoted or enhanced. That report makes several observations, lists issues, and provides recommendations that relate to the development and use of LID as a BMP strategy in California, including:

#### Observations

In California, there has been an upsurge in district planning. New models of district planning have been launched and fine-tuned in California, including form-based codes, new urbanism, transit-oriented development, and a new Leadership in Energy and Environmental Design (LEED) pilot for neighborhood development (LEED-ND).

#### Issues

**H1. *LID requirements are often written to apply to individual projects, which results in uneven application.***

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<sup>3</sup> Coleman, D., MacRae, C., and Stein, E., “Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams”, Technical Report 450, Southern California Coastal Water Research Project, April 2005

<sup>4</sup> *State and Local Policies Encouraging or Requiring Low Impact Development in California – Final Report*, Prepared by Tetra Tech, Inc. for Ocean Protection Council, January 2008

**H3. LID often designates hydrology as the indicator of environmental impacts.** By their regulatory nature, stormwater rules have the farthest reach into zoning codes. These rules tend to emphasize stormwater peak flow attenuation and volume capture, causing hydrologic performance to outweigh other important environmental issues that are considered in non-regulatory planning documents, such as infill and redevelopment priorities and regional growth patterns that can affect watershed health.

**H4. Suburban-style LID requirements can run counter to the planning, transportation and climate emphasis on compact design.** Meeting strict stormwater performance standards in urban areas can be much more difficult than in open areas with room for swales, infiltration and detention. While LID techniques can decrease costs for greenfields applications, they can pose higher costs for urban developers, since underground vaults are often needed to augment urban green building, streetscape and landscape BMPs to meet performance standards.

#### Actions

**H12.** Sponsor an analysis of pilot neighborhoods in the LEED-ND program to see if they meet stringent stormwater requirements (for volume, treatment and flow control).

**H14.** Sponsor a pilot study to align major water planning documents (e.g., Basin Plan, Integrated Regional Watershed Management Plan) with regional and local requirements (e.g., stormwater permit requirements and local zoning codes) with respect to LID goals and requirements.

**H17.** Fund a project to better describe LID techniques based on development settings in California similar to the effort underway within the Congress for New Urbanism<sup>5</sup> based on the “transect.” The transect establishes seven transect zones based on intensity of development and urban form. This approach was used to develop new street standards and could serve as a model for stormwater management as well.

Based on the commissioned report and input received at the OPC meetings and workshops, the Ocean Protection Council adopted a resolution on May 15, 2008 that CASQA supported (including amendments provided by NRDC) that included the following actions related to stormwater and LID (and by extension EIA) [underline added]:

#### **2. State Regulatory Actions**

a. *State Water Board LID Policy* – The State Water Board is encouraged to adopt a statewide policy for addressing all elements associated with changes in runoff due to hydromodification impacts, including those specifically related to urbanization. This policy would include direction on when and how to use LID to avoid, minimize and mitigate runoff so that downstream water bodies are protected.

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<sup>5</sup> At the national scale, NRDC, Congress for the New Urbanism, USEPA, and the U.S. Green Building Council have been developing the LEED-ND standard, which is a comprehensive attempt to integrate land use, financial, transportation, environmental, and urban design components into a single system for evaluating neighborhood design.

### **3. Incentives, Technical Support, and Research**

*c. Research and Development of LID* – Promote and consider funding technical research for development of a LID design manual, including example designs and specifications for LID features, and post-construction evaluations of the effectiveness of constructed LID features in removing pollutants and controlling runoff flows.

- Consistency – We are not suggesting that the small MS4s not move forward with implementing LID strategies and provide protection of stream bed integrity. We do recommend that the Central Coast staff also review the approach being proposed by State Water Board staff in the Draft Construction General Permit. In making this recommendation, CASQA is not taking a position on this other approach; rather we are recognizing the approach being proposed by the Central Coast Water Board staff is inconsistent with (and will add considerable confusion) to the State Water Board proposed approach. At a minimum, the difference in approaches once again raises the question as to why the Water Boards are proposing such inconsistent approaches to basically the same ends and whether the inconsistency is necessary and appropriate.
- Patchwork – The somewhat patchwork approach being proposed by Central Coast staff for water quality management (i.e., the discharger is implementing treatment control BMPs, LID strategies, and hydromodification controls) will add confusion to an already confusing situation. We believe developing a statewide policy statement is the appropriate vehicle for considering and integrating these concepts. This will provide better public opportunities to consider potential conflicts and craft a fully integrated approach to water quality management.

All of the above demonstrates that Central Coast staff's expectations regarding hydromodification and LID criteria are not SWMP-ready. Given the current state of knowledge and experience, CASQA has recommended to Water Boards that they work with permittees, CASQA, researchers, and stakeholders to:

- Identify an initial list of LID strategies that must be considered for all development.
- Develop a performance standard for LID strategies that considers the lessons learned in translating the concept of LID into projects (e.g., San Francisco Bay Area Phase I research and experience) and recommendations from other drivers such as urban design (e.g., LEED-ND standard).
- Produce findings that can form the basis of permit provisions, guidance, SWMPs, implementation plans, etc.

In summary, CASQA believes Central Coast staff should reconsider their expectations for new development within the Phase II Stormwater Management Plans. Phase I communities are expending significant effort and resources, yet still struggling to meet the technical challenge of developing appropriate hydromodification and LID criteria that are both practical and that will lead to achieving our water quality goals. Placing such an effort on the Phase II communities is

inherently impractical as they lack the technical and financial resources to deal with this complex issue.

Thank you for the opportunity to provide comments. If you have any questions please contact Geoff Brosseau, CASQA Executive Director.

Very truly yours,

A handwritten signature in black ink, appearing to read 'CCQ' followed by a stylized flourish.

Chris Crompton, Chair  
California Stormwater Quality Association

cc: Tam Doduc, Chair, State Water Board  
Gary Wolff, Vice-Chair, State Water Board / Liaison, Central Coast Regional Water Board  
Dorothy Rice, Executive Director, State Water Board  
Jonathan Bishop, Chief Deputy Director, State Water Board  
Bruce Fujimoto, Section Chief-Stormwater, State Water Board  
Christine Sotelo, Staff-Phase II Stormwater, State Water Board  
Greg Gearheart, Unit Chief-Industrial/Construction Stormwater, State Water Board  
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