CASQA
California Stormwater Quality Association™
Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

May 29, 2008

Ms. Tracy Egoscue
Executive Officer
Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Draft Tentative Order - MS4 NPDES Permit for the Ventura Countywide Stormwater Program

Dear Ms. Egoscue:

Thank you for this opportunity to comment on the April 29, 2008 draft Tentative Order - MS4 NPDES Permit for the Ventura Countywide Stormwater Program (Draft Tentative Order). Please accept these comments regarding the Draft Tentative Order submitted by the California Stormwater Quality Association (CASQA) on behalf of its members.

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).

Although CASQA typically refrains from commenting on individual municipal permits, Los Angeles Regional Water Board staff is proposing in the Ventura Draft Tentative Order the following potentially precedent setting requirements that raise significant technical issues, questions, or concerns:

- Municipal Action Levels (MALs)
- Effective Impervious Area (EIA)
- Best management practice (BMP) performance design criteria

Municipal Action Levels (MALs)

We concur with the concept of Action Levels as recommended by the State's Blue-Ribbon Panel and strongly disagree with the MAL approach as contained in the Draft Tentative Order, which is entirely contrary to these recommendations as discussed below.

Developing and Implementing MALs

The MALs in the Draft Tentative Order are in conflict with the Blue-Ribbon Panel Report Findings on two major principles regarding the purpose and use of Action Levels: the current infeasibility of numeric effluent limitations for municipal stormwater, and the definition of maximum extent practicable (MEP).

Numeric effluent limitations are infeasible – Below is a side-by-side comparison of language from the Water Boards' Blue-Ribbon Panel Report and the Draft Tentative Order [underline added].

Water Boards' Blue-Ribbon Panel Report	**Draft Tentative Order**
"It is not feasible at this time to set enforceable numeric effluent criteria for municipal BMPs and in particular urban discharges…"	*"a running average of twenty percent or greater of exceedances of any discharge of storm water from the MS4 to waters of the U.S. that exceed the Municipal Action Levels (MALs)…will require each permittee to… reduce the discharge…"*

To determine whether numeric effluent limitations were appropriate for stormwater discharges the State Water Board convened a panel of experts in September 2005 (Blue-Ribbon Panel) to address the following question: "Is it technically feasible to establish numeric effluent limitations or some other quantifiable limit for inclusion in storm water permits?" The Blue-Ribbon Panel's Report, issued in June 2006, unequivocally states the position that numeric limits for municipal stormwater discharges are not feasible at this time (Blue-Ribbon Panel Report, pg. 8). And yet, the MALs proposed in the Draft Tentative Order are defined as not-to-exceed limits on the discharge of pollutants in stormwater discharges (i.e., numeric effluent limits) – in direct conflict with the Water Board's expert Blue-Ribbon Panel Report.

Municipal Action Levels (MALs) ≠ Maximum Extent Practicable (MEP) – Below is a side-by-side comparison of language from the Blue-Ribbon Panel Report and the Draft Tentative Order [underline added].

Water Boards' Blue-Ribbon Panel Report	**Draft Tentative Order**
"For catchments not treated by a structural or treatment BMP, setting a numeric effluent limit is basically not possible. However, the approach of setting an "upset" value, which is clearly above the normal observed variability, may be an interim approach which would allow "bad actor" catchments to receive additional attention. For the purposes of this document, we are calling this "upset" value an ***Action Level*** *because the water quality discharge from such locations are enough of a concern that most all could agree that some action should be taken ..."*	*"…exceedances…of the operative MAL(s) shall create a presumption that the permittee(s) have not complied with the MEP provision in subpart 4.A.2, and have failed to implement adequate storm water control measures and BMPs to comply with the MEP criteria."*

Maximum extent practicable is one of the two standards of performance for municipal stormwater quality programs (the other being effective prohibition of non-stormwater discharges). As such, MEP defines conforming performance. When the Water Boards' Blue-Ribbon Panel proffered the concept of Action Levels, they did not do so to define MEP. In their report they define Action Level as an "upset value…clearly above the normal observed variability…enough of a concern that most all could agree that some action should be taken…" In other words, an Action Level defines an aberrant condition. And yet, the MALs proposed in the Draft Tentative Order are equated with MEP – counter to the Water Boards' expert Blue-Ribbon Panel Report Findings.

On the question of the degree to which a local Regional Water Board should follow statewide guidance and policy, the Water Boards have collectively established a clear policy statement[1]:

> *At their October 2006 meeting the Water Boards' Water Quality Coordinating Committee (WQCC) adopted the following:*
> - *On questions of law and overarching policy the State Board should provide guidance and build a basic policy framework from which the regions can appropriately tailor action.*
> - *Water Boards are committed to developing procedures and policies to minimize inappropriate inconsistency.*

Clearly, the purpose and use of the MALs as proposed in the Draft Tentative Order are in direct conflict with this policy statement as the MALs are inappropriately inconsistent with the Findings of the Water Boards' expert Blue-Ribbon Panel.

This inappropriate inconsistency is in direct conflict with the Water Boards own Strategic Plan in which "Consistency" is a top priority "to improve our organizational performance." (*Strategic Plan Update: 2008-2012*, California Water Boards: State Water Resources Control Board / Regional Water Quality Control Boards, Version 3 Draft January 25, 2008). The Strategic Plan notes the reason for consistency being a high organizational priority is "…stakeholders and the Legislature have named consistency in enforcement of the State's water quality laws as one of the most important issues facing the Water Boards." The Strategic Plan goes on to state that "the Water Boards will target areas where consistency has been raised as a concern, initiate actions to achieve warranted consistency, and ensure these improvements are implemented. First actions are… addressing inappropriate inconsistencies in the areas of… storm water…"

> ***CASQA recommends that the Regional Water Board adopt an approach, consistent with the expert Blue-Ribbon Panel Report, where the Action Levels are:***
>
> ***1) <u>derived</u> as defined by the Blue-Ribbon Panel, including using the most preferred and relevant datasets – local datasets;***
> ***2) <u>set</u> at a level to define "bad actors" / atypical or significant nonconforming performance; and***

[1] Water Boards Strategic Planning Stakeholder Summit workbook, March 12-13, 2007

*3) **used** to trigger aggressive efforts by the permittees to investigate the cause of atypical or significant nonconforming performance and implement appropriate corrective actions.*

Quantifiable Approach to Municipal Stormwater Program Implementation and Permit Compliance Determination

One of the primary reasons Regional Water Board staff has proposed MALs to determine whether the MEP standard has been achieved is because they would "clearly express[es] the standard for expected outcomes."[2] CASQA understands this concern and has been working diligently with municipal stormwater program managers, the State, and environmental interests to address this issue. These efforts have resulted most recently in the publication of a CASQA White Paper, "Quantifiable Approach to Municipal Stormwater Program Implementation and Permit Compliance Determination." In the White Paper, CASQA has combined the Action Level concept as recommended by the Water Board's Blue-Ribbon Panel, with CASQA's Program Effectiveness Assessment method[3], and existing regulatory options for NPDES permitting and TMDL implementation into a comprehensive strategy for managing stormwater quality. This paper is attached for your review.

We would welcome the opportunity to meet with you to discuss how such quantifiable measurements may be included in a municipal permit to:

- ease the determination of accountability,
- better ensure that water quality will be improved in a reasonable time frame, and
- avoid creating the kind of inappropriate inconsistency that would be in direct conflict with the Water Boards own Strategic Plan.

Effective Impervious Area (EIA)

The possible creation of "Effective Impervious Area" threshold requirements as a "driver' for Low Impact Development (LID) approaches is currently the subject of considerable debate and concern within the stormwater quality management/science community as well as among planners and practicing landscape architects. Specific aspects of this concern include whether this effective impervious area criterion should be used and, if used, if it should be applied on a site-by-site basis and its implications with urban redevelopment, smart growth, and 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., brownfields) may not be able to install tanks to hold stormwater. This type requirement needs to be better thought out to ensure that societal goals, like redevelopment of brownfields and infill development are not interfered with, but rather encouraged, by the permit. While this debate has been taking place on several tracks (e.g., technical, policy) at the local, statewide, and national

[2] Regional Water Board Workshop Item Number 5: Item Summary, Public Workshop to Receive Comments on the Second draft Ventura County Municipal Separate Storm Sewer System (MS4) Permit, August 28, 2007, NPDES Permit No. CAS004002, p. 2

[3] *Municipal Stormwater Program Effectiveness Assessment Guidance*, CASQA, May 2007

scales the recent deliberations of the California Ocean Protection Council (OPC) are particularly noteworthy.

The Ocean Protection Council 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[4], held two OPC meetings and two public staff workshops, and adopted a resolution this 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.***

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

[4] *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

(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[5] 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 <u>how to use LID</u> to avoid, minimize and mitigate runoff so that downstream water bodies are protected.

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 <u>specifications for LID</u> features, and post-construction evaluations of the effectiveness of constructed LID features in removing pollutants and controlling runoff flows.

Also, the approach being proposed by Los Angeles Regional Water Board staff seems to be in conflict to the State Water Board proposed approach in the draft Construction General Permit. While CASQA has some concerns with the draft Construction General Permit approach to new development (and will be providing our comments to the State Water Board), the proposed approach better reflects the state of knowledge. At a minimum, the difference in approaches 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.

Finally, 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.

[5] 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.

al., 2005)[6] 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 strategies appropriate for application where the stream course alignment has been altered or there are drainage improvements in the watershed are different from those applicable to relatively undisturbed watersheds.

All of the above demonstrates that proposed new EIA provision (PART 5.E.III.1 Integrated Water Quality/ Flow Reduction/ Resources Management Criterion) is not permit-ready.

CASQA recommends the Water Boards 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 translating the concept of LID into projects 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, implementation plans, etc.***

BMP performance design criteria

While CASQA generally supports the development of criteria for designing treatment control BMPs; as the developer and publisher of California's most widely referenced (including in Water Board permits and other documents) and used guidance on BMPs[7], CASQA concurs with the issues and concerns raised by the Ventura Countywide Stormwater Program regarding this brand new proposed permit provision. CASQA was one of the first to publish BMP performance information using effluent quality data rather than the traditional percent reduction data that had been used for decades. However, using BMP effluent quality data to establish design criteria raises a series of technical questions and implementation issues that have not been studied by or vetted among the stormwater quality management or science community. In fact, on this topic, the Water Boards' Blue-Ribbon Panel noted: "It will take a substantial research effort, including data gathering on well-designed BMPs, to develop design criteria…" As a result, proposed new provision PART 4.A.3 is not permit-ready.

CASQA recommends if the Tentative Order includes any provision related to BMP performance design criteria, that it be written:

- ***as a goal rather than as an absolute requirement, and***
- ***to encourage permittees to work with other permittees in the state as well as with CASQA and others to research and develop design criteria for treatment control BMP performance.***

[6] 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

[7] *California Stormwater BMP Handbooks*, California Stormwater Quality Task Force, 1993; CASQA, 2003

We thank you again for the opportunity to submit these comments and to provide our thoughts in developing a more proactive and constructive stormwater quality management permit. If you have questions regarding our comments or recommendations please contact me.

Very truly yours,

Chris Crompton, Chair
California Stormwater Quality Association

cc: Xavier Swamikannu, Chief-Stormwater Permitting, Los Angeles Regional Water Board
Tam Doduc, Chair, State Water Board
Gary Wolff, Vice-Chair, State Water Board
Frances Spivy-Weber, Member, State Water Board/Liaison, Los Angeles 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
Alexis Strauss, Director, USEPA Region IX
Stuart Drown, Executive Director, Little Hoover Commission
CASQA Executive Program Committee
CASQA Board of Directors

Attachment – CASQA White Paper – Quantifiable Approach to Municipal Stormwater Program Implementation and Permit Compliance Determination