



Dec 12, 2008

Tamara Presser
Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

RE: Phase II MS4 Storm Water Management Plan – City of Grover Beach

Dear Tamara Presser:

The Home Builders Association appreciates the opportunity to comment on the City of Grover Beach's Storm Water Management Plan (SWMP) published on your web site, with public comment due by Dec. 16, 2008.

Our goal remains to advocate for storm water management plans that achieve the maximum extent practicable for handling rainfall cleanly in a practical, achievable, and fiscally and technically feasible manner. We support solid science and the flexibility necessary to make sure each situation is treated based on local conditions and realities.

General Comments and Information Requests

City's Efforts to Comply Underestimate Complexity and Workload: The Home Builders Association is concerned that Grover Beach, like other local cities, is sincerely interested in meeting the Central Coast Regional Water Quality Control Board (CCRWQB) deadlines and goals. Unfortunately, that has led Grover Beach to overestimate what it can do in short time period and to underestimate the complex nature of the scientific assessments needed to manage stormwater effectively.

Request Withdrawal of the Interim Hydromodification Criteria Proposed in the Feb. 15 Letter because the Proposed Interim Criteria will Negatively Impact Redevelopment/Infill/Smart Growth Projects: Current land planning philosophies, being encouraged and mandated on municipalities and counties, are designed to encourage infill development in order to limit the negative environmental impacts of sprawl. The full application of the proposed Interim Hydromodification Criteria will make "Smart Growth" and infill strategies infeasible.

We are concerned that Grover Beach is following the Feb. 15 letter by addressing redevelopment of 5,000 square feet and requiring the post-construction hydrograph to match the pre-development hydrograph. We believe this is contrary to federal guidelines in the EPA's Stormwater Phase II Final Rule. We have not found where the authority is granted to go down to this level and believe that one acre is the minimum standard. Where is the authority delineated to regulate down to 5,000 square feet?

Our smart growth concern has been documented in the EPA publication "Using Smart Growth Techniques as Stormwater Best Management Practices". A table with the heading "Language *Hindering* Creation of Joint Smart Growth and Stormwater Policies" (emphasis added) lists among those hindrances:

- "Language specifying that post-development hydrology match the pre-development hydrology";
- "Language requiring that BMPs replicate natural systems or non-structural natural BMPs"; and
- "Impervious coverage limitations"

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Additionally, the EPA publication sites the Wisconsin Department of Natural Resources as an example of incorporating infill into Stormwater Regulations. Those regulations state (emphasis added):

- “For the infiltration standards, redevelopment sites *are exempt*” and
- “The peak discharge standards *do not apply to*: Sites classified as redevelopment and infill development less than 5 acres”.

The Interim Hydromodification Criteria proposed by the RWQCB in the Feb. 15 letter appear to run counter to the above EPA publication. Grover Beach and other cities trying to implement the Feb. 15 standards will be in conflict with the EPA and smart growth and will prevent local governments from creating the “Sustainable Community Strategies” required by state Senate Bill 375, designed to implement Assembly Bill 32, reduce green house gas emissions, and address climate change.

We recommend that the application of the proposed Interim Hydromodification Criteria be withdrawn for the small MS4s in the Central Coast until the issues relating to hydromodification have been resolved by the larger Phase I MS4s and to the satisfaction of all of the Central Coast stakeholders involved.

Request that RWQCB Staff Provide the Public Record with Supportive Documentation: We request that the Central Coast Board introduce into the public record for Grover Beach’s Storm Water Management Plan the economic and technical information and research that the Regional Board publicly referenced regarding post-construction stormwater management on Page 3, Item 12, in the Oct. 17, Lompoc Resolution R-3 2008-0071. We assume Grover Beach’s resolution will substantially resemble Lompoc’s, where the Water Board stated that it:

- A. “... has been evaluating, as demonstrated in the administrative record, the various options for control of water quality conditions affected by post-construction stormwater discharges and has concluded that controlling hydromodification typically associated with urbanization is reasonably achievable.”
- B. “... considered economics and found that the best information available indicated that controlling hydromodification through, among other approaches, implementation of low impact development principles, is technically feasible, practicable, and cost-effective”; and
- C. “... found that the required revisions would not affect regional housing supply. Hydromodification controls have been applied in this and neighboring regions with no demonstrated affect on housing availability.”

We request that the public record specifically include (a) the methodology and standards used to determine what is “reasonably achievable” in item A above, (b) what “best information available” was used to determine what is “technically feasible, practicable and cost-effective” and how it was determined to be the best information available in item B above, , and (c) what data and methodology were used to decide that hydromodification controls will not impact housing supply or availability and which communities are referenced “in this and neighboring regions” in item C above.

Request for a Written, Detailed Comparison between State and Regional Stormwater Criteria and Standards: The association requests a clear, step-by-step description of the differences between the criteria established in the California MS4 General Order, including Attachment 4, and the criteria identified in the Feb. 15 CCRWQCB letter, and what technical findings support the CCRWQCB differences.

Request Elaboration of the Interim Criteria Language “as effective as”: The City of Lompoc SWMP approval resolution, and apparently other SWMP comments, stated that “The proposed criteria must be effective as ...” We would like specific, detailed, quantifiable clarification as to what “as effective as” means. Additionally, we request that the CCRWQCB assist in this analysis by providing the “technical findings” that demonstrate how effective the CCRWQCB proposed Interim Criteria are. In order to compare effectiveness, we believe that the CCRWQCB should provide it’s analysis of the effectiveness of the criteria it is proposing.

Request Public Hearing: For these reasons, for those cited below specific to the plan and to the Water Board staff’s response, and for a thorough public analysis and understanding of the city’s proposed storm water management plan, the association believes that there are sufficient issues and concerns raised to warrant a public hearing on Grover Beach’s plan before the Water Board. We are so requesting such a hearing as an official appellant with adequate time to present our position at the public hearing.

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Specific Comments Concerning Grover Beach's Storm Water Management Plan

1. **The application of the Interim Hydromodification Criteria should be withdrawn (see above) or the time to complete developing the Interim Hydromodification Criteria should be 2 years:**

If the application of the criteria is not withdrawn as requested above, it would be more realistic for Grover Beach to have two (2) years to create its interim hydromodification criteria, rather than the one (1) year proposed in the city plan. Our association members experience in Southern California found that a one-year deadline to properly develop interim criteria is unachievable. In one year, Grover Beach cannot adequately research and understand the economic, technical, geological, and hydrological features that such criteria must address in order to achieve a scientifically sound method for cleaning stormwater to the maximum extent practicable.

It is obviously critical to protect public safety by insuring that the interim criteria are thoroughly researched before being applied. Criteria should not be "hurried" into practice either to meet an artificial deadline at the risk of unintended consequences that could jeopardize public safety or to implement criteria that does not have "technical findings" that demonstrate their feasibility and effectiveness. Grover Beach, like most Central Coast jurisdictions, has a small, hardworking staff and lacks the human and financial resources to realistically comply with a one (1) year deadline, guarantee public safety, and demonstrate feasibility and effectiveness.

We are attaching for the public record on Grover Beach's plan the June 27, 2008, California Stormwater Quality Association (CASQA) letter to Central Coast Regional Water Quality Control Board Executive Officer Roger Briggs. CASQA, which provides stormwater quality management services to more than 26 million Californians, noted that it is a sequencing error to implement the criteria before determining what is technically possible and that it will take more than a year to do the appropriate, scientifically valid research. CASQA also noted that larger cities "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." It would seem wisest to let the larger metropolitan communities, with more human and fiscal resources, conduct thorough technical and financial analysis of how hydromodification/LID can work and then let the smaller, fiscally and staff-challenged Central Coast communities use these models and tailor them to their storm water plans to meet local conditions.

We recommend that the city be given two years to develop interim hydro modification criteria.

2. **Continued Enforcement of Existing Requirements:**

The Water Board staff required revision to Grover Beach's BMP PC1A is unrealistic. Requiring the city to implement quantifiable, numeric criteria within one year of enrollment or eliminate exceptions to onsite retention is fiscally and technically unachievable for a city with Grover Beach's staff and fiscal resources for the reasons stated in Item No. 1 above. It is not good planning or good science to force communities to hurriedly create rules without having time to measure their technical applicability or to anticipate potential unintended consequences.

We recommend that Grover Beach be given two years to revise its existing procedures.

3. **LID Application and Manual:**

For essentially the reasons articulated above in Item No. 1, Grover Beach cannot prepare and adopt an LID manual in year one as it proposes to do in PC1B. The city is technically unready to accomplish this task. Its plan does not address if it has high ground water issues due to its proximity to the Pacific Ocean. High ground water will impact the feasibility of low impact development and hydromodification and must be analyzed at the beginning of storm water management planning, before drafting and implement an LID manual.

In BMP PC1B2, Grover states that it can or may use the City of Santa Barbara's stormwater guidelines as a model for developing Grover's LID manual. That is premature and inapplicable to the local situation. Santa Barbara's plan, while praised by the Water Board staff, has not been approved as an LID manual or a storm

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water plan. Santa Barbara's plan is for a city with far more fiscal and human resources than Grover and radically different building conditions, land values, and land uses.

PC1C and PC1D also need to revise their phased implementation schedule. It will not be possible to draft and implement an LID manual in year two, educate city staff, and begin inspecting construction sites for compliance in year two. Grover will need at least two years to create an LID manual that is thoroughly researched and publicly reviewed and to train staff.

The association agrees with the Water Board staff response in PC4E that city staff "must understand the requirements and principals of LID/hydromodification control prior to implementation," but the Water Board staff required modification will make it even harder for the city staff to achieve that level of knowledge by forcing Grover Beach to develop the standards, draft a manual and educate the staff in the unrealistically short time frame of one year.

We recommend that the city be given two years to develop and implement an LID manual and educate city staff and that the manual focus on local soils and climatic conditions. If that is impossible, it should rely on a more comparable city for a model than the City of Santa Barbara.

4. **SWMP Post-Construction Application Cut-Off Point should be at "Deemed Complete":**

The most effective time to implement hydromodification/LID methods is at the start of a project's design phase. The later in the process a government tries to apply post-construction storm water methods to a project, the greater the cost and timing burdens that are placed on the jurisdiction and the project and the less likely that a technically effective, cost-efficient solution will be achieved.

A Tentative Subdivision Map cut-off point for the application of the new standards, as originally proposed by the Water Board staff is much too late in the design process. A better cut-off point is at the "deemed complete" stage of the project entitlement process. Projects that have not been "deemed complete" would be best able to implement new LID solutions without undue hardship on the jurisdiction or applicant. An application that has been accepted by a jurisdiction ("deemed complete") as ready for processing and a public hearings should not have to be re-designed to meet new standards. By deemed complete, both the jurisdiction and applicant have expended significant time and funds on the project. During the transition process, projects should be encouraged in their pre-application stage to voluntarily use LID methods in development design.

The term "deemed complete" comes from the Permit Streamlining Act. It requires public agencies (including charter cities like Santa Barbara and San Luis Obispo) to follow standardized time limits and procedures for specified types of land use decisions. The act applies to development projects that need adjudicatory approvals such as tentative maps, conditional use permits, and variances. It does not apply to legislative acts, like general plan amendments and rezonings (or development agreements or specific plans), or to such ministerial acts as lot line adjustments, building permits, or certificates of compliance.

Public agencies must establish one or more lists specifying the information an applicant must submit for a development project to be deemed complete. For instance, San Luis Obispo requires an application to include a vicinity map, statement on zoning, site development, description of any common areas and open space, CC&Rs, setbacks, drainage, faulting, slope analysis, technical reports like biological, cultural, noise, traffic, soils, engineering geology, and noise, archaeological recourse inventory, endangered species survey, preliminary title report, school site, environmental assessment, and an affordable housing plan. Some of these studies and reports will not be needed for each application, but getting a project to be "deemed complete" obviously takes extensive work. In addition, once an application is received, the agency has 30 days to either deem the application complete or notify the applicant what needs to be done to be deemed complete. If the city does not respond within 30 days, the application is deemed complete.

Once an application is deemed complete, the environmental review process begins. When the environmental report is approved, the city or county has 60 days if the environmental document is a negative declaration or 180 days if an environmental impact report was required to approve or deny the project. Cities and counties generally approve the environmental document at the same hearing as they approve or deny the project.

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We recommend that projects whose application has been “deemed complete” by the City of Grover Beach before post-construction standards are adopted be exempt from them, but should be encouraged to comply with the regulations on a voluntary basis. Obviously, all projects in later stages of the entitlement, design, or construction process would be exempt from the application of the regulations as well.

5. **Clarify Project Phase-In Period to recognize “Deemed Complete” approach:**

Although it does not seem spelled out in the current plan, we recommend that the plan should clarify that the application of the new post-construction regulations to projects in the entitlement process would begin at the adoption of the City’s Interim Hydromodification Criteria (proposed at two (2) years in item 1 above) and be applied to all projects not “deemed complete” at that time.

In addition, Grover BMP PC4A states: “The City must insure that development applications are only deemed complete if they include post-construction BMP selection, sizing, and siting.” It is impossible for a project to select its BMP and the related sizing and siting until it has actually been approved. Requiring it to be done before “deemed complete” means the project will never be able to proceed since the entire development could be redesigned and changed during the approval process.

This level of detail requested by BMP PC4A requires extensive and costly time and effort, such as detailed grading, engineering and construction drawings necessary to determine the exact size, type and location of a BMP such as a bioswales, rain garden swale, underground cistern, storm water filter, etc., which is not practicable prior to the “deemed complete” stage.

We recommend that PC4A be rewritten as follows:

The City will insure that applications, received after completion of the Hydromodification Standards and LID Manual, are only deemed complete if they include a Preliminary BMP Plan indicating conceptual post-construction BMP selection, and siting. The Preliminary BMP Plan may be included in the Project Site Plan or as a separate document.

6. **Incorporating assessments from project geotechnical and soils consultants is imperative:**

All sites throughout the Central Coast do not have the same soils/site conditions. Specific site conditions may preclude applying the new standards due to low infiltration capability of soils or the potential for damage to other infrastructure. Applying the standards in those conditions can result in a public safety hazard or simply be impossible.

We suggest following the City of San Diego’s Land Development Manual – Storm Water Standards in which a Geological Investigation Report is required by a registered geologist or certified engineering geologist to indicate where infiltration is feasible or infeasible, what it can achieve, and how to mitigate impacts where it is feasible.

We recommend that the city’s storm water plan include a communitywide analysis by a geotechnical engineer to determine which areas within the urban boundary are suitable for the application of BMPs.

We also recommend that the city’s storm water plan state that it will rely on the applicant’s professional geotechnical/soils consultant’s analysis to determine if and where infiltration/low impact development BMPs are practical, how much is achievable, and what best management practices should be used when infiltration is infeasible or limited.

7. **Normal maintenance of existing infrastructure by public agencies, project developers, and home owners associations be exempted from the new standards:**

When maintaining existing infrastructure, existing site conditions may preclude applying the new standards. For example, when resurfacing an existing roadway that has no “extra” land available, it will not be possible to provide additional land for filtration purposes.

We recommend that normal maintenance of existing infrastructure by home owner associations, public agencies, and developers should not be considered new development and should be exempt from the new standards.

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8. **The “pre-development” definition must be “immediate pre-project”:**

How pre-development is defined is critical as the baseline for determining the increase in storm water volumes and rates for new development on a site. Defining pre-development as the original natural condition, regardless of current usage, will make many urban infill, smart growth projects fiscally and technically infeasible. Defining pre-development as before anything has been changed on a site is counterproductive to the current sustainability and new urbanism planning concepts and will promote sprawl, long-distance commuting, and increased air pollution.

In addition, a “pre-development” standard harkening to when the land was vacant presents a liability issue that will hamper urban infill by making insurers refuse to support a project because adding more water to an area than has been the standard for a lengthy time period will threaten to undermine nearby buildings constructed to withstand less groundwater. Insurers will not take that risk. Projects will not get built. There will be no improvement in storm water management.

The EPA publication, mentioned in the General Comment Section above, also states with respect to the definition of pre-development that (emphasis added):

“When you write your ordinance, however, you may want to avoid confusion by specifying that the pre-development condition *refers to the site immediately prior to redevelopment.*”

In Attachment C – Definitions, the San Diego Region California Regional Water Quality Control Board in order No. R9-2007-0001 for the incorporated cities of San Diego County, the San Diego Unified Port District, and San Diego County Regional Airport Authority defines:

“Pre-Project or Pre-Development Runoff Conditions (Discharge Rates, Durations, Etc.) – Runoff conditions that exist onsite immediately before the planned development activities occur. This definition is not intended to be interpreted as that period before any human-induced land activities occurred. This definition pertains to redevelopment as well as initial development.”

The requirement that post-construction must meet pre-construction conditions (defined as undeveloped soil type and vegetation) is unwarranted. Under the U.S. Green Building Council, which administers the LEED AP program and certifies buildings, a building site that achieves the highest level, Platinum, does not have to meet this stringent requirement.

We recommend defining pre-development as “the immediate pre-project condition” just as the San Diego Regional Water Quality Control Board has done.

9. **Economic balance:**

As previously mentioned, most Central Coast municipalities have small staffs and very limited financial resources. They and the construction industry face numerous regulations and requirements from a wide variety of government agencies, all with important and legitimate public benefit goals. Neither the governments nor the development community can resolve the often conflicting demands local, state and federal agencies impose.

San Luis Obispo County is preparing to adopt “smart” or “strategic” growth goals into its General Plan, pushing more intense residential development into urban areas at the same time as the storm water plans over-reliance on hydromodification/LID seems likely to make such development prohibitively expensive in places like Grover Beach. Similarly, making urban infill harder to achieve by over-emphasizing increased urban infiltration will leave cities like Grover Beach and San Luis Obispo County unable to meet green house gas reduction goals mandated by AB 32 and part of the efforts to address global climate change.

We recommend that Grover Beach’s plan include a clearly worded BMP that recognizes that maximizing storm water management improvement must be balanced against community need for affordable housing, reduced air pollution, market-place economics, municipal economics, and local public acceptance.

10. **Additional Specific Comments:**

Requirement PC4C also needs to be rewritten to clarify that the long-term maintenance and operation requirements imposed as a condition of approval on the development permit will be enforced against the

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developer "until the time the property is transferred" and then against the property owner or home owners association as appropriate

In requirement PC4G, the city plans to ensure that other nearby governments involved in watershed management adhere to an Effective Impervious Area (EIA) of 3 to 10 % of their jurisdiction. Grover Beach has no control over other nearby governments. Additionally, the CASQA letter referenced above notes that using EIA 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." The letter specifically notes that the controversy includes if "it (EIA) is compatible with smart growth, and possibly increase urban sprawl."

11. Continued Collaboration with Stakeholders such as the Home Builders Association:

Grover Beach's plan requires continued development/modification of various items such as a CEQA Checklist, LID Standards, and Hydromodification Criteria and Plans, throughout the five-year cycle. It is important that these items receive the same public scrutiny as the plan itself.

We recommend that the plan include a BMP stating that the City will continue to provide stakeholder consultation opportunities for all of the items to be developed during the five-year cycle.

12. Countywide Technical Advisory Committee Needed:

As we have mentioned previously, and now believe the Water Board concurred with on Oct. 17, the Water Board should encourage and assist the various jurisdictions of San Luis Obispo County in the formation of a Technical Advisory Committee to share information and advice on preparing stormwater management plans, hydromodification criteria and plans, and LID BMPs. San Diego County is successfully using such an approach. The result should be hydromodification criteria, plans, and BMPs that are feasible, practical, and usable, and achieve the intended objectives of the MS4 Order.

We recommend specifying in Grover Beach's plan that the Water Board staff will assist in creating and will participate in a Countywide Technical Advisory Committee.

We appreciate your consideration of our comments.

Sincerely yours,



Jerry Bunin
Government Affairs Director
Home Builders Association

cc: Jim Garing, Grover Beach City Engineer
Robert Perrault, Grover Beach City Manager
Roger Briggs, Executive Officer, RWQCB

Attachment

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California Stormwater Quality Association

Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

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 draft¹ Phase I Ventura permit written by Los

¹ 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 uses². 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.,

² 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)³ 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 report⁴, 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.

³ 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.

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

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 Urbanism⁵ 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.

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.

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 'CC', with a long horizontal stroke extending to the right.

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
Alexis Strauss, Director, USEPA Region IX
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