CITY OF GOLETA

December 17, 2012

Via Electronic Mail
State Water Resources Control Board
c/o Jeanine Townsend, Clerk to the Board
1001 I Street, 24th Floor
Sacramento, CA 95814
commentletters@waterboards.ca.gov

RE: CITY OF GOLETA COMMENT LETTER – REVISED DRAFT PHASE II SMALL MS4 PERMIT

Dear Chair Hoppin and Board Members,

The City of Goleta (Goleta) appreciates the opportunity to submit comments on the third draft of the Phase II stormwater permit (Revised Phase II Permit) for small municipal separate storm sewer systems (MS4s). Incorporated in 2002, Goleta lies on the south coast of Santa Barbara County, stretching approximately eight square miles within a narrow plain between the Santa Ynez Mountains and Pacific Ocean. Goleta is home to approximately 30,000 residents and an entrepreneurial business community. Goleta owns and operates a small MS4 and is subject to the post-construction stormwater management requirements (Post-Construction Requirements) of Central Coast Regional Water Quality Control Board (Central Coast Water Board) Resolution No. R3-2012-0025.[1]

Goleta is one of many statewide entities and public agencies constituting the Statewide Stormwater Coalition (Coalition). The Coalition submitted comments dated July 23, 2012, on the second draft of the Phase II Permit and is submitting comments, which Goleta supports, on the Revised Phase II Permit. Goleta continues to have concerns with the Revised Phase II Permit to the extent it is inconsistent with the July 23, 2012 comments. However, as required by the public notice for the Revised Phase II Permit, we limited these comments to the revisions made to the second draft Phase II Permit. Specifically, these comments address the Revised Phase II Permit's: (1) denial of the petitions for review related to the adoption of Resolution No. R3-2012-0025 filed by Goleta and others (Petitions for Review); and (2) incorporation of the Post-Construction Requirements at issue in the Petitions for Review. These actions are highly inappropriate and would have severe economic and environmental consequences for Goleta.

[1] *Approving Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region*, Resolution No. R3-2012-0025 (Sept. 6, 2012).

As explained below, dismissing the Petitions for Review in this permit proceeding conflicts with procedural law and due process principles. Further, the Post-Construction Requirements are inconsistent with the legal standard for reducing the discharge of pollutants in stormwater to the maximum extent practicable (MEP), were adopted without compliance with applicable legal procedures, and may subject Goleta to future takings claims. Future development and redevelopment within Goleta will require expenditures of exorbitant amounts of money and other resources to implement the unnecessary and unlawful Post-Construction Requirements. As a result, development and redevelopment will be significantly impeded or precluded, costing Goleta and its residents and businesses the benefits of tax revenue, jobs, and other economic opportunities. The Revised Phase II Permit is supposed to be a statewide permit of general application, and imposing requirements on Central Coast small MS4s that exceed those for other all other small MS4s throughout the state is unsupported and otherwise improper.

Goleta respectfully requests that you modify the Revised Phase II Permit to delete the denial of the Petitions for Review, remove the Post-Construction Requirements and any directive to comply with them, and make Central Coast small MS4s subject to the same post-construction standards as all other Phase II MS4s under the general permit. We also ask that you consider the Petitions for Review and incorporate by reference the Coalition's and California Stormwater Quality Association's comments.

A. Denying the Petitions for Review in the Revised Phase II Permit Proceeding Is Inconsistent with Procedural Law and Due Process Principles

In October 2012, Goleta and the Cities of Lompoc and Watsonville timely filed separate Petitions for Review challenging the Central Coast Water Board's adoption of Resolution No. R5-2012-0025. Resolution No. R5-2012-0025 establishes the minimum post-construction criteria that Central Coast small MS4s must incorporate into their stormwater management plans (SWMPs) and apply to redevelopment and development projects. These Post-Construction Requirements are found in Attachment 1 of Resolution No. R5-2012-0025. The Petitions for Review explain why the State Water Resources Control Board (State Water Board) should vacate, or at least modify (or direct the Central Coast Water Board to modify), Resolution No. R3-2012-0025, including Attachment 1. Sections B and C below discuss some of these reasons.

In response to a petition for review, the State Water Board may deny the petition "based upon a finding that the action or failure to act of the regional board was appropriate and proper[.]"[2] When adopting permit requirements, the permit findings must "bridge the analytic gap between the raw evidence and the ultimate decision or order."[3] This duty "conduce[s] the administrative body to draw legally relevant sub-conclusions supportive of its ultimate decision" and "minimize[s] the likelihood that the agency will randomly leap from evidence to conclusions."[4] Clear articulation of "the relationships between evidence and findings and between findings and ultimate action" discloses "the analytic route the administrative agency traveled from evidence to action."[5] The findings must reveal this route and be supported by evidence in the record.[6]

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[2] Cal. Code Regs., tit. 23, § 2052(a)(2)(A), emphasis added.
[3] *Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515 (*Topanga*).
[4] *Id.* at 516.
[5] *Id.* at 515.
[6] *Id.* at 514-515.

Further, the "formal disposition by the state board of any pending petition will be taken at a regularly or specially scheduled board meeting" where interested persons may provide comments on the matter.[7] Under Water Code section 13330(b), a petitioner may seek judicial review of the regional board's order "not later than 30 days from the date on which the state board denies review."[8] If a petitioner does not seek judicial review within the 30-day period, the order "shall *not* be subject to review by any court."[9]

The Revised Phase II Permit would deny the Petitions for Review in its Fact Sheet at footnote 31 by stating:

> By Resolution No. R3-2012-0025 dated September 6, 2012, the Central Coast Water Board approved modifications to the SWMPs of MS4s participating in the Joint Effort that incorporate the Central Coast-Specific Post-Construction Requirements into their SWMPs. Several petitions are currently pending before the State Water Board challenging the Resolution. *Notwithstanding the petitions, for the reasons stated, the State Water Board has determined that the Central Coast-Specific Post-Construction Requirements are appropriate for adoption in this Order for all Central Coast Small MS4s. Therefore, the Central Coast-Specific Post-Construction Requirements are being adopted as State Water Board-imposed requirements specific to the Central Coast Small MS4 Permittees. As a result, the State Water Board will not take further action related to the pending petitions.* As the State Water Board proceeds with the development of runoff retention and hydromodification control criteria that are keyed to watershed processes, the State Water Board expects to amend this Order to incorporate similar requirements for Permittees in the remainder of the State.[10]

This proposed denial of the Petitions for Review is inconsistent with applicable legal procedure and fundamental due process rights. By way of the footnote, the State Water Board is proposing to deny the Petitions for Review because the "Post-Construction Requirements are appropriate for adoption in this Order for all Central Coast Small MS4s."[11] However, the Revised Phase II Permit and its Fact Sheet contain no findings explaining why the Post-Construction Requirements in particular (as a whole or each individual requirement) are appropriate for adoption by the State Water Board. Indeed, the only finding specific to the Post-Construction Requirements is in the Fact Sheet and states: "A watershed process-based approach is already being used for Phase II MS4s that participated in the Central coast [sic] Joint Effort for developing hydromodification control criteria."[12] This finding is insufficient to bridge the analytic gap between the evidence in the record and decision to adopt the Post-Construction Requirements and deny review of the Petitions for Review. Moreover, Goleta submits that the evidence before the State Water Board does not support adoption of the Post-Construction Requirements in the Phase II Permit.

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[7] Cal. Code Regs., tit. 23, § 2067.
[8] See *Johnson v. State Water Resources Control Board* (2004) 123 Cal.App.4th 1107, 1114 (*Johnson*).
[9] Wat. Code, § 13330(d), emphasis added.
[10] Revised Phase II Permit Fact Sheet, p. 39 fn. 31, emphasis added.
[11] Revised Phase II Permit Fact Sheet, p. 39 fn. 31.
[12] *Id.* at p. 39.

Further, dismissing pending petitions in proceedings for adoption of a permit creates great risk of circumventing state regulations and due process rights. Due process requires fair, reasonable, and adequate notice of a proposed action, such as the denial of petitions pending before the State Water Board.[13] The fundamental requisite of due process is the opportunity to be heard, and this right has little worth unless a party has the ability to choose whether to contest an action.[14] Formally disposing of a pending petition where the only notice of the dismissal was in a document proposed for adoption at a permit hearing runs the risk of petitioners being uninformed of the proposed dismissal. In turn, petitioners may be denied the opportunity provided by regulation to be heard at a State Water Board meeting where they may comment on the dismissal.[15] They also may be denied their statutory right to seek judicial review of the underlying regional board order within 30 days after the State Water Board denies review of the petition.[16]

Due process "calls for such protections as the particular situation demands."[17] Further, basic fairness dictates that a party must have adequate notice of the procedure that determinates or affects the party's legal rights.[18] For the reasons stated and because complying with the Post-Construction Requirements has significant adverse consequences for Goleta (see below), dismissing the Petitions for Review in the Phase II Permit proceeding offends basic notions of due process principals and fairness.

B. The Post-Construction Requirements of Revised Phase II Permit, Appendix J Fail to Comply with State and Federal Law

The Revised Phase II Permit would require Goleta and other small MS4s in the Central Coast Region "to comply with the [Post-Construction Requirements] contained in Attachment J."[19] Attachment J of the Revised Phase II Permit (Attachment J) is a newly proposed attachment that sets forth the Post-Construction Requirements adopted by the Central Coast Water Board. The Fact Sheet for the Revised Phase II Permit explains that the "Post-Construction Requirements are being adopted *as State Water Board-imposed requirements* specific to the Central Coast Small MS4 Permittees."[20] Under the Revised Phase II Permit, Goleta would have to comply with the Post-Construction Requirements by September 6, 2013 – the same compliance deadline established in Resolution No. R3-2012-0025.[21]

As a result of new Attachment J and other related revisions to the Revised Phase II Permit, the State Water Board is proposing to adopt and include as part of its general permit

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[13] See *Diamond Roofing Co. v. Occupational Safety and Health Review Commission, et al.* (5th Cir. 1976) 528 F.2d 645, 649; *General Electric Co. v. U.S. Environmental Protection Agency* (D.D.C. 1995) 53 F.3d 1324, 1328; *Kempland v. Regents of University of California, et al.* (1984) 155 Cal.App.3d 644, 648; *In the Matter of the Revocation of the Grade V Wastewater Treatment Plant Operator Certificate Held by Kabine Mara*, Order No. WQC 84-5 (July 19, 1984), p. 18.

[14] *Traverso v. People ex rel. Department of Transportation* (1993) 6 Cal.4th 1152, 1163.

[15] See Cal. Code Regs., tit. 23I, § 2067.

[16] See Wat. Code, § 13330(b); *Johnson, supra,* 123 Cal.App.4th at 1114; see also *Stanley v. City and County of San Francisco* (1975) 48 Cal.App.3d 575, 579 ["[A]n action against the state may be brought only in a manner and within the time allowed by statute."].

[17] *Civil Service Association v. City and County of San Francisco* (1978) 22 Cal.3d 552, 561, quoting *Morrissey v. Brewer* (1972) 408 U.S. 471, 481.

[18] See *Tafti v. County of Tulare* (2011) 198 Cal.App.4th 891, 900.

[19] Revised Phase II Permit at pp. 82, 134.

[20] Revised Phase II Permit Fact Sheet, p. 39 fn. 31, emphasis added.

[21] Revised Phase II Permit at pp. 82, 134-135.

order hydromodification requirements that run afoul of state and federal law. For the reasons explained below, the State Water Board should reject the Post-Construction Requirements and revise the Revised Phase II Permit to require Central Coast small MS4s to comply with the same general permit requirements as all other small MS4s.

1. The Post-Construction Requirements Are Not Supported By the Necessary Findings or Evidence In the Record

As mentioned, adopted permit requirements must include findings that bridge the analytic gap between the evidence and the ultimate order and are supported by the evidence. The Post-Construction Requirements in Attachment J do not satisfy these standards. Rather, the findings make general statements regarding the need for hydromodification measures and, without citing evidence in the record, state that the "Post-Construction Requirements are appropriate for adoption in this Order[.]"[22] The findings do not explain the basis for each Post-Construction Requirement being proposed for the State Water Board's adoption or how the requirements relate to Goleta or any other Central Coast area. For example, there is no rationale for the claim that the 95th percentile rainfall event and multiplier of 1.963 for the 85th and 95th percentile rainfall events are appropriate.[23] The findings do not explain how the broad-scale watershed management zone (WMZ) designations for the Post-Construction Requirements account for local differences in soils, topography, and other conditions. Nor do the findings explain how each requirement constitutes MEP or why Central Coast small MS4s should be subject to controls that are different than those for all other small MS4s in the state. Accordingly, the findings impermissibly fail to "bridge the analytic gap" between the evidence and Post-Construction Requirements.[24]

For similar reasons explained on pages 16 to 19 of Goleta's Petition for Review and incorporated by reference herein, the Central Coast Water Board also failed to adopt the requisite findings or base the Post-Construction Requirements on the evidence that was before it. Indeed, that administrative record is replete with references to the unnecessary and unattainable nature of many of the Post-Construction Requirements.[25] The Central Coast Water Board did not adequately study or consider the specific concerns of parties who provided comments on the draft Post-Construction Requirements prior to their adoption.

Based on the foregoing, the State Water Board should remove the Post-Construction Requirements from the Revised Phase II Permit and require the Central Coast small MS4s to comply with the same general permit terms as all other small MS4s.

2. Adoption of the Post-Construction Requirements Would Violate Water Code Sections 13263(a) and 13241

[22] Revised Phase II Permit Fact Sheet, p. 39 fn. 31.
[23] See Attachment J, pp. 27-29.
[24] *Topanga*, *supra*, 811 Cal.3d at 515.
[25] See e.g., See comment letters regarding the Joint Effort Post-Construction Requirements submitted by the City of Lompoc on June 20, 2012; the County of Santa Barbara on July 3, 2012; the City of Goleta on July 5, 2012; and the California Stormwater Quality Association on July 6, 2012.

Water Code section 13263(a) requires the State Water Board to consider the factors of Water Code section 13241 when adopting permit-based requirements more stringent than federal law requires.[26] The Water Code section 13241 factors include:

(a) Past, present, and probable future beneficial uses of water.

(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

(d) Economic considerations.

(e) The need for developing housing within the region.

(f) The need to develop and use recycled water.

As explained by the Supreme Court in *Burbank*, "economic considerations" include the cost the permit holder will incur to comply with the adopted numeric pollutant restrictions.[27] Guidance from the State Water Board's Chief Counsel acknowledges the duty to consider economics and to engage in a balancing of public interest factors.[28] The State Water Board must address the Water Code section 13241 factors in the permit findings where permit conditions exceed federal requirements.[29]

Given that the Post-Construction Requirements exceed the MEP standard (see below), the State Water Board has a duty to consider economics and the other public interest factors in Water Code section 13241. Further, as explained in pages 19 to 20 of Goleta's Petition for Review and incorporated by reference herein, the Central Coast Water Board also failed to consider the factors of Water Code section 13241 as required.

For these reasons, the State Water Board should remove the Post-Construction Requirements from the Revised Phase II Permit and require the Central Coast small MS4s to comply with the same general permit terms as all other small MS4s.

3. The Post-Construction Requirements Impermissibly Exceed the MEP Standard

The Post-Construction Requirements are inconsistent with the MEP standard prescribed by the Clean Water Act, federal regulations, and State Water Board orders. Under the Clean Water Act, all MS4 permits must require controls to reduce the discharge of pollutants to the MEP. In this regard, the Clean Water Act states:

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[26] *Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 626-627 (*Burbank*).
[27] *Burbank, supra*, 35 Cal.4th, p. 627.
[28] Memorandum to Regional Water Board Executive Officers and Regional Water Board Attorneys, from William R. Attwater, Chief Counsel, SWRCB, Re: Guidance on the Consideration of Economics in the Adoption of Water Quality Objectives (Jan. 4, 1994).
[29] *In the Matter of the Review on Own Motion of Waste Discharge Requirements Order No. 5-01-044 for Vacaville's Easterly Wastewater Treatment Plant*, State Water Board Order WQO 2002-0015 (Oct. 3, 2002).

> Permits for discharges from municipal storm sewers . . . shall require 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 [permitting authority] determines appropriate for the control of such pollutants.[30]

The federal regulations require MS4 permittees to develop, implement, and enforce SWMPs to reduce discharges of pollutants to the MEP.[31] SWMPs must include BMPs and associated measurable goals to fulfill requirements associated with the following six minimum control measures: (1) public education and outreach on storm water impacts; (2) public involvement and participation in SWMP development and implementation; (3) illicit discharge detection and elimination; (4) construction and site storm water runoff control; (5) post-construction storm water management in new development and redevelopment; and (6) pollution prevention and good housekeeping for municipal operations.[32]

The MEP standard is met by implementing BMPs.[33] The federal regulations describe BMPs as "generally the most appropriate form of effluent limitations when designed to satisfy technology requirements (*including reduction of pollutants to the maximum extent practicable*) and to protect water quality."[34] The MEP standard entails an iterative process whereby the permittee reviews and improves BMPs over time.[35]

The applicable legal authority and guidance emphasize the need to consider site-specific factors (including cost) when determining what constitutes MEP. Immediately following is a more detailed discussion of the MEP standard in this regard and an explanation for why the Post-Construction Requirements impermissibly conflict with the MEP standard.

i. The MEP Standard Is Flexible, Continually Evolves, and Requires the Consideration of Site-Specific Factors

Applicable legal authority and other guidance make clear that MEP is a flexible, evolving, and site-specific standard that involves considering various factors. Such factors include public acceptance, cost versus benefits, and technical and economic feasibility. Technical feasibility may depend on local environmental conditions (e.g., soils, geography, parcel size), while economic feasibility may depend on local economic conditions.

U.S. Environmental Protection Agency (EPA) guidance states that the MEP standard, "allow[s] the permitting authority and regulated MS4s *maximum flexibility* in their interpretation of it as appropriate."[36] EPA guidance emphasizes the importance of applying MEP in a flexible,

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[30] 33 U.S.C. § 1342(p)(3)(B)(iii).
[31] 40 C.F.R. § 122.34(a).
[32] 40 C.F.R. § 122.34.
[33] 40 C.F.R. § 122.34(a).
[34] *Ibid*, emphasis added.
[35] *Id.*, § 122.34(g); see *In the Matter of the Petitions of Building Industry Association of San Diego County and Western State Petroleum Association*, State Water Board Order WQ 2001-15 (Nov. 15, 2001), pp. 5, 7; *In the Matter of the Petitions of the Cities of Bellflower, et al., the City of Arcadia, and Western States Petroleum Association*, State Water Board Order WQ 2000-11 (July 19, 2001), pp. 3, 16.
[36] Storm Water Phase II Compliance Assistance Guide, EPA 833-R-00-002 (Mar. 2000), pp. 4-17, emphasis added.

site-specific manner as part of an iterative process.[37] For example, EPA guidance for small MS4s states:

> *This final rule requires the permittee to choose appropriate best management practices (BMPs) for each minimum control measure.* In other words, EPA expects Phase II permittees to develop and update their stormwater management plans and their BMPs to fit the particular characteristics and needs of the permittee and the area served by its MS4. *Therefore the Federal or State operator of a regulated storm sewer system can take advantage of the flexibility provided by the rule to utilize the most suitable minimum control measures for its MS4.*[38]

Additional EPA guidance for small MS4s states: "Because redevelopment projects may have site constraints not found on new development sites, the Phase II Final Rule provides flexibility for implementing post-construction controls on redevelopment sites that consider these constraints."[39] Further, "[i]t is important to recognize that many BMPs are climate-specific, and not all BMPs are appropriate in every geographic area."[40] Other EPA guidance for new development and redevelopment states: "EPA recommends that the BMPs chosen: *be appropriate for the local community;* minimize water quality impacts; and *attempt* to maintain pre-development runoff conditions."[41]

State Water Board Order WQO 2000-11 and state guidance also emphasize the flexible, site-specific nature of MEP.[42] The State Water Board held that where "a permittee employs all applicable BMPs [best management practices] except those where it can show that they are *not technically feasible in the locality*, or whose *costs would exceed any benefit* to be derived, it would have met the [MEP] standard."[43]

Similarly, the 1993 Memorandum instructs that selecting BMPs to achieve MEP means "choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive."[44] The 1993 Memorandum recommends considering the following site-specific factors to determine whether a municipality would achieve MEP in a given instance:

1. Effectiveness: Will the BMP address a pollutant of concern?

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[37] 64 Fed. Reg. 68722, 68732, 68755 (Dec. 8, 1999); MS4 Program Evaluation Guidance, EPA 833-R-07-003 (Jan. 2007), p. 2; Stormwater Phase II Final Rule, EPA 833-F-00-009 (Jan. 2000), p. 1.
[38] Stormwater Phase II Final Rule, Federal and State-Operated MS4s: Program Implementation, EPA 833-F-00-012 (Dec. 2005), p. 2, emphasis added.
[39] Stormwater Phase II Final Rule, Post-Construction Runoff Minimum Control Measure, EPA 833-F-00-012 (Dec. 2005), p. 2.
[40] *Ibid.*
[41] See 40 C.F.R. § 122.34(b)(5)(iii), emphasis added. Goleta believes that any requirement more restrictive than an 85th percentile retention requirement will exceed Goleta's pre-development runoff conditions.
[42] See, e.g., State Water Board Order WQ 2000-11, *supra*, p. 20; Memorandum from E. Jennings, State Water Board Office of the Chief Counsel, to A. Matthews, State Water Board Division of Water Quality (Feb. 11, 1993) (1993 Memorandum), pp. 4-5, attached as Attachment A.
[43] State Water Board Order WQ 2000-11, pp. 19-20, emphasis added.
[44] 1993 Memorandum, p. 4.

2. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?

3. *Public acceptance: Does the BMP have public support?*

4. *Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*

5. *Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc.?*[45]

The State Water Board's existing Phase II Permit echoes the importance of the permittee having flexibility to develop its BMPs based on local conditions and describes MEP as "an ever-evolving, flexible, and advancing concept, *which considers technical and economic feasibility.*"[46] The Fact Sheet for the existing Phase II Permit explains that technical feasibility, cost, effectiveness, and public acceptance are factors used to develop BMPs that achieve MEP:

> In *choosing BMPs, the major focus is on technical feasibility, but cost, effectiveness, and public acceptance are also relevant.* If a Permittee chooses only the most inexpensive BMPs, it is likely that MEP has not been met. *If a Permittee employs all applicable BMPs except those that are not technically feasible in the locality, or whose cost exceeds any benefit to be derived, it would meet the MEP standard.* MEP requires Permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs are not technically feasible, or the cost is prohibitive.[47]

Nothing in the Clean Water Act, federal regulations, or State Water Board orders or guidance requires or supports the specific Post-Construction Requirements at issue. Nor do these authorities identify hydromodification criteria as necessary or appropriate to fulfill any of the six minimum control measures that a SWMP must include. The Post-Construction Requirements are highly prescriptive that apply across the Central Coast Region without proper regard for local economic and environmental conditions or technical feasibility. Once adopted, such requirements could be changed only through adoption of a resolution. This approach is anything but flexible, amenable to evolution, or site-specific and exceeds the MEP standard. As subsequently described, the Post-Construction Requirements exceed the MEP standard for being technically infeasible, far surpassing their economic benefits and/or being economically infeasible, and being generally and overwhelming unaccepted by the public.

ii. The Post-Construction Requirements Are Technically Infeasible

The Post-Construction Requirements exceed MEP because they are technically infeasible. For Goleta, and presumably for other municipalities, some of the most infeasible and troubling requirements are those to prevent off-site discharge from storms up to the 95th percentile 24-hour rainfall event and use of a multiplier of 1.963 when calculating retention volume and water quality volumes for storms.[48] Goleta's soil type does not allow infiltration at a rate conducive to these retention/infiltration requirements. Compounding the problem is that

[45] 1993 Memorandum, pp. 4-5, emphasis added.
[46] Phase II General Permit, pp. 4, 9, emphasis added.
[47] Phase II General Permit Fact Sheet, p. 9; see also 1993 Memorandum, pp. 4-5.
[48] Appendix J, pp. 27-29.

Goleta primarily has only infill and redevelopment properties available within its sphere of influence. Based on these conditions, much (if not all) of Goleta would be incapable of infiltrating the 95th percentile 24-hour rainfall event (with or without the use of multipliers) or 85th percentile 24-hour rainfall event with the 1.963 multiplier even in an undeveloped state. Further, the combination of the 95th percentile, 24-hour storm event with the 1.936 multiplier results in a retention requirement of approximately 5 inches of rainfall runoff for the City of Goleta. This equates to approximately 30 percent of total rainfall that Goleta receives for an entire year. Retaining this amount of rainfall for any site is impractical and may be both technically and economically infeasible. For non-Central Coast small MS4s, the Revised Phase II Permit proposes requirements up to the 85th percentile, but not the 95th percentile, 24-hour storm event, and does not apply the 1.963 multiplier.[49] There is no factual basis to support this increased retention criteria for the Cental Coast MS4s.

EPA technical guidance for Section 438 of the federal Energy Independence and Security Act (EISA) is the purported basis for the 95th percentile requirement.[50] The EISA guidance includes a 95th percentile retention requirement for federal facilities creating or replacing more than 5,000 square feet.[51] There is no basis to conclude (or findings in the record supporting) that this standard for federal facilities, which is backed by the federal government's resources, is technically or economically feasible for Goleta.

Moreover, the Post-Construction Requirements do not incorporate the full text of this guidance, which lists an alternative option for compliance to perform a site-specific hydrologic analysis and provide the appropriate site-specific compliance.[52] This option could be used if predevelopment runoff conditions can be maintained by retaining less than the 95th percentile rainfall event. Further, the EISA guidance provides for other options when retention of the 95th percentile storm event is not feasible.[53] Other options include: The use of evapotranspiration and harvesting and reuse, rather than just infiltration for areas designated as WMZ 1 and portions of WMZs 4, 7, and 10; specific conditions that can be used to justify a determination that it is not technically feasible to implement fully the criteria, and rainwater harvesting and use is not practical; and, when a determination of technical infeasibility is made, projects can be approved based on a maximum extent technically feasible versus requiring off-site compliance, regardless if off-site compliance is feasible.[54]

Under the Post-Construction Requirements, the proponent of a regulated project may undertake alternative compliance measures (off-site compliance) if the water quality or infiltration requirements cannot be met due to infeasibility.[55] Alternative compliance refers to achieving the requirement off-site through mechanisms such as developer fee-in-lieu arrangements and/or use of regional facilities.[56] However, this alternative means compliance is

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[49] Revised Phase II Permit, pp. 67, 126.
[50] *Method and Findings of the Joint Effort for Hydromodification Control in the Central Coast Region of California,* prepared for the Central Coast Water Board by Stillwater Sciences and Tetra Tech (June 14, 2012), p. 46.
[51] *Ibid.*
[52] *Technical Guidance On Implementing the Stormwater Runoff Requirements for Federal Projects Under Section 438 of the Energy Independence and Security Act*, EPA 841-B-09-001 (Dec. 2009), p. 12; see also California Stormwater Quality Association comment letter to Mr. Dominic Roques (July 6, 2012) (CASQA Comment Letter), pp. 3-4, attached as Attachment B.
[53] *Id.* at p. 4.
[54] *Ibid.*
[55] Resolution No. R3-2012-0025 at Attachment 1, pp. 10, 13; Appendix J, pp. 11, 13.
[56] Resolution No. R3-2012-0025 at Attachment 1, p. 13; Appendix J, p. 13.

also infeasible. For example, off-site compliance generally must occur in the same watershed.[57] For Goleta, existing development restrictions and environmental and economic constraints make this unworkable for many projects. Specifically, Goleta's General Plan includes many designated Environmentally Sensitive Habitat Areas (ESHAs), which preclude the use of these areas for off-site mitigation. The Post-Construction Requirements allow the Central Coast Water Board Executive Officer to approve off-site compliance projects outside the watershed, but the approval is discretionary, there are no criteria for when this approval should be given, and there is no certainty that suitable alternative lands exist or that it will be technically and economically feasible to implement a project on them.[58] In most instances, all suitable land may exist on private property.

iii. The Challenged Post-Construction Requirements Far Surpass Their Economic and Environmental Benefits and/or Are Economically Infeasible

The costs of the Post-Construction Requirements unquestionably exceed their benefits, and in some cases, the costs make the requirements economically infeasible to implement. Further, the Post-Construction Requirements come on the heels of the elimination of redevelopment funds by the state. Other than Housing and Urban Development monies, this was the only source of funding that was available to encourage beneficial redevelopment and property improvement within Goleta.

The adopted requirements would increase both the cost and complexity of development for private and city infill and redevelopment projects. For example, substantial additional costs will be incurred for engineering practices, low impact development (LID) materials, infiltration structures, and plan check and inspection fees. To comply with the Post-Construction Requirements on small lots, businesses may need to modify their development plans in a manner that no longer makes the project feasible (e.g., eliminate parking lots or office areas), which may constitute a regulatory taking.[59]

Due to the additional costs stemming from the Post-Construction Requirements, Goleta expects increased difficulty in attracting new businesses and retaining profitable businesses and lost revenue from planning and building development fees and property and sales tax. Lack of job creation from the loss of development/redevelopment will have tremendous long-term effects for Goleta. Further, affordable housing is expected to become unattainable as the cost of development associated with the requirements rises beyond that which is economically feasible.

To implement the Post-Construction Requirements, Goleta would, among other things, have to revise its Storm Water Management Ordinance, planning application forms and handouts, building application forms and handouts, environmental guidelines, and city improvement standards; train staff in requirements; undertake additional building and grading plan review and inspections; perform additional planning stormwater review for discretionary projects, concept plans, improvement plans, and stormwater control plan requirements; develop and adopt city standards for basins and LID features; and comply with detailed verification and reporting requirements. Such actions and implementing and overseeing the new ordinance would require significant staff time. Goleta cannot afford these additional expenses, and will be

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[57] *Ibid.*
[58] *Ibid.*
[59] See section C, post.

in the untenable position of having to divert money from vital public services in an attempt to cover the costs.

Further, the additional incremental volume of water captured by requiring a volume beyond the 85th percentile has not been demonstrated to be more protective.[60] For example, the 85th percentile 24-hour storm was "determined to be the 'maximized' or 'optimized' capture volume based on studies by Urbonas, et. al. in the 1990s."[61] A City of Denver study shows that doubling the maximized capture volume results in a very small increase in the total annual runoff captured.[62] "The 95th percentile, 24-hour storm volume is approximately twice that of the 85th percentile 24-hour storm. A sensitivity analysis performed for the City of Denver showed that doubling the maximized capture volume results in a very small increase in the total annual runoff captured." Conversely, however, the economic impact is significant. "While doubling the size of a facility to retain the 95th vs. the 85th percentile storm may not completely double the capital cost of the facility, it will likely double the opportunity cost, i.e., the surface area of the site that must be used for the stormwater control measure and can't be used for other purposes."[63]

Accordingly, costs for meeting the Post-Construction Requirements to retain runoff from storm events up to the 95th percentile 24-hour storm are not reasonable as compared to the environmental and economic benefit to be gained. Adding in the use of a multiplier of 1.963 for the 85th percentile 24-hour storm for water quality and for the 95th percentile 24-hour storm for retention/infiltration further exceeds MEP. As indicated above, when requirements exceed MEP, the water board must comply with Water Code section 13263 and consider the factors specified in Water Code section 13241, including economics.

iv. Post-Construction Requirements Far Exceed Similar Requirements in Phase I Municipal Stormwater Permits

The fact that many other Regional Water Boards have determined that the 85th percentile 24-hour storm is an appropriate basis for sizing of stormwater control measures for Phase I communities further demonstrates that the Post-Construction Requirements exceed MEP for small MS4s. The federal regulatory scheme establishes separate requirements for MS4 permits and applications based on whether the discharger is a large, medium, or small MS4.[64] The Phase I regulations govern stormwater permits for large and medium MS4s, which by definition serve incorporated areas with populations of 100,000 or more.[65] The Phase II regulations govern the issuance of stormwater permits for small MS4s, which serve populations of less than 100,000.[66]

As mentioned, SWMPs must include BMPs implementing six specific minimum control measures, and compliance with the BMPs equates to compliance with the MEP standard.[67] EPA has stated that small MS4s should not be required to implement BMPs that go beyond the six minimum control measures. EPA guidance "strongly recommends" that:

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[60] CASQA Comment Letter, p. 2.
[61] *Id* at pp. 2-3.
[62] *Id.* at p. 3.
[63] *Ibid.*
[64] See 40 C.F.R. § 122.26.
[65] See 40 C.F.R. §§ 122.26(b)(4), (7); 55 Fed. Reg. 47990 (Nov. 16, 1990).
[66] 40 C.F.R. §§ 122.26(b)(16), 122.30-122.37.
[67] 40 C.F.R. § 122.34.

> [N]o additional requirements beyond the minimum control measures be imposed on regulated small MS4s without the agreement of the operator of the affected small MS4, except where an approved TMDL [total maximum daily load] or equivalent analysis provides adequate information to develop more specific measures to protect water quality.[68]

Although development and redevelopment standards are one of the six specific minimum control measures, the specific Post-Construction Requirements are BMPs that exceed MEP. Other Regional Water Boards have determined that an appropriate BMP for post-construction stormwater is to retain and treat stormwater runoff that equals approximately the 85th percentile 24-hour storm runoff event, and the current Revised Phase II Permit would also adopt this requirement for all non-Central Coast small MS4s.[69] Moreover, in these other examples, facilities may be designed to evapotranspire, infiltrate, harvest/use, and biotreat stormwater to meet the volumetric sizing requirement.[70] Conversely, the Post-Construction Requirement for retention of the 95th percentile 24-hour storm, and only allowing infiltration in WMZ 1 and portions of WMZs 4, 7, and 10, for small Phase II communities, far exceeds the BMPs for larger municipalities. Such a contradiction indicates that the requirements exceed MEP.

v. There is an Overall Lack of Public Acceptance of the Post-Construction Requirements

Public comments related to the adoption of Resolution No. R3-2012-0025 provide overwhelming evidence of an overall lack of public acceptance for applying the Post-Construction Requirements to small MS4s. This is demonstrated by the fact that in addition to a typical "responses to comments" document (which in this case was 141 pages), Central Coast Water Board staff prepared a summary of responses to major comments titled: "Key Issues in Public Comments on May 14, 2012 Draft Resolution No. R3-2012-0025 and Central Coast Water Board Staff Responses" (Key Issues).

Two of the requirements most frequently and consistently commented on as problematic are the requirements to prevent off-site discharge from events up to the 95th percentile 24-hour storm event and apply the Post-Construction Requirements to ministerial projects. Neither the Key Issues nor written comments address the 1.963 multiplier, calculation of a project's Equivalent Impervious Surface Area, or other aspects of Attachments D and E to Resolution, respectively (i.e., Revised Phase II Permit, Appendix J pages 27 to 31), because Central Coast Water Board staff added the requirements to Resolution No. R3-2012-0025 *after the close of the written public comment period.* Goleta and others expressed concerns over these provisions to the extent possible at the September 6, 2012 hearing.

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[68] 40 C.F.R. § 122.34(e)(2).

[69] See, e.g., Revised Phase II Permit, p. 67, 126; see also, National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) Discharges from The Municipal Separate Storm Sewer Systems Within the Ventura County Watershed Protection District, County of Ventura and the Incorporated Cities therein (Ventura MS4 Permit), p. 57; National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of the Riverside County within the Santa Ana Region (Riverside MS4 Permit), p. 91.

[70] Ventura MS4 Permit, p. 56; Riverside MS4 Permit, p. 91.

For the above-stated reasons, the Post-Construction Requirements exceed the MEP standard and should be removed from the Revised Phase II Permit.

C. The Post-Construction Requirements May Subject Goleta to Takings Claims

The Revised Phase II Permit would require Goleta to impose the Post-Construction Requirements on regulated projects. Regulated projects subject to the requirement to infiltrate the 95th percentile 24-hour storm event include projects that create and/or replace greater than or equal to 15,000 square feet of impervious surface. Falling entirely within WMZ 1, Goleta will be forced to require regulated projects to retain on-site stormwater from events up to the 95th percentile rainfall, and compliance with the retention requirement must be achieved solely through infiltration. Such a requirement is a governmental regulation that may deprive project proponents of the economic benefit of their private property. The state and federal Constitutions guarantee real property owners just compensation when their land is taken for public use.[71] Regulatory takings, though not direct appropriation or physical invasion of private property, are compensable under the Fifth Amendment.[72] Courts examining regulatory takings challenges generally analyze three factors to determine whether a taking has occurred, including the economic impact of the regulation on the claimant, the extent to which the regulation has interfered with distinct investment-backed expectations, and the character of the governmental action.[73] The Post-Construction Requirements may be considered a regulatory taking if the application of such requirements to regulated projects deprives project proponents of the economic benefit of the property.

The economic impact of the Post-Construction Requirements may be substantial by depriving landowners of the ability to develop or redevelop their property. Further, project proponents would have to dedicate significant portions of the project site for infiltration of stormwater, which unreasonably impairs the property's value or use. The need to retain the 95th percentile 24-hour storm on-site through infiltration essentially requires that much of the project site be dedicated to open, pervious areas, which severely interferes with investment-backed expectations by restricting the size and use of the property. While not constituting a typical physical invasion or appropriation of land, the proposed regulation would effectively appropriate these open, pervious areas to public use. Even if no such appropriation is found, the severity of the economic impact and devastation of the landowners' investment-backed expectations may arise to a taking.

Moreover, although the Central Coast Water Board's action includes alternative compliance mechanisms, they do not provide a feasible alternative in Goleta's case. Goleta has little open space for off-site mitigation. Most open space within Goleta's sphere of influence is protected as designated ESHAs or agricultural land. Due to a recently adopted initiative, large open spaces zoned for agricultural use are futher restricted for development. These restrictions make it virtually impossible for some project proponents to use the alternative compliance provisions when Post-Construction Requirements cannot be met on-site. In particular, off-site compliance must be achieved within the same watershed as the regulated project, unless otherwise approved by the Central Coast Water Board's Executive Officer.[74] As indicated, it is more than likely that there are no off-site mitigation opportunities available in the watershed in

[71] *Allegretti & Co. v. County of Imperial* (2006) 138 Cal.App.4th 1261, 1269.
[72] *Lingle v. Chevron U.S.A. Inc.* (2005) 544 U.S. 528, 537.
[73] *Penn Central Transp. Co. v. City of New York* (1978) 438 U.S. 104.
[74] Resolution No. R3-2012-0025 at Attachment 1, p. 13; Appendix J, p. 13.

question. Thus, the alternative compliance provisions are infeasible and may further deprive private project proponents of the investment-backed expectations, which may give rise to a regulatory takings claim against Goleta.

Given these concerns and others, the State Water Board should not adopt the Post-Construction Requirements and instead regulate the Central Coast small MS4s in the same manner as all other small MS4s.

Goleta appreciates your consideration of these comments and requests to consider our Petition for Review, remove the Post-Construction Requirements from the Revised Phase II Permit, and modify the Revised Phase II Permit to require Central Coast small MS4s to comply with the same hydromodification criteria as all other small MS4s in the state.

Sincerely,

Roger S. Aceves
Mayor

Attachment A

10

State of California

Memorandum

To : Archie Matthews
Division of Water Quality

Date: FEB 11 1993

Elizabeth M. Jennings

Elizabeth Miller Jennings
Senior Staff Counsel
OFFICE OF THE CHIEF COUNSEL
From : STATE WATER RESOURCES CONTROL BOARD
901 P Street, Sacramento, CA 95814
Mail Code: G-8

Subject: DEFINITION OF "MAXIMUM EXTENT PRACTICABLE"

ISSUE

What is the meaning of the standard "maximum extent practicable" (MEP) as used in the Clean Water Act's storm water provisions, and how can this standard be communicated to the regulated community? How can this concept be included in the draft BMP manual?

CONCLUSION

The standard "maximum extent practicable" is not specifically defined for use in the storm water program. It has been defined in other rules, however, to require taking all actions which are technically feasible. I have included draft language for the manual.

DISCUSSION

Section 402(p) of the Clean Water Act (33 U.S.C. § 1342(p)) provides that permits issued for discharges from municipal separate storm sewers must require controls to reduce the discharge of pollutants "to the maximum extent practicable". The statutory language provides that municipal permits:

> "Shall require 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 [EPA] Administrator or the State determines appropriate for the control of such pollutants." Clean Water Act Section 402(p)(3)(B)(iii); 33 U.S.C. § 1342(p)(3)(B)(iii).

Neither Congress nor the U.S. Environmental Protection Agency (EPA) has defined the term "maximum extent practicable", and yet this is the critical standard which municipal dischargers must attain in order to comply with their permits. (The State could have spelled out the specific controls which the municipalities were required to undertake. However, such an approach would have relinquished the municipal dischargers of any flexibility in implementing their storm water programs.)

On its face, it is possible to discern some outline of the intent of Congress in establishing the MEP standard. First, the requirement is to reduce the discharge of pollutants, rather than totally prohibit such discharge. Presumably, the reason for this standard (and the difference from the more stringent standard applied to industrial dischargers in Section 402(p)(3)(A)), is the knowledge that it is not possible for municipal dischargers to prevent the discharge of all pollutants in storm water. The second point which is clearly encompassed in the standard is that it is the permitting agency, and not the discharger, which is the ultimate arbiter on whether there has been sufficient reduction of pollutants.

The most difficult issue is determining how much pollutants must be reduced, or, in other words, which best management practices (BMPs) must be employed in order to comply with the MEP standard. While the term is not defined in the Clean Water Act or the EPA regulations, the same term does appear in other federal laws and regulations, and there are some definitions or interpretations which may be useful to the storm water program.

In the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. § 7901, et seq.), the Department of Energy was required to designate within one year of the Act's adoption "to the maximum extent practicable" contaminated areas within the vicinity of uranium processing sites. In addressing a lawsuit brought after the Department designated very few of the "vicinity properties", the federal court declared that MEP means "a substantial majority of the locations" should have been designated within the year. Sierra Club v. Edwards (D.C.D.C. 1983) 19 ERC 1357. Where a NEPA regulation required that "to the maximum extent practicable" environmental clearance was required for uncompleted projects which had never undergone NEPA review, a court held that the regulation "mandates a meaningful

environmental review" rather than a "perfunctory evaluation". Save the Courthouse Committee v. Lynn (S.D.N.Y. 1975) 408 F.Supp. 1323.

In an interim final regulation recently promulgated by the Department of Transportation, MEP is defined, where operators of onshore oil pipelines must have resources "to the maximum extent practicable" to remove and to mitigate or prevent worst case discharges. 49 CFR Part 194. MEP is defined to mean:

> "The limits of available technology and the practical and technical limits on an individual pipeline operator in planning the response resources required to provide the on-water recovery capability and the shoreline protection and cleanup capability to conduct response activities ...."

Finally, the term MEP is used in the Superfund legislation, wherein permanent solutions and alternative treatment technologies must be selected "to the maximum extent practicable". CERCLA, Section 121(b). The legislative history of the language indicates that the relevant factors in determining whether MEP is met include technical feasibility, cost, and state and public acceptance. 132 Cong. Rec. H 9561 (Oct. 8, 1986).

While each of the above interpretations and definitions varies, they do follow a pattern. The pattern that emerges is that there must be a serious attempt to comply, and that practical solutions may not be lightly rejected. If a municipality reviews a lengthy menu of BMPs, and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. In any case, the burden would be on the municipal discharger to show compliance.

The definitions contained in the pipeline regulation and the Superfund legislative history are most analogous to storm water regulation. The major emphasis in both of these rules are technical feasibility. Similarly, the municipal dischargers should be required to employ whatever BMPs are feasible, i.e., are likely to be effective and are not cost prohibitive. Thus, where a choice may be made between two BMPs which should provide generally comparative effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs which would address a pollutant source or to pick a BMP based solely on cost, which would be clearly less effective.

As you know, the BMP Guidance manual is being published by the Task Force, which is made up of dischargers, rather than by the State Water Board. As far as I know, there is no intention for the State Water Board to adopt the manual as its own guidance document. Therefore, it is important to stress in the manual, both in the section on MEP and in the front of the manual, that this manual is not a publication of the State or the Regional Water Boards, and that these Boards have not specifically endorsed the contents. Rather, the manual was assembled by a group of dischargers in the interest of assisting themselves and others to comply with the storm water permits. In the section on MEP, it should be stated that the final determination regarding whether a discharger was reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, but that selection and implementation of BMPs through consideration of the listed factors should assist dischargers in achieving compliance.

The following language is suggested in order to clarify that the manual is not the product of the State Water Board:

> "This Manual was produced and published by the Storm Water Task Force, an advisory body of municipal agencies regulated by the storm water program. This Manual is not a publication of the State Water Resources Control Board or any Regional Water Quality Control Board, and none of these Boards has specifically endorsed the contents thereof. The purpose of this manual is to assist the members of the Task Force and other dischargers subject to storm water permits, in attaining compliance with such permits."

The following language is recommended in place of Insert A in the manual for municipal dischargers:

> "Although MEP is not defined by the federal regulations, use of this manual in selecting BMPs should assist municipalities in achieving MEP. In selecting BMPs which will achieve MEP, it is important to remember that municipalities will be responsible to reduce the discharge of pollutants in storm water to the maximum extent practicable. This means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive. The following factors may be useful to consider:
>
> "1. Effectiveness: Will the BMP address a pollutant of concern?

"2. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?

"3. Public acceptance: Does the BMP have public support?

"4. Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?

"5. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc.?

"After selecting a menu of BMPs, it is of course the responsibility of the discharger to insure that all BMPs are implemented."

Attachment B

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

July 6, 2012

Mr. Dominic Roques
California Regional Water Quality Control Board
Central Coast Region

Subject: Comments on the Draft Resolution Approving Post-Construction Stormwater Management Requirements for Developing Projects in the Central Coast Region

Dear Mr. Roques:

The California Stormwater Quality Association appreciates this opportunity to comment on the subject Draft Resolution Approving Post-Construction Stormwater Management Requirements for Developing Projects in the Central Coast Region ("Draft Resolution") and Attachment 1 of the Draft Resolution containing the Post-Construction Stormwater Management Requirements ("Post-Construction Requirements"). CASQA typically comments on regional requirements only when there is an issue of potential statewide significance. Accordingly, we are compelled to provide specific comments on some of the provisions of the Post-Construction Requirements for the Central Coast Region. However, before we provide our specific comments we offer the following observations and comments:

- CASQA is very concerned with the apparent escalation in permit requirements being conducted by the various Water Board permit writers in drafting provisions for land development. Over the last few years we have seen the ratcheting up of new development requirements in each MS4 permit renewal without allowing time to assess the impact/effectiveness of the prior development requirements. This lack of a cohesive approach and standard has created an uneven playing field for communities and developers. Furthermore, the clear absence of any consensus within the State on what the requirements are for land development (particularly with respect to Hydromodification Management) is damaging to the credibility of the entire stormwater program.
- The proposed Central Coast requirements ignore the 1993 State Water Board definition of maximum extent practicable (MEP)[1] that clearly established public acceptance and a reasonable cost:benefit calculation as fundamental tenets of MEP.

Our specific concerns are listed below and expanded upon in the remaining part of the letter:

1. The requirement to retain runoff from storm events up to the 95th percentile 24-hour rainfall event is unreasonable, infeasible for many projects, has no demonstrated additional environmental benefit and is not cost-effective.

[1] See E. Jennings, Office of Chief Counsel, 2/11/93 memo to A. Mathews, Division of Water Quality regarding "Definition of Maximum Extent Practicable".

2. The hydromodification management (HM) standard requiring matching post-project to pre-project peak flows for the 2- through 100-year events, in combination with a runoff retention standard, is inconsistent with HM studies and approaches to date and may not be as protective of creek channels as a flow duration control approach. There is no technical basis to deviate from the extensive study that has been completed on hydromodification elsewhere in the State.

3. The retention and HM requirements, and some of the LID requirements, are inconsistent and go beyond those of existing or proposed statewide, regional, or local Phase I or Phase II MS4 permits in California.

4. Schedules for adoption of the Draft Resolution and Draft Phase II Permit need to be better coordinated, and the adoption of the Draft Resolution should be delayed.

A discussion of our specific concerns is presented below:

1. **The requirement to retain runoff from storm events up to the 95th percentile 24-hour rainfall event is unreasonable, infeasible for many projects, has no demonstrated additional environmental benefit, and is not cost-effective.**

   The Draft Resolution designates 10 watershed management zones (WMZs) based on receiving water type, geology and percent slope. Projects that create and/or replace 15,000 square feet of impervious surface in WMZs 1 and 2, and portions of WMZs 4, 7, and 10 that overlie designated Groundwater Basins are required to retain runoff from storm events up to the 95th percentile 24-hour rainfall event. Based on Table 5 of the Draft Technical Support Document (Attachment 2 of the Draft Resolution), this requirement would apply to 72-86% of the Central Coast's urban area (depending on the extent of the groundwater basins), so this requirement will have a significant impact on development projects in the region.

   It is well established that water quality control measures are most economical and efficient when they target small, frequent storm events that over time produce more total runoff than the larger, infrequent storms targeted for design of flood control facilities. Typically, design criteria for water quality control BMPs are set to coincide with the "knee of the curve", i.e., the point of inflection where the magnitude of the event (and corresponding cost of facilities) increases more rapidly than the number of events captured. In other words, targeting design storms larger than this point will produce volume retention gains but at considerable incremental cost[2]. Capturing this additional incremental volume beyond the 85th percentile has not been demonstrated to be more protective than the standard adopted by the rest of the State.

   In fact, this is the very basis of the criteria in most Phase I MS4 permits and the draft Phase II permit for sizing stormwater control measures to capture the 85th percentile, 24-hour storm. This storm event was determined to be the "maximized" or "optimized"

[2] CASQA Stormwater BMP Handbook, New Development and Redevelopment, 2003.

capture volume based on studies by Urbonas, et. al. in the 1990s. These studies led to the development of an approach for estimating the maximized stormwater quality capture volume presented in "Urban Runoff Quality Management", which is referenced by most permits as one of the acceptable approaches for computing the water quality design volume[3].

The technical analysis of the feasibility of the 95th percentile storm standard did not take total facility cost or cost-effectiveness into account. The 95th percentile, 24-hour storm volume is approximately twice that of the 85th percentile 24-hour storm. A sensitivity analysis performed for the City of Denver showed that doubling the maximized capture volume results in a very small increase in the total annual runoff captured.[4] While doubling the size of a facility to retain the 95th vs. the 85th percentile storm may not completely double the capital cost of the facility, it will likely double the opportunity cost, i.e., the surface area of the site that must be used for the stormwater control measure and can't be used for other purposes.

During the public workshop on the Draft Resolution held on June 6, 2012, Mr. Robert Ketley of the City of Watsonville presented a case study demonstrating the difficulty of retaining the 95th percentile storm in the Central Coast development environment.[5] The case study involved a 3-acre commercial redevelopment project in Watsonville that would be 89% impervious (11% landscaped area). The site is in WMZ 1 and would have to retain the 95th percentile event (1.23 inches) by infiltration. The case study used median values for soil infiltration rates for Hydrologic Group A, B, C, and D soils and assumed a 72-hour maximum drawdown time. Given these assumptions, it was estimated that the surface area of the infiltration facilities would require 7% of the site area for A and B soils, 16% of the site area for C soils, and 69% of the site area for D soils. Water Board staff replied that these were conservative assumptions, and that by their estimates, type A/B soils, C soils, and D soils require about 5%, 10% and 40% of the site area dedicated to the BMP, respectively. However, these values are still significantly greater than the amount of the site needed for retention of the 85th percentile storm.

CASQA appreciates that the Draft Resolution includes some incentives for smart growth and redevelopment in currently urbanized areas of the Central Coast. These include allowing redevelopment projects to retain the runoff volume from only half of the replaced or new/replaced impervious surface (depending on whether or not the project is in an Urban Sustainability Area). However, retention of the 95th percentile storm will still be challenging for redevelopment projects, and infeasible for those with D soils.

The Draft Resolution's standard for retention of the 95th percentile storm seems to be based, in part, on the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act of 2007 (EISA). However, the Draft Resolution takes only part of the

[3] WEF Manual of Practice No. 23/ASCE Manual and Report on Engineering Practice No. 87, 1998.
[4] Ibid., Table 5.3, p. 174.
[5] See the workshop presentation posted on the Central Coast Water Board's website: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/stormwater/docs/lid/workshop_2.pdf

Section 438 Technical Guidance and does not include specific language and options in the federal Act that could make implementation feasible. Specifically:

- Section 438 Technical Guidance provides an option for site specific hydrologic analysis to demonstrate a match to pre-development flow rates and volumes instead of using the generalized 95th percentile approach.

- Section 438 Technical Guidance always provides options of evapotranspiration and harvesting and reuse as opposed to the Draft Resolution, which requires only infiltration, be used for most areas where development will occur.

- Section 438 Technical Guidance includes specific conditions that can be used to justify a determination that it is not technically feasible to fully implement the criteria, such as small project sites, soils that cannot be sufficiently amended to provide for the requisite infiltration rates, and where rainwater harvesting and use is not practical.

- Where a determination of technical infeasibility has been made, projects can be approved based on implementation to the maximum extent technically feasible whereas the Draft Resolution requires off-site compliance regardless of whether a feasible off-site option is available to the applicant.

CASQA strongly requests that either the retention standard be reduced to the 85th percentile storm or that more flexibility be provided in implementing the standard up to a certain level of feasibility or cost.

2. **The hydromodification management standard requiring matching post-project to pre-project peak flows for the 2- through 100-year events, in combination with a runoff retention standard, is inconsistent with hydromodification management studies and approaches to date and may not be as protective of creek channels as a flow duration control approach. There is no technical basis to deviate from the extensive study that has been completed on hydromodification elsewhere in the State.**

The hydromodification management standard used in many Phase I permits throughout the State is that "increases in runoff flow and volume shall be managed so that post-project runoff shall not exceed pre-project peak flows, volumes and durations"[6]. Numerous studies have documented that matching peak flows alone for a range of storms is not protective of streams because flow durations are increased and can cause adverse erosive impacts. This fact is recognized by the Central Coast Water Board in Attachment 2 of the Draft Resolution, which states that:

[6] Example taken from the San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit, Order No. R2-2009-0074, as revised November 28, 2011, Provision C.3.g.

> "Water Board staff recognizes that peak management alone is not sufficient to protect downstream receiving waters due to the extended flow durations that can still cause adverse impacts. However, Water Board staff anticipates that the Peak Management criterion, when used in combination with the Runoff Retention requirement, will achieve a broad spectrum of watershed process protection while also protecting stream channels from hydromodification impacts. Water Board staff's judgment is based on the fact that the retention requirement is expected to avoid gross changes in the distribution of runoff between surface and subsurface flow paths for smaller events, and that peak management is expected to provide critical stream protection from the larger events, starting conservatively at the 2-year storm event."

This combination standard has not been thoroughly studied as to its effectiveness in protecting streams, nor is it consistent with current approaches throughout the State that have been studied. We also have concerns about 1) using retention of the 95th percentile storm as the method to address the effects of smaller events, which appears to go beyond requirements to replicate the pre-project (as well as the pre-development) condition; and 2) requiring peak flow matching up to the 100-year event.

- Retention of the 95th percentile storm – The specific criterion that addresses the smaller events is to "prevent offsite discharge from events up to the 95th percentile rainfall event as determined by local rainfall data". This statement means that projects need to be designed to discharge runoff only during rare events. For example, in the City of Salinas, the 95th percentile rainfall event is 0.98 inches. There were only 42 days during the 30-year period from 1979 through 2008, an average of 1.4 days per year, when rainfall exceeded this depth[7]. Limiting discharge of runoff to an average of 1.4 days per year is not consistent with maintaining predevelopment hydrologic conditions in most areas. Pre-development conditions would have typically resulted in 10 to 20 percent of rainfall from the 95th percentile event becoming runoff, depending on soil type, and more of it would run off when the ground is saturated from previous rainfall. It is not reasonable, or environmentally beneficial, to require runoff to be reduced to less than pre-development conditions.

- Peak flow matching to the 100-year event – Discrete event criteria such as these have not been shown to be an appropriate basis for hydromodification management. This type of criteria may be appropriate to size detention basins to mitigate for potential impacts to local storm drainage systems, but because determination of peak flows is dependent on time of concentration, the approach is not generally applicable to a receiving stream that has a time of concentration significantly different than the site being developed. In addition, requiring discrete event matching up to the 100-year storm is excessive and not cost-effective. Studies conducted for the Santa Clara Valley Urban Runoff Program on the effects of increased flows on the erosion potential of streams showed that a significant amount of erosive "work done" (90-95%) on the channel bed and bank is associated

[7] Pers. comm. with Harvey Oslick, RBF Consulting, consultant to the City of Salinas, who conducted the rainfall analysis.

with flows up to the 10-year peak flow. Flows higher than the 10-year peak flow perform a very small percentage of the total work (5-10%) because they occur infrequently over the period of record.[8]

The flow duration control approach being used by Phase I communities in the State has proven to be feasible, numerous technical studies have shown that the approach is protective of streams, and technical tools such as the Bay Area Hydrology Model (BAHM) have simplified the use of continuous simulation models. Taking a similar approach to Phase I permits would also make implementation more straightforward for Central Coast MS4s that are Phase I MS4s (i.e., City of Salinas) as well as those adjoining Phase I MS4s (i.e., south Santa Clara County).

CASQA recommends that the Draft Resolution be revised to contain a HM approach that is consistent with other permits.

3. **The retention and HM requirements, and some of the LID requirements, are inconsistent with and go beyond those of existing or proposed state-wide, regional, or local Phase I or Phase II MS4 permits in California.**

The Draft Resolution states that the maximum extent practicable standard "is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility", and that the proposed Post-Construction Requirements "are consistent with the evolving MEP standard." CASQA is very concerned that the "evolving MEP standard" expressed by the proposed Post-Construction Requirements is inconsistent with the MEP standard in all other California stormwater permits, is not technically well supported, and did not consider economic feasibility, as discussed earlier in our comments.

In addition to the concerns we have raised about the 95th percentile storm retention standard and the HM peak flow matching standard, we are also concerned about the following inconsistencies with other California permits:

- Thresholds for HM requirements are much lower than existing or proposed permits (15,000 square feet and 22,500 square feet of created/replaced impervious surface for runoff retention and peak matching, respectively).

- Post-project vs. pre-project peak matching is required up to the 100-year storm, which is beyond most existing requirements and more appropriate for flood control facilities.

- The options for LID treatment or runoff retention on project sites do not include infiltration trenches, basins, and drywells, and no explanation for this is provided in the Draft Resolution or attachments. The Draft Resolution states that these so-called "conventional designs" are only allowed for use in meeting retention

[8] SCVURPPP, 2005. Hydromodification Management Plan - Final Report.

requirements where LID measures are infeasible. When properly sited and designed, these facilities are considered acceptable in other permits as part of the suite of options for LID retention and/or treatment, and should be available options for Central Coast MS4s as well.

- A minimum planting media depth of 24 inches is required in a biofiltration system, which differs from other permits and guidance across the state, and no technical justification is provided.

CASQA strongly requests that the Post-Construction Requirements be revised to be more consistent with requirements in other Phase I and Phase II permits in the State and not be allowed to define an "evolving MEP" without sufficient technical and economic analysis and coordination with the State Water Board and other Regional Boards.

4. **Schedules for adoption of the Draft Resolution and the Draft Phase II Permit need to be better coordinated and the adoption of the Draft Resolution should be delayed.**

The Draft Resolution containing post-construction requirements for Central Coast MS4s is inextricably linked to the draft Phase II Permit, which is in a concurrent process of public review. Linkages or potential linkages include the following:

- Provision E.12.i of the draft Phase II Permit states that Central Coast small MS4s shall comply with the Central Coast post-construction requirements developed pursuant to the Central Coast Water Board Joint Effort for Hydromodification Control, in place of complying with the requirements set forth in Provision E.12 (except for two provisions on Planning and Building Document Updates and Source Control Requirements).

- Provision E.12.d.2.(ii)(3)c. of the draft Phase II Permit includes a reopener for LID requirements that states that the State Water Board Executive Director may evaluate newly available technical data and other information regarding the effectiveness of source control, runoff reduction, stormwater treatment, and baseline hydrograph modification management measures and may propose revisions to these criteria.

- Provision E.12.f. of the draft Phase II Permit states that, within the second year of permit implementation, the State and Regional Water Boards will determine whether the LID and hydromodification management requirements in E.12.d and E.12.e. are protective of specified watershed processes [similar to those identified in the Draft Resolution] or if modified criteria should apply.

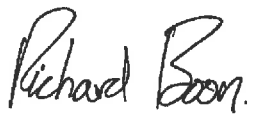
Because of these linkages, and the possibility that Central Coast requirements could serve as model for modified criteria in the Phase II Permit, final adopted language in the Draft Resolution could affect final or future language in the Phase II Permit. The date for Central Coast Water Board consideration of adoption of the Draft Resolution is September 6, 2012, whereas the date for State Water Board consideration of adoption of

the draft Phase II permit is expected to be sometime in October 2012. The earlier adoption of the Draft Resolution could result in inconsistencies or preclude revisions to the Phase II Permit. In addition, there are many small MS4s in regions other than the Central Coast that may be unaware of the effect that the Central Coast requirements may have on their future Phase II requirements. There should be sufficient time allowed to raise awareness of these linkages at public hearings.

CASQA strongly recommends that the adoption of the Draft Resolution be delayed until after the adoption of the Phase II Permit.

We thank you again for the opportunity to provide our comments and we ask that the Central Coast Water Board carefully consider them. If you have any questions, please contact CASQA Executive Director Geoff Brosseau at (650) 365-8620.

Sincerely,



Richard Boon, Chair

cc: Tom Howard, State Water Board
Jonathan Bishop, State Water Board
Vicky Whitney, State Water Board
Bruce Fujimoto, State Water Board
CASQA Board of Directors and Executive Program Committee