County of Santa Cruz

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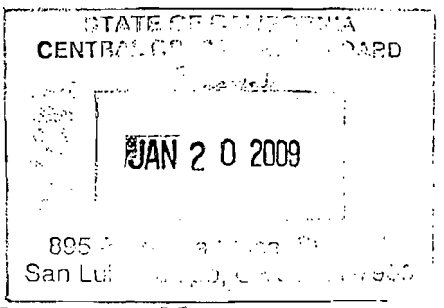
January 13, 2009



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

Re: County of Santa Cruz Further Revised Draft Stormwater Management Program and Comments, January 2009

Dear Mr. Briggs:

On November 19, 2008 the County of Santa Cruz (County) received the Central Coast Regional Water Quality Control Board (Regional Board) review of and "required revisions" to the October 2008 County of the Santa Cruz/City of Capitola Draft Stormwater Management Program (SWMP). This letter transmits the Santa Cruz County Board of Supervisors approved comments to the "required revisions" mandated by the Regional Board. The County's comments to the Regional Board's "required revisions" are summarized below and discussed in the sections that follow.

Section 1, Introduction, summarizes the County's overall concerns with the prescriptive character of Regional Board's required revisions of the County SWMP. The Regional Board's "required revisions" fail to reflect the unique physical and political characteristics of Santa Cruz County and the programs the County has already implemented to improve storm water quality. The Regional Board staff has failed to demonstrate sufficient flexibility in its approach to review the County SWMP. The County questions the technical basis of the Regional Board's development of hydrograph modification criteria (hydromodification) and the need for additional assessments and studies that may not improve water quality.

Section 2, Existing County programs, describes the County's longtime existing water quality and storm water management program protections that, unlike the "required revisions," have been in place for many years and have been demonstrated to be effective, technically feasible, developed through an iterative process with input from affected stakeholders, implemented within existing resources, and enjoy broad community support.

Item No. 10 Attachment No. 8
March 19-20, 2009 Meeting
County of Santa Cruz/Capitola

Section 3, Legal Standards and Guidance, identifies the "required revisions" of greatest concern to the County and discusses the legal criteria Regional Board staff must consider in reviewing and approving a SWMP. This Section discusses the federal standards and guidance provided by Congress and the Environmental Protection Agency (EPA), and the California standards and guidance provided by the legislature, State Water Resources Control Board, its General Counsel and the State General Permit provisions. These standards and guidance all describe how to determine whether the County's efforts meet the Maximum Extent Practical (MEP) standard. They stress the need for consideration of local conditions including an analysis of the effectiveness of the proposed "required revisions," whether the "required revisions" comply with the Federal and State regulatory framework, whether the "required revisions" enjoy local support, an assessment of the costs and benefits associated with the "required revisions," and whether the "required revisions" are technically feasible to implement.

Section 4, Application of Maximum Extent Practical (MEP) Criteria, considers the five key factors identified in Section 3 above, as they apply to the "required revisions" of the County of Santa Cruz SWMP. An analysis of the criteria leads to the conclusion that the Regional Board must demonstrate more flexibility in its review of the County SWMP than it has demonstrated to date.

The County and its consultants, Eisenberg, Olivieri and Associates, Incorporated (EOA, Inc.), question the effectiveness of and need for the Effectiveness Assessments (EAs), wasteload allocation attainment plans (WAAP), and hydromodification criteria identified in the "required revisions." The County contends that the "required revisions" are not federally required and fail to properly consider State mandated criteria, including the financial condition of the County. As demonstrated by the attached letters of support from local environmental agencies, the County has experience working collaboratively with environmental and other community groups and organizations to develop public acceptance of new water quality programs. Absent from the record is financial support from the residents and taxpayers of the unincorporated areas of Santa Cruz County to establish new unfunded mandates being contemplated by the Regional Board. The "required revisions" have not been demonstrated to be cost effective and significantly increase the financial burden on the County and private development efforts.

The County and its consultants join the chorus of other local jurisdictions that question the technical basis of the suggested hydromodification criteria. The County consultants, EOA, Inc., state:

> "It is not feasible to demonstrate that the alternative hydromodification criteria being developed by the County will be as effective as the Regional Board's interim criteria without further documentation from the Regional Board. The technical basis for, and the effectiveness of, the interim criteria

are unknown at this time. The Regional Board put forth detailed interim hydromodification criteria in letters dated February 2008 and July 2008. These criteria are now listed as required changes for the SWMP (comment 39). However, neither of the letters, attached references, or other correspondence from the Regional Board provides the scientific basis of the interim criteria.

Santa Cruz County's approach to development of alternative interim hydromodification management criteria will build upon this existing base of technical knowledge, combined with knowledge of local watershed and stream conditions, to create a management plan and criteria that are technically sound and appropriate for the County. A comprehensive plan will be developed that is not just focused on site-level controls, but includes consideration of land use planning policies, stream riparian/buffer zone protection, and stream susceptibility to erosive forces. The County will also hold stakeholder meetings to encourage public involvement in the process and incorporate public input into the plan.

Section 5 notes that the County hopes, as it has in the past, to resolve any differences with Regional Board staff over the "required revisions," but should it be unable to reach agreement, it requests a hearing before the Regional Board.

1. **Introduction**

The County has agreed to the vast majority of "required revisions" mandated by the Regional Board staff. We agree with most of the conceptual elements that the Regional Board is requiring, including hydromodification and effectiveness monitoring. We also agree with the objectives of the WAAPs. However, we disagree with the prescriptive nature of the requirements, which are inefficient, ineffective, wasteful of public and private resources, and do not reflect the unique soils, hydrology, and existing programs of Santa Cruz County. It is the County's intention to continue implementation of a comprehensive, cost effective storm water pollution control program to protect and improve water quality in Santa Cruz County that we believe will also meet all of the legal standards and objectives sought by the Regional Board.

As previously noted by our staff, the County remains deeply concerned with the lack of flexibility being imposed on the draft SWMP as it is currently reflected in some of the "required revisions" presented by Regional Board staff. The County is also concerned with the lack of documentation provided to the County by Regional Board staff to support the interim hydromodification criteria being relied on and applied by the Regional Board to all jurisdictions in the region. The widespread use of such criteria with questionable technical basis, and without consideration of local conditions, constitutes flawed policy making and is inconsistent with the legal standard to which

SWMPs must comply, which is to reduce the discharge of pollutants to the maximum extent practicable (MEP).

2. Existing County Programs

The County of Santa Cruz's existing County Storm Water Management Program is effective, technically feasible, was developed through an iterative process with input from affected stakeholders, can be implemented within existing limited resources, and enjoys broad community support.

As a Phase II small municipal stormwater program operator (MS4), the County does not enjoy many of the financial and other advantages available to the larger Phase 1 jurisdictions. Despite these limitations, the County of Santa Cruz has long pioneered the development and implementation of innovative storm water management practices that protect the beneficial uses of the waters in this County.

Since 1980, existing County General Plan policies and County land use ordinances have provided significant long-term watershed protection. These policies and ordinances were revised and strengthened in 1983 with the adoption of the Local Coastal Program Land Use Plan and Implementation Plan, and in 1994 with the General Plan update. These policies and ordinances were originally identified in the San Lorenzo River Watershed Management Plan as necessary implementation measures to improve water quality in the San Lorenzo River Watershed. The 1980 and 1994 County General Plans and the 1983 Local Coastal Program and Land Use Plan incorporated these policies and ordinance provisions for countywide application. These policies and ordinances include, but are not limited to, the protection of riparian corridors, wetlands and other sensitive habitats, implementation of FEMA floodplain/floodway protection measures, application of grading and erosion control requirements to all development activities, and protection of the Monterey Bay and coastal water quality through development controls on storm water runoff

The County relies on the following existing ordinances to control runoff from construction sites:

-Grading ordinance (Chapter 16.20) requires all grading permit applications to include an erosion control plan for all surfaces to be exposed during construction and revegetation measures for all surfaces exposed during grading activities.

-Riparian Corridor and Wetland Protection Ordinance (Chapter 16.30) sets forth rules and regulations to protect water quality, open space, and prevent erosion by limiting development:

-50' from each side of a perennial stream,

-30' minimum from each side of an intermittent or ephemeral stream and,

-100' from the high water mark of a lake, wetland, estuary, lagoon or natural body of standing water.

Unlike some of the "required revisions" proposed by Regional Board staff, these measures have been in place for many years and have been demonstrated to be effective, technically feasible, developed through an iterative process with input from affected stakeholders, implemented within existing limited resources, and enjoy broad community support.

3. Legal Standards and Guidance

Regional Board requirements fail to consider local conditions, lack technical basis, and exceed the Maximum Extent Practicable (MEP) Standard

"Required Revisions" of Major Concern

The County has agreed to amend its SWMP to include most of your staff's "required revisions." Among the forty-nine (49) "required revisions" contained in the Regional Board's letter dated November 14, 2008, the County is most concerned with the Regional Board's "required revisions" numbered 39 through 42 and 3 through 6. Additional detailed comments addressing each "required revision" are described below and summarized in the attached table.

Item 39 would require the County to revise its SWMP to include a schedule for developing interim hydromodification control criteria within one year of enrollment and further require that the criteria shall be as effective as the following:

1. For new and redevelopment projects, Effective Impervious Area (EIA) shall be maintained at less than five percent (5%) of total project area.
2. For new and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, the post construction runoff hydrographs match within one percent (1%) of the preconstruction (defined as undeveloped soil type and vegetation) runoff hydrographs, for a range of events with return periods from 1 year to 10 years.
3. For projects whose disturbed project area exceeds two acres, preserve the preconstruction drainage density (miles of stream length per square mile of watershed) for all drainage areas serving a first order stream (with no tributaries) or larger, and ensure the post project time of concentration is equal or greater than pre-project time of concentration.

Items 40, 41, and 42 require development of long-term criteria and control measures as part of a hydromodification management plan that will be based on a technical assessment of the impact of development on the County's watersheds. The required elements of the assessment and steps the County must take are further detailed in the Regional Board's November 14, 2008 letter addressed to the County and City.

Items 3-6 require the County to develop Effectiveness Assessments (EAs) and a Wasteload Allocation Attainment Plan (WAAP).

Regional Board staff contend that the "required revisions" are necessary for the County's SWMP to be considered as meeting MEP.[1] The County disagrees. As discussed further below, MEP is a flexible, site-specific standard.[2] As proposed, the "required revisions" fail to provide the necessary flexibility in their implementation, and they are not site-specific. For example, the Regional Board staff is attempting to implement the exact same standards throughout the entire region. Further, the "required revisions" at issue go well beyond those being imposed on even the larger Phase I jurisdictions at this time. Finally, these requirements are unfunded mandates imposed in a time of severely eroding public resources.

Federal Guidance-MEP stresses flexibility to fit local conditions

The federal Environmental Protection Agency (EPA) deliberately avoided concretely defining MEP in order "... to allow the permitting authority *and the regulated MS4s maximum flexibility* in their interpretation of it as appropriate."[3] Although there is no legally binding definition of MEP, the EPA provides the following guidance for its interpretation and implementation as a legal standard.

> "...[The] EPA expects Phase II permiteees (*such as Santa Cruz County*) to develop and update their Stormwater Management Plans and their BMPs to *fit the particular characteristics and needs of the permittee and the areas served by its MS4.*"[4]

Further, "it is important to recognize that many BMPs are climate specific, and not all BMPs are appropriate in every geographic area." [5] The EPA notes, "...as with almost all such projects, **site specific factors** influence project outcomes..." [6]

Contrary to this guidance from the EPA, the Regional Board has chosen to apply the same standards on a region-wide basis, ignoring the fact that Santa Cruz County has conditions different than San Benito, Monterey, and San Luis Obispo or Ventura MS4 jurisdictions. Even jurisdictions within Santa Cruz County have different conditions. The soils near Watsonville are different from those in Scotts Valley. The soil conditions

[1] See Supplemental Sheet No. 3 or Regular Meeting of October 17, 2008, Response to comments on Staff Report for City of Lompoc Storm Water Management Plan Approval at pp. 1-2.
[2] See, e.g., 64 Fed. Reg. 68722, 68732, 68755 (Dec. 8, 1999).
[3] Storm Water Phase II Compliance Assistance Guide, EPA 833-R-00-002 (March 2000), at pp 4-17- emphasis added.
[4] Stormwater Phase II Final Rule, Federal and State operated MS4s; Program implementation, EPA 833-f-00-012 (December 2005), at page 2. - (emphasis added)
[5] Id.
[6] Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices, EPA Document 841-F-07-006 dated December 2007 – (emphasis added)

and population densities for unincorporated areas of the County on the San Lorenzo River and Soquel Creek differ from the soils conditions and population densities in the cities of Santa Cruz and Capitola. Rainfall amounts, a major contributor to erosion, also differ among the jurisdictions even in an area as small as Santa Cruz County. One size does not and cannot fit all.

California Water Board interpretation of Maximum Extent Practicable (MEP) establishes the need for consideration of local conditions including effectiveness, regulatory compliance, local support, costs and technical feasibility of proposed "required revisions"

As you are aware, State Water Board Order WQ 2000-11 and state guidance also emphasize the flexible, site-specific nature of the MEP standard. The State Water Board has determined that where a

> "...permittee employs all applicable BMPs except 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 standard".[7]

The Regional Board fails to follow the precedent of State Water Board orders. In this case, the Regional Board intends to impose requirements that have not been put to a strenuous review and analysis by the "real world" experiences of the MS4s. All data reviewed by the County of Santa Cruz from other jurisdictions as well as studies cited by the Water Board lead us and our consultants to conclude that the proposed criteria for hydromodification and low impact development (LIDs) have not yet been fully analysized nor put to a strenuous "real world" test, especially as applied locally.

The Office of the Chief Counsel of the State Water Board has stated 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 are not technically feasible, or the costs would be prohibitive".[8]

There is no evidence in the record to support the Regional Board staff's imposition of the criteria in question. The Regional Board staff has not produced documentation to show that the recommended criteria are technically feasible in Santa Cruz or are reasonably cost effective. Staff's proposal would have the County embark on an expensive exercise to test the Regional Board assumption that "one size fits all."

[7] (State Water Board order WQ 2000-11, p.20).
[8] (Memorandum from E. Jennings, State Water Board Office of the Chief Counsel, to A. Mathews, State Water Board Division of Water Quality, (Feb.11, 1993)).

The 1993 memorandum from State Water Board Chief Counsel E. Jennings recommends consideration of the following site-specific factors to determine whether a jurisdiction would achieve MEP in a given situation:

1. Effectiveness: will the BMP address a pollutant of concern?
2. Regulatory compliance: Is the BMP in compliance with Stormwater regulations as well as other environmental regulations?
3. Public acceptance: Does the BMP have public support?
4. Costs: Will the cost of implementing the BMPs have a reasonable relationship to pollution control benefits to be achieved?
5. Technical feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc.?

Each of the factors identified by the State Water Board Chief Counsel is analyzed in the sections that follow.

Relevant State General Permit Provisions also emphasize flexibility, costs, effectiveness and local acceptance

In addition to EPA guidance and State Board precedent, the State General Permit describes MEP as "...an ever evolving, flexible, and advancing concept, which considers technical and economic feasibility."[9] It goes on to state that:

> "Permittees must conduct and document evaluation and assessment of each relevant element of its program and revise activities, control measures, BMPs and measurable goals, as necessary to meet MEP."[10]

Consistent with federal and state interpretations, the General Permit goes on to state that **cost** is a factor to consider in the development of BMPs that achieve MEP:

> "In choosing BMPs, the major focus is on technical feasibility, but **costs, effectiveness, and public acceptance are also relevant**...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."[11]

4.Application of Maximum Extent Practicable Criteria

Consideration of MEP factors articulated by the EPA, State Water Board, Chief Counsel for the State Water Board and the General Permit as it applies to the County of Santa Cruz SWMP All Require More Flexibility by Regional Board staff than has been previously demonstrated

[9] State General Permit
[10] State General Permit pg 4.
[11] General Permit Fact Sheet at pg 9.- emphasis added.

A. Effectiveness

It has not been demonstrated that the specific effectiveness assessment requirements, hydromodification criteria or WAAPs are needed and will be effective in Santa Cruz County

Regional Board staff has included numerous "required revisions" that result in costly new monitoring and reporting requirements that may not improve water quality. Numerous other jurisdictions have already questioned the effectiveness of the Regional Board's plan to develop local hydromodification criteria.

Hydromodification

Santa Cruz County and its consultants join the other professionals that question the effectiveness of the proposed interim hydromodification criteria. At the City of Lompoc hearing in October 2008, testimony from local building representatives and consultants questioned the effectiveness of the local hydromodification criteria. Santa Barbara representatives and their consultants made similar arguments and have stated the difficulties associated with designing projects to meet the proposed criteria. Santa Barbara jurisdictions noted an increased cost of doing business in their jurisdictions because of these new requirements.

Further, the effectiveness of local hydromodification criteria has been debated in the San Francisco Bay without arriving at consensus of a common approach that should be used.[12]

As a result of the Lompoc hearing, the Regional Board has revised its position to permit local jurisdictions to develop local hydromodification criteria that are "as effective as" the criteria proposed by regional staff. However, a significant flaw remains in that there has been no discussion or explanation of what it means to be "as effective as" the interim "numeric" criteria proposed by Regional Board staff. By establishing numerical criteria, the Regional Board staff has effectively curtailed the County's options

The EPA notes:

"Although the increase in application of these practices is growing rapidly, data regarding both the **effectiveness** of these practices and their costs **remain limited.**"[13]

As outlined in further detail below in Segment E, consultants retained by the County (EOA, Inc.) have concluded that further documentation from the Regional Board is required to demonstrate that the alternative hydromodification criteria being developed

[12] (See letter to Roger Briggs from California Stormwater Quality Association dated June 27, 2008 at pg 2).

[13] Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices, EPA Document 841-F-07-006 dated December 2007 – emphasis added

by the County will be "as effective as" the Regional Board's interim criteria. The effectiveness of interim criteria is unknown at this time.

Wasteload Allocation Attainment Plans and Effectiveness Assessments

The County also has concerns about the need for additional assessments and plans from the County. The County has taken the initiative to work with community groups in order to conduct studies, develop plans and begin implementation of efforts that have subsequently served as the basis for the sediment, and pathogen, and nutrient TMDLs in the County. The County intents to achieve the TMDL wasteload allocations to the maximum extent practicable, while at the same time addressing priority pollutants in the other county waters that are not necessarily subject of a TMDL. It should be kept in mind that stormwater management is just one component of most TMDLs and the County has a good history of addressing all aspects and adapting their approaches as needed and as new technology or approaches become available.

While the County concurs with the overall objectives represented by Wasteload Allocation Attainment Plans (WAAPs), we disagree with the requirement for separate WAAPs for each TMDL and each stormwater program. This detracts from a comprehensive watershed approach and would be an unnecessary and redundant effort, costing the County as much as $300,000 over the 5-year permit term. Many of the elements of the WAAPs have been addressed through the preparation of the stormwater plans, the TMDLs, and/or the supporting studies that lead to the TMDLs. Ongoing assessment of program effectiveness will be accomplished through the stormwater program effectiveness monitoring and implementation and the Regional Board's TDML triennial review.

The County efforts to reduce pollutants in its watershed have been effective and it has considered and taken into account local conditions and constraints.

B. Regulatory compliance

The "required revisions" on MS4s are not federally required, are inconsistent with the State General Permit, do not consider Water Code mandated factors and are the result of an inappropriate policy making process

The "required revisions" are not a necessary component of a SWMP under the General Permit. At pages 8 to 12, the General Permit requires permittees to describe BMPs and associated measurable goals in order to fulfill requirements for the six minimum control measures identified. At most, the "required revisions" are consistent with the guidance in the federal regulations for post-construction minimum control measures. That guidance describes BMP activities that EPA **encourages** but does not

require.[14] The federal regulations do not require the permittee to achieve the "required revisions" established by the Regional Board but instead:

> "EPA recommends that the BMPs chosen be appropriate for the local community; minimize water quality impacts and attempt to maintain predevelopment runoff conditions. [15]

Significantly, Regional staff has taken EPA's general, nonbinding guidance and extrapolated new SWMP requirements beyond those required by the General Permit.

The "required revisions" for hydromodification also violate the intent of the federal regulations, which defer compliance with minimum control measures until EPA can review and evaluate the effectiveness of the small MS4 regulations after December 2010.[16] The "required revisions," at most, reflect EPA guidance and are not required by the regulatory scheme for Phase II jurisdictions.

There are a number of policy and legal issues raised by the County's comments. All stormwater permits challenged to date have been Phase I permits for large MS4s. The legal challenges to date have not specifically addressed the issues and concerns presented here. In California, the controlling law includes not just the federal Clean Water Act, but if the standards proposed exceed federal standards then the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) must also be considered.

The Porter-Cologne Act's goal is

> "...to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, and **social, economic, tangible and intangible.**"[17]

The Porter-Cologne Act at Water Code Section 13241 states:

> Each regional board shall establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance; however, it is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board in establishing water quality objectives shall include, but not necessarily be limited to, all of the following:
> (a) Past, present, and probable future beneficial uses of water.
> Page 7

[14] (See 40 C.F.R. Section 122.34(b)(5)(iii).
[15] 40 C.F.R.Sections 122.34(e)(2) and 122.37.
[16] 40 C.F.R. Sections 122.34(e)(2) and 122.37.
[17] Water Code Section 13000.

(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." (emphasis added.)

In 1998 the City of Burbank challenged the Los Angeles Regional Board's issuance of a wastewater permit contending the Board had not considered the factors contained in Water Code Section 13241. In 2005 the Supreme Court[18] held that whether the regional board should have complied with Water Code Sections 13263 and 13241 by taking into account "economic considerations," such as the costs the permit holder would incur to comply with the numeric pollutant restrictions set out in the permits, depended on whether those restrictions met or exceeded the requirements of the federal Clean Water Act, 33 U.S.C. § 1251 et seq. The court noted that California law could not authorize California's regional boards to allow the discharge of pollutants into the navigable waters of the United States in concentrations that would exceed the mandates of federal law, but also noted that the federal Clean Water Act did not prohibit a state, when imposing effluent limitations that were more stringent than required by federal law, from taking into account the economic effects of doing so.[19]

If the "required revisions" were "federally required" as Regional Board staff contend, then every jurisdiction in the United States would be required to implement hydromodification criteria as proposed in the "required revisions." Since the requirements are more stringent than required by federal law, State law requires the Regional Board to consider economics and other public interest factors prior to adoption of the required revisions.[20] This position also finds support in Water Code Sections 13000 and 13241, which require consideration of economic and social factors (both tangible and intangible) in making decisions.

The Financial condition of the County is Significantly Constrained

Like most public entities in California and throughout the nation, the County faces unprecedented budgetary constraints. Already this fiscal year, the Board of

[18] *City of Burbank v. State Water Resources Control Board* (2005) 35 Cal 4th 613, 627
[19] ibid
[20] Water Code Sections 13241 and 13263(a), and City of Burbank v. State Water Resources Control Board 2005) 35 Cal 4th 613,627). Early in 2008 eighteen cities in the Los Angeles Basin prevailed in an Orange County Superior Court against the Regional Board attempt to impose water quality control standards. The trial judge issued a writ of mandate compelling the state to among other things consider the factors in the Water Code before imposing conditions on local jurisdictions.

Supervisors has reduced the County workforce by almost 280 positions, or ten percent of the County workforce. Given the weakening economy, the collapse of the financial markets and the spiral downward in home prices, additional significant reductions will be needed by the County to balance its budget before the end of this fiscal year in June. The County has already imposed a hiring freeze, a moratorium on the purchase of fixed assets and expenditures for overtime and extra help with limited exceptions for health and public safety purposes. The County Administrative Office expects virtually no increase in property tax revenues for the coming year. In contrast, growth in assessed value has averaged over 8% over the last five years.

Due to our dependence on State revenue allocations, the County Administrative Officer is unable to determine the exact nature of the cuts necessary until the State Budget crisis is addressed. In her most recent address to the Board of Supervisors on the state of the projected County budget she stated that:

> "The prospects for 2009-10 are not good. Expenditures for many County programs increase when unemployment increases and many of the County's general purpose revenues decrease during recessions...At this time we believe that 2009-2010 will be a very difficult budget year which will require sacrifices on the part of all County departments, programs, and services."[21]

The requirements being imposed by the Regional Board on the small MS4s are more restrictive than requirements currently considered in permits for large MS4s. As a matter of policy it is inappropriate to impose more restrictive requirements on these small MS4s, which have fewer available resources. The fact sheet for the General Permit notes, "it is anticipated that this general permit term will serve as a 'ramping up' period and that programs implemented by phase II communities will not necessarily conform to programs implemented by phase I communities."[22]

Congress has also acknowledged this distinction. The EPA continues to stress in its guidance that until the Phase II program is evaluated after December 2010, EPA strongly recommends:

> No 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 or equivalent analysis provides adequate information to develop more specific control measures to protect water quality."[23]

Therefore, until such time as the State undertakes and completes its process to develop a new General Permit for small MS4s and EPA evaluates the Phase II program

[21] Santa Cruz County Board of Supervisors County Budget, Agenda November 15, 2008. Item number 39.
[22] General Permit fact sheet, pg. 9.
[23] 40 C.F.R. section 122.34(e)(2). emphasis added

after December 2010, the Regional Board is premature to require new criteria related to hydromodification and LIDS on financially strapped Phase II jurisdictions.

C. Public Acceptance

The County has experience working collaboratively with environmental and other community groups to develop public acceptance of new water quality programs

Attached to this letter is a joint letter from several local Santa Cruz environmental organizations and water agencies that attests to the fact that the County and cities have in the past worked cooperatively with local groups to improve water quality. The County has a long history of working closely with organizations and other stakeholders to promote watershed protection and restoration in an effective manner that also maximizes the leverage of limited public and private funding. These past efforts have included participation in the Integrated Watershed Restoration program, the Blue Circle, the Integrated Regional Water Management program, and Eco Cruz, the environmental online guide for Santa Cruz County. The letter from the local groups states:

> "We are concerned that to some degree the current SWMP approach as advocated by the RWQCB will divert limited resources away from the important water quality, ecosystem and climate change issues we are trying to address. The municipalities are active and critical partners in these efforts. *We strongly recommend that the RWQCB work with us to collaboratively achieve the 'healthy watersheds' we all seek.*"[24]

The letter concludes:

> We have confidence that through the proposed municipal stormwater management programs the municipalities will continue to work with the RWQCB and our agencies to evaluate program effectiveness and modify or expand those programs as needed in the future to ensure that water quality protection and hydromodification are adequately addressed. *The municipalities have a good track record and long experience successfully implementing practical resource protection efforts in Santa Cruz County. (Emphasis added.)*[25]

[24] See letter dated Jan 10,2009, Support for Santa Cruz Municipalities stormwater programs signed by representatives of Resource Conservation District of Santa Cruz County, Ecology Action, Coastal Watershed Council, Save Our Shores Pajaro Valley Water Management Agency, and Soquel Creek Water District--pg 1-emphasis added.

[25] Ibid, page 3

There is no evidence to support the notion that the residents and taxpayers of the unincorporated areas of the County of Santa Cruz are willing to financially support the establishment of new unfunded mandates being contemplated by the Regional Board.

While the City of Santa Cruz just recently succeeded in enacting a ballot measure to increase funding for stormwater programs, a similar level of financial support does not exist in the unincorporated area of Santa Cruz County. The County has been unsuccessful in its attempts at obtaining voter approval for a general utility tax or to fund essential government functions such as emergency 911 dispatch services, additional parks, highway and sewer construction and fire fighting. Polling conducted for the County also indicates insufficient support for a number of other essential services such as necessary road repairs (potholes, repaving, etc.) and highway widening to alleviate congestion.

A special tax is imposed for specific purposes and must be approved by a two-thirds vote.[26] In this environment, it is unlikely that funding for a specific purpose such as the mandated storm water programs would find the requisite level of voter support in the unincorporated areas of Santa Cruz County. While the County has continued to improve and strengthen its stormwater programs, it has done so within its limited resources. As evidenced by the attached letter from local environmental groups[27], the best results are achieved when the planning process incorporates extensive public participation and seeks to obtain a broad consensus for the proposed plans. The path and timelines the Regional Board staff has chosen, coupled with their lack of flexibility, has not permitted sufficient time to develop the necessary local consensus.

D. Costs

Provisions in the "Required Revisions" are not cost effective and significantly increase the financial burden on the County and private development efforts

From a practical standpoint, the development and adoption of local standards for hydromodification will require the expenditure of significant public and private resources. As a cost comparison, development of the HMP for Santa Clara County cost $800,000 (which included additional studies) and took three years to complete. The County's original budget for preparation of the SWMP included $100,000 for consultants. Given the extensive nature of the "required revisions," that budget has already more than doubled with no end in sight. The County does not have the funding available to finance all of the "required revisions" and the ensuing liability associated with failure to implement these "required revisions."

[26] *See Howard Jarvis v. City of Salinas*, 98 Cal App 4th 1351,1358-1359.
[27] See footnote 25

Unless the Regional Board is willing to consider changes to their rigid interim hydromodification criteria, landowners, developers and the County itself will all be adversely affected. We examined several recent development applications to evaluate what additional information/improvements could be required based on our current understanding of the interim hydromodification criteria. We concluded that imposition of the Board's interim criteria would result in: additional engineering analysis and reviews, reduction in developable areas, conflicts with Smart Growth principles that may lead to "hypersprawl,"[28] and costly on-site flow control measures that may or may not protect the County's creeks and watersheds.

Examples of potential impacts to development in Santa Cruz County:

- A.S.A. Animal Shelter Redevelopment Project on 7th and Rodriquez:
  This completed project included underground detention to limit peak flows from the site based on the pre-project site coverage for flood control purposes. The existing drainage system was designed by analyzing both the on and off site storm water systems using the Rational Method (peak flow analysis) applied to flood events. Additional hydrologic analyses of this project for the 1, 2, 5, and 10-year storm events,[29] and potential project redesign based on the results, would be required to show compliance with the RWQCB's interim criteria. In addition, the project may need to be redesigned with less impervious surface area, interspersed with pervious area, to meet the 5% EIA criterion, which may or may not be feasible for this project site and intended use.

- 08-0435 Commercial Redevelopment on 41st Avenue:
  This application is for a new restaurant to replace an existing commercial use. The parking lot is also to be rebuilt. There is no increase in impervious area and drainage patterns were going to be maintained due to the redevelopment, so the only requirement from Stormwater Management is for the inclusion of a water quality treatment unit for the runoff from the parking lot area. This project does not require a civil engineer for the drainage design; however, one would be required to evaluate and design for compliance with the RWQCB's interim criteria. Because the site contains about 20,000 square feet of impervious area, under the RWQCB's interim criteria redesign of the site would be required so that the effective impervious area (EIA) was limited to 5% of the project area. To achieve this criterion, the project applicant would be required to reduce the size of

[28] Beach, Dana. "Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States". The Pew oceans Commission. (8 April 2002). 11 June 2008.

[29] The required hydrologic analysis and hydrograph matching will require the project applicant to expend extensive additional resources (time, computer models, site specific input data, and engineering expertise) compared to our current requirements for flood control peak flow analysis. It is anticipated that in order to have adequate input data regarding soils, site specific percolation tests will be required for all projects that create/replace 5,000 square feet or more of impervious area.

the restaurant and/or reduce the amount of parking available or use alternative pervious or semi-impervious paving.

- Single Family Dwelling Development:
  For single family dwelling developments that drain to County maintained facilities we currently require that they utilize best management practices (i.e. downspouts directed to landscaped areas, level spreaders, infiltration facilities, minimizing impervious areas, etc.) to control any added runoff on site. An engineer is not required for on site design, but is required if off site analysis is needed (i.e. the site drains to a private parcel, private road, etc.). Under the RWQCB's interim criteria, residential developments creating or replacing more than 5,000 square feet of impervious area would need to meet the 5% EIA limits as well as hiring an engineer to conduct a hydrologic analysis demonstrating hydrograph matching.

Interim Hydromodification Criteria are an Unfunded State Mandate.

The County also considers the imposition of these requirements to be an unfunded state mandate. Because the "required revisions" in question exceed requirements as mandated by federal law, the provisions are an unfunded state mandate.[30] Furthermore, even if a program is required in response to a federal mandate, a subvention of state funds may be in order. For example, Government Code Section 17556(c) provides that if a requirement was mandated by federal law or regulation, but the [state] "statute or executive order mandates costs that exceed the mandate in that federal law or regulation" a subvention of funds is authorized. Even if the costs were mandated to implement a federal program, if the "state freely chose to impose the costs upon the local agency as a means of implementing" that federal program, "the costs are the result of a reimbursable state mandate regardless whether the costs were imposed upon the state by the federal government."[31]

As noted above, the effectiveness and benefit to be received from the Regional Board staff's "required revisions" have not been demonstrated. The County understands that at the Regional Board's October 17th hearing on the City of Lompoc SWMP, the City and County of Santa Barbara testified that they expended in excess of $250,000 to develop local hydromodification criteria. Thus, the "required revisions" are onerous and costly and may not provide any environmental benefit by actually improving water quality, or at least at a level that is commensurate with the cost.

[30] See *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal. App.4th 898, 907.
[31] *Hayes v. Commission on State Mandates (1992) 11 Cal.App.4th 1564, 1577-78)*

With the limited review of effectiveness assessment criteria, it is estimated the additional water quality testing alone could cost the County $250,000-$500,000 over the 5-year permit term. Based on previous experience with the TMDL program in our County, it is estimated that development and implementation of the WAAPs would cost the County $300,000 over the 5-year permit term.

As noted by local environmental groups:

> "While we concur with the overall objectives represented by Wasteload Allocation Attainment Plans (WAAPs), we agree with the municipalities that the requirement for separate WAAPs for each TMDL and each stormwater program detracts from a comprehensive watershed approach and would be an unnecessary and redundant effort. Many of the elements of the WAAPs have been addressed through the preparation of the stormwater plans, the TMDL's, and/or the supporting studies that lead to the TMDL's. Ongoing assessment of program effectiveness will be accomplished through the stormwater program effectiveness monitoring and the Regional Board's triennial review of TMDL implementation."[32]

Even references cited by Regional Board staff state that:

> "Despite the fact that LID technologies have been promoted and studied since the early 1990's for many Stormwater managers and developers, LID is still a new and emerging technology. As with most new technologies, installation and other **costs of LID are highest during the early phases** of development and adoption. Over time, as practioners learn more about the technology, as the number of suppliers of inputs expands, and as regulations adapt to new technology, costs will **likely** decline."[33]

The EPA further notes that:

> "Although the increase in application of these practices is growing rapidly, **data regarding both the effectiveness of these practices and their costs remain limited.**" [34]

Finally, the EPA goes on to caution:

> At this point, monetizing the economic and environmental benefits of LID strategies is **much more difficult** than monetizing traditional

[32] ibid pg 2
[33] ECONorthwest, The Economics of Low Impact Development: A Literature review p iii. -emphasis added
[34] Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices, EPA Document 841-F-07-006 dated December 2007-emphasis added.

> infrastructure costs or changes in property values due to improvements in existing utilities or transportation systems.[35]

As a matter of public policy it makes little sense in these times of dwindling resources to require small MS4s with limited funds to develop criteria that should be developed as part of the upcoming Phase II small MS4 General Permit Update process.

E. Technical Feasibility

The Criteria established by the regional Board staff may not be technically feasible to achieve

The Regional Board has already heard testimony from other jurisdictions questioning the technical feasibility of achieving the criteria required by the Regional Board. In its response to the City of Lompoc's proposed SWMP, the Regional Board staff stated:

> "There are several small MS4s within the region that are already proceeding to the 12 month schedule (the City of Santa Maria and the Santa Cruz County municipalities are examples)."[36]

As evidenced by the comments made here, this statement is not totally accurate since the Table of Required Revisions disregards the prior approval by the Regional Board staff of the County's proposal to develop its hydromodification criteria and continues to include the February, 2008 Criteria. Further, we understand that the City of Santa Maria recently questioned both the timelines and the substance of the "required revisions" proposed by the Regional Board staff.

Technical experts in the field have already stated to Regional Boards throughout the State the difficulty of developing a blanket hydromodification standard. For example, one interim criterion that requires new and redevelopment projects to maintain an EIA of less than 5% mirrors a proposed requirement in the draft phase I MS4 permit for the County of Ventura and incorporated cities within Ventura County. That requirement has been the subject of much debate and controversy.

Speaking on behalf of the County of Ventura, GeoSyntec expressed its concerns with the technical feasibility of a blanket hydromodification criterion. GeoSyntec stated that while the requirement was presumably based on existing literature, the use of this information was premature because it has not been developed and tested locally.[37]

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[35] Ibid at page 6-emphasis added

[36] Regional Board Staff Supplemental Sheet no. 2 for regular meeting of October 17, 2008 item 9, pg 1.

[37] See memorandum to Mark Grey, CICWQ, from Lisa Austin, Donna Bodine and Erick Strecker, GeoSyntec Consultants dated March 7, 2007, at pg 9

GeoSyntec also concluded that this blanket requirement is not needed in all cases and that such a requirement:

> "...ignores the need to promote urban infill, redevelopment and dense districts in new development projects as identified in the smart growth principles"[38]

Later in its memo GeoSyntec states:

> "Interim criteria requirements for post construction runoff hydrographs may be impractical as applied to redevelopment projects, and in particular, redevelopment projects for industrial areas. Requiring the site to match predevelopment runoff hydrographs will hinder redevelopment projects that are industrial in nature, and by virtue of the industry require significant impervious areas (e.g. trucking and shipping facilities)."[39]

As previously noted, even the literature cited by the Regional Board in its comments to other jurisdictions' SWMPs cautions against the blanket use of LIDs and by implication the new hydromodification criteria. In its comments to the City of Lompoc SWMP, Regional Board staff cites the ECONorthwest's report of the review of literature[40] and EPA Documents cited above.[41] Both these documents advise against reading too much into past studies to justify the use of LIDS.
Consultants retained by the County (EOA, Inc.) are of the opinion that:

> "It is not feasible to demonstrate that the alternative hydromodification criteria being developed by the County will be as effective as the Regional Board's interim criteria without further documentation from the Regional Board. The technical basis for, and the effectiveness of, the interim criteria are unknown at this time. The Regional Board put forth detailed interim hydromodification criteria in letters dated February 2008 and July 2008. These criteria are now listed as required changes for the SWMP (comment 39). However, neither of the letters, attached references, or other correspondence from the Regional Board provides the scientific basis of the interim criteria."[42]

[38] Ibid, at pages 9 and 10
[39] ibid
[40] See City of Lompoc Board hearing materials, page 4 of supplemental sheet 3, item 9 dated October 17, 2008
[41] EPA 841-F-07-006 dated December 2007
[42] EOA, Inc. Email of 12/18/08, Lori Pettegrew, References reviewed included materials from the July 2008 Regional Board Letter (item numbers below refer to the numbering in that letter)

Without having had the opportunity to thoroughly review any documentation of the basis of the Regional Board's criteria, here is a summary of what we know based on a review of existing hydromodification control approaches across the State.

A. Requirement to limit the Effective Impervious Area (EIA) to less than 5% of the project area –

This requirement appears to have come from the draft Ventura County stormwater permit, the language of which is quite controversial and has not yet been adopted.[43] Dr. Richard Horner, a researcher from the Pacific Northwest and consultant to NRDC, proposed the EIA limit, however, two of the references provided in the July 2008 RWQCB letter as support for the EIA limit are actually in disagreement with a 5% EIA. Reference 16 is a memorandum prepared by GeoSyntec Consultants, a leader in the LID and hydromodification management field, that evaluated Dr. Horner's assumptions in a memorandum prepared for the Building Industry Association of Southern California (BIASC) (reference 16 to the July 2008 RWQCB letter).[44] The memorandum concluded that an EIA limit of 5% is not a feasible or appropriate criterion. In its report entitled "Coastal Sprawl" (reference 5 to the July letter), the Pew Oceans Commission also did not

5. Beach, Dana. "Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States". The Pew Oceans Commission. (8 April 2002). 11 June 2008.

9. Coleman, Derrick, et al. "Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams." Southern California Coastal Water Research Project. Technical Report 450 (2005).

11. D raft NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities." California State Water Resources Control Board. (18 March 2008): 29 June 2008.

14. "Draft Tentative Order, Ventura County Municipal Separate Storm Sewer System Permit." Los Angeles Regional Water Quality Control Board. (29 April 2008): 9 June 2008.

16. GeoSyntec Consultants. Memorandum to Mark Grey, Building Industry Association of Southern California: Review of Investigation of the Feasibility and Benefits of Low Impact Site Design Practices for Ventura County. 28 May 2008.

Other References reviewed include:

1. Letter to Dr. Xavier Swamikannu, Los Angeles Regional Water Quality Control Board, from the Building Industry Association of Southern California et al., Re: Comments from Construction Industry Representatives Concerning the April 2008 Draft Tentative NPDES Permit No. CAS004002 – Ventura MS4, May 29, 2008.

2.Letter to Mr. Roger Briggs, Central Coast Regional Water Quality Control Board, from the California Stormwater Quality Association, Re: 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, June 27, 2008.

[43] "Draft Tentative Order, *Ventura County Municipal Separate Storm Sewer System Permit.*" Los Angeles Regional Water Quality Control Board. (29 April 2008): 9 June 2008.

44 . GeoSyntec Consultants. Memorandum to Mark Grey, Building Industry Association of Southern California: *Review of Investigation of the Feasibility and Benefits of Low Impact Site Design Practices for Ventura County.* 28 May 2008.

support an EIA limit at the project site level.[45] They contend that an impervious limit can lead to "hypersprawl" and they recommend a "New Urbanist/Smart Growth" approach that considers the effects of land use changes at the regional, neighborhood, and site scale.

B. Requirement for post-construction hydrographs to match within 1% the pre-construction hydrographs for return periods from 1-year to 10-years

This requirement appears to be a hybrid of the hydrograph matching criteria proposed in the report by Coleman et al for the Southern California Coastal Water Resources Program (SCCWRP) (reference 9 to the July letter) and the matching tolerance proposed in the draft Ventura permit.[46] The SCCWRP report studied the effects of peak flows and levels of watershed imperviousness on Southern California streams (which are very different from Central Coast Region streams), but did not provide any technical basis for the effectiveness of matching the 1- to 10-year hydrographs (a management recommendation that seemed to be added at the end of the report). In fact, hydrograph matching is considered less protective of streams than flow duration matching, as demonstrated in the Santa Clara Valley Urban Runoff Program hydromodification studies, and matching the 1-year storm and greater ignores the effects of smaller, more frequent storms that may cumulatively have significant erosive effects on stream channels.

In addition, the requirement to match a pre-construction hydrograph within 1% does not make sense technically, given the level of uncertainty of the data used to generate the hydrograph and the ability to accurately calculate or simulate the actual pre-construction hydrograph in the first place.

C. Requirement to preserve the pre-construction drainage density for all drainage areas serving a first order stream or larger, and ensure that post-project time of concentration is greater than or equal to pre-project time of concentration

This requirement seems to be taken from the draft Construction General Permit, and no reference for its technical basis has been provided in this permit. In its comments on the draft Permit, the California Stormwater Quality Association (CASQA, June 11, 2008) stated that:

45 Beach, Dana. "*Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States*". The Pew Oceans Commission. (8 April 2002). 11 June 2008.

46 Coleman, Derrick, et al. "*Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams." Southern California Coastal Water Research Project. Technical Report 450 (2005). and Draft Tentative Order, Ventura County Municipal Separate Storm Sewer System Permit.*" Los Angeles Regional Water Quality Control Board. (29 April 2008): 9 June 2008.

"Preserving the drainage density for all projects is exceptionally restrictive and greatly limits site uses. There are many effective BMPs, including Low Impact Development (LID) approaches that can be used to meet performance goals such as runoff volume reduction and pollutant load reduction. Maintaining existing drainage density will tend to encourage sprawl and increase the cost of development without benefiting water quality beyond what other equally effective approaches could provide. Further, without more detailed information regarding how the pre-project time of concentration criteria is to be applied, there is no assurance that it will have a benefit."

GeoSyntec Consultants also submitted comments on the hydromodification management requirements of the draft Construction General Permit, on behalf of BIASC, and concluded that:

1. Decrease in runoff travel time is characteristic of urban hydrology; however, it is possible to show the same or even longer travel time for a project, while still increasing the erosivity of runoff; and
2. No recommendation was found in any of the publications they reviewed to prohibit an alteration to drainage divides at this scale as an effective hydromodification management tool.

Without technical or scientific basis, field studies or peer review, the effectiveness of the interim criteria is unknown. Therefore, it is not feasible, nor does it makes sense for the County to expend significant resources, to demonstrate that any alternative criteria is "as effective as" the Regional Board's interim criteria.

Further investigation of hydromodification criteria currently being used throughout the State and in existing Phase I stormwater permits also did not provide technical support for the interim criteria proposed by the Regional Board and listed in the required SWMP revisions. It appears that interim criteria put forth in the required SWMP revisions are untested and have not received any level of peer review or discussion.

A review of hydromodification management requirements throughout the State indicates that most stormwater programs have a general requirement that post-project runoff peaks, volumes, and/or durations shall not exceed those for the pre-project condition. Project size thresholds vary, but most programs also have exemptions for discharges to streams or channels where potential for erosion is small (e.g. hardened or engineered channels, tidal areas, enclosed pipes, etc.). What's important to note about these existing hydromodification management programs is that the majority of them have developed criteria based on extensive

technical studies, and have been peer reviewed by noted geomorphologists and independent technical experts. These criteria have been demonstrated to be effective at reducing hydromodification and protecting beneficial uses."

Santa Cruz County's approach to development of alternative interim hydromodification management criteria will build upon this existing base of technical knowledge, combined with knowledge of local watershed and stream conditions, to create a management plan and criteria that are technically sound and appropriate for the County. A comprehensive plan will be developed that is not just focused on site-level controls, but includes consideration of land use planning policies, stream riparian/buffer zone protection, and stream susceptibility to erosive forces. The County will also hold stakeholder meetings to encourage public involvement in the process and incorporate public input into the plan.

5. Request for a hearing

The County staff has worked cooperatively with Regional Board staff in the past to resolve differences of opinion on how to structure programs intended to improve water quality. Unfortunately, at this time agreement has not yet been reached between Regional Board staff and the County. Thus, in order to preserve its legal rights, the County of Santa Cruz requests a hearing before the Regional Board prior to the Regional Board making its final determination as to the exact nature and form of "required revisions" it will impose. The County requests 20 minutes for a presentation and 15 minutes to provide rebuttal testimony to Regional Board comments.

Conclusion

Santa Cruz County seeks to implement programs that are technically feasible, effective, enjoy broad public support and actually improve water quality, rather than fighting over "required revisions" to its SWMP. The County does not disagree with the ultimate objectives sought by the Regional Board. The County believes that its proposed SWMP achieves those goals by establishing programs that will improve water quality within existing resources. As additional resources become available to the County, the

County will continue its proactive approach to improve water quality and continue to serve as good stewards of the natural environment.

Sincerely,

NEAL COONERTY, Chairperson
Board of Supervisors

Attachments

cc: City of Santa Cruz, Department of Public Works
City of Watsonville, Department of Public Works
City of Scotts Valley, Department of Public Works
City of Capitola, Department of Public Works

RESOURCE CONSERVATION DISTRICT

EcologyAction
Innovation • Partnership • Community

Coastal Watershed Council

Save Our Shores
Awareness Advocacy Action

Pajaro Valley Water Management Agency

SOQUEL CREEK WATER DISTRICT

January 5, 2009

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

Dear Mr. Briggs:

RE: Support for Santa Cruz Municipalities Stormwater Programs

We are writing to express our strong support for the submitted stormwater management programs (SWMPs) of Santa Cruz municipalities (Santa Cruz County, Capitola, Santa Cruz City, Watsonville and Scotts Valley). The municipalities have a long history of working closely with our organizations and other stakeholders to promote watershed protection and restoration in an effective manner that also maximizes the leverage of limited public and private funding. These partnerships have been borne out over the years through participation in the Integrated Watershed Restoration Program, the Blue Circle, the Integrated Regional Water Management Program and EcoCruz, the environmental online guide for Santa Cruz County.

We are concerned that to some degree the current SWMP approach as advocated by the RWQCB will divert limited resources away from the important water quality, ecosystem and climate change issues we are trying to address. The municipalities are active and critical partners in these efforts. We strongly recommend that the RWQCB work with us to collaboratively achieve the "healthy watersheds" we all seek. A brief overview of our preferred approach to critical watershed issues is provided below.

Hydromodification

Reducing hydromodification, promoting watershed restoration, protecting riparian corridors and promoting groundwater recharge are all elements that have been a priority of the municipalities and the local community for many years and are well addressed in the general plans, policies, ordinances and stormwater programs of the municipalities. There have been over 15 watershed assessments and plans for Santa Cruz County for which these municipalities have participated on TACs and Steering Committees and have committed staff and local match resources.

We have identified the need for a regional hydromodification effort for Santa Cruz County to better address our needs to protect and restore hydrologic function. Based on our extensive local knowledge of our watersheds we believe that something similar to the *Stream Channel Mapping and Classification Systems: Implications for Assessing Susceptibility to Hydromodification Effects in Southern California* may be a productive approach. We are also evaluating the watershed restoration/enhancement potential for exchanging "hydromodification credits". Restoration of hydrologic functions in some parts of the watershed while promoting infill and smart growth in other parts will likely be a key component of overall ecological and hydrologic watershed restoration while at the same time addressing land use practices that reduce vehicle miles and reduce greenhouse gas emissions.

We look forward to evaluating and strengthening our cooperative efforts through implementation of the proposed stormwater plans. We are already working closely with the municipalities to implement programs to provide more public education, outreach and technical assistance to property owners regarding, erosion control, runoff reduction and low impact development. Stormwater management and recharge protection are key elements of our Integrated Regional Water Management Plan and are component projects funded by our current Prop 50 IRWM grant. ***Recommendation:*** *Utilize regional hydromodification study results to clearly define appropriate adaptive management strategies over time.*

Low Impact Development

The Santa Cruz County working group (Santa Cruz Watershed Action Group) comprised of municipalities, water agencies and environmental non-profits are working together to develop and promote a watershed-based approach to low impact development (LID) in Santa Cruz County. We have already recognized that in our county, focusing on LID in urbanized areas will not provide the long-term watershed scale benefits that both our community and your Board seek. As such, we are evaluating options for programs that will address LID across multiple land use types. We believe that property owner education and assistance is a key if we are to restore hydrologic function throughout our various watersheds. ***Recommendation:*** *Consider a watershed based cap and trade model that will maximize watershed scale benefits for water quality, water quantity and hydrologic function.*

TMDLs

The municipalities have also taken the initiative to work with us in an effective and responsive manner to conduct studies, develop plans and begin implementation of efforts that have subsequently served as the basis for the sediment, pathogen and nutrient TMDLs in the County. We have no doubt of the agencies' intent to achieve the TMDL wasteload allocations to the maximum extent practicable, while at the same time addressing priority pollutants in the other county waters that are not necessarily subject to a TMDL. It should be kept in mind that stormwater management is just one component of most TMDLs, and the agencies have a good history of addressing all aspects and adapting their approaches as needed and as new technology or approaches become available.

While we concur with the overall objectives represented by Wasteload Allocation Attainment Plans (WAAPs), we agree with the municipalities that the requirement for separate WAAPs for each TMDL and each stormwater program detracts from a comprehensive watershed approach and would be an unnecessary and redundant effort. Many of the elements of the WAAPs have been addressed through the preparation of the stormwater plans, the TMDLs and/or the supporting studies that lead to the TMDLs. Ongoing assessment of program effectiveness will be accomplished through the stormwater program effectiveness monitoring and the Regional Board's triennial review of TMDL implementation. Our working group also intends to apply adaptive management to all of our watershed restoration efforts, including the stormwater programs. ***Recommendation:*** *Build on ongoing efforts to comprehensively and realistically address TMDLs and priority pollutants originating from all sources in all watersheds.*

Climate Change

We are concerned that climate change does not appear to be a consideration in the Board's approach to stormwater management. We are concerned that restoring and retaining healthy watersheds requires that climate change be taken into account. This appears especially true when dealing with hydromodification, LID and the changes in rainfall intensity that may result from climate change.

The Board is suggesting that municipalities use long-term historical precipitation records as the basis for developing hydromodification standards and plans. Climate models indicate that the use of such historical data will not necessarily provide an accurate portrayal of future precipitation patterns or events. Basing future standards on historical weather patterns may not be the best approach for restoring and retaining healthy watersheds. To the extent feasible, we would like to see flexibility and adaptive management strategies incorporated.

Increases in sea level will likely have an effect on the hydrology and ecology of many of our local waterbodies. With significant existing development in this county located in low-lying areas close to the coast, it is critical that we carefully evaluate hydromodification standards and BMPs. Implementing standards and BMPs that apply to current conditions may be inappropriate or even deleterious to the affected watersheds and communities in the future.

Increased air and water temperatures will likely affect a number of endangered species (aquatic and terrestrial). The long-term survival of these genetically unique populations may well require special consideration in terms of land use and water management policies and practices. The possible extirpation of local steelhead populations is an example of one such organism, where innovative watershed-scale approaches to stormwater management may need to be developed. ***Recommendation:*** *Avoid prescriptive requirements for use of historical rainfall data in hydromodification and LID sizing calculations, and allow for flexibility in such calculations to account for the predicted effects of climate change.*

Conclusion

We have confidence that through the proposed municipal stormwater management programs the municipalities will continue to work with the RWQCB and our agencies to evaluate program effectiveness, and modify or expand those programs as needed in the future to ensure that water quality protection and hydromodification are adequately addressed. The municipalities have a good track record and long experience successfully implementing practical resource protection efforts in Santa Cruz County.

We strongly support the goals of the RWQCB's stormwater program and want to work with the RWQCB and our local partners to successfully achieve "healthy watersheds." Thank you for this opportunity to comment and we look forward to our continued partnership with the RWQCB and our local community to address these priorities.

Sincerely,

Karen Christensen
Executive Director of
RCD Santa Cruz County

Virginia Johnson
Executive Director of
Ecology Action

Armand Ruby
Executive Director of
Costal Watershed Council

Laura Kasa
Executive Director
Save Our Shores

Mary Bannister
Interim General Manager
Pajaro Valley Water
Management Agency

Laura Brown
General Manager
Soquel Creek Water District

Cc: Betsey Herbert, San Lorenzo Valley Water District
Bill Kocher, City of Santa Cruz
Bridget Hoover, AQWA
Charles McNeish, Scotts Valley Water District
John Ricker, Santa Cruz County
Kate Goodnight, Coastal Conservancy
Kris Beall, Watsonville Wetlands Watch
Rachel Fatoohi, Santa Cruz County
Robert Ketley, City of Watsonville
Sarah Corbin or Richard Ferdinand, Surfrider
Steve Jesberg, City of Capitola
Steve Shimek, Monterey Coastkeeper
Suzanne Healy, City of Santa Cruz

Attachment 2

County of Santa Cruz - RESPONSE TO NOVEMBER 14, 2008 COMMENTS FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

Item #	SWMP Section/Subject	Response
Chapter 2 – Program Description and Management		
1	Effectiveness Assessment	Will add statement to continue to assess Level 1 outcomes during years 3 and 4 in Chapter 2 and at the end of each chapter in the effectiveness assessment section.
2	Effectiveness Assessment	Will add statement that Level 1 outcomes will be used to assess the effectiveness of all applicable BMPs.
3	Effectiveness Assessment	Will add statement that the effectiveness strategy will include efforts to identify links between BMP/program implementation and improvement in water quality and beneficial use conditions as a long term goal.
4	Total Maximum Daily Loads (TMDLs) Program Goals	Will update wording in Chapter 2 to state that one of the SWMP goals is to achieve wasteload allocations for controllable stormwater contributions to the maximum extent practicable in watersheds where TMDLs have been adopted.
5	TMDLs Wasteload Allocation Attainment Plans	The County's SWMP has been developed specifically to implement recommendations and address the controllable stormwater related sources identified in the TMDL implementation plans and supporting documents. These documents already contain most of the elements of wasteload allocation attainment plans. The remaining elements will be provided through the effectiveness assessment of the Stormwater Program and through the triennial review of overall TMDL implementation conducted by the water board and local staff.
Chapter 3 - PEO		
8	Deleted BMPs	Will add back the Monterey Green Gardener and Our Water Our World in the text of Chapter 3 specifying that these programs are contingent on grant funding that we will continue to pursue. Note: These BMPs were deleted in the last version at the suggestion of water board staff.
9	BMPs 3-1-6, -7, -17 Measurable Goals	Will update measurable goals to include distribution of at least 50 stream care guides per year, distribution of septic system educational material to at least 100 households, and support a presentation regarding stormwater pollution issues to farmers at least one time per year.
10	BMPs 3-1-11,-12 Measurable Goals	Will update to include commitment to conduct outreach to targeted industries and disadvantaged communities. Update measurable goals so at least 20% of the brochures are targeted to Spanish speaking County households and are distributed as part of BMP 3-1-1. Also conduct outreach to 20% of targeted industries per year in years 3, 4 and 5.
Chapter 5 - IDDE		
13	BMP 5-1-12 Measurable Goals	Will update to include training of 3 environmental compliance inspectors and 3 road and storm drain maintenance workers.
15	BMP 5-1-8 Sewer Lateral	Will add a measurable goal of developing and implementing a sewer lateral upgrade program as necessary based on water quality evaluation

Item #	SWMP Section/Subject	Response
	Upgrades Program	conducted after sewer mains have been upgraded in 08-09.
16	BMP 5-1-10 Measurable Goals	Will update to include a goal of inspecting 1000 septic systems per triennial period.
17	BMP 5-1-11 Enforcement	Will update BMP 5-1-11 for enforcement of ordinance each permit year.
18	BMP 5-1-9 Pet Waste Ordinance	Will add descriptions of the education and collection kiosks aspects of the program and identify measurable goals and implementation schedules for these BMPs
19	BMP 5-1-4 Implementation Schedule	Will update alignment in table 5-1.
Chapter 6 -Construction		
24	TMDL	As described in Chapter 2, Section V, the County has taken a conservative approach for dealing with pollutants of concern, rather than limiting our program to specific geographic areas, our BMPs have been developed and will be implemented throughout our permit area in order to reduce the controllable sources of sediment, fecal indicator bacteria, and nutrients associated with the storm drain system to the maximum extent practicable.
Chapter 7 – Post - Construction		
25	BMPs 7-1-1, -2 Long Term Watershed Protetction	Will update BMPs to include a commitment to develop quantifiable measures, where feasible, by the end of the permit term that will indicate adequate watershed protection.
27	BMPs 7-1-4 Design Standards	The four previous measurable goals listed in the July 2008 SWMP have been reorganized as part of BMP 7-1-1 and 7-1-4. Will reiterate this by adding back the same 4 measurable goals to 7-1-4 that were in the July 2008 version.
28	BMP 7-1-4 Design Standards	Will update BMP as described above in comment No. 27.
29	BMP 7-1-4 Design Standards	Will update BMP to include a measurable goal for implementation of current design standards.
30	BMP 7-1-4 Design Standards	Will update BMP to include a measurable goal for implementation of future design standards for all applicable projects.
36	Existing Structural Stormwater Controls Measurable Goals	The previous BMP has been replaced with BMP 7-1-7. BMP 7-1-7 will be updated to include the identification of existing structural controls (year 1) and to develop and implement and track (% of structural controls maintained and reported on annually) a maintenance program in years 2 to 5. Note this BMP is intended for privately maintained structural facilities. County maintained facilities are addressed in Chapter 8.
39	BMP 7-1-5 Alternative Interim Hydromodification Criteria	Santa Cruz County's approach to development of alternative interim hydromodification management criteria will build upon this existing base of technical knowledge, combined with knowledge of local watershed and stream conditions, to create a management plan and criteria that are technically sound and appropriate for the County. A comprehensive plan will be developed that is not just focused on site-level controls, but includes consideration of land use planning policies, stream

Item #	SWMP Section/Subject	Response
		riparian/buffer zone protection, and stream susceptibility to erosive forces. The County will also hold stakeholder meetings to encourage public involvement in the process and incorporate public input into the plan. Will update the BMP to include reference to our alternative criteria development plan previously approved by the water board. Will include this alternative plan as an appendix to the SWMP. The text in Chapter 7 will also be updated to state that our proposed alternative criteria will 1) provide numeric thresholds that demonstrate optimization of infiltration in order to approximate natural infiltration levels, and 2) achieve post-project runoff discharge rates and durations that do not exceed pre-project levels, where increased discharge rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses.
40	Hydromodification Management Plan (HMP)	As described in Chapter 7 we anticipate that our proposed alternative interim hydromodification criteria will become our long term hydromodification control criteria with revisions and updates made over time based on effectiveness assessments and general industry knowledge. This long term criteria will be in place and implemented by the end of year 5.
41	Hydromodification Management Plan (HMP)	See response to Comment No. 40.
42	Hydromodification Management Plan (HMP)	The SWMP will be updated to describe how the County and City's HMP will be our long term hydromodification criteria along with our General Plan, Local Coastal Program Land Use Plan, ordinances and criteria. Over the permit term, the HMP will be revised and updated based on effectiveness assessments and general industry knowledge.
43	Application of New Design Standards	Will update wording to state that building permits will be subject to the policies, ordinances and criteria in effect at the time of application and that discretionary applications will be subject to the policies, ordinances and criteria per the Permit Streamlining Act.
46	Tracking BMPs	This is included as part of BMP 7-1-7.
Chapter 8 – Good Housekeeping		
47	BMP 8-1-2 Measurable Goals	Will update to state that 100% of County facilities will implement BMPs in years 2 to 5 as developed in year 1.
48	BMP 8-1-3 BMP Implementation	As part of the County's IPM and IVMP programs, the County's pesticide use has been minimized. BMPs that will continue to be used are: minimization of pesticide use considering health and safety issues, elimination/minimization of spray application. Consistent with these programs the County will review newly available technologies and adopt them as appropriate in order to further decrease pesticide use. BMP 8-1-3 will be updated to document these BMPs and report on implementation.
49	BMP 8-1-3, -4, -5 Measurable Goals	Will update measurable goals to include the development of quantifiable goals during Year 1 as part of the schedule and BMP development.