

**REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

**Response to Comments
County of Santa Cruz and City of Capitola
Storm Water Management Program October 2008**

March 19-20, 2009

I. Introduction

This document includes Regional Water Quality Control Board, Central Coast Region (Water Board) staff responses to the comments received during the Water Board's 60-day public comment period (November 19, 2008 – January 20, 2009) for the County of Santa Cruz (County) and City of Capitola (City) Storm Water Management Program (SWMP) and Water Board staff's Draft Table of Required Revisions. Water Board staff received comments from the following organizations and individuals:

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II. Comments by the County of Santa Cruz

Water Board staff received two sets of comments from the County regarding the County of Santa Cruz/City of Capitola SWMP. The first set of County comments, responded to in this section, address each required revision included in Water Board staff's November 14, 2008 Draft Table of Required Revisions. The County's other set of comments, which primarily concern legal issues involving the required revisions, are addressed in section IV below.

Water Board staff has reviewed the County's comments regarding each required revision applicable to the County. The County's comments discussing how the County will address Required Revision Nos. 1-3, 8-10, 13, 15-19, 25, 27, 29, 30, 36, 40, and 47-49 meet the intent of those required revisions. Water Board staff concur with these comments and do not recommend any changes to these required revisions. However, Water Board staff prepared responses to the County's comments regarding the remaining required revisions.

Comment 1: Regarding Required Revision No. 4, the County 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.

Response 1: While it is appropriate and necessary for one of the goals of the SWMP to be attainment of wasteload allocations where Total Maximum Daily Loads (TMDLs) have been adopted, it is inappropriate to condition the attainment of wasteload allocations with the maximum extent practicable (MEP) standard. Wasteload allocations are designed to ensure that receiving water quality standards are protected. Protection of receiving water quality is a separate and distinct standard for stormwater programs, in addition to the MEP standard. The federal regulations for Phase II municipal stormwater state that SWMPs must be designed to reduce the discharge of pollutants "to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act."¹ The Statewide General Phase II Municipal Stormwater Permit (General Permit) reiterates this requirement, stating: "The Permittee shall maintain, implement, and enforce an effective SWMP designed to reduce the discharge of pollutants from the regulated Small MS4 [municipal separate storm sewer system] to the MEP and to protect water quality."² Likewise, Attachment 4 of the General Permit states: "Discharges shall not cause or contribute to an exceedance of water quality standards contained in a Statewide Water Quality Control Plan, the California Toxics Rule (CTR), or in the applicable RWQCB [Regional Water Quality Control Board] Basin Plan."³ Since protection of receiving water quality standards is a separate and equal standard to the MEP standard, attainment of wasteload allocations designed to protect receiving water quality should not be conditioned by MEP. Therefore, Water Board staff has modified Required Revision No. 4 to clarify that a long-term goal of the SWMP is to achieve wasteload allocations, while a short-term goal can be to eliminate controllable sources associated with the storm drain system to the maximum extent practicable.

Comment 2: Regarding Required Revision No. 5, 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

¹ 40 CFR 122.34

² SWRCB. 2003. Water Quality Order No. 2003-0005-DWQ. Section D.

³ SWRCB. 2003. Water Quality Order No. 2003-0005-DWQ. Attachment 4, section A.1.

effectiveness assessment of the Stormwater Program and through the triennial review of overall TMDL implementation conducted by the water board and local staff.

Response 2: Several water bodies within the County have been identified as impaired and not meeting water quality standards. As a result, TMDLs have been developed to restore these water bodies. The TMDLs identify the County's municipal separate storm sewer system (MS4) as a source contributing to the impairments and assigns the County wasteload allocations designed to help restore the water bodies' water quality and beneficial uses. Since the County's MS4 has been documented as a source of impairment, the County's SWMP must be held to a high standard to ensure the County ultimately achieves its wasteload allocations and no longer contributes to these water body impairments. Indeed, the TMDLs set forth the expectation that the County achieve its wasteload allocations within specified timeframes. This approach stands in contrast to the typical regulatory approach applied to municipal storm water, which calls for implementation of best management practices (BMPs) according to an iterative process of continual improvement, with no associated timelines for achieving water quality standards. The County's contribution to the impairment of these water bodies, combined with the expectation that it achieve its wasteload allocations within specified timeframes, necessitates a systematic approach to implementation of the SWMP as it relates to the discharge of pollutants associated with impairments.

The General Permit and federal regulations indicate that such an approach is appropriate. The General Permit requires that SWMPs be "designed to reduce the discharge of pollutants from the permitted MS4 to MEP and *protect water quality*" (emphasis added).⁴ Where water quality is not protected, as is the case where TMDLs have been developed, the SWMP must be specifically tailored to correct the impairments. The Preamble to the Phase II federal storm water regulations states: "Small MS4 permittees should modify their programs if and when available information indicates that water quality considerations warrant greater attention or prescriptiveness in specific components of the municipal program."⁵

Water Board staff developed the Wasteload Allocation Attainment Programs as a means to systematically guide municipalities towards attainment of their wasteload allocations. Without a systematic approach of this type, Water Board staff believes that attainment of wasteload allocations is unlikely. This belief is supported by the contents of the County's SWMP. For example, the County's SWMP typically identifies basic BMPs to be implemented to attain its wasteload allocations. While some of these BMPs are likely to be beneficial, the connection between others and wasteload reductions is unclear. In addition, it appears that most of these BMPs are currently implemented, yet impairments continue, indicating that greater efforts are warranted. Moreover, these BMPs do not address all of the issues identified in the TMDL, such as education regarding homeless encampments. Finally, the County's list of BMPs does not include numerous other BMPs that can control fecal indicator bacteria and associated pathogens, such as targeting enforcement in popular dog walk areas; discouraging congregation of wildlife caused by humans; constructing runoff treatment systems in problem areas; constructing dry weather nuisance flow diversions; improving spill reporting, control, and clean up; cleaning storm drains more frequently; reducing dry weather flows; implementing grease control programs; and dumpster and trash can management to

⁴ SWRCB. 2003. Order No. 2003-0005-DWQ. P. 8.

⁵ 64 FR 68753

prevent congregation of wildlife. The insufficient BMP discussion included in the SWMP indicates that a more systematic approach, as represented by the Wasteload Allocation Attainment Programs, is warranted.

On a broader scale, the SWMP does not exhibit the rationale used for BMP selection or draw connections between those BMPs selected and eventual wasteload allocation attainment. Without this level of planning, the significant challenge of achieving wasteload allocations within specified timeframes is not likely to be met. The Wasteload Allocation Attainment Program requirements are expressly designed to ensure adequate planning is conducted so that the County's TMDL implementation efforts are effective. The main steps to be followed for Wasteload Allocation Attainment Program development and implementation are activities that are basic to successfully correcting water quality problems. The Wasteload Allocation Attainment Program requirements specify that the County address in its SWMP the following items as they apply to TMDLs: (1) An implementation and assessment strategy; (2) source identification and prioritization; (3) BMP identification, prioritization, implementation (including schedule), analysis, and assessment; (4) monitoring program development and implementation (including schedule); (5) reporting and evaluation of progress towards achieving wasteload allocations; and (6) coordination with stakeholders. The United States Environmental Protection Agency (USEPA) forwards similar approaches for TMDL implementation in its *Draft TMDLs to Stormwater Permits Handbook*, which discusses BMP review and selection, establishing linkages between BMP implementation and load reductions, effectiveness assessment, and BMP/outfall/receiving water monitoring.⁶

Ultimately, the Wasteload Allocation Attainment Programs place the responsibility for program development, assessment, improvement, and success on the municipalities. Placement of responsibility on the municipalities is appropriate, since the municipalities are the parties contributing to the water quality impairment. This approach is also consistent with the Water Board's approach of requiring plans for control of pollutants from other sources identified by TMDLs, such as sanitary sewer collection and treatment systems and domestic animal discharges. The Water Board will collectively assess the progress of the various sources towards achieving receiving water quality standards as part of its triennial review, but each source must be responsible for assessing its own progress towards achieving its wasteload allocation. Without progress by each responsible party, the Water Board will not be able to demonstrate progress towards correcting the impairment. The process of planning, assessment, and refinement outlined by the Wasteload Allocation Attainment Programs helps ensure continual improvement and ultimate attainment of water quality standards at impaired receiving waters. Since the County's SWMP is the regulatory mechanism through which the County's wasteload allocations must be attained, inclusion of the Wasteload Allocation Attainment Programs in the SWMP is appropriate. This will be especially important as the complexity of achieving wasteload allocations increases when more and more TMDLs are adopted.

However, Water Board staff agrees that application of Wasteload Allocation Attainment Programs on a jurisdiction-wide scale could be beneficial to the County by simplifying management efforts and reducing reporting. In addition, such an approach could be beneficial to water quality in areas outside those addressed by TMDLs. Water Board staff also understands that some sources (such as wildlife) that contribute to

⁶ USEPA. 2008. *Draft TMDLs to Stormwater Permits Handbook*. Chapters 5 and 6.

impairments may not be controllable. For these reasons, Water Board staff has modified Required Revision Nos. 5 and 6 to acknowledge uncontrollable sources and allow for jurisdiction-wide Wasteload Allocation Attainment Programs.

Comment 3: Regarding Required Revision No. 24, as described in Chapter 2, Section V of the SWMP, 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.

Response 3: To allow the County to take a countywide approach to addressing impaired waterbodies, Water Board staff has clarified Required Revision Nos. 5 and 6 to allow for Wasteload Allocation Attainment Programs to be watershed specific or jurisdiction-based. As such, the Wasteload Allocation Attainment Programs will be required to address sediment conditions in the San Lorenzo River, Aptos Creek, and Valencia Creek watersheds, as well as other portions of the County. Water Board staff expects this application of a Wasteload Allocation Attainment Program to the San Lorenzo River, Aptos Creek, and Valencia Creek watersheds will ensure the watersheds are treated as a high priority for sediment control efforts. As a result of these changes, Required Revision No. 24 is no longer necessary and has been removed from the Table of Required Revisions. However, in order to ensure the Aptos and Valencia Creeks sediment impairments are addressed, Water Board staff has added language to Required Revision No. 5 to ensure the County's jurisdiction-wide sediment Wasteload Allocation Attainment Program will address sediment control in the Aptos Creek and Valencia Creek watersheds.

Comment 4: Regarding Required Revision No. 28, 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. The County will reiterate this by adding back the same 4 measurable goals to 7-1-4 that were in the July 2008 version.

Response 4: Water Board staff's original comment concerned the County assessing and updating its existing design criteria to ensure the criteria are compliant with the General Permit and its Attachment 4. While BMPs 7-1-1 and 7-1-4 referenced in the County's comment discuss Attachment 4, the BMPs do not clearly state that the County's design criteria and development project conditions will be reviewed and modified to be in compliance with the General Permit and Attachment 4. Water Board staff has revised Required Revision No. 28 to clarify the type of language that is needed in the SWMP.

Comment 5: Regarding Required Revision No. 39, 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.

The County will update the BMP to include reference to our alternative criteria development plan previously approved by the Water Board. The County 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.

Response 5: Required Revision No. 39 is intended to provide municipalities with the flexibility to develop their own criteria appropriate for the conditions within their jurisdictions. The criteria included in the required revision were designed as a "backstop," to be used only in the event municipalities fail to develop their own protective interim hydromodification control criteria. The plan discussed by the County in its comment is in line with this approach. Indeed, the County's plan is similar to one recently pursued by the City of Santa Maria and approved by the Water Board Executive Officer. As such, Required Revision No. 39 has been modified to match the language used for the City of Santa Maria. This allows the County to pursue its approach for developing interim hydromodification control criteria, while also providing assurance that the criteria developed will be effective and consistent with previously approved methods.

Comment 6: Regarding Required Revision No. 41, 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.

Response 6: Nothing is preventing the County from revising and updating its interim hydromodification control criteria so that it becomes its long term hydromodification control criteria. However, the long term hydromodification control criteria must be based on a technical assessment of the impacts of development on the County's watersheds, so that the criteria is protective of the watershed conditions within the County. Likewise, to help ensure appropriate and effective criteria are developed, the County must identify the key steps in the process it will be following to develop the criteria as part of a Hydromodification Management Plan (HMP). As such, Water Board staff has retained the language of Required Revision No. 41.

Comment 7: Regarding Required Revision No. 42, 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.

Response 7: While the information cited in the comment may be appropriate for inclusion in a Hydromodification Management Plan, the information identified in Required Revision No. 41 must also be included, for the reasons stated in Response No.

6. Due to the importance of a Hydromodification Management Plan in protecting water quality and beneficial uses, it is appropriate for the SWMP to include a BMP dedicated to its development and implementation. As such, Water Board staff has retained the language of Required Revision No. 42.

Comment 8: Regarding Required Revision No. 43, the County 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.

Response 8: While it is appropriate to use the Permit Streamlining Act to determine which projects already in the permitting process will be subject to new design requirements, a simple reference to the Permit Streamlining Act is too vague to ensure that new design requirements will be applied as widely as possible. Other municipalities have identified a specific point in the permitting process to be used as the cutoff point to determine new design requirement applicability, such as the point when an application has been "deemed complete." The County should be able to identify a similar cutoff point. For this reason, Water Board staff has retained the language of Required Revision No. 43.

Comment 9: Regarding Required Revision No. 46, the County has addressed the issue as part of BMP 7-1-7.

Response 9: While BMP 7-1-7 discusses requiring annual reports regarding maintenance of drainage facilities, the BMP does not discuss development of a tracking system to identify all projects with drainage facilities requiring maintenance. Such information is needed to ensure all applicable projects comply with the reporting requirement. For this reason, Water Board staff has retained the language of Required Revision No. 46.

III. Comments by the City of Capitola

Water Board staff received two sets of comments from the City regarding the SWMP. The first set of City comments, responded to in this section, address each required revision included in Water Board staff's November 14, 2008 Draft Table of Required Revisions. The City's other set of comments are identical to the County's legal comments. Those comments are addressed in section III below.

Water Board staff has reviewed the City's comments regarding each required revision applicable to the City. The City's comments discussing how the City will address Required Revision Nos. 1-3, 7, 9, 11, 12, 14, 17, 20-23, 29, 31-35, 37, 38, 40-42, 44-46, and 49 meet the intent of those required revisions. Water Board staff concur with these comments and do not recommend any changes to these required revisions. However, Water Board staff prepared responses to the City's comments regarding the remaining required revisions.

Comment 10: Regarding Required Revision No. 4, the BMP's contained in this SWMP have been developed specifically to implement recommendations and address the sources identified in the TMDL for Soquel Creek which identify Fecal Indicator Bacteria (FIB) and nutrients as pollutants. However, it must be kept in mind that there are also other sources including natural sources and uncontrollable sources, particularly for FIB. While the goal of the TMDLs and associated Implementation Plans is to reduce pollutant loading from each source to levels that will allow water quality objectives to be met, research by Santa Cruz County and others suggest that the goals for FIB cannot be met in urban areas. Nevertheless, the BMP's in the stormwater management plan have been developed to reduce controllable sources of FIB that are conveyed by the storm drain system to the maximum extent practicable.

Response 10: Please refer to Response 1 above for Water Board staff's response to the City's suggestion that it only be required to reduce fecal indicator bacteria to the maximum extent practicable.

Water Board staff acknowledges that natural sources may make the wasteload allocation unattainable under certain conditions (i.e., large storm events). The "Soquel" Pathogen TMDL states: "Responsible parties may also demonstrate that controllable sources of pathogens are not contributing to exceedance of water quality objectives in receiving waters. If this is the case, staff may propose a re-evaluation of the numeric target and allocations. For example, staff may propose a site-specific objective to be approved by the Central Coast Water Board. The site-specific objective would be based on evidence that natural or background sources alone were the cause of exceedances of the Basin Plan water quality objective for pathogen indicator organisms."⁷ But even with this acknowledgement, the City must include the goal of attainment of wasteload allocations in the SWMP. Wasteload allocation attainment must be the goal of the SWMP for those watersheds where TMDLs have been adopted, until such a time that the City can demonstrate that the wasteload allocations are not reasonably attainable. If the City can demonstrate, by use of a weight of evidence approach, that it has controlled all controllable anthropogenic sources and the wasteload allocation still has not been achieved, Water Board staff will reconsider the wasteload allocation, as indicated in the TMDL.

In order to better reflect the relationship between achieving wasteload allocations and management of controllable sources, Water Board staff has modified Required Revision No. 4 to clarify that a long-term goal of the SWMP is to achieve wasteload allocations, while a short-term goal can be to eliminate controllable sources associated with the storm drain system to the maximum extent practicable.

Comment 11: Regarding Required Revision No. 6, a goal of the SWMP is not to target BMP's to specific TMDL's, or geographic areas, but to implement the BMP's throughout the management area to reduce controllable sources of FIB and nutrients associated with the stormdrain system to the maximum extent practicable. The effectiveness of these BMP's toward meeting water quality objectives will be assessed on a triennial basis, in conjunction with the Regional Water Board's mandated triennial review of TMDL implementation for all sources. This review may result in further refinement of

⁷ Central Coast Water Board. 2008. Resolution No. R3-2008-0002. P. 15.

BMP's for greater effectiveness, or refinement of water quality objectives to recognize the effect of uncontrollable sources of pollutants.

Response 11: Soquel Lagoon and tributaries have been identified as impaired and not meeting water quality standards. As a result, a TMDL has been developed to restore these water bodies. The TMDL identifies the City's MS4 as a source contributing to the impairments and assigns the City a wasteload allocation designed to help restore the water bodies' water quality and beneficial uses. Since the City's MS4 has been documented as a source of impairment, the City's SWMP must be held to a high standard to ensure the City ultimately achieves its wasteload allocation and no longer contributes to these water body impairments. Indeed, the TMDLs set forth the expectation that the City achieve its wasteload allocation within 13 years of approval of the TMDL by the Office of Administrative Law. This approach stands in contrast to the typical regulatory approach applied to municipal storm water, which calls for implementation of BMPs according to an iterative process of continual improvement, with no associated timelines for achieving water quality standards. The City's contribution to the impairment of these water bodies, combined with the expectation that it achieve its wasteload allocations within 13 years, necessitates a detailed approach to implementation of the SWMP as it relates to the discharge of pollutants associated with impairments.

Please see Response 2 above, beginning with the second paragraph, for the remainder of staff's response to this comment.

Comment 12: Regarding Required Revision No. 25, the City will add a Measurable Goal that states by year 5 the City will develop standards that address necessary watershed protection efforts.

Response 12: Required Revision No. 25 calls for the City to develop quantifiable measures that indicate how the City's watershed protection efforts achieve desired watershed conditions. The City's comment that it will add a measurable goal to develop standards that address watershed protection efforts does not sufficiently confirm that the City will develop quantifiable measures of watershed health. Quantifiable measures are necessary in order to assess the effectiveness of watershed protection efforts. Without assessment of effectiveness of these efforts, it will not be known if the efforts are successful, which could lead to continued degradation of watershed conditions. For this reason, Water Board staff has retained the language of Required Revision No. 25.

Comment 13: Regarding Required Revision No. 26, the City currently reviews all projects for compliance with City ordinances concerning erosion control, environmentally sensitive habitats, water efficient facilities, and floodplain issues. Drainage plans for all single family dwelling projects are reviewed by City staff, while multi-family and commercial projects are review by the staff of the Santa Cruz County Flood Control and Waster Conservation District. Zone 5.

Response 13: While the City describes its current plan review and permitting procedures in its comment, the City does not commit to including this information in its SWMP. Inclusion of this information in the SWMP is necessary to demonstrate the City follows a clear process for applying design requirements on development projects, in

order to ensure development projects incorporate appropriate design requirements. For this reason, Water Board staff has retained the language of Required Revision No. 26.

Comment 14: Regarding Required Revision No. 39, the City will participate with other local jurisdictions in developing interim hydromodification criteria. This approach will build upon an 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 City. 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 City will also participate in stakeholder meetings to encourage public involvement in the process and incorporate public input into the plan.

The City will update the BMP to include reference to the alternative criteria development plan previously approved by the regional 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.

Response 14: Required Revision No. 39 is intended to provide municipalities with the flexibility to develop their own criteria appropriate for the conditions within their jurisdictions. The criteria included in the required revision were designed as a "backstop," to be used only in the event municipalities fail to develop their own protective interim hydromodification control criteria. The plan discussed by the City in its comment is in line with this approach. Indeed, the City's plan is similar to one recently pursued by the City of Santa Maria and approved by Water Board staff. As such, Required Revision No. 39 has been modified to match the language used for the City of Santa Maria. This allows the City to pursue its approach for developing interim hydromodification control criteria, while also providing assurance that the criteria developed will be effective and consistent with previously approved methods.

Comment 15: Regarding Required Revision No. 43, the City 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.

Response 15: While it is appropriate to use the Permit Streamlining Act to determine which projects already in the permitting process will be subject to new design requirements, a simple reference to the Permit Streamlining Act is too vague to ensure that new design requirements will be applied as widely as possible. Other municipalities have identified a specific point in the permitting process to be used as the cutoff point to determine new design requirement applicability, such as the point when an application has been "deemed complete;" the City should be able to identify a similar cutoff point. For this reason, Water Board staff has retained the language of Required Revision No. 43.

Comment 16: Regarding Required Revision No. 47, the City will update the SWMP to state that 100% of City facilities will implement BMPs that are developed in year 1 in years 2-5 as funding is available.

Response 16: The Phase II federal stormwater regulations require implementation of BMPs addressing municipal operations when they state: "You must develop and implement an operation and maintenance program that [...] has the ultimate goal of preventing or reducing pollutant runoff from municipal operations."⁸ The General Permit requires these BMPs to reduce the discharge of pollutants from municipal operations to the MEP, stating the SWMP must be "designed to reduce the discharge of pollutants from the permitted MS4 to MEP and to protect water quality."⁹ Therefore, the City must commit in the SWMP to implementing BMPs that will reduce the discharge of pollutants from municipal operations to the MEP. As such, BMPs identified in the SWMP to be developed and implemented cannot be contingent upon when "funding is available." Such an approach does not ensure the MEP standard will be met. For this reason, in response to the City's comment, Required Revision No. 47 has been modified by Water Board staff to ensure adequate commitment to BMP implementation addressing municipal operations.

IV. Comments by the County of Santa Cruz and the City of Capitola

The County and City submitted identical comments which primarily addressed legal issues concerning the required revisions. Water Board staff has grouped these comments into eight main categories in order to decrease repetitiveness of responses. Due to the length of the comments, the comments are summarized here. Please refer to the County's and City's original comment letters for the original comments and sequencing.

A. Flexibility to Address Local Conditions

Comment 17: The County and City comment that the required revisions associated with interim hydromodification control criteria, long-term hydromodification control criteria, long-term watershed protection, and Wasteload Allocation Attainment Programs are inappropriate because they are inflexible and are typically region-wide, rather than site specific. The County and City further comment that the required revisions do not reflect the characteristics of the County and City and are therefore inefficient, possibly ineffective, and wasteful of public and private resources. In addition, the County and City state that the required revisions are inconsistent with the maximum extent practicable (MEP) standard and associated State Water Resources Control Board (State Water Board) and United States Environmental Protection Agency (USEPA) guidance, which emphasize that MEP is meant to be a flexible and site specific standard.

Response 17: The County and City have challenged required revisions associated with interim hydromodification control criteria, long-term hydromodification control criteria, long-term watershed protection, and Wasteload Allocation Attainment Programs. Each

⁸ 40 CFR 122.34(b)(6)

⁹ SWRCB. 2003. Water Quality Order No. 2003-0005-DWQ. Section D.

of these required revisions provide the County and City with ample opportunity to develop components of their program that are site specific and directly tailored to the climate, hydrology, soil, and other conditions within the County and City and their surrounding watersheds. The required revisions identify standards that the County's and City's SWMP must achieve, but do not dictate how the County's and City's SWMP must be formulated in order to achieve those standards. This approach is designed to provide the County and City with flexibility in developing the components of its program, while maintaining minimum standards that are crucial for ensuring an accountable and effective program.

For example, the required revisions state that the County's and City's interim hydromodification control criteria must be as effective as Water Board staff's criteria, which were originally referenced in staff's February 15, 2008 letter. The County and City are free to choose their own criteria, provided they can demonstrate that the criteria are reasonably equivalent to the Water Board staff's criteria. The flexibility of this approach is demonstrated by recent interim hydromodification control proposals from the City of Santa Barbara and the City of Santa Maria. Both of these cities developed acceptable interim hydromodification control criteria (or methodology for development of such criteria) that are appropriate for their specific jurisdictions, while differing from the Water Board's criteria. The required revision for long-term hydromodification control criteria incorporates a similar approach, identifying the information that must be assessed during criteria development, while providing *recommendations* regarding form, content, and development methodology for the criteria. It is worth pointing out that the entire exercise of developing long-term hydromodification control criteria is designed to ensure that the criteria developed by the County and City are tailored to be protective of the County's and City's unique receiving water conditions. Similarly, the required revisions addressing long-term watershed protection only state that the County's and City's SWMP must describe how and when it will develop important aspects of its long-term watershed protection measures. This gives the County and City freedom to choose their approach for updating their planning processes, consistent with long-term watershed protection. Finally, the Wasteload Allocation Attainment Program required revision only outlines a process for the County and City to follow to achieve their wasteload allocation. The County and City are free to target sources, implement BMPs, develop assessment methodology, and conduct monitoring in a manner appropriate for their jurisdictions, provided that the efforts can be reasonably expected to achieve progress towards wasteload allocation attainment. Ultimately, all of the required revisions are designed to provide flexibility to the County and City in implementing their programs, while also providing assurance that pollutant discharges will be reduced to the maximum extent practicable and water quality will be protected.

Water Board staff's approach of creating minimum standards, while providing flexibility in achieving those standards, has been found to be a sound means for achieving effective stormwater management programs. For example, USEPA contractor TetraTech, recommends:

"One factor for the state to consider when writing permit language is to be clear enough to set appropriate standards and establish required outcomes, but still

allow permittees to be creative and innovate solutions to stormwater management that are appropriate for their situations.”¹⁰

Likewise, the National Research Council finds clear standards to be an integral part of effective stormwater management programs when it states:

“If local or state governments required mandatory monitoring or more rigorous and less ambiguous SCMs [stormwater control measures], they would make considerable progress in developing a more successful stormwater control program.”¹¹

Finally, application of these required revisions does not constitute use of a “one size fits all” approach. On the contrary, the required revisions allow the County and City to use a broad array of different methodologies and BMPs to achieve the specified standards. Approaches that allow for multitudes of compliance strategies do not comprise rigid “one size fits all” requirements.

B. Technical Basis and Effectiveness of Hydromodification Criteria

Comment 18: The County and City comment that the required revision addressing interim hydromodification control criteria has not been demonstrated by the Water Board to be effective or technically feasible, in contravention to the MEP standard and associated State Water Board guidance. The County and City provided a review by the consulting firm Eisenberg, Olivieri and Associates, Incorporated of the Water Board’s three interim hydromodification control criteria in their comment letter. The consultants present concerns with the effectiveness, technical feasibility, and lack of a scientific basis for the criteria. The County and City also make the point that other municipalities and interested parties have also questioned the effectiveness and technical feasibility of the Water Board’s interim hydromodification control criteria.

The County and City further comment that the requirement that their criteria be “as effective as” the Water Board’s criteria is flawed because there has been no discussion or explanation of what it means to be “as effective as” the Water Board’s criteria. The County and City state that it is not feasible to demonstrate criteria being developed by them will be as effective as Water Board’s criteria. The County and City also question the Water Board’s criteria because they have not been developed or tested locally, and ignore infill and redevelopment issues.

Response 18: The interim hydromodification control criteria included in Required Revision No. 39 were chosen to be protective across the wide range of watershed conditions present in the Central Coast region. In light of the uncertainty involved with developing criteria applicable to disparate watershed conditions, Water Board staff selected conservative criteria. Water Board staff found conservative criteria to be an appropriate choice in response to hydromodification impacts observed throughout the region.

¹⁰ TetraTech. 2006. Assessment Report of Tetra Tech’s Support of California’s Municipal Stormwater Program. P. 22.

¹¹ National Research Council. 2008. Urban Stormwater Management in the United States. P. 92.

However, Water Board staff's hydromodification control criteria were intended to provide municipalities with the flexibility to develop their own criteria appropriate for the conditions within their jurisdictions. The criteria of Required Revision No. 39 were designed as a "backstop," to be used only in the event municipalities failed to develop their own protective interim hydromodification control criteria. To help ensure the municipalities develop adequate interim hydromodification control criteria, Water Board staff developed a required revision calling for the municipalities' interim hydromodification control criteria to be "as effective as" the Water Board's criteria. How Water Board staff would review the effectiveness of the City's interim hydromodification control criteria was described in Water Board staff's November 12, 2008 letter to the City, which stated that Water Board staff would:

"Review interim hydromodification control criteria developed by MS4s to ensure that they: (1) Provide numeric thresholds that demonstrate optimization of infiltration in order to approximate natural infiltration levels (such as would be achieved by implementation of appropriate low-impact development practices), and (2) Achieve post-project runoff discharge rates and durations that do not exceed estimated pre-project levels, where increased discharge rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses."

Water Board staff articulated this clarification to provide municipalities with flexibility in developing their interim hydromodification control criteria, while providing assurance that the criteria will be effective. Indeed, City of Santa Maria pursued this route and developed their own SWMP language for interim hydromodification control criteria development. Water Board staff concurred with the City of Santa Maria's proposal, and the Executive Officer enrolled the City of Santa Maria with alternative interim hydromodification control criteria language in their SWMP.

To alleviate the County's and City's concerns regarding assessment of the effectiveness of the County's and City's pending interim hydromodification control criteria, Required Revision No. 39 has been modified to match the language used for the City of Santa Maria. This provides further flexibility to the County and City, in that it provides them another option for development of interim hydromodification control criteria. Moreover, the language is crafted in a manner that allows the County and City to develop interim hydromodification control criteria that does not necessitate comparison to Water Board staff's criteria.

The additional option for development of interim hydromodification control criteria that has been added to Required Revision No. 39 is expected to be an effective means for controlling hydromodification. It mirrors the approach implemented by other successful storm water programs, including those in the San Francisco Bay Area and San Diego County. As part of those processes, the approach underwent an extensive review process to ensure its appropriateness and effectiveness.

C. Existing Program Sufficiency

Comment 19: The County and City comment that unlike the contested required revisions, the County's and City's existing Storm Water Management Program is effective, technically feasible, was developed through an iterative process with input

from affected stakeholders, can be implemented with existing limited resources, and enjoys broad community support.

Response 19: While the County and City are to be commended for doing many positive things as part of the stormwater management program, the County's and City's receiving waters do not meet the water quality standards necessary to support beneficial uses. For several of these water quality problems, discharges from the County's and City's MS4s have been identified as contributing to the problem. For example, in numerous TMDLs, the County is identified as a responsible party. Likewise, the City is identified as a responsible party in the Soquel Lagoon Pathogens TMDL. Additional documented receiving water impairments potentially attributable to the County include fecal indicator bacteria in the Pajaro River, Corallitos/Salsipuedes Creeks, Schwan Lake, and at Rio Del Mar Beach; sedimentation in Aptos and Valencia Creeks; nutrients in Schwan Lake; and pesticides in Watsonville Slough. Moreover, sub-lethal and lethal toxic effects have been measured in Harkins Slough, Watsonville Slough, Corallitos/Salsipuedes Creeks, Arana Gulch, Pajaro River, San Lorenzo River, and Zayante Creek. High levels of trash have also been observed in Corallitos/Salsipuedes Creeks and the Pajaro River. Similarly, additional documented receiving water impairments potentially attributable to the City include fecal indicator bacteria at Capitola Beach and nutrients and sedimentation at Soquel Lagoon. High levels of copper and zinc have also been observed in City stormwater. Based on common water quality conditions of urban runoff, it is likely that discharges from the County's and City's MS4s contribute to these unacceptable conditions. Water Board staff anticipates the Wasteload Allocation Attainment Programs and other required revisions will result in improvement in the conditions of these water bodies.

In addition, hydromodification impacts resulting from increased flows from new development and redevelopment have been well documented. Studies have shown that the level of imperviousness in an area strongly correlates with the quality of nearby receiving waters.¹² One comprehensive study, which looked at numerous areas, variables, and methods, revealed that stream degradation occurs at levels of imperviousness as low as 10 – 20%.¹³ Stream degradation is a decline in the biological integrity and physical habitat conditions that are necessary to support natural biological diversity. For instance, few urban streams can support diverse benthic communities with imperviousness greater than or equal to 25%.¹⁴ As municipalities with pending growth and infill development, water bodies within the County and City are susceptible to these impacts. Water Board staff has designed the required revisions associated with hydromodification control criteria and long-term watershed protection to prevent these potential impacts.

D. Total Maximum Daily Load Implementation and Wasteload Allocation Attainment Programs

Comment 20: The County and City comment that the Wasteload Allocation Attainment Plans have not been demonstrated to be necessary or effective, in contravention to the MEP standard and associated State Water Board guidance. The County and City state

¹² 64 FR 68725

¹³ Ibid.

¹⁴ Ibid.

that many elements of the WAAP have already been addressed in the SWMP. The County and City also point out that TMDLs are watershed-scale programs that involve multiple land uses, not just those associated with an MS4, and that Wasteload Allocation Attainment Plans may detract from watershed scale efforts. As such, the County and City propose that TMDL program effectiveness should be accomplished through a comprehensive program that includes all contributing land uses, such as the Water Board's TMDL triennial review process.

Response 20: Numerous water bodies within the County and City have been identified as impaired. As a result, several TMDLs have been developed, which identify the County's and City's MS4s as sources contributing to the impairments and assign the County and City with wasteload allocations designed to help restore the water quality and beneficial uses of the water bodies. Since the County's and City's MS4s have been documented as sources of impairment, the SWMP must be held to a high standard to ensure the County and City ultimately achieve their wasteload allocations and no longer contributes to the degradation of the impaired water bodies. Indeed, the TMDLs typically set forth the expectation that the County and City achieve their wasteload allocations within specified timeframes (e.g., 10 years of adoption of the TMDL by the Office of Administrative Law). This approach stands in contrast to the typical regulatory approach applied to municipal storm water, which calls for implementation of BMPs according to an iterative process of continual improvement, with no associated timelines for achieving water quality standards. The County's and City's contributions to the impairment of the water bodies, combined with the expectation that they achieve their wasteload allocations within specified timeframes, necessitates a detailed approach to implementation of the SWMP as it relates to the discharge of pollutants addressed by TMDLs.

Please see Response 2 above, beginning with the second paragraph, for the remained of staff's response to this comment.

E. Compliance with Federal Regulations and California Water Code Section 13241

Comment 21: The County and City comment that the required revisions are not required under the General Permit, which only requires implementation of six minimum control measures. The County and City also state that the required revisions for hydromodification are not required under the federal regulations, which only recommend control of runoff flows. The County and City then assert that the Water Board must comply with Water Code section 13241 when adopting the required revisions, since the required revisions exceed federal requirements.

Response 21: Per the General Permit, SWMPs must describe BMPs and Measurable Goals that will fulfill the requirements of six Minimum Control Measures. Water Board staff recognizes Minimum Control Measures as minimums, above which additional control measures may be required to achieve the MEP and water quality protection standards of the General Permit. The Post-Construction Storm Water Management in New Development and Redevelopment Minimum Control Measure requires the County and City to "develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre...by ensuring that controls are in place that prevent or minimize water quality

impacts.”¹⁵ Water Board staff's requirement that the County and City develop hydromodification controls is consistent with the intent of this Minimum Control Measure, since hydromodification controls specifically address water quality impacts from volume and rate of runoff on downstream water bodies. Indeed, USEPA recommends in the federal regulations that BMPs “attempt to maintain pre-development conditions.”¹⁶ As such, the required revisions do not exceed the requirements of the federal regulations, the General Permit, or the MEP standard. The purpose of the proposed required revisions related to hydromodification is to ensure the City's SWMP includes BMPs that will attempt to maintain pre-development runoff conditions.

The County and City also misapply the requirements of Water Code section 13241. Water Code section 13241 sets forth factors to be considered in establishing water quality objectives, including the beneficial uses of water, environmental characteristics of the hydrographic unit, water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality, economic considerations, the need for housing, and the need for recycled water. The Water Board is only required to consider the 13241 factors in adopting an National Pollutant Discharge Elimination System (NPDES) permit, where the Water Board orders requirements that are more stringent than federal regulations or guidance. The proposed required revisions do not go beyond federal regulations or guidance, nor is the Water Board adopting a permit (the State Water Board already adopted the statewide permit). The required revisions are necessary to reduce the discharge of pollutants to the MEP standard and to protect water quality. Note that when the Water Board is required to consider the factors, such consideration is not a balancing test; the Water Board must assure that the beneficial uses of waters of the state are protected.

Although not required, the Water Board has considered all of the factors listed in Water Code Section 13241 in reviewing the County's and City's SWMP. The Water Board considered past, present, and probable future beneficial uses of water, which are set forth in the Basin Plan, and found the required revisions to be necessary to attain water quality standards and minimize water quality impacts, as required in the federal regulations. The Water Board considered environmental characteristics of the hydrographic units in which the County and City are located (the Big Basin and Pajaro River Hydrologic Units), including the quality of water available thereto and found the required revisions to be appropriate. The proposed required revisions will allow the County and City up to a year after approval of the SWMP to develop the specific hydromodification controls that will be most effective for the hydrologic units. The Water Board considered water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area. The Water Board has been addressing the need for hydromodification controls within the Central Coast Region for more than two years. The Water Board has a comprehensive monitoring program, which has provided significant information on the quality of waters within these hydrologic units. The Water Board has been evaluating the various options for control of water quality conditions affected by post-construction stormwater discharges and has concluded that controlling hydromodification typically associated with urbanization is reasonably achievable and practicable. Without the required revisions, the MEP and water quality protection standards of the General Permit may not be met. The Water Board considered economics and found that the best information

¹⁵ State Water Resources Control Board. 2003. Order No. 2003-0005-DWQ. P. 11.

¹⁶ 40 CFR 122.34(b)(5)(iii)

available indicates that controlling hydromodification through, among other approaches, implementation of low impact development principles, is technically feasible, practicable, and cost-effective. The Water Board considered the need for developing housing within the region and found that the required revisions will not affect regional housing supply. Hydromodification controls have been applied in this and neighboring regions with no demonstrated effect on housing availability. The use of hydromodification controls will protect water quality, which is necessary to support housing. The Water Board considered the need to develop and use recycled water and found the required revisions would not interfere with development and use of recycled water.

F. Cost Considerations

Comment 22: The County and City comment that State Water Board guidance dictates that cost must be considered when applying the MEP standard. The County and City provides cost estimates for development and implementation of hydromodification criteria, Wasteload Allocation Attainment Programs, and effectiveness assessments, and state that they do not have adequate funding for these efforts, because of current financial conditions. The County and City also point out that significant costs will also be incurred due to additional engineering analysis and reviews, reduction in developable areas, and incorporation of LID practices into project design. Examples of impacts to pending projects are provided. The comment that the effectiveness and benefit to be received from the Water Board staff's "required revisions" has not been demonstrated is also made by the County and City. In addition, the County and City cite USEPA regarding limited information on the costs and effectiveness of LID measures.

The County and City also state that the level of implementation required by the required revisions is in contravention to State Water Board and USEPA guidance found in the Fact Sheet to the General Permit and the federal regulations. As such, the County and City suggest the Water Board should wait before adopting the required revisions for the State Water Board to develop a new General Permit and USEPA to evaluate the Phase II stormwater program.

Response 22: The required revisions are consistent with the MEP and water quality protection standards of the General Permit. Regarding the MEP standard, the State Water Board states: "To achieve the MEP standard, municipalities must employ whatever BMPs are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility."¹⁷ Each of the required revisions contested by the County and City is technically feasible. Interim and/or long-term hydromodification control criteria have been developed in many locations throughout the country, including the San Francisco Bay Area and San Diego County. In addition, the required revision addressing interim hydromodification control criteria has been revised to provide additional development options which further assure technical feasibility. The Center for Watershed Protection's *Managing Stormwater in Your Community: A Guide to Building an Effective Post-Construction Program* (Chapter 3) contains numerous examples of implementation of long-term watershed protection concepts. The required revision for Wasteload Allocation Attainment Program development simply requires the City to follow standard steps in addressing its

¹⁷ SWRCB. 1993. Memorandum: Definition of Maximum Extent Practicable.

contributions to impaired water bodies, consistent with approaches and examples forwarded by USEPA in its *Draft TMDLs to Stormwater Permits Handbook*.

Likewise, the required revisions in question conform with USEPA and State Water Board requirements and guidance, further indicating their appropriateness and consistency with the MEP standard. The required revisions addressing interim and long-term hydromodification control criteria and long-term watershed protection conform with the General Permit requirement that the Permittee must: "Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects [...]"¹⁸ Section B.2.a of Attachment 4 of the General Permit also requires "Post-development storm water runoff discharge rates shall not exceed the estimated pre-development rate for development where in increased peak storm water discharge rate will result in increased potential for downstream erosion." USEPA expands on this requirement, stating that municipalities should "attempt to maintain pre-development runoff conditions."¹⁹ USEPA also addresses long-term watershed protection concepts, recommending municipalities "adopt a planning process that identifies the municipality's program goals [...]" and assess "existing ordinances, policies, programs and studies that address storm water runoff quality."²⁰ The required revisions addressing Wasteload Allocation Attainment Programs are also consistent with USEPA guidance, which states: "Small MS4 permittees should modify their programs if and when available information indicates that water quality considerations warrant greater attention or prescriptiveness in specific components of the municipal program."²¹

Not only are the required revisions technically feasible and in line with USEPA and State Water Board requirements and guidance, they are also affordable, further exhibiting their appropriateness and consistency with the MEP standard. San Diego County municipalities recently developed countywide interim hydromodification control criteria for approximately \$50,000-100,000.²² Assuming the Santa Cruz County MS4s made a similar effort and divided the cost among each of the five municipalities, this would only cost \$10,000-20,000 per municipality. This estimate is most likely higher than necessary for Santa Cruz County, due to the size of San Diego County and the rigorous methodology used for criteria development. In addition, the County and City have been provided the option in Required Revision No. 13 of using interim hydromodification control criteria that has been developed by other cities and previously approved by the Water Board. Use of this option for interim hydromodification control criteria should minimize expenditures significantly.

Cost for developing long-term hydromodification control criteria using an approach including field work, developing an Erosion Potential ratio standard, developing flow rate and duration control criteria, and writing a supporting technical report has been estimated to cost approximately \$200,000-300,000 for the first watershed studied, and \$70,000-100,000 for each watershed studied thereafter. Assuming three representative areas or watersheds would require study in Santa Cruz County, such a scenario could result in costs estimated to be \$340,000-500,000. However, costs to develop a Hydromodification Management Plan for the Suisun/Fairfield area are reported to have cost less (approximately \$100,000), in part due to cost savings realized through the use

¹⁸ SWRCB. 2003. Order No. 2003-0005-DWQ. P. 11.

¹⁹ 40 CFR 122.34(b)(5)(iii)

²⁰ Ibid.

²¹ 64 FR 68753

²² Sara Agahi, County of San Diego, personal communication June 12, 2008.

of previously developed methodologies.²³ Dividing these costs among five municipalities over five years, annual costs to develop long-term hydromodification control criteria over five years are estimated at \$4,000-20,000. In light of the threat posed to beneficial uses by hydromodification, Water Board staff finds these costs to be reasonable. However, it is important to note that efforts to assist the municipalities in hydromodification control criteria are underway. The Central Coast Low Impact Development Center is currently pursuing Proposition 84 grant funding to assist with development of long-term hydromodification control criteria for the entire Central Coast region. Water Board staff expects this effort, if funded, to greatly reduce costs to municipalities for development of hydromodification control criteria.

Moreover, Water Board staff does not anticipate additional review of development permit applications to be cost prohibitive. While additional training of review staff will be necessary, numerous municipalities throughout the country and state have implemented similar measures, indicating that such efforts are practicable. Costs to development projects can also be minimized through implementation of low impact development measures. For example, USEPA's December 2007 study, *Reducing Stormwater Costs Through LID Strategies and Practices*, found that,

“...applying LID techniques can reduce project costs and improve environmental performance. In most cases, LID practices were shown to be both fiscally and environmentally beneficial to communities. In a few cases, LID project costs were higher than those for conventional stormwater management practices. However, in the vast majority of cases, significant savings were realized due to reduced costs for site grading and preparation, stormwater infrastructure, site paving, and landscaping. Total capital cost savings ranged from 15 to 80 percent when LID methods were used, with a few exceptions in which LID project costs were higher than conventional stormwater management costs.... in all cases, there were benefits that this study did not monetize and did not factor into the project's bottom line. These benefits include improved aesthetics, expanded recreational opportunities, increased property values due to the desirability of the lots and their proximity to open space, increased total number of units developed, increased marketing potential, and faster sales.”

Similarly, the required revisions addressing TMDL implementation and Wasteload Allocation Attainment Program development are not cost prohibitive. The steps required for Wasteload Allocation Attainment Program development are standard planning efforts necessary to address a known water quality problem. Water Board staff anticipates that these efforts can be implemented in-house at the County and City. For example, County and City staff can identify and prioritize locations of sources within the jurisdiction, and identify and prioritize BMPs to address those sources. County and City staff can also conduct literature research and use California Stormwater Quality Association (CASQA) effectiveness assessment approaches to exhibit the connection between BMP implementation and wasteload allocation attainment. Likewise, numerous resources are available to help County and City staff with development of a monitoring program. As mentioned above, CASQA guidance is also available to aid County and City staff with development of methodology for assessing the effectiveness of measures to be

²³ San Diego Regional Water Quality Control Board. 2006. Updated Preliminary Responses to Questions on Tentative Order No. R9-2006-0011 From the Building Industry Association of San Diego County. P. 11

implemented. Since the timeline that has been discussed for development of the Wasteload Allocation Attainment Program is three years, Water Board staff does not find the efforts discussed above to be an undue burden or cost prohibitive. For example, suppose the above efforts could be completed by one person working full time for one month. Assuming the County or City spends \$100,000 annually on that person, and the month's worth of effort is spread over three years, the cost would be approximately \$2,800 annually. In light of the ongoing impairment of water bodies within the County and City, Water Board staff finds this cost to be reasonable in order to have a detailed plan and schedule for correcting the impairment. Moreover, the County and City have argued that several of the efforts related to Wasteload Allocation Attainment Program development have already been conducted, further reducing any costs that may be incurred.

G. Public Acceptance

Comment 23: The County and City comment that the required revisions have not gained public acceptance, in contravention to the MEP standard and associated State Water Board guidance. The County and City cite a joint letter from several community groups and water agencies to exhibit the level of public support garnered by the County's and City's version of the SWMP. The County and City also states that there is no evidence to support the notion that the residents and taxpayers of the County and City are willing to financially support the required revisions being contemplated by the Water Board. The County and City point out that recent efforts to raise funds for other programs have been unsuccessful, exhibiting its inability to generate additional funds.

Response 23: Water Board staff has conducted a substantial public participation process in its efforts to develop the required revisions and enroll the County and City under the General Permit. Starting in December 2007, staff presented to the Water Board and the public its strategy for enrollment of Phase II municipalities. As part of the enrollment strategy, Water Board staff incorporated two time periods where the public could review and comment on the draft SWMP and draft required revisions. A public "water quality assessment" meeting was also held by Water Board staff on May 16, 2008, during which the public was encouraged to provide input on the County's and City's pollutants of concern; information which was later used in the shaping of the required revisions.

The success of these efforts has been demonstrated by the significant reduction in the number of contested required revisions. Water Board staff initially developed 81 required revisions regarding the County's and City's SWMP; the County and City are now only contesting approximately ten required revisions. This indicates a growing consensus between the Water Board and municipalities regarding the contents of the SWMP. In addition, while the County and City continue to contest some of the required revisions (primarily regarding hydromodification), Water Board staff's required revisions addressing hydromodification are not without public support. For example, Monterey Coastkeeper states: "We support the RWQCB staff's required revisions regarding hydromodification standards."

It is also worth noting that for many of the required revisions, Water Board staff provided lengthy timeframes for developing the program components. For example, Water Board staff has concurred with a five-year schedule for development of a Hydromodification

Management Plan, a four-year schedule for development and implementation of a complete effectiveness assessment strategy, and a three-year schedule for development of Wasteload Allocation Attainment Programs. These extended timelines provide the County and City with ample time to develop any further needed consensus on the implementation of these program components.

H. Unfunded Mandate

Comment 24: The County and City consider the required revisions to be an unfunded state mandate because they believe the required revisions exceed federal requirements. The County and City cite the Government Code and court cases to support their position.

Response 24: The required revisions do not constitute an unfunded state mandate. The contention that NPDES permits and their requirements are unfunded state mandates has been repeatedly heard and denied by the State Water Board (see State Water Board Order Nos. WQ 90-3 and WQ 91-08). The unfunded state mandate argument relative to stormwater was also heard by the State Water Board when it considered the appeal of the Regional Water Quality Control Board, Los Angeles Region's (Los Angeles Water Board) Standard Urban Stormwater Mitigation Plan (SUSMP) requirements. The Los Angeles Water Board's SUSMP requirements are municipal storm water permit requirements for new development and redevelopment that are similar to many of the required revisions. The unfunded state mandate argument was summarily rejected by the State Water Board in that instance (State Water Board Order WQ 2000-11).

The required revisions are not an unfunded state mandate for several reasons. First, the required revisions do not exceed the requirements of federal law. All of the required revisions are necessary to comply with federal law mandates. The Clean Water Act requires that MS4s reduce the discharge of pollutants to the MEP. The Phase II municipal storm water regulations require development of SWMPs that will reduce the discharge of pollutants to the maximum extent practicable and protect water quality. All the required revisions are necessary to achieve the MEP standard and protect water quality, and therefore do not exceed federal law.

Any discretion exercised by the Water Board in implementing federal law in the required revisions is in accordance with federal law and guidance. For example, required revisions regarding hydromodification are consistent with the Preamble to the Phase II federal NPDES storm water regulations, which states: "Consideration of the increased flow rate, velocity, and energy of storm water discharges following development unavoidably must be taken into consideration in order to reduce the discharge of pollutants, to meet water quality standards, and to prevent the degradation of receiving streams. EPA recommends that municipalities consider these factors when developing their post-construction storm water management program".²⁴ Likewise, the required revisions related to TMDL implementation (Wasteload Allocation Attainment Programs) are consistent with USEPA guidance, which states: "NPDES permit conditions must be consistent with the assumptions and requirements of available WLAs [wasteload

²⁴ 64 FR 68761

allocations].”²⁵ The required revisions, issued to implement a federal program, do not become an unfunded state mandate simply because the Water Board appropriately exercised its discretion in defining the particulars. The Water Board’s implementation of a federal program according to federal law and guidance does not constitute an unfunded state mandate.

Second, the required revisions are not an unfunded state mandate because the County and City have the authority to levy service charges, fees, or assessments to fund their efforts to comply with the required revisions. Government Code section 17556(d) provides that an unfunded state mandate will not be considered in such instances. Municipalities have ample governmental authority to levy service charges, fees, or assessments to pay for stormwater management programs that reduce pollutants to the MEP. Municipalities also have the authority to levy taxes to provide adequate funding for storm water management programs. Lack of political determination to impose taxes or fees for storm water management does not constitute lack of authority.

Third, the required revisions are not an unfunded state mandate because they implement a federal program, rather than a state program. State subvention is not required when the federal government imposes the costs of a new program or a higher level of service. (Cal. Const. Art XIII B). Citing case law, the County and City attempt to assert that any use of discretion on the part of the Water Board in implementing a federal program constitutes a state mandate. This is a misrepresentation of the case law. In *Hayes v. Commission on State Mandates*, the Court only contemplates whether participation itself in a federal program is “a matter of true choice” in order to determine if an unfunded state mandate has occurred. It does not contemplate whether any use of discretion on the part of a regulatory agency in implementing the necessary details of a federal program constitutes an unfunded state mandate. Therefore, the case does not support the County’s and City’s claims.

Finally, a central purpose of the principle of state subvention is to prevent the state from shifting the cost of government from itself to local agencies. (Hayes v. Commission on State Mandates, 11 Cal. App. 4th 1564, 1581 (1992)). In this instance, no such shifting of the cost of government has occurred. The responsibility and cost of complying with the Clean Water Act and Phase II NPDES municipal storm water regulations lies squarely with the local agencies which own and operate MS4s, not with the State. The State cannot shift responsibilities and costs to local agencies when the responsibilities and costs lie with the local agencies in the first place.

As exhibited, the County’s and City’s claim that the required revisions are an unfunded state mandate fails on many fronts. The required revisions do not necessitate subvention to the County and City by the State.

²⁵ USEPA. 2002. Memorandum: Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs.

V. Comments by the Resource Conservation District Santa Cruz County, Ecology Action, Coastal Watershed Council, Save Our Shores, Pajaro Valley Water Management Agency, Soquel Creek Water District

Comment 25: 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.

Response 25: The required revisions provide adequate flexibility to allow for the hydromodification control approaches suggested in the comment. The required revision addressing interim hydromodification control criteria allows municipalities to develop their own criteria, provided it is as effective as Water Board staff's criteria. In addition, this required revision has been modified to increase flexibility by providing additional options for developing the criteria. This modification clearly allows for municipalities to develop applicability criteria, which can be used to implement a "hydromodification credit" system. Likewise, the required revision for development of long-term hydromodification control criteria only specifies the type of technical assessment and processes which must be used to develop the criteria, together with recommendations for the form the criteria should take. This provides ample flexibility for municipalities to use an approach similar to the one being developed by the Southern California Coastal Water Research Project. Finally, nothing in the required revisions prevents the

municipalities from utilizing regional hydromodification study results to clearly define appropriate adaptive management strategies over time.

Comment 26: 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.

Response 26: Water Board staff believes that the opportunity exists for application of significant levels of LID techniques to most development and redevelopment projects. However, for some urban infill and redevelopment projects, Water Board staff acknowledges that wide-scale LID application in these cases may not be feasible or cost effective. Similarly, retrofit of existing development to incorporate LID approaches may not always be technically feasible or cost effective. In these cases, a "credit system" or "cap and trade" approach for LID and hydromodification control implementation may be appropriate, provided the approach is implemented in a manner that will achieve healthy functioning watersheds. The required revisions provide adequate flexibility for the municipalities to pursue these approaches. Water Board staff also intends to continue working with the municipalities to flesh out the details of any such potential program.

Comment 27: 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.

Response 27: The Wasteload Allocation Attainment Programs do not prevent municipalities from comprehensively addressing TMDLs on a watershed basis. They simply serve to ensure that the municipal stormwater component of the TMDL is adequately addressed. This is appropriate, since municipal stormwater is often a principal source of impairment. Wasteload Allocation Attainment Programs can be developed on a watershed or jurisdiction-wide basis, which can alleviate the need for development of multiple Wasteload Allocation Attainment Programs for one pollutant type. Moreover, Wasteload Allocation Attainment Programs are consistent with Water Board staff approaches for addressing other sources, such as sanitary sewer collection and treatment systems and domestic animal discharges. Plans addressing each source identified by a TMDL can be interwoven to serve as a comprehensive watershed-based framework for correcting a water body impairment.

Nor are Wasteload Allocation Attainment Programs redundant. While TMDL implementation plans identify broad categories of sources of impairment, they do not identify specific locations of sources within municipalities' jurisdictions. Likewise, while some special studies may identify potential actions that can be taken to address a TMDL, they do include commitments or a schedule to implement the actions. The municipalities' SWMPs themselves do not close these and other gaps. Many of the BMPs identified as addressing a particular TMDL are standard BMPs, with no discussion provided of how the BMP will address the pollutant of concern or impaired watershed. In addition, the BMPs identified in the SWMPs often do not address all of the implementation activities previously identified as necessary in the TMDL, such as monitoring. Moreover, the SWMPs do not exhibit the rationale used for BMP selection, or draw connections between those BMPs selected and eventual wasteload allocation attainment.

Water Board staff finds that the comprehensive regulatory approach represented by Wasteload Allocation Attainment Programs is needed in order to ensure municipal stormwater wasteload allocations will be achieved. TMDLs identify a wasteload allocation to be achieved within a specified timeframe, as opposed to the more typical municipal stormwater regulatory approach of reducing pollutant discharges to the maximum extent practicable without associated timelines for achieving water quality protection. Existence of wasteload allocations and compliance schedules, combined with situations where municipalities are known sources causing or contributing to water quality impairments, exhibits the need for the Wasteload Allocation Attainment Programs' thorough regulatory approach.

Comment 28: 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.

Response 28: The required revisions provide sufficient flexibility for the impacts of climate change to be considered during the development of hydromodification control criteria. Required Revision No. 41 states that an adequate technical assessment of the impacts of development on the County's and City's watersheds will address continuous flow modeling, which typically involves use of the historical rainfall record, but nothing prevents the municipalities from also incorporating climate change considerations into their assessment. While climate change considerations are important, assessment of historical rainfall patterns are also appropriate.

VI. Comments by Monterey Bay National Marine Sanctuary

Comment 29: The Sanctuary commends the County and City staff for their proactive efforts to reduce non-point source pollution in urban runoff. For the last ten years the County and Cities have been implementing many of the Storm Water Management Plan's (SWMP) Control Programs prior to having an approved NPDES permit issued by the Central Coast Regional Water Quality Control Board. Examples include; the Industrial Waste Discharge program, illicit discharge detection, Municipal Operations programs and adoption/enforcement of multiple storm water ordinances. The Storm Water Management Plans reflect many of the ongoing efforts to reduce non-point source pollution in urban runoff as well as new requirements to fulfill the Phase II NPDES General Permit for Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems.

Response 29: Comment noted.

Comment 30: The Plans concentrate on two pollutants of concern; sediment and fecal indicator bacteria (FIB). While we understand there are existing TMDLs that have been established on local rivers for sediment and FIB; there are other pollutants of concern that should not be overlooked. They include metals, nutrients, and trash. Many of the listed management measures address these contaminants and as such, we feel they should be listed as pollutants of concern for the entire region covered by these plans.

Response 30: Water Board staff finds that the SWMP focuses on pollutants of concern other than sediment and fecal indicator bacteria. The SWMP states: "The primary pollutants of concern specific to Santa Cruz County and the City of Capitola are fecal indicator bacteria, sediment, and nutrients. [...] In addition, pesticides/toxicity and trash are pollutants of concern for Santa Cruz County in the south county area and a few other localized spots."²⁶ The SWMP includes numerous BMPs that address these additional pollutants of concern. See Table 2-3 of the SWMP for a listing of BMPs and the pollutants of concern that they address.

Comment 31: As mentioned above, there have been storm water ordinances and pollution prevention efforts in effect for many years in Santa Cruz. MBNMS staff would like to see more emphasis placed on determining effectiveness of these efforts. Each plan describes how an Effectiveness Assessment Strategy will be developed in Year 3 or 4 of the permit. While the jurisdictions should not be penalized for their proactive efforts, it would seem effectiveness assessments of these ongoing programs should be initiated immediately. The majority of the management measures listed have been implemented for years and are planned for implementation each year of the permit. It would seem that the jurisdictions would want to assess the effectiveness of these programs sooner than later. This will aid in better identification of realistic measurable goals, achievement in reaching those goals, and documentation of improved water quality.

Response 31: While development of the full Effectiveness Assessment Strategy will begin in Years 3 or 4, lower level effectiveness assessment will begin in Year 1 and continue through the life of the permit. For example, the SWMP and Required Revision No. 1 ensure that Level One Outcomes will be used for effectiveness assessment in Years 1 through 4. Though use of Level One Outcomes is a relatively simplistic means of assessing effectiveness, achievement of all Level One Outcomes by the County and City can serve to indicate some level of program effectiveness. Water Board staff finds this level of effectiveness assessment to be appropriate for the first several years of program implementation for the following reasons: (1) stormwater program effectiveness assessment is a relatively new and evolving field, making strategy development a lengthy process; (2) stormwater effectiveness assessment involves the complex task of making linkages between BMP implementation and changes in water quality, which will take time to develop; and (3) the County and City will be focusing on other important tasks the first few years of program implementation, such as hydromodification control criteria development. As such, Water Board staff recommends retaining the currently proposed Effectiveness Assessment Strategy schedule.

²⁶ Santa Cruz County and City of Capitola. 2008. StormWater Management Program. P. 2-5.

Comment 32: On a similar point, the plans should strive to ensure that the measurable goals lead to improved water quality. An excellent example is in the Watsonville plan regarding street sweeping. This program has been implemented for several years and they are able to quantify the amount of metals, oil, sediment and trash that are collected off the streets and parking lots so as to not end up in local surface waters. The plan is very specific about sweeping schedules, frequency and miles of curb cleaned.

Response 32: In implementing the SWMP, the County and City must strive to demonstrate BMPs lead to improved water quality. Required Revision No. 3 states: "Include a statement that the effectiveness assessment strategy will include efforts to identify links between BMP/program implementation and improvement in water quality and beneficial use conditions."

Comment 33: Because there are five storm water plans within Santa Cruz County and many watersheds that overlap jurisdictional boundaries, we recommend some description in each plan as to how the plans will integrate with each other. The Santa Cruz County plan describes a Countywide Stormwater Information Exchange but the other plans do not. It is not clear which organizations/jurisdictions participate in this coordination and how the plans integrate across watershed boundaries.

Response 33: As the commenter mentions, the County and City SWMP discusses organizing and participating in a Countywide Stormwater Information Exchange at least twice a year. The County and City also commit to participation in regional efforts (BMPs 4-1-7 and 4-2-6). Likewise, the County and City SWMP discusses participation in a regional effort to develop hydromodification control criteria (BMPs 7-1-5 and 7-2-10). Water Board staff finds these efforts sufficient to demonstrate program collaboration and integration between Santa Cruz County municipalities.

Comment 34: We support the comments described in the letter dated January 5, 2009 from the Resource Conservation District of Santa Cruz County, Ecology Action and other local partners. Santa Cruz County is fortunate that it has many local conservation organizations that work collaboratively to protect and preserve the natural environment. Local jurisdictions have demonstrated leadership and support of these efforts, including the City and County of Santa Cruz. The development of these SWMPs is an example of that effort to achieve "healthy watersheds". The Sanctuary supports the need for a regional hydromodification effort for Santa Cruz County, a watershed based approach for Low Impact Development, and flexible strategies regarding climate change as it relates to storm water issues. The letter itself is testimony that organizations with differing mandates are committed to work together to find solutions to very challenging issues.

Response 34: The required revisions provide ample flexibility for the County and City to pursue a regional hydromodification effort for Santa Cruz County, a watershed based approach for Low Impact Development, and flexible strategies regarding climate change as it relates to storm water issues. Please see Responses 25 through 28 for further detail.

VII. Comments by Monterey Coastkeeper

Comment 35: The current draft plan shows some improvement regarding measurable goals, given that it now has some. However we continue to be concerned over the use of vague language and a failure to adequately attribute measurable goals to BMPs. Links between BMPs, implementation of practices, and the goals that are intended to set a mark of success are ambiguous. The language used to set goals is often more appropriate to identifying implementation plans, rather than setting achievable targets. The use of vague language continuously befuddles the intention of the plan, which is to set forth actionable items which the MS4 will instigate or continue towards the goal of reducing stormwater pollution.

I make these comments not with the intention of being overly critical of what some might consider insignificant details, but because I firmly believe that setting forth clear practices with definable goals is essential to creating a successful stormwater program that is transparent, achievable and measurable to the point that can be considered MEP. A failure to set these goals and criteria down in clear writing makes the process of implementing the plan just as vague as the language it is written in. This will not only obfuscate the hard work of the many actors that will be tasked with implementing these plans, it will also prevent real, objective and transparent evaluation to indicate whether or not limited resources are being spent wisely to protect water quality from stormwater pollution.

As an example, I will discuss BMP 3-1-11, "Industrial Education", found on table 3-1, page 4 of 7. This BMP strives to "Identify industrial operations that could be a significant source of pollutants".

This is an area in which much could be done to mitigate stormwater pollution if locally appropriate industries are targeted for outreach. However the draft SWMP gives no details as to how this outreach will be carried out; indeed it doesn't even go so far as to identify what industries of potential concern operate within the County, let alone identify the industries that the program will target. Rather it sets three vague actions as measurable goals, in spite of the fact that they are neither measurable, nor goals. These items are: "Identify targeted industries"; "Develop outreach material to educate identified industries"; and, "Assess effectiveness of educational material."

Even were we to assume that this list constituted goals, we question the vagueness of this aspect of the plan. First of all, why is it necessary for the County to strive to identify industries within its own boundaries? If the process will be more complex than simply identifying industries with a history of pollution or industries that could contribute to impairments, then this should be addressed in the plan, including a discussion on the criteria with which the target industries will be selected. Even more efficient would be a summary of the potential industries that would benefit from stormwater education, and a commitment to target several of the most important industries. However, given the authors' familiarity with their own County, we believe they are qualified to make this designation, rather than relegate it to a vague, unsatisfactory plan to make a plan. In the name of efficient resource allocation, we suggest that the authors' of the plan simply use

their local knowledge to select specific industries that can be targeted for educational efforts.

Furthermore, the "goal" of developing outreach materials to educate these unidentified industries is equally vague and fails to meet the criteria of "measurable". Ideally, we would like to see a discussion of the topics to be included in the educational program; this could be as simple as compiling a list of BMPs related to the target industry. Of course this is contingent on the selection of industries.

Lastly, we see a gap between the plan to develop outreach material, and the following "goal" of "assessing effectiveness". It is to be hoped that the County will distribute material and make other equally tangible efforts towards providing industrial education before evaluating the effectiveness of their "program". The vagueness of the rest of the program of course predicated the inability to delineate anything more specific.

The discussion of this BMP stands to illustrate what we consider to be a persistent and unsatisfactory vagueness throughout the Santa Cruz County draft SWMP. We feel that this vagueness will not translate into an effective stormwater program. If the County follows its plan to the letter, the result, as it stands, will be a plethora of plans that the current plan is promising to develop in the vague and unspecified future.

Recommendation #1: Require that all BMPs be matched with appropriately measurable goals. This may involve fleshing out details regarding some of the more vague practices, to ensure that the MEP standard is met.

Response 35: Water Board staff's review of the SWMP and development of required revisions have been designed to result in a SWMP that sufficiently identifies specific BMPs and associated measurable goals for implementation in accordance with the General Permit and the MEP standard. The Table of Required Revisions reflects this effort. The majority of the 49 required revisions address the issue of specificity and measurable goals. For example, the latest required revisions call for the addition or improvement of 16 measurable goals in the SWMP. Even greater numbers of improved measurable goals were required by Water Board staff during previous review iterations.

However, while the Table of Required Revisions has been crafted to improve the SWMP's specificity and measurable goals, Water Board staff also acknowledges that it is appropriate for some of the particular details of the program to be finalized in the future. For example, regarding education, it is appropriate for the SWMP to identify target audiences, education formats, and scope of effort, but as a planning document it is not necessary for the SWMP at this time to contain specifics on the actual educational messages to be used. This does not mean that such items will not be reviewed by Water Board staff in the future. On the contrary, Water Board staff intends to review such details during SWMP updates and the annual reporting process. In such cases, where Water Board staff determines that the new information does not meet the MEP standard, Water Board staff will work with the County or City to obtain improvement.

This approach is supported by the General Permit, which states: "[The] SWMP shall be fully implemented by the expiration of this General Permit, or within five years of designation for Small MS4s designated subsequent to Permit adoption, with reasonable

progress made towards implementation throughout the term of the General Permit.²⁷ Since the General Permit allows aspects of the program to be implemented up to five years following enrollment, Water Board staff finds it premature to require all specific details of the eventual program to be included in the SWMP at this time. Instead, as mentioned above, Water Board staff has reviewed the SWMP and developed the Table of Required Revisions in order to ensure a program that meets the MEP standard while providing flexibility to the City and County in implementing the details of their programs.

Regarding education addressing industrial facilities, Required Revision No. 10 calls for the County to develop a measurable goal for the BMP. The County has responded that it will educate 20 percent of targeted industries in years 3, 4, and 5. However, the scope of this effort remains unclear because the County provides no indication of how it will identify industries to be educated. For this reason, Water Board staff has added Required Revision No. 50 to the Table of Required Revisions, which requires the County and City to describe in the SWMP the process and criteria it will use to identify industries targeted for education. Water Board staff also finds that this comment pertains to the City as well, and has modified Required Revision No. 10 so that it applies to the City. Water Board staff finds that the new measurable goal developed by the County, combined with a description of the process and criteria to be used to identify targeted industries, will provide sufficient detail to ensure an adequate industrial facility education program.

Comment 36: Our concern with the lack of specificity runs fairly consistently throughout the plan, however there are some Minimum Control Measures that we find more significant than others. We are particularly concerned with the chapter on Construction Site Runoff, the chapter on Post Construction Controls, and the chapter on Pollution Prevention in Municipal Practices. I have already highlighted some of our concerns regarding the chapter on Public Education and Outreach; we are the least concerned with the chapter on Public Involvement and Participation and the chapter on Illicit Discharge Detection and Elimination. Please refer to the included table for further discussion of goals that we continue to find dissatisfactory.

Response 36: Water Board staff has responded to these issues where they are described by the commenter in more detail. Please see Responses 42 through 68 for further discussion.

Comment 37: While we recognize that the Board has granted all of the cities and the County of Santa Cruz with an extension within which they are expected to develop location specific standards, we are concerned with the omission of language outlining that process. As we stated in our recent letter regarding the Watsonville draft SWMP, we are requesting written assurance, in all of the SWMPs, that the process of assigning hydromodification standards will be timely, transparent, and inclusive of all stakeholders. Given the long history of developing the County's SWMP, in which stakeholders have been repeatedly assured that plans would be appropriately fleshed out in the future, we feel that it is not unreasonable to request that this promise be made good on, officially, in the SWMP.

²⁷ SWRCB. 2003. Water Quality Order No. 2003-0005-DWQ. Section D.

Given the impact that new and re-development can have on the delivery of stormwater pollution to watersheds, the Monterey Coastkeeper believes the inclusion of hydromodification standards in the SWMP to be of the utmost importance. It is understandable that the MS4s in question should desire adequate time to develop implementable standards; for this reason we support the time-extension that has been given to the County and its partnering agencies; we very much recognize the value of regional cooperation and uniformity. Unfortunately, language describing the process that will be used to arrive at hydromodification criteria is missing from the draft SWMP submitted by the County in October 2008.

Furthermore, we are concerned by the omission of interim hydromodification standards in the SWMP, in spite of Board staff's continuous reiteration of the necessity of such language. We would like to see the language prescribed in staff's November 14, 2008 letter included in the SWMP. This is clearly in line with the Board's wishes, as is stated in the letter.

We support the RWQCB staff's required revisions regarding hydromodification standards; in particular we would like to see the following stipulations enforced:

- The required language, as outlined on page 8 of the required revisions
- The provision of an opportunity for interested parties to comment and be heard throughout the decision making process

We request that the plan not be approved until appropriate language outlining both the process for arriving at standards and language including interim hydromodification standards are included. We further request that the Board stipulate that the process for arriving at permanent hydromodification standards be transparent and inclusive of stakeholder concerns.

Recommendation #2: Ensure that the process of developing hydromodification standards includes plentiful opportunity for public participation and remains transparent.

Response 37: The required revisions referenced in the comment have been retained, though the required revision addressing interim hydromodification control criteria has been modified to provide some additional flexibility. Through incorporation of these required revisions (and others), the SWMP will include sufficient language to ensure the County's and City's commitment to hydromodification control criteria development and implementation. The public process the County and City use during the development of the criteria has been left to their discretion; however, Required Revision No. 13 clarifies the Water Board's commitment to providing ample public participation opportunities during its approval of the criteria.

Comment 38: Our next concern is the applicant's failure to include BMPs for the Construction Site Stormwater Runoff Control Program. This is dealt with specifically in BMP 6-1-7, on page 4 of 7 in Chapter 6 of the draft SWMP. The BMP deals with Site Inspections with the intent of sediment and erosion control BMPs, however no BMPs for erosion control are actually put forward. The measurable goal of inspecting 100% active grading permits is a good start, however the ensuing list of measurable goals states that inspections will focus on the presence of required BMPs. These BMPs are referenced several more times throughout the measurable goal column (although none of the items

are measurable goals), however the list of BMPs never appears. In fact, the action "Create a construction site BMP inspection checklist to be used by field staff" is listed as a measurable goal.

The NPDES permit states in the Minimum Control Measure Construction Site Storm Water Runoff Control that the stormwater management program must include at a minimum "Requirements for construction site operators to implement appropriate erosion and sediment control BMPs" (NPDES General Permit No. CAS000004). According to this criteria, the Monterey Coastkeeper finds that this aspect of the draft SWMP does not meet the MEP standard, and requests that a list of required BMPs for construction site management be included in the SWMP.

Response 38: The SWMP references the County's Grading Ordinance and Erosion Control Ordinance (including web links) to address the BMPs that are required at construction sites. These ordinances include BMP requirements such as revegetation, covering of disturbed surfaces, runoff detention, and disturbed area limitations. In addition, the SWMP states that the ordinances will be reviewed and updated in accordance with the General Permit. However, the SWMP does not commit to identifying the updated BMPs that result of this process. Such information is necessary to ensure the updated BMPs achieve the MEP standard. For this reason, Water Board staff has added Required Revision No. 51, which requires the County to identify the BMPs it will require at construction sites, following the implementation of its review process. The City's handling of construction BMPs has similar issues (BMP 6-2-1), so Required Revision No. 51 also applies to the City.

Comment 39: This omission is repeated in Chapter 7, Post Construction Stormwater Management in New and Redevelopments. As in the previous control measure, the Minimum Control Measure Post-Construction Storm Water Management in New Development and Redevelopment states that the Permittee must "Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for [their] community" (NPDES General Permit No. CAS000004).

The BMP that addresses the inclusion of post-construction BMPs is number 7-1-8, on page 8 of 9 in Chapter 7. The BMP reads "Compile BMP manual". We have two concerns with this BMP. Firstly, we are concerned with the fact that the BMP is hollow; it is not a best practice, but only a commitment to select best practices; something that the permittee should be doing within the SWMP. Secondly, the language committing the applicant to even this practice is ambiguous. The measurable goal states that the BMP manual will be advertised to 100% of project applicants. This is a cursory nod to what we consider an important aspect of stormwater management. Ensuring that developers are not only advertised to, but actively engaged and educated about the County's stormwater program is an important component of an effective stormwater program; one that is currently lacking from the draft SWMP.

This underscores the general tone of the chapters that address construction and post-construction; the language is perpetually soft, and rarely involves setting any real, prescriptive standards. For example, BMP 7-1-4 on page 5 of 9 in Chapter 7, which reads "Design Standards" states in the implementation details column that "Planning policies promote retention of vegetation, protection of riparian corridors and site planning to minimize grading and site disturbance."

While we applaud the County's efforts to promote smart environmentally protective design, we would like to see a more prescriptive approach to design standards with legally binding requirements. The text further reads, "The ordinances or Design Criteria will be revised to incorporate any subsequently approved hydromodification measures attached to this permit"; this is repeated as a measurable goal. We would like to reiterate our conviction that the SWMP should not be approved without the inclusion of specific language outlining the development of Design Criteria according to the terms of the General Permit requirements and Attachment 4 to the General Permit.

Recommendation #3: Require that the applicant include the list of BMPs that will be required for construction site operations and post-construction. Clarify which practices are required, and which are recommended.

Response 39: Water Board staff agrees that the SWMP as submitted by the County and City is inadequate to ensure implementation of an effective post-construction BMP program in compliance with the MEP standard. As such, Water Board staff has created eight required revisions (Required Revision Nos. 27 through 34) to better ensure application of sufficient BMPs on new development and redevelopment projects. To address the specific issues raised in the comment, Required Revision Nos. 27 through 31 and 34 ensure the County and City will develop and implement source control, low impact development, treatment, and hydromodification control BMP criteria for new development and redevelopment projects. In general, these criteria must specify design standards that BMPs must meet, rather than identifying specific BMPs that must be implemented – a common approach to stormwater regulation. However, many specific BMPs are also directly required, such as those listed in Attachment 4 of the General Permit, which are specified by Required Revision No. 28. While the County's BMP manual may only be advertised to project applicants, the required revisions listed above ensure that BMPs implemented by project applicants must meet specific criteria to ensure effectiveness. Likewise, while the SWMP may contain language discussing "promotion" of certain BMPs, the required revisions ensure that appropriate BMPs will be implemented at all applicable new development and redevelopment projects. For example, Attachment 4 provisions, which the County and City must comply with according to the required revisions, specify retention of vegetation, protection of riparian corridors, and site planning to minimize grading and site disturbance.²⁸

Comment 40: We support Board staff's directive to address TMDLs in the SWMP. We encourage the Board to ensure that Required Revision #5, which requires that the applicant commit to implementing all components of the required Wasteload Allocation Attainment Plan (WAAP). In spite of the County's existing programs, we believe there is still a substantial gap in data that could be addressed regarding water quality and pollution sources; we feel that the Board is being reasonable in requiring that this aspect of the plan be included prior to the approval of the SWMP.

Response 40: Water Board staff has retained Required Revision Nos. 5 and 6, which address the development and implementation of Wasteload Allocation Attainment Programs.

²⁸ SWRCB. 2003. Water Quality Order No. 2003-0005-DWQ. Attachment 4, section B.2.b.

Comment 41: In conclusion, we do not believe that the draft SWMP has met the MEP standard. While we commend the applicants continuously stated commitment to improved water quality—a goal we all share—there are substantial improvements we would like to see in the plan before its approval, and the granting of the NPDES permit. We hope that these issues can be resolved expeditiously.

Lastly, I would like to state that we acknowledge the complexity of developing a successful stormwater program, and further acknowledge that it is not without some cost to the implementing agency. We also realize that the communities that we work in are working to deal with a variety of environmental challenges and concerns, including threats to water quality, quantity, climate change mitigation, and adaptation to climate change already set in motion—all with limited resources. Recognizing that there are “big picture” issues to be dealt with, however, should not paralyze us against taking specific actions to address seemingly smaller issues that are within our reach. Indeed, tackling stormwater pollution, which has been a moving target for many years, will set us—communities, environmentalists, and the public at large—up for success as we grapple with the increasingly difficult issues of resource management in a climate constrained future.

For this reason we are in full support of the Board’s efforts to implement the SWMP approach to address water quality concerns, as mandated by the Federal Clean Water Act and state law, in a manner that is flexible for the participants, inclusive of public input, and resultant in real, actionable practices that will prevent stormwater pollution from flowing to the Monterey Bay. Thank you for the opportunity to comment.

Response 41: Water Board staff finds that when combined with the required revisions, the SWMP meets the MEP standard. Water Board staff agrees that the flexibility incorporated into the SWMP and required revisions allows for stormwater management issues to be addressed in a manner that is cognizant of large-scale environmental issues. In addition, by framing stormwater management within the context of long-term watershed protection, Water Board staff believes it has pulled the larger environmental issues into to discussion on how stormwater should be successfully managed.

Comment 42: Regarding BMP 3-1-1, providing brochures without incorporating the contents into a larger educational component is unlikely to be very effective. Furthermore, the target audience is vague, whereas the topics to be covered by brochures are simply non-existent. In order to show that this is a viable program that will actually result in public awareness and knowledge, it is necessary to include more thorough details about the program. What topics will be covered in the distributed brochures? What measures will be taken to ensure that appropriate brochures are sent to appropriate members of the public? Can the County include copies of the information they will be distributing, either as an appendix, or a link to the electronic version of the brochures?

Response 42: Water Board staff agrees that distribution of brochures alone is not likely to be a very effective educational practice. However, the County also conducts numerous other education BMPs that work in conjunction with brochure distribution. The topics of the brochures are cited in the text of the SWMP: “home and yard maintenance, vehicle maintenance, sewer system maintenance, septic system maintenance, pool and

garden maintenance, recycling and household hazardous waste, etc.” Likewise, the target audience is identified as County households, to which the County is committing to reach 15 percent annually. Water Board staff finds that this level of detail is appropriate for the SWMP; since these programs are likely to evolve over time, inclusion of the actual education message in the SWMP at this time is premature. Educational messages will be reviewed by Water Board staff during annual report reviews.

Comment 43: Regarding BMP 3-1-2, like “brochures”, “website” is not a very clearly impactful practice. Nor is the act of compiling hits to a website a measurable goal.

Response 43: While websites alone are not a sufficient education program, use of websites in conjunction with other educational practices can be effective. As a measurable goal for this BMP, the County commits to adding new material to the website every other year.

Comment 44: Regarding BMP 3-1-6, this BMP does not have a goal. Also, to whom will the Stream Care Guide be distributed? Can the County include either a link, or further information about where the Stream Care Guide can be viewed? Lastly, there is no measurable goal for this BMP.

Response 44: Required Revision No. 9 requires the County to include a measurable goal for this BMP, such as identifying the number of Stream Care Guides the County will annually distribute. The target audience for the Stream Care Guides has been identified in the SWMP as County households, presumably those households adjacent to streams.

Comment 45: Regarding BMP 3-1-7, there is no measurable goal attributed to this practice.

Response 45: Required Revision No. 9 requires the County to include a measurable goal for this BMP, such as the number of septic systems owners the County will educate.

Comment 46: Regarding BMP 3-1-8, a survey is a useful tool to determine program effectiveness; given that the authors of the plan have been evaluating the County’s stormwater initiatives, they should be able to identify an appropriate target audience for a public survey. There is no measurable goal in this BMP, although there are many details that would lend themselves towards the creation of a goal: how many citizens will be surveyed? How many different target groups will be included? What aspect of the County’s program will be surveyed? How will the data be processed and used? The steps in the measurable goal column are closer to implementation plans, but the goals remain vague or non-existent.

Response 46: The SWMP discusses the principal steps that will be followed to develop and implement the survey, including target audience identification, survey method development, distribution technique identification, survey implementation, survey reporting, follow-up activity implementation, and resurvey implementation to assess effectiveness. Water Board staff finds the listing of these steps to be an appropriate

level of detail for the SWMP. Inclusion in the SWMP of specific information such as targeted audiences or topics could be premature at this time, since identification of target audiences and topics for the survey are likely to benefit from program implementation and assessment. This approach allows for the first two years of program implementation and assessment to inform survey development, which in turn will likely improve the usefulness of the survey.

Comment 47: Regarding BMP 3-1-11, the goals are not measurable, and set no quantitative targets. The plan goes from developing outreach materials to assessing their impact, with no mention of actually distributing or using the material. The plan should identify specific industries to target, set a goal for a number of targeted industries or individuals and give details as to what the program will entail, such as trainings, meetings, literature distributed, etc.

Response 47: Please see Response 35.

Comment 48: Regarding BMP 3-1-13, certification of 30 businesses each year is a good goal; however there is no linkage to show how this goal will be reached.

Response 48: The SWMP describes the purpose of the program (pollution prevention, waste minimization, and BMP implementation) and states that quarterly meetings are held to coordinate the program. When combined with the measurable goal of certifying 30 businesses a year, Water Board staff finds that this is a sufficient level of detail to ensure an effective program.

Comment 49: Regarding BMP 3-1-15, the distribution of limited written materials does not seem to be the maximum extent practicable for business outreach; are there other opportunities for interaction with business owners, such as meetings, inspections, trainings, etc? The distribution of 100 brochures with no follow up seems a scant goal.

Response 49: The SWMP states that the brochures will be delivered by hand, to enable direct communication with business owners. This effort goes beyond basic brochure distribution. Likewise, the SWMP commits to inspections of businesses at BMP 5-1-6. By their very nature, business inspections are educational. Moreover, BMP 3-1-13 addresses businesses through the Monterey Bay Area Green Business Program. As such, Water Board staff finds that the County's and City's BMPs pertaining to education of businesses meets the MEP standard.

Comment 50: Regarding BMP 3-1-17, according to the measurable goal and the subsequent implementation schedule, the County will spend 5 years compiling numbers of farmers. There is no link to this goal (which is more of an action and not measurable) and the actual outreach efforts.

Response 50: Required Revision No. 9 requires development of an appropriate measurable goal for this BMP, such as the amount of resources the County will annually contribute for outreach to farmers.

Comment 51: We find that the following BMPs either do not have measurable goals, or have goals that are not appropriate to the BMP:

- City of Capitola website: compiling hits is not a mg
- Community outreach: compiling number of events is not a mg; ideally set a number of people that outreach will target at events
- Public Opinion Survey: establish a target audience and set a target number of people to be surveyed
- Pet Waste: sending a newsletter once does not seem to meet MEP
- Trash Management: how will the city educate residents on this issue? Once in a newsletter does not meet MEP
- Fertilizers and Pesticides: how will the city educate residents on this issue? Once in a newsletter does not meet MEP
- Riparian Restoration and Protection: how will the city educate residents on this issue? Once in a newsletter does not meet MEP
- Business Outreach: set a quantitative target for how many businesses will be reached

Response 51: Regarding the City's website, the City commits to adding stormwater information to its website in year 2. This is an adequate goal for website development. For the community outreach BMP, the City commits to the measurable goal of participating in at least one community event a year. Regarding the public opinion survey, please see Response 46. For education efforts addressing the subjects of pet waste, trash management, fertilizers/pesticides, and riparian restoration and protection, Water Board staff has chosen to focus on those efforts that target the City's primary pollutants of concern. As such, Required Revision Nos. 7 and 11 require education targeting pet waste and fertilizers/pesticides to be conducted annually, as opposed to once, and require the City to commit to expansion of the efforts if the required effectiveness assessments find the efforts to be ineffective. Water Board staff has not required expansion of trash management and riparian restoration and protection education efforts in order to avoid diluting limited education funds. Concerning business outreach, Required Revision No. 9 requires inclusion of a measurable goal in the SWMP.

Comment 52: Regarding BMP 5-1-12, "Agency staff will be trained, including...": There is no value given to the number of industrial waste inspectors or the storm drain and sewer maintenance workers; please assign a value.

Response 52: Required Revision No. 13 requires the County to identify the number of industrial waste inspectors and storm drain and sewer maintenance workers the County will train.

Comment 53: Regarding BMP 5-2-7, "Use hotline to receive calls from the public":

- This is not a measurable goal. Please include one.
- Is there a hotline already set up? If so, how is it made available to the public? Could the applicant please include the number in the SWMP?

Response 53: Water Board staff finds that creation of a hotline, tracking of calls received, and conducting follow-ups of calls, as discussed in the SWMP, are sufficient to ensure operation of an effective hotline. As such, Water Board staff is not requiring a further defined measurable goal. The SWMP states that the hotline will be created in year 2; as such, inclusion of the phone number for the hotline in the SWMP is not necessary at this time. Regarding availability of the hotline to the public, Water Board staff finds that setting up a public hotline includes making it available to the public; if the hotline is not made publicly available, Water Board staff will follow-up with the City to ensure its availability.

Comment 54: Regarding the Riparian Corridor and Wetland Protection Ordinance, the Monterey Coastkeeper commends the County's Riparian Ordinance, which includes development setbacks of 30, 50 and 100 feet.

Response 54: Comment noted.

Comment 55: Regarding BMPs 6-1-1, 6-1-2, and 6-1-4, both BMPs focus on the evaluation of existing ordinances with the intention of updating them if deemed necessary; what criteria will the County use to determine if these ordinances are effective? We request that the County include language stating that ordinances will be assessed in terms of long-term watershed protection, in the terms of the General Permit requirements, and Attachment 4 to the General Permit.

Response 55: The County commits to assessing its Grading Ordinance in terms of the General Permit, when it states "Compare Grading Ordinance to construction MCM [the General Permit's construction minimum control measure] and evaluate effectiveness." Likewise, the County commits to assessing its Erosion Control Ordinance in terms of the General Permit, when it states "Revise, as necessary, to meet the requirements of this MCM." Evaluation of the Riparian Corridor and Wetlands Protection Ordinance in terms of the General Permit is not necessary since the General Permit does not directly address riparian corridor or wetland protection. The County also commits to assessing all of these ordinances in terms of long-term watershed protection by citing SWMP section 7.1.1 throughout, which states "the BMP proposed is to assess the effectiveness of the implementation of the existing policies in maintaining and enhancing long-term watershed protection." Assessment of construction BMPs in terms of Attachment 4 of the General Permit is not necessary since Attachment 4 does not address construction BMPs.

Comment 56: Regarding BMPs 6-1-4 and 6-1-5, both these BMPs reference BMPs that have not been identified; the Monterey Coastkeeper requests that the SWMP include the lists of required and recommended BMPs to determine how projects will be conditioned. The absence of these BMPs renders both BMP 6-1-4 and 6-1-5 hollow; the commenter cannot comment on upholding construction permittees and projects to a list of BMPs that does not exist.

Response 56: Please see Response 38.

Comment 57: Regarding BMP 6-1-7, "Inspections will focus on the presence of required BMP's..." Again, commenters cannot comment on the effectiveness of this action without know what the required BMPs are. Can the applicant include a list of required BMPs?

Response 57: Please see Response 38.

Comment 58: Regarding BMP 6-1-7, We requested further detail on enforcement actions in our preliminary comment letter in the County's own round of public input; we are pleased to note the substantial improvement in detail regarding this practice.

Response 58: Comment noted.

Comment 59: The Chapter 7 text states that a BMP manual for post-construction runoff control will be made available; however the applicant does not differentiate between recommended and required BMPs. The inclusion of BMPs in the SWMP is important to illustrate what practices developers will be required to follow. See section III of letter for a more thorough discussion on the inclusion of BMPs.

Response 59: Please see Response 39.

Comment 60: Regarding BMPs 7-1-1 and 7-1-2, We recognize and applaud the County's long history of establishing land use policies for the protection of water quality, however we believe that there is much still to be done regarding post-construction stormwater management. The existing BMP and attributed goals are vague and show no real commitment. The goal to "modify policies if necessary" does not give any details as to what would render modification necessary. Furthermore, the goal to "amend current ordinances to incorporate the specific BMPs associated with the land uses identified in Attachment 4" does not, in our opinion, meet the standard of MEP, given that these specific BMPs are not specified. We would like to see language that a) specifies BMPs and b) commits the applicant to assessing and modifying policies and ordinances according to the terms of the General Permit and Attachment 4. This comment applies to BMP 7-1-2 as well. Note: Board staff's required revisions addresses this as well, requesting a commitment by the County and City to develop quantifiable measures that indicate how the applicant's watershed protection efforts achieve desired watershed conditions.

Response 60: Please see Response 39.

Comment 61: Regarding BMP 7-1-4, this does not meet the MEP standards; short of requiring the inclusion of LID standards necessary for approval of the SWMP, we request that the Board uphold staff's required revision that the County commit to assessing current standards in the terms of the General Permit and Attachment 4, including measurable goals for implementation of current design standards. See text of letter for a more thorough discussion of this topic.

Response 61: Water Board staff has retained Required Revision No. 28, which requires the County to assess and modify its design criteria for new development and redevelopment for consistency with the General Permit and Attachment 4 of the General Permit.

Comment 62: Regarding BMP 7-1-5, see letter text for a thorough discussion on this issue. The Monterey Coastkeeper stands in support of Board staff's required revisions, which are absent from the existing draft SWMP.

Response 62: Please see Response 37.

Comment 63: Regarding BMP 7-1-6, this BMP/measurable goal shows no commitment on the part of the County to consider the terms of the Permit in this task; the language is vague and the reader is not privy to an explanation of the standards that the checklist will be held to. "Review and revise" is not a measurable goal.

Response 63: While the SWMP commits the County to reviewing the CEQA checklist to ensure it considers stormwater quality and quantity, the SWMP is unclear regarding the standard the checklist will be held to. This information is necessary to ensure the checklist is effective in addressing stormwater issues. To address this issue, Water Board staff has added Required Revision No. 52 to the Table of Required Revisions, requiring the CEQA checklist to be consistent with the goal of long-term watershed protection. In addition, the City has not committed to reviewing and updating its CEQA checklist. Required Revision No. 52 addresses this issue as well.

Comment 64: Regarding BMP 7-1-8, BMPs should be included in SWMP, along with clarification as to which BMPs are mandatory and which are recommended only.

Response 64: Please see Response 39.

Comment 65: Regarding BMP 8-1-1, "Document" and "review" are not measurable goals; there are no quantifiable targets or standards for review.

Response 65: The BMP includes a commitment to review and modify existing housekeeping BMPs. The County also identifies a standard for review, in that the SWMP states the BMP review and modification process will be conducted in accordance with the guidance included in the CASQA Municipal BMP Handbook. Water Board staff finds this to be a sufficient discussion for review and development of BMPs. However, the BMP does not commit to updating the SWMP to include the BMPs that are ultimately selected for implementation. This information is necessary to allow Water Board staff to review the BMPs and ensure that they are consistent with the MEP standard. As such, Water Board staff has added Required Revision No. 53 to the Table of Required Revisions, in order to require the County and City to identify the BMPs in SWMP updates as part of annual reporting.

Comment 66: Regarding BMP 8-1-2, the County has had more than enough time throughout the process of developing this SWMP to identify and compile appropriate BMPs for facility management. This BMP is a plan to make a plan. The SWMP should not be approved until the County commits to specific facilities management BMPs and includes them in the plan.

Response 66: The SWMP includes a commitment to a detailed process for BMP development and implementation at municipal facilities, including identification of facilities, use of CASQA guidance, documentation of implementation, and inspection using BMP checklists. Though the SWMP does not identify the specific BMPs that will be implemented, Water Board staff expects that the process discussed in the SWMP will result in BMP implementation that achieves the MEP standard. However, to better ensure that this is the case, Water Board staff has added Required Revision No. 53 to the Table of Required Revisions, in order to require the County and City to identify the selected BMPs in SWMP updates as part of annual reporting. This information will allow Water Board staff to review the BMPs to ensure that they are consistent with the MEP standard.

Comment 67: Regarding BMP 8-1-6, this plan includes no measurable goals; it plans to establish BMPs but does not actually select any BMPs. The goal is to develop quantifiable measurable goals. We are unsure as to why the selection of BMPs and measurable goals (which should have taken place during the development of the SWMP) has been further postponed without specification of who will finally commit the County to BMPs and goals in year 4 and 5 of the permit. We find that this BMP fails to meet the standard of MEP, and request that actual BMPs be selected.

Response 67: The SWMP includes a commitment to a detailed process of BMP development and implementation during year 1, including documentation of existing practices, use of CASQA guidance, identification and implementation of BMPs, tracking of maintenance efforts, prioritization of maintenance efforts, and development of quantifiable measurable goals. Though the SWMP does not identify the specific BMPs that will be implemented, Water Board staff expects that the process discussed in the SWMP will result in BMP implementation that achieves the MEP standard. However, to better ensure that this is the case, Water Board staff has added Required Revision No. 53 to the Table of Required Revisions, in order to require the County and City to identify the selected BMPs in SWMP updates as part of annual reporting. This information will allow Water Board staff to review the BMPs to ensure that they are consistent with the MEP standard. It is also important to note that the SWMP does not postpone development and implementation of quantifiable measurable goals until years 4 and 5. The SWMP states the BMPs developed and implemented in year 1 will "include a cleaning schedule." Cleaning schedules are quantifiable measurable goals.

Comment 68: Regarding BMP 8-1-9, the goal reads "develop quantifiable measurable goals for in terms of frequency or type of repair and maintenance." This is an unclear task; it is not a measurable goal.

Response 68: The SWMP commits the County to implementing the *Guidelines for Protecting Aquatic Habitat and Salmon Fisheries for County Road Maintenance Manual* when conducting road maintenance. This document includes detailed road maintenance

BMP requirements. The County also commits to reviewing these BMPs and modifying them where necessary, together with developing additional quantifiable measurable goals. Water Board finds that these efforts taken collectively ensure that road maintenance BMPs will be implemented in accordance with the MEP standard.

VIII. Comments by Tandy Beal, Thomas Delhi, Vicki Dyas, Patricia Helin, Richard Liberty, Joni Martin, Natalie McKinney, Jon Scoville, Kristen M. VanKlootwyk, and Steve Waltcher

Comments submitted by this group of interested parties were identical or very similar to one another. In order to decrease repetitiveness, the comments are responded to once in this section. Please see the individual comment letters for each interested parties' specific comments.

Comment 69: I am a resident of Santa Cruz County, and I am writing to express concern about Santa Cruz County's draft Storm Water Management Plan and their response to the RWQCB's comments on the plan.

I feel strongly that more and better testing should be a requirement of the County's permit. We should know what specific pollutants are in our water and where they are coming from. Test results should be followed up with corrective action when needed, and further tests should show if those corrective measures are working.

Response 69: The SWMP and required revisions are designed to result in increased and improved monitoring over the SWMP's five year cycle. Required Revision Nos. 5 and 6 require the County and City to develop and implement monitoring programs in watersheds where wasteload reductions are required as part of TMDLs. Likewise, the SWMP's effectiveness assessment discussion commits the County and City to assessing BMP effectiveness in terms of runoff and receiving water quality. Effectiveness assessments of this type will necessitate runoff and receiving water monitoring. In addition, the County and City commit to developing a process to "conduct effectiveness assessments and improve BMP implementation," exhibiting that effectiveness assessment monitoring results will be used to improve implementation of BMPs.

Comment 70: I believe that the Stormwater Management Plan must include clear, measurable objectives to achieve acceptable watershed health and water quality throughout the County. The plan should include a concrete explanation of the steps the County will take to achieve those objectives and a timeline for achieving them.

Response 70: Water Board staff's review of the SWMP and development of required revisions have been designed to result in a SWMP that sufficiently identifies specific BMPs and associated measurable goals for implementation in accordance with the General Permit and the MEP standard. The Table of Required Revisions reflects this effort. The majority of the 53 required revisions address the issue of specificity and measurable goals. For example, the latest required revisions call for the addition or improvement of 16 measurable goals in the SWMP. Even greater numbers of improved measurable goals were required by Water Board staff during previous review iterations.

All BMPs and measurable goals have a timeline associated with their implementation. In addition, the effectiveness assessment process included in the SWMP, as well as Required Revision No. 3, are designed to result in continually improving BMPs until watershed health is achieved.

Comment 71: I don't believe that the RWQCB's request for a wastewater attainment allocation plan (WAAP) for the County's watersheds is unreasonable, especially since the County has asserted that they already have in place many of the elements that a WAAP would include.

Response 71: Required Revision Nos. 5 and 6, which address Wasteload Allocation Attainment Programs, have been retained by Water Board staff.

Comment 72: Regarding their funding challenges, despite the doubt the County expresses, there is a strong activist base in Santa Cruz County, who could mobilize to support an initiative to fund a compelling, comprehensive plan. There are also highly trained, highly educated county residents who might volunteer to help research and write parts of a draft WAAPs, and plenty of us would be willing to help with water testing throughout the county.

Response 72: Comment noted.

Comment 73: With regard to development and redevelopment, it is time for "best practices" such as permeable or semi-permeable paving, infiltration ponds and swales, gravel-filled leach lines and shallow bores, and other relatively simple but effective options.

Response 73: Water Board staff have retained Required Revision Nos. 25-42 to ensure best management practices are implemented to achieve the MEP standard at new development and redevelopment projects.

Comment 74: In their response to the RWQCB's comments, the County claims repeatedly that their current methods of stormwater management are effective. I disagree based on personal experience and observation. I would like to see the County spend their time and financial resources on developing and implementing a superior plan rather than challenging the RWQCB's authority to make "required revisions" to the County's proposed plan.

Response 74: Based on ongoing water body impairments within the County and City, Water Board staff agrees current storm water management practices are insufficient to protect water quality and beneficial uses. For this reason, Water Board staff has worked with the County and City on their SWMP development and recommended numerous required revisions in order to improve the SWMP.

Comment 75: This is not just an environmental issue or a public health issue; it is an

economic one as well. Thousands of tourists are drawn to the county's beaches and rivers every year; one recent study placed a value of \$8.4 million per year on Capitola's surf spots alone. And water is becoming a more priceless resource each year as we face the impacts of ongoing climate change and concerns about our reservoirs, aquifers and groundwater. Santa Cruz County needs to create a stronger, more detailed, comprehensive plan to preserve this precious resource.

Response 75: Water Board staff agrees that there are significant costs associated with not implementing adequate measures to protect water quality. The benefits of implementing the program outweigh the costs of implementing the program.

IX. Comments by Michael A. Guth

Comment 76: I am writing to express my opposition to approval of the Stormwater Runoff Management Program submitted by the County of Santa Cruz. In addition, I take exception to many of the assertions made by the County of Santa Cruz in its January 2009 response letter in rebuttal to recent RWQCB staff comments. I have attended all of the County public hearings on this Program going back to March 2003, and have been frustrated with the lack of development of the County Program. I seek your support in requiring the County to comply with its legal requirements for managing stormwater runoff. I urge the Board to reject the approach of the County, which I see as to delay implementing significant management measures while simultaneously rejecting the Board's interim measures.

It is my view that the County Program simply does not require any real quantitative approach to the issue of polluted runoff nor any quantitative assessment of the possible improvements that might be made regarding runoff management under their proposed Program. Thus, no understanding of the current situation, or the effect of future actions, is required under this Program. The first requirement of this Program is that the SWMP reduce the discharge of pollutants. It is my view that this Program must require the testing of all watersheds in the jurisdiction, large or small, and that periodic testing must be done to determine whether the Program is meeting this requirement. To that extent, I support the requests by the RWQCB staff for Wasteload Allocation Attainment Plans (WAAPs). I point out that I support WAAPs for more than the select view watersheds listed. In my view, no assessment of effectiveness can be made without testing of each watershed for sediment and chemical, viral, and bacterial pollutants.

I take issue with many assertions made by the County in their recent response letter, and discuss those below. In general, the County has in some ways implemented positive programs regarding stormwater runoff. However, the County has also avoided these programs on some of the largest land use projects.

I need not remind the Board that Santa Cruz County is home to numerous surf breaks, and that the waters are filled with users during the winter. The public health aspect of stormwater is of prime importance in this area. In addition, stormwater here runs off into the Monterey Bay National Marine Sanctuary.

Response 76: Water Board staff's review of the SWMP and development of required revisions have been designed to result in a SWMP that sufficiently identifies specific

BMPs and associated measurable goals for implementation in accordance with the General Permit and the MEP standard. The Table of Required Revisions reflects this effort. The majority of the 53 required revisions address the issue of specificity and measurable goals. For example, the latest required revisions call for the addition or improvement of 16 measurable goals in the SWMP. Even greater numbers of improved measurable goals were required by Water Board staff during previous review iterations.

The SWMP and required revisions are designed to result in increased and improved monitoring over the SWMP's five year cycle, for the purpose of quantitatively assessing the effectiveness of SWMP implementation. Required Revision Nos. 5 and 6 require the County and City to develop and implement monitoring programs in watersheds where wasteload reductions are required as part of TMDLs. Likewise, the SWMP's effectiveness assessment discussion commits the County and City to assessing BMP effectiveness in terms of runoff and receiving water quality. Effectiveness assessments of this type will necessitate quantitative runoff and receiving water monitoring. In addition, the County and City commit to developing a process to "conduct effectiveness assessments and improve BMP implementation," exhibiting that effectiveness assessment monitoring results will be used to improve implementation of BMPs.

Comment 77: To my knowledge, the most recent assessment of water quality and its human health aspect in Santa Cruz County was compiled in Assessment of Sources of Bacterial Contamination At Santa Cruz County Beaches (John Ricker, Water Resources Program Coordinator, March 2006). In addition to recounting the numerous instances of beach closures due to polluted water, especially during runoff season, this report states:

Although the relative contribution of bacterial contamination from various human and animal sources is indicated by microbial source tracking, additional information is needed to determine how those contributions occur, how they enter waterways, and how those contributions can be modified by improved management practices.

This report makes clear that more information is needed to determine how bacterial contamination enters our stormwater runoff and local waters. Yet at the recent County public hearing on this issue, the County's Public Works Director has stated:

While the County recognizes that urban stormwater pollution is a major contributor to water quality impairment in our watersheds, we also know that it is only one of many contributors. There are other sources of pollution that are beyond our control (natural sources such as birds and other wildlife, natural sedimentation, agriculture, air pollution deposition, impacts due to global warming, etc.) that impact our watersheds. It is unlikely that through the control of stormwater pollution alone will we be able to bring water quality measures to levels desired by the RWQCB, particularly in a five-year permit term.

Letter of Tom Bolich to Santa Cruz County Board of Supervisors, 12/31/2008

The statement above illustrates the shortcomings of the County's approach. There is not acknowledgment in Public Works, which coordinates the County's SWMP efforts, that the pollutants are washed into stormwater, and then collected in drainage watersheds, due to decades of development which linked together all sources. The lack of retention of rainfall, and the transfer from natural biofiltration to hardscape of drainage

features, is what has caused pollution of all sorts to be collected in waters as they course through watersheds. Practices which continue to exacerbate this linkage of sources must be eliminated.

There is, in my view, a disconnect between the acknowledgments of the County Public Health Department and the positions of The County Public Works Department.

Response 77: Required Revision Nos. 5 and 6 are designed to specifically target the fecal indicator bacteria conditions referred to in the comment. These required revisions call for the development and implementation of Wasteload Allocation Attainment Programs where fecal indicator bacteria TMDLs have been adopted. These Wasteload Allocation Attainment Programs must identify and prioritize sources and BMPs and seek to develop linkages between BMP implementation and wasteload allocation attainment. Monitoring is also required. The systematic approach represented by the Wasteload Allocation Attainment Programs is expected to result in continual improvement in fecal indicator bacteria conditions until all controllable anthropogenic sources have been controlled.

The SWMP also addresses the issue of directly connected impervious surfaces that transport pollutants straight to receiving waters without treatment or infiltration. BMP 7-1-4 and Required Revision No. 27 require implementation of low impact development measures that promote infiltration. BMP 7-1-1 also calls for reviewing and modifying plans, policies, and ordinances in terms of long-term watershed protection, which involves maximization of infiltration of clean stormwater, and minimization of runoff volume and rate.

Comment 78: With regard to the proposed County Program, the County letter states the following:

2. Existing County Programs

The County of Santa Cruz' 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.

(at page 3)

At the first public hearing on this Program, in March 2003, the entire Program was first put out for public review on the Friday before the Tuesday morning Board of Supervisors Meeting which had the hearing on its agenda. And because of the permit deadline for submittal that week, there was not enough time to incorporate any public input into the first submittal of this Program. As an attendee at that hearing, who both testified and put in written comment, I specifically recall Public Works stating that the Program should be viewed as a "plan to make a plan", and that annual hearings would be held over the next five years. Thus, four additional hearings were promised by March 2008. Instead, one public hearing was held. A valuable stakeholder meeting was held in mid-2003, which I attended, but to my knowledge no second meeting was held. I take issue with the County's assertion that there was an iterative process and that the Program enjoys broad community support.

Response 78: Regarding public involvement and participation, the General Permit only requires the "Permittee must at a minimum comply with State and local public notice requirements when implementing a public involvement/participation program."²⁹ In holding several public hearings on the SWMP, the County has met this requirement. The County has also committed to holding at least one stakeholder outreach meeting a year (BMP 4-1-3). However, Water Board staff recommends that the County expand its efforts for public involvement in the future to allow adequate time for public participation in the further development and implementation of the SWMP.

In addition to the County's efforts to foster public participation during development of the SWMP, Water Board staff has also sought to provide ample public participation opportunities during the Water Board process of SWMP approval. For example, starting in December 2007, staff presented to the Water Board and the public its strategy for enrollment of Phase II municipalities. As part of the enrollment strategy, Water Board staff incorporated two time periods where the public could review and comment on the draft SWMP and draft required revisions. A public "water quality assessment" meeting was also held by Water Board staff on May 16, 2008, during which the public was encouraged to provide input on the County's pollutants of concern; information which was later used in the shaping of the required revisions. Water Board staff also provided a 60-day comment period for interested parties to comment on the SWMP and required revisions.

Comment 79: The County letter highlights the existing ordinances in order to demonstrate that stormwater runoff issues are currently well managed. The letter states:

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

- 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.

(at page 4)

As a community participant in the planning process, I can state without reservation that exceptions (akin to variances) are given to the Riparian Ordinance often. For example, the County is currently upzoning approximately 20 acres inside the urban services line, and the County is applicant and analyst for these projects. Two of these projects illustrate the fallacy of relying solely on the County ordinances:

On Aptos Rancho Road, along Aptos Creek, a multi acre high density rezoning (APN 039-471-09, App. No. 07-0667), the County as applicant for the rezoning and associated PUD requested exception (variance) from the 50 foot riparian

²⁹ SWRCB. 2003. Water Quality Order No. 2003-0005-DWQ. Section D.2.b.

buffer required under the Riparian Corridor Protection Ordinance to 20 feet (and this "combining district" approach used already removed the additional 10 foot setback from the buffer). The original stated finding to support this exception in the staff report listed first that the State had mandated that we accommodate lots of new high density housing.

On the Nigh Lumber property near Hiway 1, around five acres going to high density above Corcoran Lagoon (APN 029-021-47, App. No. 07-0414), there is a low spot in the coastal plain which had had a creek, now mostly above ground channels with some underground pipes, but nonetheless still providing biofiltration and recharge. The County proposal requested an exception to the Riparian Corridor Protection Ordinance to rechannel water from above the wetland area into a new diversion pipe 10 feet underground and directly into Rodeo Creek.

These examples illustrate that although the County ordinances may look strong on paper, they are not used strongly in practice. Reliance on the current system alone will lead to further degradation. To the extent that the Riparian Ordinance is used as part of this Program, I specifically recommend and request the following:

1. All Riparian exceptions and exemptions be catalogued in a separate database that is publicly available.
2. An annual report be prepared summarizing the circumstances of each Riparian exception and exemption, and that report be submitted to the Regional Board, in addition to being part of the annual local hearings on this Program

Response 79: In order to ensure the Riparian and Wetlands Protection Ordinance is appropriately applied to development projects, Water Board staff has added Required Revision No. 54 to the Table of Required Revisions. The required revision specifies that the County must commit to annually reporting the number of exceptions, exemptions, or variances to the ordinance granted by the County.

Comment 80: I support the Board's staff viewpoint requiring WAAPs and stricter effectiveness assessments. In my view, the Board's staff does not go far enough in its proposed required revisions in this area. The County letter states:

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 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 intends 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.

(at page 9)

The County appears to be saying that WAAPs as required by the Board would detract from a comprehensive watershed approach, yet these items are part of a comprehensive watershed approach. As to the County's disagreement with a requirement that each stormwater program have WAAPs, it should be pointed out that several watersheds in the unincorporated county lie almost if not entirely within the County jurisdiction, thus WAAPs for those watersheds must be within the County SWMP.

With regard to the County statement that its efforts have been effective in reducing pollutants, I dispute that conclusory statement and challenge the County to support it.

Response 80: Water Board staff has retained the required revisions specifying development and implementation of Wasteload Allocation Attainment Programs. The Wasteload Allocation Attainment Program requirements are designed to comprehensively address ongoing impairments on a watershed or jurisdiction-wide basis.

Comment 81: I believe that there is strong support in the County for rigorous controls on stormwater management. The weekend during which I wrote this letter there were three surf contests in the water within 1 mile from my office, and at least several hundreds of surfers in the water during that time. Illness from polluted runoff is a concern to all water users, and many, if not most, avoid the water during high runoff periods. I do not believe we can be saying that we are already effectively addressing this issue when users must avoid water contact during runoff periods.

There may be a lack of understanding on the part of the general public regarding the linkage of point and non-point pollution sources via hardscape and outdated stormwater systems to the ocean, and a lack of understanding about how better practices can alleviate the current situation. It is my belief that given that understanding, there would be an outpouring of support regarding this issue. I also believe that reliance on public education regarding storm drains is important but must be viewed as only a small part of managing this issue, as no amount of public outreach can substitute for creating an infrastructure that minimizes runoff impacts.

The County letter states:

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 attest 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.
(at page 13)

With regard to the claim to effectiveness, I challenge the County to demonstrate how effective the programs to date have been. Where is the data to support improved quality? I expect that correspondences to your Board will show that there is not support for the County SWMP in its current form. It is my understanding that some of the organizations that signed the referenced letter from local groups depend at least in part on the financial largesse of the County and the cities for their survival.

The County letter also states:

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.
(at page 14)

In order to provide some evidence to the Board, I attest that I am a resident of the unincorporated area of the County of Santa Cruz and I am willing to support the mandates contemplated by the Regional Board.

Response 81: Based on ongoing water quality impairments, Water Board staff agrees that requirements for improvement of stormwater management within the County are warranted. Water Board staff also agrees that there appears to be public support for an improved stormwater program, based on the number of comment letters on the SWMP received from interested parties.

Comment 82: The County letter recounts, I believe as a negative, an example of how the proposed interim BMPS would affect an actual permit application:

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 the restaurant and/or reduce the amount of parking available or use alternative pervious or semi-impervious paving. (page 15)

I fully support that a parking lot design would have to be modified under this circumstance using pervious or semi-pervious paving. I am surprised that the County uses this example as a negative, as I believe it is a positive result. Requiring modifications of poorly designed systems when rebuilding parking lots is an excellent requirement.

Response 82: The SWMP is designed to reduce the construction of directly connected impervious surfaces that transport pollutants straight to receiving waters without treatment or infiltration. BMP 7-1-4 and Required Revision No. 27, 39, and 41 require implementation of low impact development measures that promote infiltration. BMP 7-1-1 also calls for reviewing and modifying plans, policies, and ordinances in terms of long-term watershed protection, which involves maximization of infiltration of clean stormwater, and minimization of runoff volume and rate.

Comment 83: I support the Regional Water Quality Control Board's efforts to strengthen the County of Santa Cruz' Stormwater Runoff Management Program. Without the Board's strong action the County will not place sufficient priority on managing this important issue.

Response 83: Comment noted.

X. Comments by Tana Brinnand

Comment 84: The days of doing things a certain way simply because they are expedient ARE OVER! As a long time resident of this county, I have to say that it should be obvious we need to know where the pollutants in our water are coming from, and specifically what those pollutants are. We need to make specific plans about how to deal with the problems, and then carry them out. RWQCB is asking for a WAAP (waste water attainment plan), lets be reasonable and give it to them.

Do we want the waters off Santa Cruz to end up like those around Tiajuana? Think of what that would do to our tourist trade.

You know, if funding is a problem, I think you can look to the just past, extremely successful Day of Service to realize that you have a whole boatload of community volunteers ready to take on tasks which would reduce the financial burden of this project. Call on us, for heaven's sake.

Water is our most precious resource just behind the air we breathe.

There is an old saw which says: most people given the choice of making changes or explaining why they don't need to, get busy on the explanation.

For heaven's sake, this is not a time to throw tourism, public health, and the environment out the window because "we don't think we need to change."

We do need to change, and consider water quality a top priority in all future development. The only way we can do that rationally is by having all the necessary information. So, let's get busy on a comprehensive plan for change in the way we handle that precious resource.

Response 84: Water Board staff review of the SWMP and development of the required revisions have been designed to ensure discharges of pollutants are reduced to the maximum extent practicable and water quality is protected. While the required revisions necessitate changes to the County's approach to stormwater management, Water Board staff finds these changes to be warranted, based on ongoing impairments and impacts to beneficial uses. While the SWMP discusses public participation in Chapter 4, Water Board staff encourages the County and City to take further advantage of public interest by bolstering their programs with volunteer efforts, where appropriate.

The SWMP and required revisions are also designed to result in increased and improved monitoring over the SWMP's five year cycle, for the purpose of quantitatively assessing the effectiveness of SWMP implementation. Required Revision Nos. 5 and 6 require the County and City to develop and implement monitoring programs in watersheds where wasteload reductions are required as part of TMDLs. Likewise, the SWMP's effectiveness assessment discussion commits the County and City to assessing BMP effectiveness in terms of runoff and receiving water quality. Effectiveness assessments of this type will necessitate quantitative runoff and receiving water monitoring. In addition, the County and City commit to developing a process to "conduct effectiveness assessments and improve BMP implementation," exhibiting that effectiveness assessment monitoring results will be used to improve implementation of BMPs.

XI. Comments by Anita Bonno Bernard

Comment 85: President Obama has stressed that it is time for Americans to take responsibility for our actions, and to step up with new vision and a willingness to move beyond the status quo. That is why I am writing to express concern about Santa Cruz County's draft Storm Water Management Plan and their response to the RWQCB's comments on the plan.

There are many water enthusiasts and environmental activists in Santa Cruz who are ready to get to work. A strong activist base could mobilize to support an initiative to fund a compelling, comprehensive plan. Highly trained and educated county residents might volunteer to help research and write parts of a draft WAAPs, and plenty of us would be willing to help with water testing throughout the county.

We MUST look to solutions that exemplify to other communities how best to protect our most precious resource. With regard to development and redevelopment, let us look to 'best practices' such as permeable or semi-permeable paving, infiltration ponds and swales, gravel-filled leach lines and shallow bores, and other relatively simple but effective options.

Let us as a county step up and change our water planning for the better, so that other seaside communities may look to us as a model for success.

Response 85: While the SWMP discusses public participation in Chapter 4, Water Board staff encourages the County and City to take further advantage of public interest by bolstering their programs with volunteer efforts, where appropriate. Regarding requirements for new development and redevelopment, please see Response 82.

XII. Comments by Marc Shargel

Comment 86: I reside in the San Lorenzo Valley of Santa Cruz County. I am a frequent scuba diver in Monterey Bay and a professional marine life photographer. In addition I lived for years on the edge of the San Lorenzo River itself.

Just yesterday two local environmentalists I have collaborated with over the years informed me of deficits in my county's Storm Water Management Plan. Joni Martin's concerns are cogent and substantive and they speak for me. The water that flows into the San Lorenzo reaches Monterey Bay at Main beach. I immerse myself in the Bay regularly, so questionable water quality can affect my health directly. Just yesterday I took my son (age 5) to Cowell's beach at the foot of Municipal Wharf where I had to restrain him from splashing through a pond that sits just above the ocean. The pond is created by storm drain runoff and is permanently posted as unsafe for human contact. Why do we allow the rivers and streams which feed into the bay to remain permanently at bacterial levels unsafe for human contact? Why do we expose our children to these health risks? Why do we do the same to surfers and divers like me? Why do we do this to our precious coastal ocean?

Santa Cruz County has always held itself to the highest environmental standards, please help us do the right thing by continuing that tradition.

Response 86: Required Revision Nos. 5 and 6 require development of Wasteload Allocation Attainment Programs designed to directly target fecal indicator bacteria contamination. These programs represent a systematic approach to correcting water quality impairments. Water Board staff expects these programs to result in the County and City achieving their wasteload allocations, which in turn will result in protection of water quality.

XIII. Comments by Katharine Parker

Comment 87: As a full-time resident of Capitola, I am concerned with the run-off of street wastes from the Depot Hill section of Capitola directly into the Monterey Bay. Our neighborhood is located on the cliffs adjacent to the Bay and much of the neighborhood run-off goes into large drains which feed through pipes directly into the bay. This includes street wastes, pollution from yard run-off, and feral and outside domestic cat feces (and there are a lot in this neighborhood). I am especially concerned because I know that cat feces have tentatively been linked to a disease in our Monterey Bay sea otters.

I am not speaking for our neighborhood, but I believe that the neighborhood group GHAD has tried to work with Capitola administrator Steve Jessup without much luck. I

believe that this group offered to help pay for a study on rerouting our drainage but an appropriate study was never done. I would appreciate any leverage the Water Board, via the water plan or otherwise, could exert upon the City of Capitola to work with our neighborhood to resolve our drainage problems.

Response 87: The SWMP and required revisions include BMPs to address the issues raised in the comment. BMP 8-2-7 discusses street sweeping. BMPs 3-2-5 and 3-2-7 and Required Revision Nos. 7 and 9 discuss education of residents regarding pet waste management and fertilizer/pesticide application. In addition, Required Revision No. 6 requires development of a Wasteload Allocation Attainment Program to address fecal indicator bacteria entering Soquel Lagoon, including fecal indicator bacteria from domestic pets such as cats.

XIV. Comments by Valley Women's Club of the San Lorenzo Valley

Comment 88: The Valley Women's Club of the San Lorenzo Valley is dedicated to community action, awareness and leadership in environmental, educational, social, and political concerns which affect the health and welfare of the San Lorenzo Valley and our community. We have been working for over thirty years to maintain and improve the health of our watersheds and that of Monterey Bay.

Santa Cruz County has taken the lead in the past to curtail erosion and pollution, to monitor and test the health of our streams and rivers, and to educate and inform its citizens of the importance of these issues. We have enormous respect for the County's staff and are grateful for their ongoing efforts to maintain our water and watershed quality.

However, due to constant pressure to grow its population, combined with severe financial constraints on its ability to function – especially on its ability to enforce its protective ordinances – we feel that they should be working closely with the Regional Board and not be held to a lesser standard because of past and current efforts. We need to know the pollutants in our water and where they are coming from. There should be corrective action taken, as needed, and further tests should show if those corrective measures are working.

Response 88: The SWMP and required revisions are designed to result in increased and improved monitoring over the SWMP's five year cycle, for the purpose of quantitatively assessing the effectiveness of SWMP implementation. Required Revision Nos. 5 and 6 require the County and City to develop and implement monitoring programs in watersheds where wasteload reductions are required as part of TMDLs. Likewise, the SWMP's effectiveness assessment discussion commits the County and City to assessing BMP effectiveness in terms of runoff and receiving water quality. Effectiveness assessments of this type will necessitate quantitative runoff and receiving water monitoring. In addition, the County and City commit to developing a process to "conduct effectiveness assessments and improve BMP implementation," exhibiting that effectiveness assessment monitoring results will be used to improve implementation of BMPs.

Comment 89: Our County Stormwater Management Plan must clearly identify the issues threatening watershed health and water quality throughout the County. Then it must explain the steps the County will take to achieve those objectives and a timeline for achieving them. You have provided ample flexibility but must hold the County to the standards your expertise has found warranted. With a new administration at the federal level, funding may become available for projects which otherwise might be delayed for years, and we should be prepared to take advantage of this.

Response 89: The SWMP identifies the pollutants of concern within the County in Chapter 2, Section IV. The BMPs to be used to address each of the primary pollutants of concern are identified in Table 2-3, and expanded upon in subsequent chapters. An implementation schedule is associated with each BMP.

Comment 90: For too long we have been watching as exceptions to the County's Riparian Corridor ordinance are too often granted; there is little funding for enforcement of the setbacks from streams resulting in increased erosion from ill-conceived dirt roads, and from pollution when septic systems fail to function correctly. We agree with the Regional Board that streams should ideally have a 100' setback for new building, for example, and residents should be held responsible for excessive runoff.

Response 90: Please see Response 79 regarding exceptions to the Riparian Corridor ordinance. The County commits to enforcement of stream setbacks by inspecting construction sites for compliance twice yearly, and taking enforcement if necessary (BMP 6-1-2). Regarding septic system failure, the County has committed to inspecting 1,000 septic systems every three years.

Comment 91: We support improved hydromodification standards for new development and feel much existing development needs improvement with these designs that can really solve the pollution problems. Requirements such as permeable pavements, infiltration swales, ground water recharge with collected runoff from roofs and similar designs, will have a direct effect, improving water quality. The modest increased costs overall will be worth it, and such standards should be implemented as local codes and enforced as part of compliance with the need to reduce water pollution.

Response 91: Required Revision Nos. 39 through 42 require development and implementation of hydromodification control criteria for new development and redevelopment. Regarding the subject of retrofitting existing development to incorporate treatment and infiltration functions: BMPs are frequently categorized in terms of source control and treatment BMPs. Source control BMPs are often used as a first line of defense, with treatment BMPs used for augmentation when source control BMPs are found to be insufficient. This is especially true regarding existing development, where installation of treatment or infiltration BMPs can involve complicated and extensive retrofitting. The SWMP includes implementation of a full suite of source control BMPs addressing pollutants in runoff. Following implementation of these source control BMPs, where evidence exhibits that they are inadequate and water quality degradation is occurring, additional BMPs will be required.

Comment 92: We agree that much of the County's current stormwater management is effective but we should be held to the improved standard in the Management Plan, and make the required revisions of policy, ordinance and enforcement.

We cannot base the long-term quality of our water and the health of our watershed and coastline on short-term financial constraints. These issues are paramount to the continued well-being of residents and the attractiveness of our towns and coasts to tourists. They are paramount to the health of our failing aquifers and degrading streams.

We are grateful to the Regional Board for its work and appreciate the opportunity to comment on the County's Management Plan.

Response 92: Comment noted.

XV. Comments by Carol Carson

Comment 93: I live near the top of the largest watershed in Santa Cruz County- the San Lorenzo Valley. One of its major tributaries, Boulder Creek, runs behind my house. So I am aware of the issues that surround our water and sometimes feel that our resource is benignly neglected, by not only the county but other organizations like the Resource Conservation District, since we are farther away than other watersheds.

I was disappointed and astonished that the county Supervisors, who usually make credible decisions, has chosen to challenge the RWQCB's comments. It is incumbent upon us to make our water safe for people, wildlife, plants and our Bay. Our County, which is so blessed with natural resources, should be developing a superior plan rather than challenging the RWQCB's authority to make "required revisions" to the County's proposed plan.

Response 93: Comment noted.

XVI. Comments by Debbie Bulger

Comment 94: As a resident of Santa Cruz County, I disagree with the County's attempt to resist development and execution of a detailed wastewater attainment allocation plan.

As a county which depends on tourist dollars, drawn by clean beaches,
As a county with many surfers, kayakers, and sailors,
As a county full of people who pride themselves on being green,
we must do everything we can to ensure the quality of our water.

Currently we act as if our streams and creeks are sewers and we build storm drains to rush the oil and tire dust and other gunk on our roads into the creeks and eventually into the Monterey Bay National Marine Sanctuary. Instead we should be installing green areas and catch basins on streets to direct the water back into the ground and the aquifer. We should be using permeable surfaces for driveways as is required at Lake Tahoe.

Response 94: Required Revision Nos. 39 through 42 require development and implementation of hydromodification control criteria for new development and redevelopment. These required revisions also call for development and implementation of low-impact development measures, which seek to optimize infiltration at new development and redevelopment projects. Regarding the subject of retrofitting, please see Response 91.

Comment 95: The current testing program for the County does not allow it to finely pinpoint pollution sources so remedies can be taken. The testing program should be refined.

Response 95: The SWMP and required revisions are designed to result in increased and improved monitoring over the SWMP's five year cycle, for the purpose of quantitatively assessing the effectiveness of SWMP implementation. Required Revision Nos. 5 and 6 require the County and City to develop and implement monitoring programs in watersheds where wasteload reductions are required as part of TMDLs. This monitoring will assist in source identification. Likewise, the SWMP's effectiveness assessment discussion commits the County and City to assessing BMP effectiveness in terms of runoff and receiving water quality. Effectiveness assessments of this type will necessitate quantitative runoff and receiving water monitoring. In addition, the County and City commit to developing a process to "conduct effectiveness assessments and improve BMP implementation," exhibiting that effectiveness assessment monitoring results will be used to improve implementation of BMPs.

Comment 96: Leaking septic systems in the rural areas are a special program and should be more aggressively addressed.

Response 96: The SWMP includes a Septic Systems Maintenance and Management Program, which addresses water quality testing and investigation, tracking of septic system maintenance efforts, and requirements for system evaluations and upgrade in conjunction with remodels. The County has also committed to inspecting 1,000 septic systems over a three year period. Water Board staff finds these efforts to be adequate in addressing leaking septic systems.

XVII. Comments by the Sierra Club

Comment 97: The draft plans attempt to address important issues such as the elimination of illicit discharges, prevention of runoff from construction sites, pollution prevention in municipal operations, as well as prevention through public education and through specific preventive measures applicable to new development projects. While these activities are necessary and valuable components of an overall plan, they do not address directly the existing primary runoff pollution problems in urban areas.

We believe that it is widely recognized that in urbanized areas the largest source of polluted runoff comes from highways, roads, parking lots, and other hardscape sites: The accumulated oil residues, metal and chemical particles, toxins, bacterial waste, as

well as solid debris constitute the largest component of urban runoff and pose the major threat to water quality in our rivers and ocean.

Because these pollutants flow to water courses and to catch basins that empty directly into the ocean, we request that your Agency, in reviewing these draft plans, place the highest priority on the identification, planning, and scheduling of specific projects that remove these toxins through natural filtration and engineered filtration devices.

In the area of natural filtration there are well known examples of projects undertaken elsewhere in the country that catch stormwater runoff from adjacent paved areas and redirect it towards natural drainage systems such as lagoons and seasonal wetlands. Other examples have utilized golf courses, large public open spaces, portions of urban parks and playgrounds, and other special opportunities to use natural filtration. These types of solution need to be identified through each watershed as part of each area's Stormwater Management Plan (SWMP).

In the area of engineered filtration devices, we request that a multi year program be developed by each jurisdiction to install and maintain engineered filtration devices in each catch basin/storm drain. Filtration devices must be supported by ongoing programs to clean, maintain and replace these devices, and also an ongoing program to clean out solid debris from storm drains before it flows to the ocean. There should also be a program to retrofit, gradually over a specific time period, large parking lots and other large hardscape areas with sedimentation and filtration solutions similar to those proposed for new large developments.

Response 97: The SWMP is designed to reduce the discharge of pollutants to the maximum extent practicable and protect water quality. This is achieved through the implementation of BMPs. BMPs are frequently categorized in terms of source control and treatment BMPs. Source control BMPs are often used as a first line of defense, with treatment BMPs used for augmentation when source control BMPs are found to be insufficient. This is especially true regarding existing development, where installation of treatment BMPs can involve complicated and extensive retrofitting. The SWMP includes implementation of a full suite of source control BMPs addressing pollutants in runoff coming from existing roads and parking lots. These source control BMPs include street sweeping, municipal parking lot sweeping, catch basin inlet cleaning, and stormwater pump station cleaning. Following implementation of these source control BMPs, where evidence exhibits that they are inadequate and water quality degradation is occurring, additional BMPs will be required.

Please note that the SWMP also includes requirements for application of treatment BMPs at redevelopment projects, including redevelopment projects that create or replace more than 5,000 square feet of impervious surface. Redevelopment is an opportunity to incorporate treatment BMPs into project designs, while avoiding the difficulties associated with retrofit projects. Over time, as redevelopment occurs, the amount of roadway and parking lot runoff that receives treatment will increase. The SWMP also includes measures to ensure these treatment BMPs are adequately maintained.

Comment 98: There are existing natural filtration areas that have fallen into disrepair and are no longer functioning optimally. There is an obvious need and opportunity to

identify these, and to develop and schedule specific repair projects as one of the highest priorities in each SWMP.

Response 98: The SWMP includes provisions to assess and maintain the MS4. To the extent that these natural infiltration areas are part of the municipalities' MS4s, they must be included in this assessment and maintenance. Natural infiltration areas that are not part of the MS4 are subject to the municipalities' ordinances and policies. Where activities causing disrepair of natural infiltration areas are in violation of the municipalities' ordinances and policies, the municipalities must take corrective actions.

Comment 99: Another major concern that does not seem to be addressed in the draft SWMPs is the runoff in non-urban, forested areas which comprise a large portion of our county. The rampant building of logging roads in the watersheds, the removal of riparian vegetation and other inappropriate logging practices cause huge amounts of silt to run off into the creeks, thereby ruining their habitat.

Response 99: To the extent that non-urban, forested areas do not drain to an MS4, the runoff from these areas is not regulated by the General Phase II Municipal Storm Water Permit. In general, impacts resulting from logging practices are addressed by the Water Board's timber harvesting program. However, when a road is owned or operated by the County and includes a drainage system, it is part of the MS4 and must be addressed by the County, since "the County has chosen to indicate the entire County as the permit boundaries." The County addresses such roads at BMP 8-1-9, which discusses road repair and maintenance. As part of the discussion for this BMP, the County commits to conducting road maintenance according to the *Guidelines for Protecting Aquatic Habitat and Salmon Fisheries for County Road Maintenance Manual*. This document addresses detailed road maintenance BMP requirements, including unpaved roads.

Comment 100: Lastly we want to stress the apparently missed opportunity to manage runoff with the aim of maximizing its potential as a source of aquifer recharge. In each SWMP there is a need to identify areas most in need of recharge, most able to absorb it, and to match these with runoff that can be redirected towards them. In this County, the need to bring together runoff management and recharge planning is an apparent, unmet need.

Response 100: The SWMP includes provisions that will improve groundwater recharge conditions. In the Table of Required Revisions, the Water Board has required the SWMP to include requirements for new development and redevelopment to optimize infiltration on site. As redevelopment continues to occur, this requirement will lead to improved recharge conditions. In addition, the SWMP and Table of Required Revisions include BMPs for assessment of existing ordinances and policies in terms of long-term watershed protection. Ordinances and policies found to be inadequate must be modified by the municipalities. Water Board staff's July 10, 2008 letter to the municipalities characterized long-term watershed protection to include "watershed storage of runoff, through infiltration, recharge, baseflow, and interflow, at pre-development levels." As such, the County's and City's efforts to assess and modify their ordinances and policies to ensure long-term watershed protection will be required to result in improved watershed storage of runoff.

XVIII. Lompico Watershed Conservancy

Comment 101: This letter opposes the position of Santa Cruz County and the City of Capitola regarding their draft Stormwater Management Plan. Our comments address the County's letter to the Central Coast Regional Board dated January 13. We support the RB3 staff position. Many of our comments on this matter will be found in our attached letter to the Santa Cruz County Board of Supervisors dated January 12, 2009. Please consider this attached letter to be our additional comments to the Regional Board on this matter. Both letters address this issue together to the Regional Board.

Response 101: Comment noted. Responses to the letter referenced in the comment are addressed in Responses 109-114.

Comment 102: The County bases much of its argument to your Board upon the grounds that the County's existing ordinances, policies and monitoring programs constitute the basis of good stormwater management. On paper this might appear to be true. However, as long time residents and concerned citizens of this County, citizens who have taken a close look at County policy and attempted to convince the County to both follow and to enforce its ordinances, we find this County position to be hollow. If necessary we can produce demonstrable evidence of the County Planning Department's evasion of its code enforcement responsibilities. We can demonstrate that the county Riparian Corridor Protection Ordinance is routinely dismissed through "exceptions" and similar variances. These include situations where the County is the "applicant" on development proposals, as described in our attached letter to the Board of Supervisors.

Response 102: Water Board staff will ensure adequate program implementation and code enforcement by the County by conducting annual report reviews, inspections, audits, and other surveillance methods. Regarding implementation of the Riparian Corridor Protection Ordinance, please see Response 79.

Comment 103: As a conservation organization working on water quality issues, we find this situation to be very discouraging. For this reason and others we recommend that the Regional Board insist upon County compliance with your staff recommendations for revisions and additions to the County Stormwater Management Plan as proposed.

Response 103: Comment noted.

Comment 104: It is very difficult and time consuming to track compliance with County codes. It is a task beyond the capacity of ordinary citizens. Within the Conservancy there is special expertise in this matter. For this reason we recommend that the Regional Board require an annual list of all grading ordinance and riparian corridor ordinance exceptions, exemptions, variances and code enforcement actions as part of the SWMP. Only then can the Regional Board have any means to assess the grounds for the County's claim that these ordinances constitute the basis for a Storm Water Management Plan.

Response 104: Please see Response 79.

Comment 105: The County asserts that your staff's requirements for a SWMP are unnecessary and too costly. However within this process is a provision called MEP or, to the Maximum Extent Possible. We see considerable flexibility in the Regional Board's position if the County were to begin to cooperate and develop a program as requested. Considering the amount of water contact recreation that occurs in the lower San Lorenzo River, in other streams, and along the Monterey Bay coast, what makes this County special is the degree to which human health is impacted by water pollution.

The Conservancy is particularly interested in endangered species protection. The coho salmon once common in this area are on the brink of extinction. Steelhead, western pond turtles, red-legged frogs, birds, amphibians and other wildlife are listed under both Endangered Species Acts. All this wildlife and many other species are adversely impacted by hydromodification, water pollution and loss of riparian habitat. A well designed and monitored SWMP would assist in the recovery of these animals and many others. Stormwater is generally viewed as an urban issue but it applies to many paved and developed areas in the more rural parts of Santa Cruz County. It affects upper watersheds in many cases. There is a huge opportunity for improvement that the County should seize upon, if it is actually concerned about water pollution problems.

Response 105: The SWMP and Table of Required Revisions contain numerous items designed to control hydromodification and protect habitat (e.g. BMPs 7-1-1 through 7-1-6 and Required Revisions 25, 31, 32, and 39 through 42). The County has committed to implementing the SWMP throughout the County, including upper watersheds, though implementation will be focused on urban areas. The SWMP states: "the County has chosen to indicate the entire County as the permit boundaries to simplify jurisdictional issues within the County" (p. 2-9).

Comment 106: The hydromodification standards contained in the staff schedules appear to be very difficult, however we understand them to be goals and guidelines and not absolute limits on each discrete permit that the County might issue. This is where we see room for negotiation regarding offsets and other methods of compliance if the County cooperated with the Regional Board's program. After so much bad design by local jurisdictions, it is time to reverse course and implement the already tested methods of making stormwater a resource instead of simply a problem to be "jetted" off into a waterbody as polluted discharge. The County letter describes a "Commercial Redevelopment on 41st Avenue" as an example of the problem it has with hydromodification standards. To quote from their page 15:

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

We find this statement to be astonishing. Pervious pavements, swales and other similar solutions are exactly what solving hydromodification is all about! If the County is going to use this as an example of their problem with SWMPs, how is the Regional Board to take any of the County's claims regarding its intent to write its own standards seriously?

Looking at this in reverse; this statement is clear evidence that the County is not qualified, nor is it prepared to deal with stormwater management in a way that will comply with the law. Replacing the tens of square miles of impermeable asphalt in this County is a long-term solution to water pollution and ground water recharge, it is not the problem! 41st Avenue is a hydromodification disaster zone badly in need of solutions. The County has offered no reasonable solution. What the County has provided are facile objections to state and federal law.

Response 106: The SWMP and Table of Required Revisions contain numerous items designed to control hydromodification and protect habitat (e.g. BMPs 7-1-1 through 7-1-6 and Required Revisions 25, 31, 32, and 39 through 42). Water Board staff finds these requirements to be sufficient to ensure the County develops and implements an adequate program to control hydromodification resulting from new development and redevelopment.

Comment 107: Regarding the TMDLs and Wasteload Allocation Attainment Plans (WAAP), we see huge holes in the water quality testing now conducted by Santa Cruz County. This makes for big opportunities to improve these programs and to better understand what the real sources of pollutants are. Please review our attached letter as it applies to current testing by the County Department of Environmental Health. The County's assertion that they cannot distinguish between various sources of pollution simply reveals that their testing protocols are inadequate. In the current financial downturn it is our hope that the Regional Board and the County will come to agreement on a plan to begin to improve testing programs over time as methods develop with experience. Again we see flexibility in the Regional Board position that the County does not acknowledge. It is quite obvious that compliance with the TMDL can never be attained if the information is missing. The County position appears to us to be more rhetorical than factual.

Response 107: Required Revision Nos. 5 and 6 require the County and City to develop monitoring programs as part of their Wasteload Allocation Attainment Programs. Since attainment of wasteload allocations involves identification and abatement of sources, Water Board staff expects that over time a component of these monitoring programs will focus on distinguishing between various sources of pollution. As the programs progress, Water Board staff plans to work with the County and City on the evolution of the monitoring programs.

Comment 108: In conclusion: It gives us no satisfaction whatsoever to object to the County position in this matter. In the past the Conservancy and the County have had a very productive working relationship that we hope to see again. We support the Regional Board staff position as it applies to a County Stormwater Management Plan. We cannot detect a dependable willingness on behalf of the County to deal with this problem without strong guidance and supervision by the Central Coast Regional Water Quality Control Board.

Response 108: Comment noted.

Comment 109: The Lompico Watershed Conservancy has had relatively extensive experience with the Central Coast Regional Water Quality Control Board and its review processes. This contact resulted from our efforts to strengthen and rationalize its Timber Waiver of Waste Discharge Requirement program. During this time we worked in concert with Citizens for Responsible Forest Management, the Ocean Conservancy and the Sierra Club. We engaged hydrologists and legal council. The Storm Water Management Plan that the County and cities are required to complete is obviously related to our past advocacy at the Regional Board and it directly impacts the natural resources we work to preserve. The comments offered here to the Santa Cruz County Board of Supervisors will be conveyed to the Central Coast Regional Board as well. I have read the entirety of Agenda item 46 as posted on the County's web site. This is a matter of great complexity and importance.

Response 109: Comment noted.

Comment 110: The purpose of Wasteload Allocation Attainment Plans (WAAP) and the water quality testing involved is to separate out and identify the various sources of pollutants so the TMDL (Total Daily Maximum Load program) can actually be met by directing corrective actions to the source of the pollutants. Testing is intended to be the means to determine if corrective actions are actually getting at the source of various forms of pollution.

Response 110: The principal requirements for development of Wasteload Allocation Attainment Programs include strategy development; source identification and prioritization; BMP identification, prioritization, and implementation; monitoring; assessment; and reporting. Each of these requirements is intended to direct the County and City towards wasteload allocation attainment.

Comment 111: The Conservancy Board is composed of people who have lived in the upper San Lorenzo River watershed for many years. In our opinion the County would be better advised to improve the design of its current water testing programs as a way of meeting the Regional Board's standards than to base its assertions upon the principle that additional testing is unnecessary and expensive. We do not wish to be disrespectful, but upon reading the County letters we are compelled to make the following comments about existing water pollution testing. There are specific instances best described as intended to imitate a "don't ask don't tell" program. Numerous people over the years have described to me their experience with Environmental Health field staff. The staff people were not able to determine the source of what these residents knew to be persistent pollution sources. A reliable person described the most recent event to me only two days ago. An example of this would be for EH to search for the source of septic failures during a dry period when the septic discharge is re-absorbed into the earth and not evident, even though the person asking for the investigation could fully describe the evidence that surfaced during rainy periods. It is not our intent, nor are we qualified, to assign responsibility to any person or office, but we wish to explain to the Board what are long-standing systemic problems. As another example, the County relies

on septic pumping contractors for reports of failing systems, but when these obligatory reports from private contractors are received by the County, they are simply filed rather than read and analyzed.

Assuming that the above described observations and reports are true, it would hardly be redundant for the County to do better testing so as to be more effective at finding pollution sources requiring correction. Testing can be improved by a combination of better protocols for current testing combined with highly specific additional testing to determine sources, as required by the Regional Board in its July 2, 2008 letter. Because both the County and the Regional Board have staffing and funding shortfalls, this approach seems logical. For the County to assert that testing should be on a broader scale than the Regional Board requires is vague and it does not address the fact that evidence does exist for specific pollutant sources.

Response 111: Please see Response 107.

Comment 112: The County staff letter continues with an assertion that implies difficulty in distinguishing between urban stormwater pollution and other sources: "There are other sources of pollution that are beyond our control (natural sources such as birds and other wildlife, natural sedimentation, agriculture, air pollution deposition, impacts due to global warming, etc.) that impact our watersheds." This is a very broad statement that would not be persuasive to the Regional Board. If the testing the County now conducts is not sufficient to distinguish between urban and agricultural pollution (as an example) then the methods of testing used must indeed be ineffective at determining sources of pollution. Motor oils, glycols from anti-freeze, paints and other urban pollutants have specific "signals" which distinguish them from agricultural pollution.

Response 112: Water Board staff does not expect the County to control sources that are essentially uncontrollable, such as wildlife. However, to the extent that such sources are exacerbated by anthropogenic activities (e.g., congregation of wildlife due to dumpsters being left open), Water Board staff expects the County to reduce pollutants from those sources to the maximum extent practicable. Over the long term, Water Board staff plans to require the County to conduct monitoring to demonstrate all controllable sources have been controlled when assessing the County's attainment of wasteload allocations.

Comment 113: The Regional Board's estimate (in the TMDL) for average annual sediment discharge from the San Lorenzo River is 168,000 tons per year. It will be no surprise that this sediment load originates overwhelmingly in the steep upper watershed and not from urban construction sites and bare yards where rainfall rates are less than 50% of mountainous areas (including urbanized mountain areas such as Boulder Creek and Felton) and terrain is essentially flat.

Hydromodification is the single most important factor for the volume of stormwater generated by development. The County staff letter mentions that Santa Clara County has already completed a Hydromodification Management Plan (HMC) and that the Regional Board has interim hydromodification control criteria. If the County were to reply to the Regional Board that it intended to use these existing sources as models to complete its own plan it is likely that the Regional Board would be more willing to accept

this proposal than to accept that "The County, in conjunction with other local municipalities, has decided to develop alternative criteria to the RWQCB's prescriptive and untested interim criteria." Since the issue of urban storm water runoff hydromodification is, relatively speaking, transferable from one city and county to another, and necessarily prescriptive, this seems to be less of a rejection of the Regional Board's authority.

If the County were not repeatedly allowing exceptions to its own "hydromodification" class of codes, the Regional Board might be more easily persuaded. There is broad concern in the environmental community about the lack of effective use of new designs and technologies for storm water capture by Santa Cruz County. The Planned Unit Developments such as the Aptos proposal recently approved by the Board fly in the face of good design. Directing storm water into culvert systems cut through the Riparian Corridor Protection Zone to dump storm water directly into Aptos Creek and furthermore to steadily issue exceptions and variances to the Riparian Corridor Protection Ordinance all over the County, does not instill confidence in the willingness of the County to change practices necessary to meet the Regional Board's standards. The means for meeting "Hydromodification" standards are not "rocket science" though the actual standards of the Regional Board are severe considering past practice. Methods include the use of permeable pavements, infiltration ponds and swales, gravel filled leach lines and shallow bores, and other very common sense designs that prevent new development from creating additional polluted storm water run-off. Use of these systems is inevitable and will recharge depleted well-water aquifers. The time has passed when a commercial development, new home or apartment complex can simply send the water from its roofs and slick asphalt parking lots out into the street to pick up all manner of revolting crud and then wash that slurry into our creeks and Monterey Bay.

Response 113: Please see Response 102.

Comment 114: Item 24 in the Regional Board's schedule states: "The SWMP states that the San Lorenzo River watershed will be a priority for inspection, enforcement, and sediment control. However, no detail is provided regarding the steps the County will take to make the San Lorenzo River watershed a priority. Such information is needed to exhibit that the County is targeting primary pollutants of concern." Every informed person is conscious of the funding problems that the County faces. However this hopefully transitory situation should not lead to a long-term weakness in County policies. The Regional Board is asking for a plan to correct water pollution problems. No one expects this goal to be met in one or two years. This will take a decade or more to accomplish. The TMDLs have long term goals and need long term effective planning from Santa Cruz County. The Federal Water Pollution Control Act and the state Porter Cologne Water Quality Control Act were passed in the 1970s. After more than 30 years, these laws have finally begun to address Non-Point-Source pollution. The Central Coast Regional Water Quality Control Board is attempting to perform one of its legal roles as the supervisor of county and municipal government water quality regulations. Hopefully the County of Santa Cruz and City of Capitola will find the means to comply. The fact that so much time has passed since these laws took effect, without adequate corrective changes to local land use codes, is obviously the reason for the current impasse. We hope this can be resolved.

Response 114: Required Revision Nos. 5 and 6 require development and implementation of Wasteload Allocation Attainment Programs. These programs are designed to achieve the County's and City's wasteload allocations within the timeframes specified by the applicable TMDLs. Water Board staff expects attainment of wasteload allocations to result in protection of water quality standards and beneficial uses.

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