

California Regional Water Quality Control Board

Central Coast Region



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September 9, 2008

Ms. Rachel Fatoohi County of Santa Cruz 701 Ocean Street, Room 410 Santa Cruz, CA 95060

Mr. Steven Jesberg City of Capitola 420 Capitola Avenue Capitola, CA 95010

Dear Ms. Fatoohi and Mr. Jesberg:

WATER BOARD STAFF COMMENTS ON DRAFT STORMWATER MANAGEMENT PROGRAM JULY 2008, COUNTY OF SANTA CRUZ AND CITY OF CAPITOLA, SANTA CRUZ COUNTY

On August 19, 2008, the Central Coast Water Quality Control Board (Water Board) received the County of Santa Cruz (County)/City of Capitola (City) Draft StormWater Management Program (SWMP) July 2008. Water Board staff has reviewed the July 2008 draft SWMP and we find the County and City have been responsive to much of our previous communication regarding water quality issues.

This letter identifies draft revisions we will require in order to recommend approval of the SWMP. In addition to specific issues identified in the attached Draft Table of Required Revisions, we have four overarching concerns with the SWMP, discussed below. At this point in the process, all of our comments are draft, and will be finalized during the next review of the SWMP.

Level of Detail

The level of detail used in the SWMP to describe the best management practices (BMPs) that are being implemented or will be implemented is often inadequate. The SWMP relies heavily on BMPs and programs that will be developed in the future, with little or no detail provided regarding the BMPs and programs the County and City will develop. Even when BMPs or programs are currently in place and being implemented, the SWMP frequently states that the BMPs will be described at some later date. An adequate SWMP must provide detailed descriptions of currently implemented BMPs and programs, including identification of associated measurable goals and effectiveness measurements. For BMPs and programs the County and City will develop or update in the future, identify the specific steps the County and City will take to develop those BMPs and programs, and provide information on the stormwater issues or pollutants the BMPs and programs will target. Also provide information on the various

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components that will comprise the BMP or program, including the anticipated form, scope and magnitude, and frequency of BMP and program implementation.

Pollutants of Concern and Total Maximum Daily Loads

The SWMP does not adequately address pollutants of concern and Total Maximum Daily Loads (TMDLs). In the SWMP, the County and City frequently do not tailor their BMPs to specifically target their primary pollutants of concern. The SWMP must clearly exhibit that the County and City are actively implementing and planning implementation of BMPs that reduce discharges of primary pollutants of concern and abate their sources. Likewise, the SWMP is nearly silent on the subject of TMDLs, with the exception of the San Lorenzo River watershed sediment TMDL. The SWMP must identify the BMPs that are being implemented or will be implemented to achieve the wasteload allocations of each applicable TMDL that has been adopted by the Water Board. The SWMP is the planning vehicle for the County and City to identify the BMPs they will use to achieve each TMDL's wasteload allocations. Due to the complexity of achieving TMDL wasteload allocations, the SWMP must include a BMP committing the County and City to develop and implement Wasteload Allocation Attainment Plans for each TMDL to which they are subject. The Wasteload Allocation Attainment plans will serve to guide the County and City on implementation of effective BMPs that will achieve the applicable TMDL's wasteload allocations.

BMP Identification

The SWMP frequently discusses BMP programs for various municipal departments or activities, but does not specifically identify the BMPs the County and City will implement. The BMPs that will be implemented by the various municipal departments or for specific activities must be identified in the SWMP. Examples of the types of municipal locations and activities for which the County and City must identify BMPs include corporate yards, waste transfer stations, park maintenance, fleet maintenance, building maintenance, etc. These BMPs can be included in the SWMP in simple list form as attachments. References may also be appropriate in some cases.

Effectiveness Assessment

Municipal Separate Storm Sewer Systems (MS4s) are required to annually assess the appropriateness and effectiveness of their BMPs. The County's and City's BMPs do not have adequate measures of effectiveness to meet this requirement. While effectiveness assessments are frequently provided for various BMPs, the measurements only assess completion of tasks, rather than assessing the effectiveness of BMPs in improving knowledge, level of BMP implementation, pollutant load reductions, discharge water quality, and receiving water quality.

It is important to assess BMP and program effectiveness in detail so that your program evolves and improves over time. We expect SWMPs to include the following components, to adequately assess effectiveness:

- 1. Assessment of program effectiveness in achieving permit requirements and measurable
- 2. Assessment of program effectiveness in protecting and restoring water quality and beneficial uses.
- 3. Identification of quantifiable effectiveness measurements for each BMP, including measurements that link BMP implementation with improvement of water quality and beneficial use conditions.
- 4. Emphasis on assessment of BMPs specifically targeting primary pollutants of concern.

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- 5. Incorporation of an effectiveness assessment process comparable to that outlined in the California Stormwater Quality Association's (CASQA) *Municipal Stormwater Program Effectiveness Assessment Guide*.
- 6. Identification of a range of quantifiable effectiveness measurements that collectively assess effectiveness in terms of regulatory compliance, changes in knowledge and awareness, changes in behavior, and pollutant load reductions, to be used during annual effectiveness assessments. The *Municipal Stormwater Program Effectiveness Assessment Guide* includes useful examples and guidance for assessing effectiveness using these parameters.
- 7. Identification of quantifiable effectiveness measurements that collectively assess effectiveness in terms of runoff and receiving water quality, to be used during long-term effectiveness assessments (e.g., every three to five years). The *Municipal Stormwater Program Effectiveness Assessment Guide* includes useful examples and guidance for assessing effectiveness using these parameters.
- 8. Identification of the steps the County and City will take to revise the SWMP and optimize BMP effectiveness, when effectiveness assessments identify BMPs or programs that are ineffective or need improvement.

To the extent these components are already included in your SWMP or are readily available for inclusion, we expect you to keep them in the SWMP or incorporate them. We expect you will use those effectiveness assessment components included in the forthcoming SWMP in the first annual report's effectiveness assessment. However, we do not expect the forthcoming SWMPs to fully address each of the above components prior to approval. As an alternative, you must include in your SWMP a BMP for development and implementation of an effectiveness assessment strategy. We expect the effectiveness assessment strategy to address each of the items identified above.

An example of the type of language you should include in the SWMP for such a BMP is as follows:

"The County and City will develop an effectiveness assessment strategy during the first full implementation year. The County and City will submit the strategy as an update to the SWMP with the first annual report. The effectiveness assessment strategy will be used to conduct effectiveness assessments included in the annual reports, starting with the second annual report. Overall, the strategy will describe the actions that will be taken to assess the effectiveness of the SWMP in meeting regulatory requirements and improving water quality and beneficial use conditions. The strategy will specifically address: identification of the processes to be used to conduct effectiveness assessments and improve BMP implementation; identification of quantifiable BMP and program effectiveness measurements; establishment of links between BMP implementation and improvement in water quality and beneficial use conditions; and assessment of BMP implementation in terms of regulatory compliance, changing awareness, changing behavior, pollutant load reductions, and runoff and receiving water quality."

Conclusion

In addition to the above items, we expect the County and City to make the modifications listed in the following Draft Table of Required Revisions. Please address all revisions (where appropriate) and submit a copy of your amended SWMP no later than October 24, 2008. We request two versions of the revised SWMP. One revised SWMP showing additions and deletions in underline and strikethrough



formatting. All submitted materials must be provided in hard copy and electronic format (preferably Microsoft Word).

Water Board staff will review your October 24 draft SWMP from October 27 to October 31 and develop a second draft Table of Required Revisions, which we will make available to you on approximately November 3. We will then post the draft SWMP and Table of Required Revisions on approximately November 3 for a period of 60 days, during which any member of the public, including County and City staff and officials, can make comments or request a hearing before the Water Board. At the conclusion of the 60-day public comment period, on approximately January 2, Water Board staff will commence final preparation of a recommended action to approve the County and City SWMP, including development of a Response to Comments document and, if necessary, all preparations for a Water Board hearing in late March 2009.

Thank you for your continued efforts to protect water quality and beneficial uses. If you have any questions regarding this matter, please contact **Phil Hammer at (805) 549-3882** or phammer@waterboards.ca.gov, or Matt Thompson at (805) 549-3159 or mthompson@waterboards.ca.gov.

Sincerely,

AMA AM Cann Roger W. Briggs Executive Officer

cc: Steve Shimek, Monterey CoastKeeper (by electronic mail)

DRAFT TABLE of REQUIRED REVISIONS Draft County of Santa Cruz/City of Capitola SWMP July 2008.

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Acronyms:

BMP

SWMP

MS4

Best Management PracticeStorm Water Management PlanMunicipal Separate Storm Sewer System

LID TMDL - Low Impact Development

CEQA

- Total Maximum Daily Load - California Environmental Quality Act

Item	SWMP Section	Subject	Issue	Required Revisions
Number				
1	Chapter 1	SWMP Objectives	The SWMP's four objectives do not address issues involving water quantity, such as hydromodification and groundwater recharge. Addressing these issues is critical in order to achieve long-term watershed protection.	Reassess the SWMP's objectives in terms of long-term watershed protection. In the objectives, address issues involving water quantity, such as hydromodification and groundwater recharge.
2	Public Education and Outreach	Program Objectives	The program objectives for the Public Education and Outreach component of the SWMP focus on increasing targeted audiences' knowledge of stormwater issues. However, the program objectives do not address the principal purpose of public education and outreach, which is to elicit behavior change that results in improved protection of water quality and beneficial uses.	Include behavior change as a program objective for the Public Education and Outreach component.
3	BMP 3-1-1	Target Audience	The SWMP states that 15% of the target audience will be reached each year, but it is unclear who the target audience is. Identification of the target audience and its size is needed to	Identify the target audience and its size for BMP 3-1-1.

Item Number	SWMP Section	Subject	Issue	Required Revisions
			define the scope of this activity.	
4	BMP 3-1-4	Dog Waste Program	The SWMP states that new disposal bag stations and more visible signage will be evaluated as needs are identified. However, the SWMP does not describe the process that will be used to identify when there is a need for new stations or signage. Considering that fecal indicator bacteria is a primary pollutant of concern within the County, a formalized process for assessing the need for new stations or signage is necessary. For example, the results of periodically scheduled park inspections can be used as the basis for determining where new stations or signage is needed.	Include a formalized process for assessing the need for new disposal bag stations or signage at parks and other areas where dogs frequently recreate.
5	BMPs 3-1-6 and 3-2-4	Public Opinion Survey	The SWMP discusses conducting surveys to develop a baseline of public knowledge on stormwater issues. However, the SWMP does not discuss implementation of follow-up surveys to assess the effectiveness of education efforts. While the SWMP notes that a survey will be conducted by the County in Year 5, more information is needed regarding the purpose of this survey. In addition, implementation of a follow-up survey by the City is not discussed.	Include information on a follow-up surveys to assess the effectiveness of education efforts.
6	BMPs 3-1-8 and 3-1-9	Gardening Education	The SWMP states that implementation of these BMPs is contingent upon grant funding. However, nutrients and pesticides/toxicity are primary	Include a BMP to continue education targeting sources of nutrients and pesticides/toxicity.

Item Number	SWMP Section	Subject	Issue	Required Revisions
			pollutants of concern for the County. As such, continuing education of some type that addresses the sources of these pollutants (e.g., gardening and landscaping) is needed.	
7	BMPs 3-1-9, 3- 1-10, 3-1-11, 3- 1-13, 3-1-15, 3- 2-5, and 3-2-7	Effectiveness Measurement	Effectiveness measurements are not provided for these BMPs.	Include measures of effectiveness, such as conducting pre- and post-training quizzes, tracking BMP implementation, conducting public surveys, tracking the number of hits received on the website, tracking the number of calls received, tracking the number of complaints resolved, and tracking the number of people educated.
8	BMPs 3-1-12, 3- 1-14, and 3-2-6	Measurable Goals	The measurable goals for these BMPs do not define the scope and magnitude of BMP implementation. This information is necessary to ensure BMP implementation will be as effective as planned.	Include quantifiable goals the County and City will use to measure the scope and magnitude of BMP implementation, such as identifying the number of businesses that the County and/or City will visit and the number of farmers the County and/or City will contact.
9	BMP 3-2-1	Target Audience	The SWMP states that 100% of the target audience will be reached each year, but it is unclear who the target audience is. Identification of the target audience and its size is needed to define the scope of this activity.	Identify the target audience and its size for BMP 3-2-1.
10	BMP 3-2-5	Measurable Goals	The measurable goal for this BMP does not define the scope and magnitude of BMP implementation. This information is necessary to ensure BMP implementation will be as effective as planned.	Include quantifiable goals the City will use to measure the scope and magnitude of BMP implementation, such as identifying the percentage of school children the City will educate.
11	Public Education and Outreach	Industrial Education	For both the County and the City, the SWMP does not discuss education targeting industrial operations.	Include BMPs to assess the need for education targeting industrial operations. Commit to implementing targeted educational

Item Number	SWMP Section	Subject	Issue	Required Revisions
			Industrial operations can be a significant source of pollutants.	activities for industrial operations if the assessment identifies industrial operations as a significant source of pollutants within the County and/or City.
12	Public Education and Outreach	Disadvantaged Communities	For both the County and City, the SWMP does not address educational efforts targeted at disadvantaged communities. Public education and outreach must target all audiences of the community.	Explain in the SWMP how the County and City will educate disadvantaged communities regarding stormwater issues.
13	Public Education and Outreach	Interested Party List	For both the County and City, the SWMP does not discuss development and use of an interested party list by the stormwater program. Such a list can be managed electronically to send out email messages addressing stormwater issues. Using an interested party email list is a simple means of educating interested parties on the stormwater program's latest developments.	Include BMPs for developing and using an interested party email list to notify interested parties of stormwater program developments.
14	Public Education and Outreach	Pet Waste Management	For the City, the SWMP does not discuss educational activities targeting pet waste management. Pet waste can be a significant source of fecal indicator bacteria, which is a primary pollutant of concern for the City.	Include a BMP for the City to conduct educational activities targeting pet waste.
15	Public Education and Outreach	Trash Management	For the City, the SWMP does not include educational activities targeting improper disposal of trash. Improperly disposed trash can be a significant source of beneficial use impairment (e.g., plastics and other marine debris).	Include a BMP for the City to conduct educational activities targeting improperly disposed trash.

ltem Number	SWMP Section	Subject	Issue	Required Revisions
16	Public Education and Outreach	Fertilizer and Pesticide Management	For the City, the SWMP does not include educational activities targeting fertilizer and pesticide management. Improperly used fertilizer can be a significant source of nutrients, which is a primary pollutant of concern for the City.	Include a BMP for the City to conduct educational activities targeting fertilizer and pesticide management.
17	Public Education and Outreach	Riparian Restoration and Protection	For both the County and City, the SWMP does not address education of the public regarding opportunities and activities for riparian restoration and protection. Riparian restoration and protection are important aspects of achieving healthy functioning watersheds.	Include an education component addressing restoration and protection of riparian areas.
18	Public Education and Outreach	Septic System Maintenance	For both the County and City, the SWMP does not include educational activities targeting septic system maintenance. Poorly maintained septic systems can be a significant source of fecal indicator bacteria, which is a primary pollutant of concern for the County and City.	Include BMPs to conduct educational activities targeting septic system maintenance, or refer to similar activities that may be part of the county's septic system management plan.
19	Public Education and Outreach	Pollutants of Concern	For both the County and City, it is not clear how the education BMPs included in the SWMP have been designed to target the primary pollutants of concern. The SWMP must be tailored to directly address the County's/City's primary pollutants of concern.	Include information describing how the public education BMPs directly address each of the primary pollutants of concern.
20	Public Education and Outreach	Education BMP Progression	For both the County and City, the SWMP includes educational approaches that have traditionally	Include BMPs to assess community-based social marketing strategies and incorporate them into your programs where appropriate.

ltem	SWMP Section	Subject	Issue	Required Revisions
Number				
			been used by stormwater programs. However, the County and City must continually assess new public education methods in order to improve the public education and outreach programs' effectiveness.	
			One particularly promising approach to public education is community-based social marketing. Community-based social marketing is based upon research in the social sciences that demonstrates behavior change is most effectively achieved through initiatives delivered at the community level which focus on removing barriers to an activity while simultaneously enhancing the activities benefits. More information on community-based social marketing is available at: http://www.cbsm.com/ . The techniques of community-based social marketing should be considered when developing, implementing, and assessing your public education and outreach program.	
21	Public Education and Outreach	Regional Partnerships	For the City, the SWMP does not discuss participation in regional partnerships for the purpose of educating the public on stormwater issues.	Include a BMP for assessing opportunities for participating in regional partnerships.
22	BMPs 4-1-2, 4- 1-3, 4-1-5, 4-1- 6, 4-2-3, 4-2-4,	Effectiveness Measurement	Effectiveness measurements are not provided for these BMPs.	Include measures of effectiveness, such as tracking the number of attendees, the amount of resources pooled, the length of shoreline

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Item Number	SWMP Section	Subject	Issue	Required Revisions
	4-2-5, and 4-2-6			cleaned, and the number of volunteer participants.
23	BMP 4-2-2	Monitoring	The SWMP mentions the Urban Watch/First Flush monitoring program but does not provide details about the program. This program can provide important information regarding the effectiveness of the City's program. As such, the locations, frequency, and	Include more detail regarding the monitoring conducted under the Urban Watch/First Flush program. Include BMPs for assessing the data generated by the program in order to prioritize BMP activities and assess their effectiveness.
			constituents addressed by the monitoring should be described. In addition, the data generated by the program should be used by both the County and City to prioritize their activities and assess their effectiveness.	
24	BMP 4-2-6	Measurable Goals	The measurable goal for this BMP does not define the scope and magnitude of BMP implementation. This information is necessary to ensure BMP implementation will be as effective as planned.	Include a quantifiable goal that the City will use to measure the scope and magnitude of BMP implementation, such as identifying the number of marine debris cleanups that the City will coordinate.
25	Public Involvement and Participation	SWMP Development and Implementation	For both the County and City, the SWMP does not discuss involving the public in SWMP development and implementation. Promotion of public participation in SWMP development and implementation, in accordance with public notification and hearing requirements, is needed.	Include a BMP to promote public participation in SWMP development and implementation, in accordance with public notification and hearing requirements.
26	BMPs 5-1-4 and 5-2-4	Measurable Goals	The SWMP does not identify how many creek and outfall locations will be inspected for illicit discharges. This information is necessary to ensure	Identify the minimum number of creek and outfall locations that the County and City will inspect for illicit discharges annually.

ltem Number	SWMP Section	Subject	Issue	Required Revisions
			BMP implementation will be as effective as planned.	
27	BMP 5-2-4	Sampling	The illicit discharge field screening investigations BMP does not discuss initial sampling to identify illicit discharges. Since illicit discharges are not always visible, initial field screening sampling should be conducted during inspections. Use of field test kits for sampling during inspections should be considered.	Include a description of the general steps the County and City will take to inspect outfalls, including consideration of use of field test kits to identify illicit discharges.
28	BMPs 5-1-4, 5-2-4, 5-1-5, 5-1-7, 5-2-6, 5-1-10, 5-2-8	Effectiveness Measurement	Effectiveness measurements are not provided for these BMPs.	Include measures of effectiveness, such as tracking the number of illicit discharges identified, number of violations corrected, number of new BMPs implemented following inspections, distance of sewer mains and laterals upgraded, and conducting pre- and post-training quizzes.
29	Illicit Discharge Detection and Elimination	Illicit discharge tracking	For both the County and City, development of procedures to be followed to trace the sources of illicit discharges, once detected, is not discussed. Such procedures are important tools in the elimination of illicit discharges.	Include development of procedures the County and City will follow to trace the sources of illicit discharges.
30	Illicit Discharge Detection and Elimination	Enforcement	For both the County and City, the SWMP does not include a description of the procedures that will be used to eliminate identified sources of illicit discharges. This information is necessary to ensure that City staff are aware of the procedures to eliminate illicit discharges effectively.	Include a description of the specific procedures and corrective actions the County and City will use to eliminate the various potential sources of illicit discharges.

Item	SWMP Section	Subject	Issue	Required Revisions
Number 31	BMP 5-1-5	Inspections & Measurable Goals	The SWMP does not identify how many commercial and industrial facilities will be inspected. This	Identify the minimum number of commercial and industrial facilities the County will inspect annually.
			information is necessary to ensure BMP implementation will be as effective as planned.	
			The SWMP states that commercial and industrial facilities are only inspected for storage practices and spill response. Complete stormwater inspections should be conducted, including inspection for proper implementation of all types of BMPs and inspection for illicit discharges.	Expand the scope of inspections so that complete stormwater inspections are conducted, including inspection for proper implementation of all types of BMPs and inspection for illicit discharges.
32	Illicit Discharge Detection	Commercial and Industrial Inspections	For the City, the SWMP does not discuss inspection of commercial and industrial facilities. Such facilities can	Include a BMP for development and implementation of an inspection program for commercial and industrial facilities.
	and Elimination	mopositione	be significant sources of illicit discharges and pollutants. As such, an inspection program for these facilities must be developed.	
33	BMPs 5-1-7 and 5-2-6	Measurable Goals	The SWMP discusses development of a program for evaluating and upgrading private sewer laterals, but does not provide a measurable goal for	Include a quantifiable goal that the County and City will use to measure the scope and magnitude of BMP implementation, such as identifying the number or percentage of
			this activity. This information is necessary to ensure BMP implementation will be as effective as planned.	private sewer laterals that the County and City will inspect.
34	BMP 5-1-8	Measurable Goals	The measurable goal for this BMP does not define the scope and magnitude of BMP implementation. This information is necessary to ensure	Include a quantifiable goal that the County will use to measure the scope and magnitude of BMP implementation, such as identifying the number of septic systems that the County

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			BMP implementation will be as effective as planned.	will inspect annually.
35	BMPs 5-1-9 and 5-2-7	Ordinance	The SWMP states an "ordinance will consider enforcement procedures and penalties for illicit connections to the storm drain." Consideration of enforcement procedures and penalties is not adequate; enforcement procedures and penalties must be expressly incorporated into the ordinance. Moreover, in addition to addressing illicit connections, the ordinance must also address all other types of illicit discharges.	Clarify that the ordinance will include enforcement procedures and penalties for illicit connections and illicit discharges. Identify the type of enforcement procedures and penalties that the County and City will use.
36	BMPs 5-1-10 and 5-2-8	Measurable Goals	The measurable goals for these BMPs do not define the scope and magnitude of BMP implementation. This information is necessary to ensure BMP implementation will be as effective as planned.	Include quantifiable goals that the County and City will use to measure the scope and magnitude of BMP implementation, such as the percentage of employees that the County and City will train and the frequency of training.
37	BMPs 5-1-10 and 5-2-8	Training	While the SWMP discusses training of municipal staff on illicit discharges, it is not clear which municipal staff will be trained. All appropriate field staff should be trained, since they have the greatest opportunity to identify illicit discharges while out in the field.	Identify the municipal staff the County and City will train on illicit discharges, including municipal field staff and spill response staff.
38	Illicit Discharge Detection and Elimination	MS4 Maintenance	For both the County and City, the SWMP does not discuss inspection for illicit connections/discharges during standard MS4 inspection and maintenance. MS4 inspection and maintenance is an important opportunity for identification of illicit	Include a BMP to inspect for illicit connections/discharges during standard MS4 inspection and maintenance.

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			connections/discharges.	
39	Illicit Discharge Detection and Elimination	Pollutants of Concern	It is unclear how this SWMP section directly targets the County's and City's primary pollutants of concern. BMPs do not appear to be tailored to address primary pollutants of concern within the County and City.	Include new BMPs or tailor existing BMPs to target illicit discharges from potential sources of the primary pollutants of concern.
40	Illicit Discharge	Pet Waste	For both the County and City, the	Include BMPs for development and
Transition of the Control of the Con	Detection and	Ordinance	SWMP does not discuss development	implementation of pet waste ordinances, if
	Elimination		and implementation of a pet waste	they do not already exist.
			ordinance. Pet waste can be a	
. , ,	,		significant source of fecal indicator	
			bacteria which is a primary pollutant of	
			concern for the County and City.	
41	BMP 6-1-3	Erosion Control	The SWMP does not identify the types	Identify the types of construction projects
		Ordinance	of construction projects to which the	to which the erosion control ordinance is
			erosion control ordinance is applied.	applied.
			This information is needed to identify	
			the scope of erosion control ordinance	· · · · · · · · · · · · · · · · · · ·
			application.	LI W. H. DAFD III I
42	Construction	BMPs	For the County and City, the SWMP	Identify the BMPs that are required to be
			does not clearly identify the BMPs that	implemented at construction sites.
	and the second s		are required to be implemented at	
			construction sites. The SWMP must	
			include a listing of the BMPs required	
			or provide a clear reference to the	
			specific location in the ordinance	
			where the BMPs are required.	
43	BMPs 6-1-7	Inspections	The SWMP discusses inspections of	Include a BMP for periodically inspecting
	and 6-2-5		active grading projects, but does not	construction projects that are not actively
			discuss inspection of construction	grading.
			projects that are not actively grading.	
			Such projects can be significant sources of sediment and other	
			sources of sediment and other	

ltem Number	SWMP Section	Subject	Issue	Required Revisions
			pollutants and must be inspected periodically. The SWMP discusses inspection of stormwater construction BMPs during the dry season, but does not identify the types of construction projects to be inspected or the frequency of inspections.	Identify the types of construction projects the County and City will inspect during the dry season and identify the frequency of the inspections.
			The SWMP discusses taking enforcement actions only where BMPs have been found to fail. The County and City must take a more pro-active approach and proceed with enforcement when BMPs do not meet requirements or are expected to be inadequate at controlling sediment and other pollutants.	Commit to taking enforcement actions at construction sites when BMPs do not meet requirements or are expected to be inadequate at controlling sediment and other pollutants.
44	BMP 6-2-1	Ordinance	The SWMP does not identify the types of construction projects to which the ordinance is applied. This information is needed to identify the scope of ordinance application.	Identify the types of construction projects to which the ordinance is applied.
			For the City, the SWMP states that an ordinance will be developed that will address riparian corridors and protection of wetlands. However, the SWMP does not identify the size of the buffer zones that will be used.	Confirm that the City will develop an ordinance will include at least a 30-foot buffer zone for all riparian areas and wetlands. Confirm that during development of the ordinance that local conditions, such as habitat degradation, water quality, and land management practices will be assessed, and more substantial buffer zones will be applied

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AMO AMO 444 1 9 144				where necessary to protect riparian areas and wetlands.
45	BMPs 6-1-6, 6-1-7, 6-1-8, 6-1-10, 6-2- 4, 6-2-5, 6-2- 6, and 6-2-7	Effectiveness Measurements	Effectiveness measurements are not provided for these BMPs.	Include measures of effectiveness, such as tracking the percentage of projects for which erosion and sediment control plans were approved, the percentage of construction projects inspected according to identified inspection frequencies, the percentage of
				construction projects inspected for control of waste, the number of enforcement actions taken, the number of reminder letters mailed, the results of pre- and post training quizzes, and the number of public inquiries or complaints received.
46	Construction	Enforcement	For both the County and City, the SWMP does not describe the escalating enforcement process that	Describe the escalating enforcement process the County and City will use for non-compliant construction sites. Identify
			will be used for non-compliant construction sites.	the different enforcement mechanisms the County and City will use (including penalty provisions), and the conditions under which the County and City will use each mechanism.
47	Construction	Inspection Checklist	For both the County and City, the SWMP does not discuss development of a construction site inspection checklist to be used by inspectors. An inspection checklist is an important tool to ensure all required BMPs are implemented.	Include a BMP to develop and use a construction site inspection checklist.
48	Construction	TMDL	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	Identify the steps the County will take to make the San Lorenzo River watershed a priority for inspection, enforcement, and sediment control.

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			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.	
49	BMPs 7-1-1, 7-1-2, 7-2-1, and 7-2-2	Long-term Watershed Protection	The SWMP contains commitments to review the General Plans and ordinances, but does not expand the effort to achieve the goal of long-term watershed protection. The County and City must plan comprehensively to define future growth, including infrastructure and redevelopment, in the context of long-term watershed protection. Such planning should be based on an assessment of watershed conditions, such as pollutant loading, habitat degradation, and land use types and their impacts. In addition, for long-term watershed protection to ultimately be attained, the County and City must integrate stormwater management control measures into all aspects of its land use planning and development (municipal plans, policies, ordinance, codes, conditions of approval, etc.). To ensure the goal of long-term watershed protection is reached, quantifiable measures for watershed protection must be developed as part of this process.	Include a BMP describing a plan and schedule to integrate all stormwater management control measures into all aspects of land use planning and development (municipal plans, policies, ordinance, codes, conditions of approval, etc.). The plan must serve to define future growth, including infrastructure and redevelopment, in the context of long-term watershed protection. Working with other municipalities within shared watersheds to pool resources should also be a component of the plan. In addition, the plan must commit to identifying quantifiable measures for watershed protection. Refer to the framework included in the Water Board's July 10, 2008 letter for guidance.
50	BMPs 7-1-2 and 7-2-2	Ordinances	The SWMP states that the County and City will review ordinances to address post-construction runoff from new	Modify the implementation details of these BMPs to clarify that review and modification of ordinances will address

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			development and redevelopment projects that disturb greater than one acre of land. Since projects that are smaller than one acre can result in water quality and beneficial use impacts, ordinance review and modification must apply to all projects, and not just those projects that are larger than one acre.	post-construction runoff from all projects, and not just those projects that are larger than one acre.
51	BMPs 7-1-3 and 7-2-3	Plan Review	The SWMP states that the County and City have plan review and permitting procedures and standard conditions, but does not identify the procedures and conditions. While we understand that these procedures may be updated in the future, current procedures must be identified in the SWMP.	Identify the currently used plan review and permitting procedures and standard conditions.
			The SWMP discusses review, development, and/or updating of plan review and permitting procedures and standard conditions. However, these discussions are very general and lack specific detail regarding the process that will be followed and the issues that will be addressed. Items that will be "considered" during the process are	Identify the specific steps that the City and County will take to review, develop, and/or update the plan review and permitting procedures and standard conditions. Identify the information the County and City will use to review the current procedures and conditions. Identify the specific issues the developed procedures and conditions will address. Also provide information on the various components.
			mentioned, but such noncommittal language does not provide certainty that the procedures and conditions to be developed and/or updated will be adequate.	information on the various components that will comprise the procedures and conditions, including the anticipated scope and magnitude of their application.

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			The SWMP states that existing procedures and conditions will be assessed in terms of the Phase II general permit requirements. Existing procedures and conditions must also be assessed in terms of long-term watershed protection and healthy functioning watersheds.	Assess existing procedures and conditions in terms of long-term watershed protection and healthy functioning watersheds.
52	BMPs 7-1-4 and 7-2-4	Design Standards	The SWMP states that the County and City will compare existing design criteria with permit requirements and low impact development standards, but does not commit to modifying existing criteria when they are found in need of improvement.	Commit to modifying existing criteria when they are found in need of improvement.
			The SWMP states that existing design criteria will be assessed in terms of the Phase II general permit requirements and low impact development standards. Existing design criteria must also be assessed in terms of long-term watershed protection and healthy functioning watersheds.	Assess existing design criteria in terms of long-term watershed protection and healthy functioning watersheds.
			The SWMP states that design criteria will be updated to reduce runoff, promote recharge, and prevent stormwater pollution. These terms are too vague and do not include information on the scope or goal of implementation. For example, the SWMP should include language such	Include information on the scope and goal of runoff reduction, recharge promotion, and stormwater pollution prevention.

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Number			erosive rates, durations, and volumes so that in-channel erosion is maintained at natural levels." This type of information is needed to ensure design criteria will be protective of water quality and beneficial uses.	
			The SWMP states that the County and City will apply design criteria to projects starting in years 2 or 3. Alternative interim hydromodification criteria must be implemented and applied to projects starting one year after adoption of the SWMP.	Clarify that the County and City will implement and apply alternative interim hydromodification criteria to projects starting one year after adoption of the SWMP.
			The SWMP does not discuss the current standards applied to development and redevelopment projects to protect water quality and beneficial uses.	Include a BMP describing the current standards the County and City apply to development and redevelopment projects to protect water quality and beneficial uses. Confirm that the County and City will continue to apply these standards to development and redevelopment projects until the standards are updated to incorporate alternative interim
				hydromodification criteria, LID requirements, and other standards.
53	BMPs 7-1-5 and 7-2-5	BMP Maintenance	The SWMP states that the County and City will establish mechanisms to require on-going monitoring and	Identify the types of mechanisms the County and City will consider for on-going maintenance and monitoring of stormwater
			maintenance of stormwater BMPs. These terms are too vague. More detail is needed identifying the form of the mechanisms and the scope of implementation. Mechanisms to	BMPs, including inspections. Identify the conditions under which the County and City will apply the mechanisms, as well as the scope of County and City oversight (e.g., BMPs within the San Lorenzo River

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			ensure maintenance of structural BMPs should include periodic inspections.	watershed will be inspected at a minimum annually).
54	BMPs 7-1-7 and 7-2-7	Measurable Goals	The measurable goals for these BMPs do not identify the scope or magnitude of BMP implementation. This information is necessary to ensure BMP implementation will be as effective as planned.	Include a quantifiable goal the County and City will use to measure the scope and magnitude of BMP implementation, such as identifying the percentage of existing structural and non-structural controls that the County and City will maintain annually.
55	BMPs 7-1-8 and 7-2-8	Incentive Program	The SWMP discusses development of an incentive program in year 3 to encourage runoff minimization. However, one year after SWMP adoption, runoff minimization must be required as part of the alternative interim hydromodification criteria.	Clarify that the County and City will require runoff minimization within one year of SWMP adoption as part of alternative interim hydromodification criteria implementation. The County and City can use incentives to encourage runoff minimization efforts that go beyond the minimum requirements specified by the alternative interim hydromodification criteria.
56	Post- construction	Alternative Interim Hydro- modification Criteria	For both the County and City, the SWMP discusses development of alternative interim hydromodification criteria, but does not identify the action as an individual specific BMP.	Identify development of alternative interim hydromodification criteria as an individual specific BMP.
57	BMPs 7-1-9 and 7-2-9	Training	The SWMP discusses development of guidance for evaluating the adequacy of proposed post-construction controls, but is not clear that the County and City will train plan review staff on this subject.	Clarify that the County and City will train plan review staff on evaluating the adequacy of proposed post-construction controls.
			The SWMP discusses training municipal staff on proper inspection and monitoring of structural controls,	Provide a measurable goal for training of the municipal staff that will conduct inspections of structural controls. Ensure

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			but only discusses training of planners in the "measurable goals" section.	that the measurable goal is quantifiable and defines the scope and magnitude of BMP implementation.
			The first measurable goal for this BMP states that 75% of the planning staff will attend training annually, while the second measurable goal states that 100% of the planning staff will be trained annually.	Clarify the percentage of planners that will be trained annually.
			The SWMP does not identify the topics of training, such as low impact development and hydromodification. More detail is needed regarding the topics of training to ensure municipal staff will be adequately informed on new and complex subjects.	Identify the topics the County and City will address during training of municipal staff on post-construction issues. Include low impact development and hydromodification as topics of training.
			The SWMP does not discuss training of members of the development and construction industries, such as developers, project proponents, designers, contractors, consultants, etc. Education of these parties is necessary to ensure the development and construction industries understand the new requirements.	Include training of members of the development and construction industries, such as developers, project proponents, designers, contractors, consultants, etc.
58	Post- construction	Current and Future Requirements	For both the County and City, the SWMP does not identify specific current and future water quality and hydromodification requirements the County and City apply or will apply to	Incorporate the following BMPs into the SWMP: (1) requirements for implementation of structural and non-structural BMPs to treat runoff and reduce pollutant discharges from development projects; (2) requirements to
-			development projects.	maintain pre-development runoff conditions;

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Number 59	Post- construction	Alternative Interim Hydro- modification Criteria	For both the County and City, the SWMP discusses development of alternative interim hydromodification criteria, but does not ensure the alternative criteria will be as protective of beneficial uses as the Water Board's criteria presented in its February 15, 2008 letter. Such assurances are necessary so that the alternative criteria will be sufficient to protect and attain healthy watersheds.	(3) numeric volume- and flow-based treatment BMP sizing criteria; (4) a tracking system for approved post-construction BMPs; (5) requirements ensuring treatment BMPs are effective at removing pollutants of concern; (6) requirements for site design measures such as development clustering, maximization of trees and vegetation, minimization of vegetation clearing, and vegetating parking islands; (7) requirements for protection of slopes and channels from eroding; (8) requirements for storm drain signage or stenciling at new inlets; (9) requirements for properly designed outdoor material and trash storage areas; and (10) other specific requirements applicable to various categories of development. Include a statement that the alternative interim hydromodification criteria the County and City will develop will be as protective of beneficial uses as the criteria included in the Water Board's February 15, 2008 letter. Also include a statement that if adequate alternative interim hydromodification criteria are not developed, the County and City will use the interim criteria included in the Water Board's February 15, 2008 letter.
60	Post- construction	Hydro- modification Management Plan	For both the County and City, the SWMP discusses development of alternative interim hydromodification criteria, but does not discuss development of a watershed-based Hydromodification Management Plan.	Include a BMP to develop a long-term watershed-based Hydromodification Management Plan. Identify the information and requirements the County and City will incorporate into the plan, including: numeric criteria for controlling runoff volume and

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Number				
			Alternative interim hydromodification criteria are to apply over the short-term, until the County and City develop more rigorous final long-term criteria in Hydromodification Management Plans derived from watershed hydromodification assessments. As discussed in the Water Board's February 15, 2008 letter, long-term control standards for hydromodification must include numeric criteria for controlling runoff volume and rates, numeric criteria for stream stability, applicability criteria (with land disturbance acreage thresholds and exemptions), performance criteria for control BMPs, an inspection program for maintenance of control BMPs, and hydromodification and LID education for municipal staff.	rates, numeric criteria for stream stability, applicability criteria (with land disturbance acreage thresholds and exemptions), performance criteria for control BMPs, an inspection program for maintenance of control BMPs, and hydromodification and LID education for municipal staff. Identify the key steps in the process that the County and City will use to develop the long-term watershed-based Hydromodification Management Plan. Examples of steps that should be considered include: (1) development of problem statement and objectives; (2) review of literature and data availability; (3) characterization of watershed and future development patterns; (4) determination of assessment methodology; (5) development of criteria and guidance; and (6) development of an implementation and assessment strategy.
61	Post- construction	CEQA Checklist	For both the County and City, the SWMP does not discuss review and revision of the CEQA initial study checklist to ensure runoff quality and quantity are considered.	Include review and revision (if necessary) of the CEQA initial study checklist to ensure runoff quality and quantity are considered by the list, or, through other means ensure that CEQA analysis is based on complete information on stormwater BMPs, including the types, sizes, and locations of structural BMPs.
62	Post- construction	Low Impact Development	For both the County and City, the SWMP briefly mentions LID, but does not provide information regarding the expected scale of LID implementation. The SWMP must make clear that	Specify that requirements for new development will maximize implementation of LID techniques.

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			requirements for new development will maximize implementation of LID techniques.	
63	Post- construction	Tracking BMPs	For both the County and City, the SWMP does not include a tracking system for approved structural BMPs. Such a system is needed to prioritize and inspect the structural BMPs.	Include a tracking system for approved structural BMPs.
64	Post- construction	Application of Standards	For both the County and City, the SWMP does not identify the types or categories of projects to which treatment BMP and hydromodification requirements will be applied. This information is needed to ensure pollutants and runoff are controlled from all appropriate projects.	Identify the types or categories of projects to which the County and City will apply treatment BMP and hydromodification requirements.
65	BMPs 7-1-4, 7-2-4, 7-1-6, 7-2-6, 7-1-7, 7-2-7, 7-1-8, 7-2-8, 7-1-9, and 7-2-9	Effectiveness Measurements	Effectiveness measurements are not provided for these BMPs.	Include measures of effectiveness, such as tracking the percentage of projects to which design standards were applied, the percentage of project applicants notified of the BMP manual, the number of structural BMPs maintained, the number of projects using the incentive program, and the number of municipal staff trained.
66	BMPs 8-1-1 and 8-2-1	Housekeeping BMPs	The SWMP discusses reviewing housekeeping BMPs and suggesting modifications to the BMPs, but does not commit to implementing suggested modifications. For situations where housekeeping BMPs are determined to be inadequate and in need of modification, the identified modifications must be implemented.	In the discussion for this BMP, include a commitment to implement any necessary modifications that have been identified.

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Number			The SWMP states that the County and City implement good housekeeping BMPs, but does not identify the BMPs that are implemented. While we understand that these BMPs will be updated in the future, current BMPs must be identified in the SWMP.	Identify the good housekeeping BMPs that are currently used.
67	BMPs 8-1-2 and 8-2-2	BMP Identification	The SWMP does not identify the BMPs that the County and City currently implement for various municipal facilities and activities. Such detail is needed to ensure that adequate BMPs are implemented. A listing of BMPs	Identify the specific BMPs that the County and City currently implement for municipal facilities and activities.
68	BMP 8-1-3	BMP Identification	may be sufficient. While the SWMP mentions Integrated Pest Management and Integrated	Identify the specific BMPs the County and City will implement to enact the Integrated
			Vegetation Management Program policies, the BMPs that are implemented to enact these policies are not identified. Such detail is needed to ensure that adequate BMPs are implemented. A listing of BMPs may be sufficient.	Pest Management and Integrated Vegetation Management Program policies.
69	BMPs 8-1-3, 8-1-4, 8-1-5, 8-1-7, 8-1-8, 8-2-3, 8-2-4, 8-2-6, and 8- 2-7	Measurable Goals	The measurable goals for these BMPs do not define the scope and magnitude of BMP implementation. This information is necessary to ensure BMP implementation will be as effective as planned.	Include quantifiable goals that the County and City will use to measure the scope and magnitude of BMP implementation, such as identifying the amount the County and City will reduce pesticide and herbicide use, the number of storm drainage facilities, pump stations, culverts, catch basins, and ditches that the County and City will inspect and clean, the frequency the County and City will inspect and clean storm drainage facilities, pump stations, culverts, catch basins, and

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				ditches, and the percentage of field employees the County and City will train.
70	BMPs 8-1-4, 8-1-5, 8-2-3, and 8-2-4	MS4 Maintenance	The SWMP states that the County and City have procedures for MS4 and pump station inspection and cleaning, but does not identify the procedures. While we understand that these procedures and BMPs will be updated in the future, current procedures and BMPs must be identified in the SWMP.	Identify the procedures and BMPs that the County and City currently use to inspect and clean the MS4 and pump stations. Include the current inspection and cleaning schedule.
71	BMPs 8-1-5, 8-1-6, 8-2-4, and 8-2-5	Prioritization	The SWMP states that MS4 maintenance will be prioritized based on the amount of waste removed. Plans for prioritization based on the amount of waste removed should also be applied to pump station maintenance, street sweeping, and catch basin cleaning.	For each of these BMPs, include a commitment to prioritize pump station maintenance, street sweeping, and catch basin cleaning based on the amount of waste removed.
72	BMPs 8-1-1, 8-1-2, 8-1-4, 8-1-5, 8-1-6, 8-1-7, 8-2-1, 8-2-2, 8-2-3, 8-2-4, 8-2-5, and 8-2-6	Level of Detail	The SWMP discusses review, development, and/or updating of BMPs for various municipal activities. However, these discussions are very general and lack specific detail regarding the process that will be followed and the issues that will be addressed. Occasionally, items that will be "considered" during the process are mentioned, but such noncommittal language does not provide certainty that the BMPs to be developed and/or updated will be adequate.	Identify the specific steps the County and City will take to review, develop, and/or update the BMPs. Identify the information the County and City will use to review current BMPs. Identify the specific activities and associated pollutants the developed BMPs will address. Also provide information on the various components that will comprise the BMPs, including the anticipated form, scope and magnitude, and frequency of BMP implementation.
73	BMPs 8-1-8 and 8-2-7	Training Topics	The SWMP does not identify the training topics for municipal staff. This information is needed to ensure	Identify topics of training for municipal staff. Include proper vehicle washing, park and open space maintenance, fleet and building

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			municipal staff training will be adequate.	maintenance, and MS4 maintenance as topics the County and City will address through stormwater training.
74	8-1-1, 8-1-7, 8-1-8, 8-2-1, 8-2-6, and 8- 2-7	Effectiveness Measurements	Effectiveness measurements are not provided for these BMPs.	Include measures of effectiveness, such as tracking the percentage of facilities implementing adequate housekeeping BMPs, the number of culverts inspected and cleaned, and the results of pre- and post-training quizzes.
75	Municipal Operations	Inspections	For both the County and City, the SWMP does not discuss inspections of municipal operations and locations where storage, maintenance, cleaning,	Include an inspection schedule for municipal operations and locations where storage, maintenance, cleaning, etc. occur.
			etc. occur. Inspections can be a useful tool in determining if required BMPs are being implemented.	
76	Municipal Operations	Municipal Parking Lot Sweeping	For both the County and City, the SWMP does not discuss sweeping of municipal parking lots. Parking lots can be significant sources of pollutants and must be swept regularly.	Include a sweeping schedule for all municipal parking lots.
77	Municipal Operations	Spill Response	For both the County and City, the SWMP does not discuss BMPs to be implemented for spill response.	Include a description of the BMPs the County and City will implement for spill response.
78	Municipal Operations	Chlorinated and Brominated Water Discharges	For both the County and City, the SWMP does not discuss the BMPs that will be used to address the discharge of chlorinated and/or brominated water.	Include a description of the BMPs the County and City will implement for the discharge of chlorinated and/or brominated water.
79	Municipal Operations	Pollutants of Concern	For both the County and City, it is unclear how this SWMP section directly targets the County's and City's primary pollutants of concern. BMPs do not appear to be tailored to address primary pollutants of concern within the	Include new BMPs or tailor existing BMPs to target municipal operations that have the potential to generate and discharge primary pollutants of concern.

ltem Number	SWMP Section	Subject	Issue	Required Revisions
80	SWMP	Pollutants of	County and City. Overall, the SWMP does not	Identify the BMPs that specifically target each
	Concern	demonstrate how the County and City have tailored their stormwater programs to directly target each municipalities' primary pollutants of concern. Pollutants of concern must	primary pollutant of concern. We recommend that the specific BMPs that the County and City will implement to address a particular primary pollutant of concern be compiled and listed in one location of the SWMP. We also	
	·		be directly targeted by the municipalities' stormwater programs to help ensure that the most effective	recommend that BMPs addressing a particular primary pollutant of concern be organized by watershed or sub-watershed,
			BMPs for protecting water quality and beneficial uses are implemented.	thereby exhibiting that their implementation will occur in locations applicable to the primary pollutant of concern.
81	SWMP	TMDLs	The County and City are subject to several TMDLs adopted by the Water Board, but only one (the San Lorenzo River watershed sediment TMDL) is discussed in the SWMP, and only briefly. In order for TMDLs to be adequately addressed, a Wasteload Allocation Attainment Plan is needed for each TMDL. that has been adopted by the Water Board. Development and inclusion of Wasteload Allocation Attainment Plans in the SWMPs are necessary to meet the provisions of adopted TMDLs, which specify that measures to achieve wasteload allocations be included in the SWMPs. Due to the significant challenge of meeting wasteload allocations, the	primary pollutant of concern. Include a BMP committing to develop, submit, and implement Wasteload Allocation Attainment Plans for each TMDL adopted by the Water Board, as requested by the Water Board in its July 2, 2008 letter.
			comprehensive planning approach represented by the Wasteload Allocation Attainment Plans is needed.	

ltem	SWMP Section	Subject	Issue	Required Revisions
Number				
			In its July 2, 2008 letter the Central	
No.			Coast Water Board requested the	
			Wasteload Allocation Attainment Plans	
			under the authority of California Water	
i			Code section 13267. Failure to	
			develop and submit adequate	
			Wasteload Allocation Attainment Plans	
			may subject the County and City to the	
			enforcement provisions of California	
			Water Code section 13268.	