

December 19, 2013

Ms. Hope Smythe  
California Regional Water Quality Control Board, Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501

**Subject: Response to Notice of Incomplete Report of Waste Discharge Dated October 30, 2013**

Dear Ms. Smythe:

As a follow-up to the subject notice, please find enclosed responses to Regional Board comments on the 2013 Report of Waste Discharge submitted by the North Orange County Permittees on October 3, 2013.

While the County believes the Report of Waste Discharge to be complete and the approach taken with the document to be in accordance with the permit requirements and the specific direction provided by your staff, we nonetheless appreciate the opportunity to provide additional information. The meeting with your staff on December 11, 2013, to refine the scope of our response was also very helpful.

In accordance with the Amendment of Notice of Incomplete Report of Waste Discharge received December 12, 2013 comments from the following sections have been omitted from the response to comments document:

- ❖ Section 2.2 (Bacteria), Recommendations 1, 2, 3, 5, 6, 7, 8 and 9;
- ❖ Section 2.3 (Nutrients), Recommendations 1, 2, 4, and 5;
- ❖ Section 2.4 (Toxicity), Recommendations 7 and 8; and
- ❖ Section 3.2 (Municipal Infrastructure), Recommendation 4.

If you have questions, please contact Richard Boon at (714) 955-0670.

Very truly yours,



Chris Crompton, Manager  
Water Quality Compliance

Attachments: Report of Waste Discharge – Response to Comments  
cc: TAC Members and Permittee Representatives

## Table of Responses

OC 2013 ROWD Section/Subsection	Permittees' Recommendation	Regional Board staff Response
2.2 Bacteria 2.2.6 Recommendations	<p>1. Conduct targeted data analyses of monitoring data to prioritize problem areas. Conduct pilot source tracking studies using new monitoring methods based on genetic markers to identify potential sources of these problems such as infiltration into the MS4 from sewage lines. This effort should build on results of the Bight '13 Microbiology Study</p>	<p>This recommendation appears to be closely related to <i>Recommendation 2.2.6 – 5</i> below as a subset of activities to executing that recommendation. Please see the response to <i>Recommendation 2.2.6 – 5</i>.</p>
	<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	
	<p>2. Continue identifying opportunities to reduce and prevent flows in dry weather, where monitoring and source tracking data suggest the presence of human fecal contamination</p>	<p>Please clarify if this effort is to identify opportunities or to actually reduce and prevent flows in dry weather. If this effort will identify opportunities and stop there, this would not be sufficient. If this effort will be to actually reduce and prevent flows in dry weather, Regional Board staff notes that the source tracking is limited to human fecal contamination. This limit does not address other harmful sources. This recommendation also appears related to <i>Recommendation 2.2.6 – 5</i> as a subset of activities to executing that Recommendation. These concerns should be addressed in the plan requested in the response to <i>Recommendation 2.2.6 – 5</i>.</p>
	<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	
	<p>3. Conduct statistical power analysis and optimization studies to improve existing monitoring program designs to improve efficiency and take advantage of available information about patterns and trends of contamination. Figures 2.2.11 and 2.2.12 illustrate how two different types of statistical analysis provide information that can reduce and/or better target monitoring resources</p>	<p>Regional Board staff is open to consider specific recommended changes to the Monitoring and Reporting Program that result from the permittees' analyses. The current NPDES Permit No. CAS618030 authorizes the Executive Officer to approve changes to its accompanying Monitoring and Reporting Program ("MRP"). Regional Board staff expects this authorization to continue with the next NPDES Permit. Without any specific recommendations, Regional Board staff expects to continue most of the requirements in the current MRP in the next MRP. If specific recommendations are received and there is sufficient time for Regional Board staff to review them, the recommendations may be incorporated into the next MRP at the time that the next NPDES Permit is adopted. Otherwise, the recommendations may be incorporated with changes to the MRP that are approved by the Executive Officer at a later time. Given the availability of these two options, Regional Board staff does not believe that adoption of the next NPDES Permit should be contingent on the development and approval of specific recommended changes to the MRP.</p>
	<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	

<p>4. Pursue proposed revisions to the Newport Bay Fecal Coliform TMDL to adjust objectives, targets, and monitoring designs to reflect current information and conditions</p>	<p>Efforts to revise TMDLs are not within the scope of NPDES Permit No. CAS618030. Applicable TMDLs must be incorporated into the NPDES Permit. The NPDES Permit may be re-opened to incorporate revised TMDLs. Language to this effect will be included in the new NPDES Permit.</p>
<p><b>Permittee Response:</b></p> <p>Comment noted</p>	
<p>5. Shift resources from routine monitoring to targeted source identification and adaptive response, using new tools such as genetic markers of human fecal contamination as these become available</p>	<p>This approach is sensible where continued routine monitoring is not anticipated to produce new useful information. But the application of new monitoring technology to existing routine monitoring programs may produce new useful information. Consequently, this recommendation is composed of 3 separate but interrelated elements: 1) the cessation of routine monitoring where new useful information is not being produced; 2) the application of emerging monitoring technology to acquire new information; and 3) how that new information may be applied to achieve the objectives in the MRP. The permittees will need to provide a detailed plan describing how each of the above elements will be executed to implement this recommendation. Any resulting specific recommended changes in the MRP may be approved as described earlier in the response to <i>Recommendation 2.2.6 – 3</i> above.</p>
<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	
<p>6. Shift resources from routine monitoring to targeted source tracking and adaptive response, using new tools such as genetic markers of human fecal contamination as these become available</p>	<p>See response to <i>Recommendation 2.2.6 – 5</i> above.</p>
<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	
<p>7. Continue supporting regional and collaborative research into better monitoring and source tracking tools</p>	<p>Regional Board staff has no objections to this recommendation. The anticipated language of the next NPDES Permit No. CAS618030 is expected to provide incentive for the permittees to execute this recommendation.</p>
<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	
<p>8. Improve understanding of health risk related to high wet weather flows, for example, through the Bight '13 Microbiology Study; follow results of the pilot wet weather epidemiology study planned for San Diego and consider supporting the larger, follow-on study planned for 2014/2015</p>	<p>See response to <i>Recommendation 2.2.6 – 7</i> above.</p>
<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	

	9. Conduct pilot mass balance studies to determine their utility for improving the prioritization of management actions	See response to <i>Recommendation 2.2.6 – 7</i> above.
	<b>Permittee Response:</b> No response per Amended Notice of December 12, 2013.	
2.3 Nutrients 2.3.6 Recommendations	1. Conduct an assessment of sources and practices that input to the MS4 to assess the significance of each to downstream problems	Please provide a schedule for the performance of the assessment. Please describe the data that will be used; its availability; if not available, provide an expected date by which the data will become available; describe the type(s) of analysis and the date(s) by which the analysis will be completed.
	<b>Permittee Response:</b> No response per Amended Notice of December 12, 2013.	
	2. Improve understanding of groundwater / surface water interactions, perhaps through participation in a regional study to track groundwater inputs to surface water	This recommendation appears to be a subset of activities to carry out <i>Recommendation 2.3.6 – 1</i> above. See the response to <i>Recommendation 2.3.6 – 1</i> .
	<b>Permittee Response:</b> No response per Amended Notice of December 12, 2013.	
	3. Continue identifying opportunities to reduce and prevent flows in dry weather (e.g., Figure 2.3.13)	Please clarify if this effort is to identify opportunities or to actually reduce and prevent flows in dry weather. If this effort will identify opportunities and stop there, this would not be sufficient. If actual flow reductions are the objective, please describe mechanisms that will be used to measure success. If a baseline condition will be used, please describe the range of baseline conditions considered (in both spatial and temporal terms) and provide a justification for the selection.
<b>Permittee Response:</b> A reduction in the flux of water through Orange County's urban watersheds in dry weather appears to be the principal explanation for a number of significant improvements in inland water quality. For example, intensive monitoring of bacteria in the Aliso Creek watershed has shown a 20% decline in concentrations over the last 10 years. This trend is being observed in the Newport Bay Watershed and in surface waters across Orange County (See discussion in ROWD Section 2.2.4). Figure 2.3.13 is intended to show that reductions in dry weather flow can also have significant implications for other water quality issues such as nuisance algal growth. The ROWD recommendation is intended to communicate that there is a robust scientific basis for the continued inclusion of runoff reduction and prevention initiatives in the Permittees' portfolio of management actions focused on protecting and improving dry weather water quality. For clarification, dry weather flow prevention and reduction is viewed as a demonstrably effective method of achieving water quality outcomes and not an endpoint in itself. Current ongoing efforts include the H2OC Overwatering Campaign (see <a href="http://www.h2oc.org">www.h2oc.org</a> ) and use of sanitary sewer diversions (see ROWD Section 4.3 Newport Bay discussion). The Permittees intend to continue these dry weather flow prevention and reduction efforts and to seek to identify and implement additional initiatives. The effectiveness of these dry weather flow prevention and reduction efforts will be evaluated annually. Measures of success are anticipated to include increasing participation by residents in the overwatering campaign, implementation of dry weather flow diversion projects, reductions in dry weather flow verified through hydrographic data analysis, and water quality outcomes including statistically significant reductions in constituent concentrations and measured reductions in nuisance algal growth.		
4. Pilot a regional mass balance nutrient model, even if crude, to help prioritize monitoring and management attention; the Newport Bay watershed and SCCWRP coastal ocean nutrient mass balance models provide useful examples	Please explain what information is expected to be provided by the model and specifically how the information will be constructively used to inform the management of the storm water program.	
<b>Permittee Response:</b>		

	No response per Amended Notice of December 12, 2013.	
	<p>5. Use available time series of data to streamline monitoring to improve its statistical and economic efficiency. Sampling effort could be reduced by identifying stations that essentially mimic each other (as illustrated for bacteria in Figure 2.2.11) and/or by reducing the frequency of sampling, especially in Newport Bay now that key targets are regularly being met. Monitoring could shift to a sentinel program with a lower frequency of monitoring intended to ensure conditions do not worsen</p>	<p>This is a sensible approach where a statistical analysis can support consolidation of sampling points, reducing sampling frequency, or reducing the parameters tested. Regional Board staff requires specific recommendations and supporting analysis to evaluate. As described in the response to Recommendation 2.2.6 – 3, above, until specific recommendations and supporting analyses are received and evaluated, Regional Board staff expects to continue the existing MRP in the new NPDES Permit. Specific recommendations can be incorporated into the MRP after adoption of the new NPDES if needed.</p>
	<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	
<p>2.4 Toxicity 2.4.6 Recommendations</p>	<p>1. Reassess management concerns and priorities (e.g. TMDLS) about metals impacts in freshwater channels, bays and estuaries, and the nearshore coastal zone</p>	<p>This recommendation is vague. Please provide further explanation.</p>
	<p><b>Permittee Response:</b></p> <p>Due to the “iterative management” requirement of the MS4 Permit, exceedances of water quality benchmarks, such as the CTR criterion for copper, present a regulatory compliance concern to the Permittees. However, as discussed in ROWD Section 2.4.2, toxicity testing and TIEs show that copper is not the cause of toxicity in urban runoff, so it has not been identified by the Permittees as a constituent that presents an environmental concern. This determination is consistent with other investigations of urbanized watersheds that attribute toxicity almost exclusively to pyrethroid pesticides (see Anderson B., Hunt, J., Markiewicz, D., and Larsen, K. (2011). <i>Toxicity in California Waters</i>. Surface Water Ambient Monitoring Program. SWRCB, 2011). Moreover, State Senate Bill 346, authored by Senator Christine Kehoe (D-San Diego) and passed into law in 2010, requires brake pad manufacturers to reduce the amount of copper in brake pads sold in California to no more than 5% by 2021 and no more than 0.5% by 2025 (see <a href="http://info.nsf.org/Certified/autorp/listings.asp?standard=SAEJ2975">http://info.nsf.org/Certified/autorp/listings.asp?standard=SAEJ2975</a> for progress). The major source of copper in urban runoff, particulate dust from automobile brake pad wear, is thus expected to be effectively eliminated through this “true source control” approach. Based on the toxicity data and the incipient control of brake pad copper, the Program no longer considers copper to be a priority management concern. Future management and monitoring efforts should be focused on bacteria, pesticide-related toxicity, and nutrients.</p>	
	<p>2. To the extent that metals, particularly copper, remain a concern because of potential impacts in bays and harbors, and perhaps the nearshore, recognize that inputs from antifouling paint, which are not an urban runoff issue, are likely a more important source than watershed input</p>	<p>Please explain the basis for this conclusion. Please explain how this conclusion affects the permittees' management of their storm water programs.</p>
	<p><b>Permittee Response:</b></p> <p>Antifouling paints used on coastal watercraft and related structures, in which copper is typically the principal biocide, are not a source of copper associated with MS4 discharges. See also Permittee Response to <i>Section 2.4.6 - Recommendation 1</i>.</p>	
	<p>3. Improve information on the use of pesticides in the County, particularly by the largest applicators</p>	<p>Recommendations 2.4.6 – 4, and – 5 appear to be subsets of this recommendation. Please provide a work plan, containing specific verifiable milestones, that implements all three of these recommendations.</p>
	<p><b>Permittee Response:</b></p> <p>Under the full use reporting regulations of the California Department of Pesticide Regulation (DPR) (see 3 CCR sections 6624 – 6628), all agricultural pesticide use, including application to golf courses, parks, cemeteries, rangeland, pastures, and roadside/ railroad right-of-ways, must be reported to the</p>	

<p>agricultural commissioner of the county in which the pest control work was done. In addition, commercial pest control operators are required to report all pesticide use to the county agricultural commissioner within seven days of completion of the application. County agricultural commissioners then report agriculture and commercial pesticide use to DPR and this information is compiled in the DPR Database. DPR staff prepares annual data summaries, indexed by chemical or by commodity. The summaries include analyses of pesticide use trends and are available from 1989 to present. <i>ROWD Section 2.4.4</i> presents an initial analysis of trends in pesticide use in Orange County based on information in the DPR Database. This analysis is notable for showing that large declines in pesticide use are possible and provides the promise that continued education and improved policy, such as changes to USEPA pesticide registration review processes and the promulgation of surface water protection regulations (see <a href="http://www.cdpr.ca.gov/docs/emon/surfwtr/">http://www.cdpr.ca.gov/docs/emon/surfwtr/</a>), can contribute to water quality improvement. The Permittees support ongoing and successful CASQA efforts to improve the registration and use limitations of existing and new pesticides in coordination with DPR and the USEPA.</p> <p>Within 12 months of permit adoption, the Permittees will complete a more detailed analysis of pesticide use trends in the context of land use changes, economic events such as the recession, policy changes, and the timing of education and outreach efforts. This analysis will focus on specific categories of pesticides, including but not limited to pyrethroid and fipronil based products. The analysis will be completed in consultation with the University of California Cooperative Extension, and will discuss the feasibility of obtaining pesticide use data for applications not subject to the full use reporting regulations. Currently unavailable are data on home, garden, and many industrial and institutional applications. The purpose of the analysis will be to inform both the Permittees' education and outreach campaigns and the Permittees' efforts, working through CASQA, to effect changes in pesticide policy and regulation at state and federal levels.</p>	
4. Work with other interested parties to fill the data gap related to retail sales of pesticides	See response to <i>Recommendation 2.4.6 – 3</i> above.
<p><b>Permittee Response:</b></p> <p>See Permittee Response to <i>Section 2.4.6 - Recommendation 3</i>.</p>	
5. Examine the CDPR database to develop a more thorough picture of trends in reported pesticide use	See response to <i>Recommendation 2.4.6 – 3</i> above.
<p><b>Permittee Response:</b></p> <p>See Permittee Response to <i>Section 2.4.6 - Recommendation 3</i>.</p>	
6. Use this information to expand and focus cooperative outreach efforts about proper pesticide application and the use of alternatives such as botanical oils that are effective, but nonlethal, insect deterrents	Please describe the information that will be collected and how it will be used to expand and focus cooperative outreach efforts.
<p><b>Permittee Response:</b></p> <p>See Permittee Response to <i>Section 2.4.6 - Recommendation 3</i>.</p>	
7. Use available data to streamline monitoring and improve its statistical and economic efficiency. Consider reducing the current focus on metals monitoring and targeting pesticide monitoring on less expensive representative constituents or surrogates. Consider reducing the frequency of sampling for sediment associated constituents to the Bight Program sampling frequency	Regional Board staff is not opposed to the concept represented in this recommendation. However, we require specific recommendations and supporting analysis to evaluate. As described in the response to Recommendation 2.2.6 – 3, above, until specific recommendations and supporting analyses are received and evaluated, Regional Board staff expects to continue the existing MRP in the new NPDES Permit. Specific recommendations can be incorporated into the MRP after adoption of the new NPDES if needed.
<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>	

	<p>8. Given the reduction in toxicity in Newport Bay, consider increasing the use of adaptive responses (e.g., TIEs and other investigations) in place of intensive routine monitoring</p>	<p>See response to <i>Recommendation 2.4.6 – 7</i> above.</p>
<p><b>Permittee Response:</b></p> <p>No response per Amended Notice of December 12, 2013.</p>		
<p>3.2 Municipal Infrastructure and Integrated Pest Management 3.2.3 Recommendations</p>	<p>1. Investigate developing a prioritization process for drainage facilities based on historical data establishing high, medium and low priority drainage facilities similar to the current structure for fixed facilities. Criteria should be established based on maintenance records to trigger cleaning upon inspection (e.g. requiring cleaning of catch basins with accumulated trash and debris greater than a specified percentage of design capacity). Participation in a re-prioritization effort would be determined by the Permittees.</p>	<p>The current NPDES Permit requires that each permittee “clean and maintain at least 80% of its drainage facilities on an annual basis, with 100% of the facilities included in a two-year period” (Provision XIV.11.). All open channel systems are to be inspected annually (Provision XIV.3.). These provisions collectively require that all drainage facilities be inspected and cleaned either annually or bi-annually. Cleaning is required regardless of the amount of potential pollutants present. These provisions do not necessarily require all open channels to be cleaned annually.</p> <p>This recommendation is not complete and cannot be fully evaluated. However, there appear to be problems as presented. First, the ROWD does not describe any purpose or need for the recommendation other than to report that an average of 210 miles of storm drain were inspected and cleaned annually with an average of 6,202 tons of materials were removed per year and inspecting an average of 90% of catch basins each year, 100% inspected bi-annually, and 80% subsequently cleaned. Second, Regional Board staff is unaware of any records, except for those for open channels, required to be maintained by the permittees that may be sufficiently detailed to support the desired inspection criteria. Last, the cleaning criteria in the example, “design capacity”, may require unprecedented calculations for numerous variations of catch basins and pipes whose original purpose was not to have any design capacity and, in many cases, are designed to be self-cleaning. Therefore, this effort could become an onerous process.</p>
<p><b>Permittee Response:</b></p> <p>The recommendation for creating a prioritization scheme for drainage facility maintenance is made in the context of the Maximum Extent Practicable (MEP) performance standard created in Section 402(p) of the Clean Water Act. MEP is discussed and defined in ROWD Section 1.2 and is a fundamental and overarching consideration that informs all of the ROWD recommendations. The Permittees concur with the comment that development and implementation of a prioritization scheme for drainage facilities may for some jurisdictions be an unjustifiably onerous task. Moreover, the State Boards impending <i>Trash Amendments</i> are anticipated to be the principal determinant of drainage facility management practices for permit compliance. Nonetheless, there are a number of ongoing efforts (See <i>2012-13 Unified Annual Report – Section C-3.2.4 Enhancements in BMP Knowledge</i>) to characterize the flux of trash and debris through the County’s urban watersheds which may ultimately produce recommendations for enabling management and maintenance approaches to be effectively prioritized. For this reason, the Permittees would like to see the opportunity retained for jurisdictions to leverage the information arising from these studies to prioritize control efforts consistent with the MEP standard established</p>		

by the statute.	
2. Investigate developing an inspection regime for drainage facilities based on re-prioritization scheme resulting in the inspection of all sites once per permit term. High, medium and low priority facilities would be inspected and cleaned, as necessary at least annually prior to the wet season, every other year and once per permit term, respectively.	This recommendation is a variation on <i>Recommendation 3.2.3 – 1</i> above. See the response there.
<b>Permittee Response:</b> Please see response to Section 3.2.3 Recommendation 1 above.	
3. Enhance municipal training to address common issues encountered through municipal related complaints and to utilize innovative education formats to encourage discussion-based learning. The four most common types of issues that occur most frequently include those related to: trash/debris, pathogen/bacteria, hydrocarbons and exempt discharges. Training would focus on in-classroom engagement of concepts learned prior to the training session and focus on reducing issues and pollutants of concern through specific actions (e.g. runoff reduction to reduce bacteria loading).	This recommendation needs to be accompanied by a description of how the effort is anticipated to improve training and how that improvement will be measured.
<b>Permittee Response:</b> This recommendation reflects the Permittees' intention to evaluate a "flip the classroom" approach to training delivery (see <a href="http://cft.vanderbilt.edu/teaching-guides/teaching-activities/flipping-the-classroom/">http://cft.vanderbilt.edu/teaching-guides/teaching-activities/flipping-the-classroom/</a> ). With this approach, time and resources are invested in the delivery of online lecture videos which are provided to participants prior to them convening in a classroom. Time in the classroom then focuses on the assimilation of the knowledge through demonstrations, idea sharing and discussion. The effectiveness of the Permittees' training has historically been evaluated through the use of pre- and post- training event quizzes. This testing would continue to be the principal means of evaluating effectiveness of alternative training delivery formats.	
4. Conduct a sewage system seepage pilot study to evaluate the potential for seepage into the MS4 based on available data, and focused on a limited geographic area. The pilot program may consist of a desktop analysis using GIS and water quality data to locate areas where exfiltration from sanitary sewers has the potential to influence water quality in the MS4. This exercise may also be used to rule out areas where there is no potential for cross contamination, allowing the Permittees to focus resources in areas with the most potential for improvements.	There is no discussion in this Section of the ROWD to support this recommendation. For example, there is no description of current efforts to specifically detect exfiltration, any lessons learned from that effort, or how the recommendation will improve that effort. The recommendation does not propose outcomes that will be measured or related objective measures of success. The recommendation does not fully describe how resources will be reallocated on the relevant scales. For example, for systems that are entirely outside of higher potential; how will those detection resources be reallocated? Please provide a supporting discussion that addresses these issues.
<b>Permittee Response:</b> No response per Amended Notice of December 12, 2013.	
5. Develop a municipal green infrastructure program that could include evaluation of opportunities for pilot green street projects of	There is no discussion in this Section of the ROWD to support this recommendation. For example, there is no discussion of past efforts to

	different land use/density configurations and development of a green street guidance manual.	implement “green infrastructure”, the lessons learned from those efforts, or how the recommendation can improve those efforts. The recommendation does not propose outcomes that will be measured or related objective measures of success. Please provide a supporting discussion that addresses these issues.
<p><b>Permittee Response:</b></p> <p>This recommendation reflect’s the Permittees’ interest (see discussion below) in creating a framework for stormwater management that could realize the construction of multiple benefit projects that offer a broader array of outcomes rather than simply water quality improvement. The Oros Street (see <a href="http://www.san.lacity.org/wpd/e-news/oros.htm">http://www.san.lacity.org/wpd/e-news/oros.htm</a> ) and Elmer Street (see <a href="http://www.treepeople.org/sun-valley-watershed#Elmer">http://www.treepeople.org/sun-valley-watershed#Elmer</a> ) “green street” projects were the motivation for inclusion of this recommendation. The principal outcome would be the identification of a number of “green street” opportunity sites in a watershed plan (likely the WHIMPs) that could be constructed if funding became available either through grants and/or the availability of in-lieu mitigation fees.</p>		
	<p>6. Examine municipal retrofit opportunities for regional BMPs and propose a program to evaluate previously identified retrofit opportunities for use in TMDL compliance and LID and/or hydromodification management alternative compliance. This would involve the development of watershed models for watersheds where no models exist and integration into the models and evaluation of the previously identified potential BMP retrofit sites. Previous reviews (e.g. 2005 RBF retrofit study) will be updated with current mapping tools (e.g. WHIMPs).</p>	<p>There is no discussion in this Section of the ROWD to support this recommendation. For example, no examples of completed or in-progress retrofit projects are provided, the circumstances that lead to the implementation of those projects, no lessons learned are described, or how the recommendation can improve past or future projects. The recommendation does not include outcomes that will be measured or related objective measures of success. Please provide a supporting discussion that addresses these issues.</p>
<p><b>Permittee Response:</b></p> <p>Retrofitting potentially accelerates the pace at which the urban landscape can be re-constructed and runoff managed for water quality protection. It thus can become a necessary consideration in TMDL compliance strategies where the normal development cycle in a watershed is insufficient for effecting the necessary changes in water quality in accordance with a TMDL compliance schedule. Retrofitting can also contribute to the attainment of broader societal goals such as the increased resilience of water supply infrastructure. The State Board currently notes that its first strategic priority for 2014 is preparing a workplan for stormwater that is.... <i>intended to better integrate watershed management, multiple-benefit (emphasis added), and source-control interests into the core regulatory program while improving program efficiency and effectiveness.</i> The ROWD recommendation to identify municipal retrofit opportunities is one of the series of complementary recommendations throughout the ROWD that are intended to support an integrated regional water management approach, in essence, applying the State Board’s strategic intent at the local level through the WHIMPs.</p> <p>ROWD Section 3.2 discusses the Permittees interest a systematic identification of opportunities that may exist for implementation of green infrastructure, possibly as a part of a municipal capital improvement project (CIP) or as part of green street retrofit program. This discussion is not informed by Orange County case studies since the County’s first LID retrofit project (the Glassell Campus Retrofit), while funding has been secured, is at a preliminary site investigation stage. The anticipated outcomes from this effort are, in the first instance, watershed plans (likely the WHIMPs) that identify candidate projects and success ultimately measured by implementation and validation of the performance of constructed projects.</p>		
	<p>7. Develop and initiate the implementation of individualized IPM Guidelines for each Permittee with the goal of demonstrating significant and consistent reductions in fertilizer and pesticide applications based on the mission and goals outlined in jurisdictional IPM Policies.</p>	<p>The supporting discussion in the ROWD does not provide convincing evidence of the effectiveness of the existing adoption of “individual IPM Policies” that were “formally adopted” in 2010/2011. The data presented compares annual fertilizer application rates per acre and annual pesticide applications since 2008/2009. The data shows a decrease in the application rates of NPK since 2008 but no explanation is expressly provided for the decrease; the reader is left to make assumptions. Although it is possible that IPM Policies had an effect, other factors such as decreases in fertilizer funding could also have had an effect. Data is also presented for pesticides,</p>

		<p>also without a complete explanation of its meaning. For example, the baseline years, 2011/2012, for glyphosate applications, appears to have been selected to show a maximum decrease in application rates; selecting other baseline years would give a different result. Nonetheless, assuming that the adopted “individual IPM Policies” have been effective as is suggested, this does not support the need for the proposed “individualized IPM Guidelines”. Please explain the need for the recommended actions.</p>
<p><b>Permittee Response:</b></p> <p>The IPM Policy adopted by each jurisdiction in 2010-2011 signified a commitment to ensure the most appropriate pesticide would be selected for controlling a particular pest while minimizing potential impacts to water quality. In addition, the IPM Policy included basic guidelines, stressing proper landscape irrigation and fertilization techniques. In order to iteratively develop a more robust and effective IPM Policy, the Permittees will supplement the basic guidelines with more rigorous and individualized IPM Guidelines. These jurisdictional-specific guidelines will be developed collaboratively with the Permittees and will be tailored to specific circumstances and staff expertise. The Permittees believe that this jurisdiction-specific approach will enable the Permittees to address the concerns identified by Regional Board staff. See also response to comments <i>Section 3.2.3 Recommendation 8 and 9</i> below regarding variable rates in fertilizer application.</p>		
	<p>8. Conduct pilot soil and/or leaf tissue analysis to guide fertilizer use to ensure nitrogen is not applied at annual rates above those recommended by UCCE research. The Permittees would identify the most fertilizer-intensive area by type (e.g. sports fields) and select one site for analysis. The analysis would assist Permittees in fine-tuning nitrogen application based on the needs of plants at the highest use areas.</p>	<p>The ROWD does not provide sufficient justification for this Recommendation. See response to Recommendation 3.2.3 – 7 above. Please explain the need for the recommended actions.</p>
<p><b>Permittee Response:</b></p> <p>Fertilizer use tracking (see Unified Reports) has shown tremendous variability in the rates each jurisdiction applies on an annual basis. In addition, applications are often conducted on a calendar schedule (e.g. once every 2 months) rather than on a rate necessitated by plant needs. This approach can result in not only poor plant health, but also nitrogen loss to the environment if fertilizer is applied at a stage when it is unable to be utilized by the plant (e.g. dormant warm season turfgrass during the winter months). The Permittees will utilize leaf tissue/soil analyses on a pilot basis to develop a technique to determine the timing and quantity of fertilizer applications for optimal plant growth and water quality protection.</p>		
	<p>9. Improve methods for documenting usage of fertilizer and active ingredient of pesticide on an annual basis to allow for more reliable data on the acreage receiving fertilizer applications. In collaboration with the UCCE, a standardized reporting method would be developed, improving reporting accuracy on both the amount of nitrogen and pesticides applied by Permittees on an annual basis. Though data shows a decrease in the amount of nitrogen applied, the acreage reported suggests that Permittees are under-fertilizing. The objective would be to minimize fertilizer applications where annual rates exceed those recommended by UC research (174 - 261 lbs. N/acre) while more accurately capturing the acreage to which fertilizer is applied.</p>	<p>In contrast with the positive reports in the ROWD, this recommendation suggests that there is a need to improve reporting on fertilizer and pesticide applications. The basis for this suggestion and its influence on the other related recommendations in this Section need to be explained (e.g. Is the data reliable enough to base important management decisions on?). This recommendation also suggests that using year-over-year decreases in fertilizer application rates as a performance indicator could lead to rates that are below agronomic recommendations and that a more valid performance indicator is needed. These matters are interrelated with Recommendations 3.2.3 – 7 and – 8 above. These are all valid concerns but need to be presented in a less contradictory manner.</p>
<p><b>Permittee Response:</b></p>		

	<p>Proper recordkeeping is vital to the implementation of a successful IPM program. Reporting of pesticide applications to the agricultural commissioner and the California Department of Pesticide Regulation (DPR) are also required by law (see prior discussion). As a result, data collected annually is robust and generally very reliable; however, changes in overall pesticide use may be in response to a number of factors including pest pressure from year to year, human health concerns (e.g. West Nile Virus) and new landscape installations and renovations. Improving record keeping will enable the Program to more effectively evaluate the effectiveness of the IPM Policy.</p>	
	<p>10. Expand training to include peer-reviewed online training courses offered by University of California IPM (UC IPM) and UCCE to ensure the IPM and water quality message reaches as many field staff as possible. Possible options include the UC IPM Urban Pesticide Runoff and Mitigation online training series developed by UC academics across the state to provide a more suitable method to reach field staff unable to attend in-person training. The online training consists of a series of courses directly addressing the impacts of pesticides on water quality as well as practices to mitigate these impacts (<a href="http://www.ipm.ucdavis.edu/training/upr-mitigation.html">http://www.ipm.ucdavis.edu/training/upr-mitigation.html</a>).</p>	<p>The ROWD does not present a basis to support this recommendation. Please explain what the current training program consists of and how this recommendation improves upon that.</p>
	<p><b>Permittee Response:</b></p> <p>Training to date has included in-person training sessions coordinated by University of California Cooperative Extension (UCCE) and the County. Online courses are now being recommended to make training more accessible to field staff, contractors and to address high rates of staff turnover. Online training courses have been developed by experts in the field of IPM (University of California IPM) and are updated based on the most current regulations and BMPs. Periodic comprehension tests and certificates of completion for staff or contractors who complete the course provide confirmation that training participants have assimilated curriculum content.</p>	
<p>3.3 Public Outreach 3.3.6 Recommendations</p>	<p>1. Emphasize programming for outreach to school-age children to continue building upon existing partnerships and increasing knowledge of the Orange County community as a whole through increasing knowledge of youth.</p>	<p>This recommendation is vague. Please describe the school-age outreach program, explain what specific changes this recommendation will make, how the recommendation will improve on the program, and what outcomes will be measured and describe what the related objective measures of success will be.</p>
	<p><b>Permittee Response:</b></p> <p>Educating school children about stormwater and urban runoff pollution is an effective means of disseminating information. Information provided to students in school is often brought into the home and shared with parents and other relatives. The 2012 Public Awareness Survey indicated that forty-six percent (46%) of adults with school-aged children at home received information about water pollution prevention, an increase of 20% over the 2009 Survey. Additionally, parents of students who brought home information were three times more likely to engage in 7 out of 7 identified "stormwater safe" behaviors (22% to 7%). The Permittees recommend that outreach to school children be explicitly recognized as an important part of the outreach component of the program.</p> <p>The school program includes outreach through organizations structured to provide curriculum-based content to school age students, including: Discovery Science Center, Pacific Marine Mammal Center and the Orange County Department of Education – Inside the Outdoors. In addition, the Permittees collaborate with educational institutions where possible to develop programs based on State Content Standards. During the 2012-13 reporting year the Permittees initiated the OC Watershed Education Ambassador Program (OC WEAP) with Chapman University in which college students are trained by OC Stormwater staff to teach local fifth graders about water pollution prevention.</p> <p>The school program currently relies on the institution to provide metrics, depending on the capabilities of the individual program; however, the Permittees intend to incorporate metrics on knowledge gained by students receiving school outreach messages. The primary tool the Permittees will utilize to assess knowledge gains is a pre/post-test format. This tool was utilized for OC WEAP during the 2012-13 reporting year, which indicated that</p>	

students were significantly more knowledgeable after the presentation than before. This format will be utilized in other parts of the school program where possible; incorporation into the curriculum will depend upon resources and ability of the educational organization.	
2. Incorporate current strategic approach of using public opinion survey results to prioritize outreach efforts based on behaviors of concern in tandem with water quality results to document small-scale behavior change over time.	This recommendation is also vague. Please provide an example. Please explain what specific changes this recommendation will make, how the recommendation will improve on the program, and what outcomes will be measured and describe what the related objective measures of success will be.
<p><b>Permittee Response:</b></p> <p>During the 2012-13 reporting year, the Permittees underwent a strategic planning process for the education program. This process utilized data from public awareness surveys and water quality results to prioritize behaviors and audiences for targeted outreach that would more likely result in adoption of BMPs protective of water quality. Going forward, H<sub>2</sub>OC will utilize a two-pronged approach of pairing the large-scale <i>foundational campaign</i> with targeted <i>action campaigns</i>. This process is described in full in the 2012 Strategic Plan submitted by the Permittees as Exhibit 6.1 in the 2012-13 Unified Annual Report. The Permittees recommend that the Permit recognize action campaign efforts which result in lower quantity but higher quality impressions in addition to broad outreach to reach 100% of residents (i.e. 10 million impressions).</p> <p>For more information regarding the current <i>Overwatering action campaign</i> please see response to <i>Section 3.3.6 Recommendation 5</i> below.</p>	
3. Coordinate with water supply agencies to incorporate water use efficiency and runoff reduction messaging to maximize program reach and ensure requested behavior changes align with water use efficiency techniques supported by other agencies.	It is Regional Board staff understanding that this is already occurring. Please explain how this will improve the current effort and how that improvement will be measured.
<p><b>Permittee Response:</b></p> <p>The Permittees are currently coordinating with water supply agencies on water use efficiency messaging as part of the <i>Overwatering action campaign</i> (see <b>Section 3.3.6 recommendation 5</b> below); no changes to permit language are required.</p>	
4. Achieve a minimum of 10 million impressions through the use of various types of media; including earned media, in which the public has greater trust as a third party source of information over paid advertising.	The ROWD includes a description of “earned media” and it’s superiority over other forms of media are asserted in this recommendation. However, the recommendation needs to establish an objective performance measure for its implementation (e.g. 20% of annual impressions gained through earned media or 5% annual increase of impressions gained through earned media).
<p><b>Permittee Response:</b></p> <p>The Permittees recognize that earned media will fluctuate from year to year. An initial benchmark of 30% of impressions garnered through earned media is suggested which can become a baseline for subsequent effectiveness assessments.</p>	
5. Develop focused outreach campaigns based on water quality and survey results utilizing CBSM techniques to document changes in targeted behaviors. The Permittees would develop focused campaigns supportive of a singular message with the goal of reducing competing messaging that may lead to inaction.	Please provide an example to illustrate how this recommendation might be carried out.
<p><b>Permittee Response:</b></p> <p>The 2012 Strategic Plan (see <i>Exhibit 6.1 to the 2012-13 Unified Annual Report</i>) concluded that existing outreach efforts should be supplemented by targeted outreach to small, community-based groups in <i>action campaigns</i>. Evaluation of each <i>action campaign</i> includes setting baseline measures and conducting follow-up assessments. The Permittees will utilize proven Community-Based Social Marketing (CBSM) techniques to create long term engagement and to track success (please reference the 2012 Strategic Plan for a full description of CBSM).</p>	

	<p>Each <i>action campaign</i> focus is determined by assessing the following variables:</p> <ul style="list-style-type: none"> <li>▪ <i>Identification of key pollutants</i> – the Permittees examine and prioritize key pollutants based on level of harm they pose to the environment, prevalence in water quality on an annual basis, and assess whether education could impact the presence of these pollutants;</li> <li>▪ <i>Determine return on investment (ROI)</i> – the Permittees assess which behaviors would produce the largest ROI, predicted by assessing the number of people performing that action (i.e. prevalence) and the likelihood that those people would change that action. This step balances ease of performing a behavior (participation in which is determined by the Surveys) and the potential environmental impact; and</li> <li>▪ <i>Consideration of external opportunities and needs</i> – the final step considers opportunities to leverage campaign messages and tactics with existing programs and/or messaging elsewhere in the Orange County Stormwater Program or by other agencies or groups.</li> </ul> <p>EXAMPLE: OVERWATERING ACTION CAMPAIGN</p> <p>During the 2012-13 reporting period, the Permittees selected “overwatering” as the focus of the first action campaign. Unlike other activities or behaviors, overwatering can lead to several types of pollution through creation of runoff and mobilization of pollutants. From the 2012 Survey, it was clear that though overwatering is a pervasive issue most residents do not see a connection to their own watering habits; sixty-seven percent (67%) of residents surveyed use sprinklers but few noticed wet pavement or pooling after irrigation.</p> <p>The ultimate goal of the overwatering campaign is to build residential engagement with H<sub>2</sub>OC by encouraging residents to sign up for program messaging (i.e. tips to reduce overwatering) and to commit to making small changes to their irrigation habits or landscape to reduce runoff. Through this engagement, H<sub>2</sub>OC will track small changes in behavior of program participants to adopt practices such as observing sprinkler coverage (i.e. is overspray on the driveway or sidewalk running into the street?), reducing sprinkler run time, installing smart timers or shutting off irrigation systems immediately prior to a rain event.</p> <p>The objectives for the campaign are to a) recruit 300 campaign followers through obtaining email information (2,000 total followers over the next five years through action campaigns) and b) demonstrate that 100 people practiced a BMP. Though the latter is a challenging goal to achieve, the Permittees will assess progress in attaining this goal after a year of implementation to best determine next steps for year two. This process of assessment will also include pre-/post-phone surveys to assess changes in behavior and knowledge regarding overwatering behavior and the effects of runoff. The Permittees will also track traffic to the <a href="http://overwateringisout.org">overwateringisout.org</a> website and encourage residents to “sign-up” online and at events.</p>	
<p>3.4 New Development/Significant Redevelopment 3.4.3 Recommendations</p>	<p>1. Develop an integrated water resources approach element into the land planning/land development process. The Permittees understand that an integrated water resources approach is needed to achieve the goals of water quality protection, water conservation, flood control, and stream protection. In order to achieve an integrated water resources approach the Permittees propose to integrated a water resources approach element into the land planning and land development processes so that as development projects begin entitlement this approach and opportunities to achieve this approach are evaluated.</p>	<p>This recommendation is not entirely clear and is subject to interpretation. This recommendation could be the addition of a water resources element into the General Plan for each permittee, with subsequent modifications to municipal ordinances and other planning or development programs, or the recommendation could be something much less. Please provide further explanation.</p>
<p><b>Permittee Response:</b></p> <p>See Response to <i>Recommendation 3.2 -6.</i></p>		
	<p>2. Develop an internet based regional geodatabase. To achieve an integrated water resources and watershed management approach access to information will be critical. The Permittees are developing an internet based regional geodatabase to manage this information and provide access to developers, municipal staff, and regulatory</p>	<p>Regional Board staff has no objections to this concept. However, the ultimate objectives must include protecting the beneficial uses of receiving waters. Please provide a preliminary list of the requirements and specifications for this project. Please provide a work plan for its development along with a schedule of milestones. Please provide a preliminary</p>

	staff to evaluate integrated water resource options and assist with WQMP development.	description of the quality control measures expected to be employed for data entered into the system.
<p><b>Permittee Response:</b></p> <p>The geotechnical and hydrologic information that is necessary for making decisions regarding the effective treatment and retention of runoff in the planning of a development project will be compiled and made available through a web portal. Tools will enable users to query parcel data and create customized maps. The geodatabase functionality may include</p> <ul style="list-style-type: none"> <li>• A custom report generator that will give the user the ability to draw an area on the map which generates a report which includes: <ul style="list-style-type: none"> <li>○ APN</li> <li>○ Project Site Acreage</li> <li>○ Watershed</li> <li>○ HUC Number and Name</li> <li>○ If the HUCs contribute stormwater to a 303d listed water bodies and TMDLs which may include drainage from the proposed project site</li> <li>○ These 303d listed Water bodies and TMDLs have the following pollutants of concern (POC): <ul style="list-style-type: none"> <li>❖ Subject to Hydromodification</li> <li>❖ Limitations to infiltration</li> <li>❖ Any environmentally sensitive habitats within 200 feet</li> <li>❖ Groundwater Depth</li> <li>❖ 85th Percentile Design Storm Depth</li> </ul> </li> </ul> </li> <li>• Make and print an exhibit from a premade customize template for features that are on the screen</li> <li>• Turn on and off layers that a user wants to view</li> <li>• Metadata – each layer will have documentation as to the source, when it was last updated, description and thumbnail of the feature</li> <li>• Customized cartographic design of GIS layers</li> </ul> <p>The data is expected to be available to users in early 2014 with continued development of the portal through 2014.</p>		
	<p>3. Develop an internet based WQMP Submittal Tool and Database potentially in collaboration with Riverside and San Bernardino. The Permittees spend a significant amount of time plan checking and tracking Project WQMPs and so the permittees propose development of an internet based Project WQMP review tool to streamline the submittal and review of WQMPs, allow for enhanced tracking of WQMPs and WQMP inspections, and help with effectiveness assessments and annual reporting.</p>	<p>Regional Board staff has no objections to this concept. Please provide a preliminary list of the requirements and specifications for this project. Please provide a work plan for its development along with a schedule of milestones. Please provide a preliminary description of the quality control measures expected to be employed for data entered into the system.</p>
<p><b>Permittee Response:</b></p> <p>The WQMP submittal tool will be developed on a pilot basis over 24 months to enhance the WQMP development and review/approval process. The tool will integrate all of the elements of the WQMP templates into an online template that will be linked to a database for tracking all WQMP information. Where feasible the WQMP submittal tool will auto populate information based on geographical information entered into the tool (i.e. receiving waters).</p> <p>The quality control measures expected to be integrated into the site are 1) auto population of information based on geographical information, 2) inclusion of a strict range of values for certain types of information (i.e. infiltration rates) that will limit the ability of the user to enter incorrect values, 3) requiring input of information and restricting moving on to the next step without filling out all required information, 4) a certification step will require certification that all the information submit is valid similar to the certification step on the SWRCB SMARTS website, and 5) each WQMP will be assigned a unique identification number and all information associated with the WQMP will be associated with this unique identification number. Municipal plan check staff will be able review all information submitted to verify if the submitted information is correct and feasible. The plan check staff will have the same technical guidance and resources or links to resources needed to complete the WQMP to verify information. Plan check staff will be able to provide redline comments in the online format. Once comments are completed the online submittal tool will generate an email with a link for the developer to review comments, make revisions and resubmit the WQMP through the WQMP submittal tool. The WQMP submittal tool will track, store, and numerate all submittals and comments provided so that this can be reviewed online at any time by the developer or plan check staff.</p>		

	<p>4. Pilot the use of technology to better track WQMP inspections and follow up actions needed. To fully utilize the WQMP Submittal Tool and Database WQMP inspections could be performed with tablets or other devices where GIS information and other information can immediately be uploaded to the database. The Permittees propose piloting the use of tablets or other devices linked to the Database for Project WQMP inspections by a select number of cities.</p>	<p>Regional Board staff has no objections to this concept. Please provide a preliminary list of the requirements and specifications for this project. Please provide a work plan for its development along with a schedule of milestones. Please provide a preliminary description of the quality control measures expected to be employed for data entered into the system.</p>
<p><b>Permittee Response:</b></p> <p>To complement the Project WQMP submittal tool, a mobile application will be piloted so that project WQMP inspections can be performed with mobile devices. It is anticipated that the mobile user will be able to type in the WQMP identification number and have access to the WQMP for an inspection, BMP design plans, and previous inspections performed for that WQMP. The mobile application will have an automated inspection form that includes all of the information currently tracked for WQMP inspections such as inspection type, project information, and the BMP assessment inspection information. The mobile application will auto populate information for the site from the WQMP database. The mobile application will also allow the user to take photos and video and the application will automatically geocode and date the photos and videos. The user will be able to enter in the information from the inspections into the mobile application during the inspection and this information will automatically be uploaded to the WQMP database. All previous inspection information (reports, photos, and videos) will be available to the user through the mobile application which will assist with follow up and future inspections.</p> <p>The expected quality control measures for the WQMP mobile application include 1) the unique id number for each WQMP site 2) a pop-up thumbnail of the WQMP cover and aerial photo of the WQMP site that the mobile user will need to verify in order to proceed with the inspection, 3) a unique inspection number associated with WQMP number for each inspection performed, 4) certification step required by the inspector and the landowner (i.e. digital signature) to verify an inspection was performed, and 5) time and date coding identifying the time and date the inspection was performed.</p> <p>The mobile application will automatically upload information to the WQMP database so that all information about the WQMP inspections can be used and queried for the annual report as well.</p>		
	<p>5. Enhance the data collected for WQMPs to have a better understanding of water quality benefits on an annual basis. The Permittees desire to perform a better assessment of the New Development/Significant Redevelopment Program. In order to better understand the effectiveness of the program, the Permittees propose to collect new critical data element, and enhance data quality by integrating information into the WQMP Submittal Tool and Database. New data would include volumes of water treated, land area treated, and other relevant information needed to evaluate TMDL compliance, to identify developed/redeveloped areas that meet LID and/or hydromodification requirements, and to track BMP maintenance as a measure of effectiveness.</p>	<p>This recommendation is a subset of Recommendations 3.4.3 – 3 and 3.4.3 – 4 above. Regional Board staff concerns are addressed in the responses to those recommendations.</p>
<p><b>Permittee Response:</b></p> <p>See responses to <i>Section 3.4.3 Recommendations 3 &amp; 4</i> above.</p>		
<p>3.5 Construction 3.5.3 Recommendations</p>	<p>1. Reduce the frequency of inspection for high priority sites from monthly to twice during the wet season and reduce the frequency of inspection for medium priority sites from twice to once during the wet season.</p>	<p>Please provide a justification for this recommendation.</p>

	<p><b>Permittee Response:</b></p> <p>The Permittees acknowledge the need to gather more performance data. The recommendation will be reexamined in future annual reports</p>	
	<p>2. Pilot a GIS and internet-based database to track construction sites. In order to provide easier tracking of construction sites on a countywide basis, the permittees will develop a GIS and internet-based database where information regarding each construction site can be entered. The Permittees would examine the benefits of such a database by piloting implementation with a select number of cities.</p>	<p>Regional Board staff has no objections to this concept. Please provide a preliminary list of the requirements and specifications for this project. Please provide a work plan for its development along with a schedule of milestones. Please provide a preliminary description of the quality control measures expected to be employed for data entered into the system.</p>
	<p><b>Permittee Response:</b></p> <p>The GIS and internet-based database may allow the Permittees to better track construction sites in each of the jurisdictions. Specific information about each construction site will be required for each entry into the database consistent with permit requirements.</p> <p>The anticipated quality control measures include 1) a unique id number for each construction site, 2) auto population of geographic related information, 3) time and date coding identifying the time and date the site was entered into the system, 4) requiring input of information and restricting moving on to the next step without filling out all required information, and 5) certification by the municipal staff entering the information.</p> <p>The construction site database will also track information for the municipal annual reports such as number of construction sites, priority of construction sites, acres of construction, and other information as required by the permit.</p>	
	<p>3. Conduct pilot field-testing of personal electronic devices to document inspections onsite. Use of tablets or other electronic devices during inspections will allow inspectors to immediately upload construction site information to the GIS based database. The Permittees would pilot the use of these technologies with a select number of cities.</p>	<p>This recommendation appears to be closely related to Recommendation 3.5.3 – 2 above. See the response to Recommendation 3.5.3 – 2.</p>
	<p><b>Permittee Response:</b></p> <p>See response to <i>Section 3.5.3 Recommendations 2</i> above.</p>	
	<p>4. Conduct QSD/QSP Training. The QSD/QSP Training developed by the State Board and CASQA provides a detailed understanding of the Construction General Permit. The Permittees propose providing this training to municipal staff every other year to ensure that inspectors and other municipal staff understand the CGP requirements that are to be implemented for construction projects in their jurisdiction. It is anticipated that with potential changes to the CGP being adopted in 2014 that municipal staff should be aware of these changes and any new or modified requirements for CGP compliance.</p>	<p>Regional Board staff has no objections to this recommendation.</p>
	<p><b>Permittee Response:</b></p> <p>Comment noted.</p>	
<p>3.6 Existing</p>	<p>1. The commercial site inventory list should be minimally modified to align with the commercial inventory requirements in the current</p>	<p>Regional Board staff has no objections to this recommendation.</p>

<p>Development 3.6.5 Recommendations</p>	<p>South Orange County Permit. This would include adding/modifying the following categories:</p> <ul style="list-style-type: none"> <li>• Botanical or zoological gardens</li> <li>• Cement mixing, cutting, masonry</li> <li>• Golf courses, parks and other recreational areas/facilities, cemeteries</li> <li>• Retail or wholesale fueling</li> </ul>	
<p><b>Permittee Response:</b> Comment noted.</p>		
	<p>2. The Permit should allow two options for industrial and commercial facility inspections – Option 1 would consist of a targeted approach, with inspection frequency based on prioritization; Option 2 would consist of a synoptic approach, with no fluctuation in inspection frequency from year to year.</p> <p><u>Option 1</u></p> <ol style="list-style-type: none"> <li>a. Develop a prioritization process for industrial facilities based on past performance focusing on the 20% of industrial facilities that are noncompliant.</li> <li>b. Develop an inspection regime that allows for two types of formal inspections at industrial facilities based upon compliance history. These should include (1) on-site individual inspections and (2) drive by inspections. Where a business does not receive a formal inspection, outreach should be provided periodically.</li> <li>c. The medium and low priority industrial sites should be inspected on an as needed basis, with no minimum inspection frequency. However, each site that is not inspected (either on-site individual or drive-by) should receive outreach information, including BMP Fact Sheets twice per permit term.</li> <li>d. Develop a prioritization process for commercial facilities based on past performance focusing on the 20% of commercial facilities that are noncompliant.</li> <li>e. Develop an inspection regime that allows for three types of formal inspections at commercial facilities based upon compliance history. These should include (1) on-site individual inspections, (2) on-site property-based inspections, and (3) drive by inspections. Where a business does not receive a formal inspection, outreach should be provided periodically.</li> <li>f. The medium and low priority industrial sites should be inspected on an as needed basis, with no minimum inspection frequency. However, each site that is not inspected (either on-site individual or drive-by) should receive outreach information, including BMP Fact Sheets twice per permit term.</li> </ol> <p>Based upon a preliminary evaluation of the current commercial inspection program, watershed priorities, and enforcement data, the</p>	<p>The permittees have excluded the current approach in the analysis for this recommendation for comparison. Regional Board staff requests that the permittees prepare a comparison of all three options and evaluate their merits based on an objective definition of an effective program (see the response to Recommendation 3.7.3 – 1 below).</p> <p>This recommended inspection program is based on three levels of assignment: the distribution of facilities among the priority categories, assignment of inspection types according to facility type, and the inspection frequency assigned to each category. The permittees have redistributed commercial facilities by type; however the basis for this distribution is not provided. Please provide the basis that would justify, for example, inspecting Animal Facilities through “drive by” inspections once per year.</p> <p>The permittees have assigned inspection types by facility type; however the basis for this distribution is not provided. Regional Board staff can agree that some facilities may amend themselves to “drive by” inspections where potential pollution sources are visible the inspector. However, this is a matter of site layout, not facility type. Please provide a basis for classifying inspection types by facility type.</p> <p>The recommendation does not adequately define “outreach only”. This does not appear to be an actual inspection, although most inspections will include an outreach effort by the inspector.</p>

commercial inspection program under this option would be structured as illustrated in Table 3.6.2. This summary table contains the results of the proposed inventory, prioritization, and inspections criteria as described above.

Option 2

- a. Annually inspect 20% of the industrial and commercial facility inventory, with 100% of the industrial and commercial facility inventory inspected over the permit term.

**Permittee Response:**

**Industrial Facilities**

**Prioritization:** The industrial prioritization process is currently based on threat to water quality and "should be based on" type of industrial activities, materials/wastes used or stored outside, pollutant discharge potential, facility size, receiving waters (proximity/sensitivity), and other relevant factors. These factors are relevant to prioritize sites where there is little inspection history. Given the County's relatively mature inspection program, industrial sites have been inspected over the previous permit terms, providing the County with an understanding of the problematic facilities. Under Option 1, the Permittees propose to adapt the prioritization process for industrial sites based on the compliance history at the industrial sites. Using compliance history as the basis for prioritization allows the Permittees to focus efforts on industrial sites that are/have been problematic in the past, providing for the most efficient use of resources. Under Option 2, the Permittees propose to inspect 20% of the industrial sites per year (and all sites within the five year permit term).

**Inspection Paradigm:** The existing industrial inspection program allows for one type of inspection only, requiring an onsite - individual inspection for each inspected facility. The Permittees propose a tiered approach to the types of inspections based on the priority of the industrial site (not based on the facility type as asserted in Regional Board comments). Under Option 1, the highest priority sites are the most problematic, based on compliance history, and these sites would accordingly receive the most attention via the inspections program - receiving onsite individual inspections for each individual facility. These inspections would follow the same protocols established under the current permit term. Medium and low priority sites receiving inspections would be inspected using drive by inspections, where sufficient information can be gained. Where the drive by inspection is not adequate, an onsite individual facility inspection would be performed. The difference in the two inspection methods is that "drive by" inspections will not include direct contact with the responsible party (unless warranted) and the inspection will focus on the exterior of the facility only (e.g. irrigation, trash enclosures, grease bins, parking areas). The term "drive by" does not imply that the inspector would not get out of the vehicle to perform the exterior inspection. This second inspection method is warranted for medium and low priority sites that pose less of a threat to water quality. Resources saved here can be focused on the high priority, problem sites.

**Inspection Frequency:** See table below.

<b>Frequency - High Priority</b>	Annual	Annual (10%) + FSE	Annual	Annual - on site	1x/Permit Term	The inspection frequency for high priority industrial sites is annual under the existing program. This frequency will not change under Option 1. Option 2 proposes to reduce the inspection frequency to once per permit term for all facilities, providing for inspections at all facilities over the five year period, regardless of priority.	The inspection frequency for high priority commercial sites is annual under the existing program for a minimum of 10% of the inventory. Food Service Establishments would also be inspected annually. These frequencies will not change under Option 1. Option 2 proposes to reduce the inspection frequency to once per permit term for all facilities, providing for inspections at all facilities over the five year period, regardless of priority.
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	<b>Frequency - Medium Priority</b>	Once every two years	Once every two years (20%)	As needed	Annual - drive by + outreach		The existing industrial inspection program provides for medium and low priority sites to be inspected once every two years and once per permit term, respectively. Option 1 proposes an "as needed" inspection frequency for these sites to support the concept of focusing resources on the most problematic sites. However, based on the compliance data and the minimum of 20% of the inventory inspected each year, 5-10% of those businesses inspected will be medium or low priority sites, ensuring that the lower priority sites are not neglected. Under Option 2, all facilities would receive inspections once per permit term, regardless of priority.	The existing commercial inspection program provides for medium and low priority sites to be inspected once every two years and once per permit term, respectively. Medium sites must make up at least 20% of the inventory. Option 1 proposes an "as needed" inspection frequency for these sites to support the concept of focusing resources on the most problematic sites. Under this option, medium priority sites would receive drive by inspections and outreach, allowing Copermitees to spend less time at lower priority sites. Where drive by inspections do not provide adequate information, onsite inspections may be performed. Low priority sites would not be formally inspected unless triggered by a complaint. Sites that do not receive an inspection would receive outreach information at least two times during the permit term. Under Option 2, all facilities would receive inspections once per permit term, regardless of priority.
	<b>Frequency - Low Priority</b>	Once per permit term	Once per permit term	As needed	Outreach only 2x per permit term			
	<b>Follow-up</b>	Monthly until compliance; every six months for next year	enforcement required; follow-up frequencies not specified	As needed	As needed	As needed	The existing requirements related to follow-up inspections and compliance require monthly inspections until compliance is achieved and inspections every six months thereafter for one year. These requirements are overly prescriptive and compel a "one size fits all" enforcement approach for industrial facilities. Options 1 and 2 propose an as needed follow-up approach which will allow Permittees to tailor follow-up and enforcement as appropriate to the facility and/or violation. Given the maturity of the inspection programs, this approach is appropriate. The Permittees implement their Enforcement Consistency Guide to ensure that follow-up and enforcement is performed appropriately and consistently across the County.	The existing requirements related to follow-up inspections are not specific as to the frequency of follow-up inspections, only that the Permittees utilize enforcement to bring sites into compliance. Options 1 and 2 propose an as needed follow-up approach which will allow Permittees to tailor follow-up and enforcement as appropriate to the facility and/or violation. Given the maturity of the inspection programs, this approach is appropriate. The Permittees implement their Enforcement Consistency Guide to ensure that follow-up and enforcement is performed appropriately and consistently across the County.

Minimum			20% per year	None	20% per year; 100%/Permit Term	Under the current permit, the minimum number of inspections per year is based on the number of high priority sites, but there is no minimum set. Option 1 is based on an analysis of compliance history at industrial facilities. Under this option, the Permittees propose to focus their efforts on the industrial sites that have demonstrated compliance problems in the past. Data illustrates that between 82% and 89% of sites have had no violations during inspections each year for the past five years of inspections. Based on this data, a conservative minimum of 20% is proposed for annual industrial inspections. Under Option 2, the Permittees propose to inspect 20% of the industrial commercial inventory per year, inspecting all facilities within the five year permit term.	Under the current permit, the minimum number of inspections per year is based on the number of high and medium priority sites, but there is no minimum set. Option 1 provides for similar minimum inspections in that the minimums are based on the number of high and medium priority sites, each of which will receive an annual inspection (high priority will receive annual onsite individual or property based inspections and medium priority will receive annual drive by inspections and outreach). Option 2 calls for a minimum of 20% of the industrial commercial inventory to be inspected per year, with 100% of facilities being inspected within the five year permit term.
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**Commercial Facilities**

**Prioritization:** Under the existing program, prioritization of commercial facilities for inspection is based on threat to water quality based on factors such as the type, magnitude, location, potential for discharge, compliance history, receiving waters (proximity/sensitivity), materials used, and wastes generated. This method of prioritization has been effective over the permit term; however, with the recent focus on watershed based program management, the Permittees have proposed a prioritization schema based on watershed specific pollutants of concern (POC) and compliance data. Option 1 begins with the POCs for a given watershed and associates the facilities most likely to contribute to these POCs. This analysis was performed using the Long Term Effectiveness Assessment methodology developed by the San Diego Copermittees in 2011 and assigned source loading potentials (accounting for pollutant generating activities and pollutant discharge potential) for each commercial facility type/activity by watershed POC. This information was then coupled with county enforcement data (2008-2012). Enforcement data was analyzed for 269 industrial/commercial issues. Approximately 50% were related to the watershed POCs identified. Of the 132 cases related to POCs, sources were examined to identify the most prevalent. Facility types identified in >1% of enforcement cases were deemed to be high priority. Medium priority were those identified in <1%, but greater than 0%. Low priority sites were those that were associated with a watershed POC, but had no enforcement history (i.e. 0% of the cases). Using these results, a list of prioritized commercial sources was developed for each watershed. Under Option 2, the Permittees propose to inspect 20% of the commercial sites per year (and all sites within the five year permit term). Option 2 will allow for an efficient commercial inspection program focused on inspections and compliance for all sites, but does not propose prioritization of sites, rather treating all sites equal.

**Inspection Paradigm:** The existing commercial inspection program allows for one type of inspection only, requiring an onsite - individual inspection for each inspected facility. The Permittees propose a tiered approach to the types of inspections based on the priority of the industrial site (not based on the facility type as asserted in Regional Board comments). Under Option 1, the highest priority sites are those sites most likely contributing to the watershed POCs as determined above. Accordingly, each of these sites would receive the most attention via on-site inspections, either as an individual facility or a property based inspection (if appropriate). These inspections would follow the same protocols established under the current permit term, with slight modifications for the property based inspections. Medium priority sites would be inspected using drive by inspections (where appropriate). Where the drive by inspection is not adequate, an onsite facility inspection would be performed. Low priority sites would receive outreach only, provided twice per permit term either through face to face interactions with agency staff or via mailers. Definitions: onsite individual inspections - inspections that

	<p>are specific to the facility, direct contact with the responsible party; covers policies, procedures, training, and documentation; verifies conditions inside and outside of the facility; <u>onsite property based inspections</u> - inspections are specific to the property and cover all facilities on the property (e.g., a shopping center with multiple facilities), direct contact with the responsible party for the property (e.g., property manager), may lead to contact with the responsible parties for the individual facilities where warranted, inspection focus is on the exterior of the property (e.g., trash enclosures, irrigation, parking areas, grease storage); <u>drive by inspections</u> - inspections that are specific to the facility or property but do not involve direct contact with responsible parties unless warranted, focus of inspection is on the exterior of the facility (e.g. trash enclosures, grease bins, irrigation, parking areas), outreach is provided to the responsible party via indirect means (e.g., mailed with accompanying inspection report), note: the term "drive by" does <u>not</u> imply that the inspector would not get out of the vehicle to perform the exterior inspection. Alternative inspection methods are warranted for medium and low priority sites that pose less of a threat to water quality. Resources saved here can be focused on the high priority, problem sites.</p> <p><b>Inspection Frequency:</b> See table above.</p>	
	<p>3. The recently developed program to address mobile businesses appears to be effective. However, based on an analysis of the County's complaint data from 2008-2012, the majority of the violations related to mobile businesses are related to three business types: automobile detailers, carpet cleaners, and pet services. Based on this analysis, the program should focus on these key mobile business types in the next permit term.</p>	<p>Regional Board staff has no objections to this concept. Please provide additional details on how the program will focus on key mobile business types and explain what performance measures will be used to evaluate the success of the program.</p>
	<p><b>Permittee Response:</b></p> <p>There will be education and outreach initiatives targeting the most problematic categories of mobile businesses.</p>	
<p>3.7 Illegal Discharges/Illicit Connections 3.7.3 Recommendations</p>	<p>1. Continue current Model ID/IC Program.</p>	<p>This recommendation is based on an analysis detailed in the ROWD. This analysis, in summary, recommends continuation of action levels that result in the least number of source investigations. Regional Board staff agrees with the implicit argument that a 'least-cost approach' is valid, but disagrees that an approach should be selected solely on the basis of least-cost. Instead, the 'most effective approach' should be selected, of which least-cost is a part of. Regional Board staff requests that the supporting argument be re-examined in light of the 'most effective approach'. Regional Board staff recommends that the permittees carefully consider what a successful ID/IC Program is in valid, objective terms (e.g. Do most source investigations result in the source being identified? Will conducting more source investigations improve the success of the Program? Where resources will be saved, how will those resources be re-allocated to improve the performance of the program?).</p>
	<p><b>Permittee Response:</b></p> <p>The reconnaissance program design provides the data set necessary to support the tolerance intervals and site specific control charts. The Permittees believe that this is the most effective use of resources as it supports a scientifically valid approach to ID/IC detection and investigations. In contrast, the Permittees are performing more investigations at fewer sites under the San Diego Region NAL-based program. For comparison, under the NAL-based program, Permittees performed only 45 site visits, resulting in 240 exceedances triggering investigations. Under the reconnaissance based program, Copermittees performed 274 site visits, resulting in fewer exceedances (only 36) that led to more focused investigations targeting illicit discharges. With so many exceedances for analytes influenced by natural sources (e.g. local geology), investigations under the NAL-based program often lead to natural sources of exceedances as opposed to leading to the identification of illicit discharges to the MS4.</p>	

<p>4.0 Controlling Pollutant Sources: Watershed Programs 4.4 Recommendations</p>	<p>Based upon the effective results of the Permittees' existing TMDL efforts, the Permittees' recommend continuing with the existing permitting approach. Central to the existing permitting approach is the inclusion of BMP-based compliance for the TMDL provisions. This approach has not only been effective in Orange County, but it is also consistent with the approach of the Santa Ana Regional Board in the current MS4 permits in Riverside County and San Bernardino County, as well as the approach of several other Regional Boards, including the San Diego<sup>4</sup> and San Francisco<sup>5</sup> Regional Boards, as well as guidance from USEPA.</p> <p>During discussions with Regional Board staff on the ROWD, staff noted that recommendations and suggestions for the TMDL provisions would be particularly helpful. Therefore, the Permittees are providing recommended language as an attachment (Attachment A) to this ROWD.</p> <p>The recommended language specifically addresses the following:</p> <ol style="list-style-type: none"> <li>1. Structure/organization of TMDL Provisions: Recent MS4 permits adopted in the Los Angeles and San Diego regions organized the TMDL provisions in a manner that provided clarity. The attached language leverages the structures of those permits and reorganizes the provisions to more clearly define the requirements for TMDLs.</li> </ol>	<p>Regional Board staff is currently evaluating this recommendation.</p>
<p><b>Permittee Response:</b></p> <p>Comment noted.</p>		
	<ol style="list-style-type: none"> <li>2. Compliance assessment: The method(s) to assess compliance is one of the most important permit provisions. As noted above, the Permittees are recommending the continuation of BMP-based compliance for the TMDL provisions. In addition, Permittees are also recommending additional compliance pathways, similar to compliance pathways provided in other recently adopted MS4 permits in Southern California. Further, clarifying language regarding how the WLAs are incorporated into the permit (as a performance standard, not as numeric effluent limitations) has been added. This language is based on the current Bay Area MS4 Permit<sup>7</sup> in the San Francisco region.</li> </ol>	<p>Regional Board staff is currently considering the recommendation.</p>
<p><b>Permittee Response:</b></p> <p>Comment noted.</p>		
	<ol style="list-style-type: none"> <li>3. Consistency with TMDLs: The Permittees have evaluated the existing MS4 permit to ensure that the recommended language is consistent with the effective TMDLs. Notable revisions recommended include: <ul style="list-style-type: none"> <li>• Removal of the Sediment TMDL in the Newport Bay</li> </ul> </li> </ol>	<p>Modifications of adopted TMDLs are not within the scope of NPDES Permit No. CAS618030. The Sediment TMDL plainly includes "quantifiable targets and Load Allocations that shall be implemented by the Cities...and County responsible for the sediment discharged into the stormwater and flood control conveyances under their control". It is appropriate and necessary that</p>

	<p>Watershed: While many of the Newport Bay Watershed Permittees have implemented significant sediment control measures over the years, the TMDL does not establish WLAs for MS4 Permittees. The TMDL is based upon load allocations and control measures to be implemented through the Newport Bay Executive Committee. These actions have been very effective and have resulted in attainment of the load allocations and associated TMDL targets. However, absent wasteload allocations assigned to the MS4 permittees, the MS4 Permit is not the appropriate regulatory mechanism for this TMDL. Therefore, it has been removed from the recommended TMDL provisions.</p> <ul style="list-style-type: none"> <li>• Correction to the WLAs for the San Gabriel River Metals TMDL (Coyote Creek): This TMDL was established by EPA in the Los Angeles region. The TMDL establishes mass-based WLAs derived from a formula that multiplies the TMDL numeric target by the storm volume. For illustrative purposes, the TMDL includes the resulting WLA based upon a theoretical storm volume measured at a Los Angeles County Flood Control District gauging station. In the current North Orange County MS4 Permit, the WLA is based upon the illustrative example and not the actual WLA. The corrected WLA is included in the recommended language (Attachment A) and is consistent with the WLA included in the recently reissued Los Angeles Region MS4 Permit.</li> </ul>	<p>NPDES Permit No. CAS618030 include the relevant requirements of the Sediment TMDL.</p>
<p><b>Permittee Response:</b></p> <p>Comment noted.</p>		
	<p>4. Monitoring and reporting requirements: To ensure that monitoring and reporting requirements are consistent with adopted TMDLs. The Permittees are recommending a specific provision for each TMDL that addresses these requirements. In addition, by separating the compliance assessment and monitoring requirements, the permit can clearly distinguish between assessing achievement of a WLA and compliance with the permit provision(s).</p>	<p>Regional Board staff agrees with this approach in concept. We are in the process of evaluating specifically how to implement it.</p>
<p><b>Permittee Response:</b></p> <p>Comment noted.</p>		
	<p>5. Receiving Water Limitation Provisions: The issue of complying with the Receiving Water Limitations provision of the permit is also an important issue for the Permittees. In terms of TMDLs, this issue is of particular importance for TMDLs that have approved compliance schedules. Where Permittees are implementing actions consistent with the requirements of the TMDL provisions, including per approved compliance schedules, Permittees request that specific</p>	<p>Regional Board staff agrees with this approach in concept. We are in the process of evaluating specifically how to implement it.</p>

	language is included that explicitly states they shall be in compliance with the applicable receiving water limitations for the TMDL-receiving water combination. Otherwise, the Permittees may be found in violation of the Receiving Water Limitations provision while they are implementing and complying with a TMDL.	
	<b>Permittee Response:</b> Comment noted.	
5.0 Plan Development 5.4 Recommendations	1. Continue to implement the Strategic Countywide/Jurisdictional Management approach.	This recommendation is vague. Regional Board staff cannot offer a response.
	<b>Permittee Response:</b> The recommendation is intended to connote support for the Principal Permittee/Co-permittee program structure.	
	2. Develop a comprehensive Watershed Plan to evaluate the watershed and to prioritize implementation efforts and associated resource allocation.	The permittees have developed the Drainage Management Plan and Local Implementation Plans. TMDL-related work plans have been developed or are in the process of being developed and are already watershed-based. The Receiving Water Limitations in NPDES Permit No. CAS618030 also requires an additional layer of watershed-scale planning under certain circumstances. All three management scales have already been addressed. Regional Board staff recommends that the permittees look to modifying existing planning documents, rather than developing new ones, to prioritize efforts.
	<b>Permittee Response:</b> Comment noted.	
	3. Develop pilot program(s) for regional water quality or groundwater recharge BMPs	Regional Board staff has no objections to this recommendation so long as it results in the development of actual institutional (i.e. planning and funding) and physical storm water treatment control infrastructure.
	<b>Permittee Response:</b> See prior discussion regarding retrofitting and integrated regional water management approaches.	
4. Develop model program(s) for water quality/quantity trading to facilitate off-site BMP implementation where appropriate and to address existing developed areas.	Regional Board staff does not see the value of this recommendation. The permittees have sufficient land-use planning authority to develop storm water treatment control infrastructure within their respective jurisdictions. This has been demonstrated by the cities of Irvine, Chino, Ontario, Perris, San Bernardino and others. Regional Board staff believes that these cities' programs have been the result of a variety of factors and the exercise of long-standing infrastructure development and funding strategies. Instead, the permittees may be better served by examining the most effective strategies that have been carried out, the circumstances that affected them, and learn how they can be adapted to the circumstances faced by each individual permittee. A model program would likely be too generic to be useful.	
<b>Permittee Response:</b> See prior discussion regarding retrofitting and integrated regional water management approaches.		

6.0 Program Management and Financing 6.4 Recommendations	1. Retain the NPDES Stormwater Permit Implementation Agreement.	Regional Board staff has no objections to this recommendation.
	<b>Permittee Response:</b>	
	Comment noted.	
	2. Continue the program management framework, albeit with a reduction in meeting frequencies.	Please propose an alternative schedule of meetings along with a justification.
	<b>Permittee Response:</b>	
	With the ever increasing need for watershed-based meetings focused on addressing specific pollutant-waterbody combinations, the Permittees would propose a bi-monthly schedule for the countywide General Permittee Meetings.	
	3. Complete study of future stormwater compliance costs and funding alternatives.	Regional Board staff has no objections to this recommendation. The study should also examine current compliance costs and include an effort to identify the sources of past cost increases. For example, if part of the cost increase is attributed to changes in accounting, then those changes should be applied retroactively to past reporting periods in order to make fair comparisons between past and future reporting periods.
	<b>Permittee Response:</b>	
Comment noted.		
4. Continue collaborative regional studies.	Regional Board staff has no objections to this recommendation.	
<b>Permittee Response:</b>		
Comment noted.		