



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## Santa Ana Regional Water Quality Control Board

October 30, 2013

Mary Anne Skorpanich  
OC Public Works  
300 North Flower Street  
Santa Ana, CA 92702-4048

### NOTICE OF INCOMPLETE REPORT OF WASTE DISCHARGE

Dear Ms. Skorpanich:

Thank you for the Report of Waste Discharge submitted pursuant to Provision XXIII.1. of Order No. R8-2009-0030, NPDES Permit No. CAS618030. The Report of Waste Discharge was received by electronic mail on October 3, 2013. Regional Board staff has completed an initial review of the Report of Waste Discharge and has determined that it is incomplete.

In summary, the Report of Waste Discharge includes a description of the "state of the environment", presenting general conclusions based on pollution monitoring and control efforts by various parties in the permit area of Orange County. The Report of Waste Discharge also summarizes the permittees' storm water programs, carried out at the municipal and watershed scales; describes a commitment to a management approach driven by an iterative process, or "quality loop"; generally describes the program management structure and financing; describes new initiatives for the upcoming permit term; and recommends program and permit modifications.

Regional Board staff's review of the Report of Waste Discharge generally is focused on the completeness of the descriptions of the "quality loop" process, of the recommended program and permit modifications, and of the rationale presented to support the modifications. It is Regional Board staff's intent that the permittees present a full and genuine description of their rationale to support adoption of the recommended modifications. Since the initial adoption of NPDES Permit No. CAS618030 in 1990, the permittees' collectively have gained experience in administering their storm water programs and collected significant data on program outcomes. Regional Board staff expects the permittees to support their rationale, wherever possible, with objective analyses of the collected data.

CAROLE H. BESWICK, CHAIR | KURT V. BERCHTOLD, EXECUTIVE OFFICER

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The details relating to Regional Board staff's determination that the Report of Waste Discharge is incomplete are described in the attached Table. Each item in the Table is a response to the Recommendations described in the Report of Waste Discharge. The items are organized by the Section and Subsection numbers and the number assigned to each Recommendation as presented in the Report of Waste Discharge. In most cases, the response includes a request for additional information. Please provide the requested information by November 30, 2013.

Regional Board staff is eager to meet with representatives of the permittees after they have considered the responses provided. To schedule that meeting and if you have any questions please contact Adam Fischer at [adam.fischer@waterboards.ca.gov](mailto:adam.fischer@waterboards.ca.gov) or at 951 320-6363.

Sincerely,



Hope A. Smythe  
Division Chief

Enclosure: Table of Responses

cc: Orange County Coastkeeper – Gary Brown  
US Environmental Protection Agency, Region 9 Water Division – John Kemmerer  
US Environmental Protection Agency, Region 9 Water Program – Peter Kozelka  
US Environmental Protection Agency, Region 9 Water Program – David Smith

## Table of Responses

OC 2013 ROWD Section/Subsection	Permittees' Recommendation	Regional Board staff Response
<p>2.2 Bacteria 2.2.6 Recommendations</p>	<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 Recommendation 2.2.6 – 5 below as a subset of activities to executing that recommendation. Please see the response to Recommendation 2.2.6 – 5.</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 Recommendation 2.2.6 – 5 as a subset of activities to executing that Recommendation. These concerns should be addressed in the plan requested in the response to Recommendation 2.2.6 – 5.</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>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>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</p>

		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 Recommendation 2.2.6 – 3 above.
	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	See response to Recommendation 2.2.6 – 5 above.
	7. Continue supporting regional and collaborative research into better monitoring and source tracking tools	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.
	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	See response to Recommendation 2.2.6 – 7 above.
	9. Conduct pilot mass balance studies to determine their utility for improving the prioritization of management actions	See response to Recommendation 2.2.6 – 7 above.
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.
	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 Recommendation 2.3.6 – 1 above. See the response to Recommendation 2.3.6 – 1.
	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.
	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.

	<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>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>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>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>4. Work with other interested parties to fill the data gap related to retail sales of pesticides</p>	<p>See response to Recommendation 2.4.6 – 3 above.</p>
	<p>5. Examine the CDPR database to develop a more thorough picture of trends in reported pesticide use</p>	<p>See response to Recommendation 2.4.6 – 3 above.</p>
	<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</p>	<p>Please describe the information that will be collected and how it will be used to expand and focus cooperative outreach efforts.</p>
	<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</p>	<p>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>

	sampling for sediment associated constituents to the Bight Program sampling frequency	
	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	See response to Recommendation 2.4.6 – 7 above.
	9. Continue taking advantage of opportunities to reduce dry weather runoff to channels	See response to Recommendation 2.3.6 – 3.
3.2 Municipal Infrastructure and Integrated Pest Management 3.2.3 Recommendations	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>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 and 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>
	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 Recommendation 3.2.3 – 1 above. See the response there.
	3. Enhance municipal training to address common issues encountered through municipal related complaints and to utilize innovative education formats to encourage	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.

	<p>discussion-based learning. The four most common types of issues that occur most frequently include those related to1: 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).</p>	
	<p>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.</p>	<p>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.</p>
	<p>5. Develop a municipal green infrastructure program that could include evaluation of opportunities for pilot green street projects of different land use/density configurations and development of a green street guidance manual.</p>	<p>There is no discussion in this Section of the ROWD to support this recommendation. For example, there is no discussion of past efforts to 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>
	<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>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, 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>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>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>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>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>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.</p>	<p>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>
	<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.</p>	<p>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>
	<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.</p>	<p>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>
	<p>5. Develop focused outreach campaigns based on water quality and survey results utilizing CBSM techniques to document</p>	<p>Please provide an example to illustrate how this recommendation might be carried out.</p>

	<p>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.</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>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 staff to evaluate integrated water resource options and assist with WQMP development.</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 description of the quality control measures expected to be employed for data entered into the system.</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</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>	

	with effectiveness assessments and annual reporting.	
	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.	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.
	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.	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.
3.5 Construction 3.5.3 Recommendations	1. 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.	Please provide a justification for this recommendation.
	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	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>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>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>4. 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>3.6 Existing Development 3.6.5 Recommendations</p>	<p>1. The commercial site inventory list should be minimally modified to align with the commercial inventory requirements in the current 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>Regional Board staff has no objections to this recommendation.</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</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</p>

frequency based on prioritization; Option 2 would consist of a synoptic approach, with no fluctuation in inspection frequency from year to year.

Option 1

- a. Develop a prioritization process for industrial facilities based on past performance focusing on the 20% of industrial facilities that are noncompliant.
- 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.
- 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.
- d. Develop a prioritization process for commercial facilities based on past performance focusing on the 20% of commercial facilities that are noncompliant.
- 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.
- 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

3.7.3 – 1 below).

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.

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.

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>BMP Fact Sheets twice per permit term.</p> <p>Based upon a preliminary evaluation of the current commercial inspection program, watershed priorities, and enforcement data, the 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.</p> <p><u>Option 2</u></p> <p>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.</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>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>4.0 Controlling Pollutant Sources: Watershed Programs</p>	<p>Based upon the effective results of the Permittees' existing TMDL efforts, the Permittees' recommend continuing with the existing permitting approach.</p>	<p>Regional Board staff is currently evaluating this recommendation.</p>

<p>4.4 Recommendations</p>	<p>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>	
	<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</li> </ol>	<p>Regional Board staff is currently considering the recommendation.</p>

	<p>Francisco region.</p> <p>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:</p> <ul style="list-style-type: none"> <li>• Removal of the Sediment TMDL in the Newport Bay 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.</li> <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</li> </ul>	<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 NPDES Permit No. CAS618030 include the relevant requirements of the Sediment TMDL.</p>
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	<p>the WLA included in the recently reissued Los Angeles Region MS4 Permit.</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>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 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.</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>5.0 Plan Development 5.4 Recommendations</p>	<p>1. Continue to implement the Strategic Countywide/Jurisdictional Management approach.</p>	<p>This recommendation is vague. Regional Board staff cannot offer a response.</p>
	<p>2. Develop a comprehensive Watershed Plan to evaluate the watershed and to prioritize implementation efforts and associated resource allocation.</p>	<p>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.</p>

	<p>3. Develop pilot program(s) for regional water quality or groundwater recharge BMPs</p>	<p>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.</p>
	<p>4. Develop model program(s) for water quality/quantity trading to facilitate off-site BMP implementation where appropriate and to address existing developed areas.</p>	<p>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.</p>
<p>6.0 Program Management and Financing 6.4 Recommendations</p>	<p>1. Retain the NPDES Stormwater Permit Implementation Agreement.</p>	<p>Regional Board staff has no objections to this recommendation.</p>
	<p>2. Continue the program management framework, albeit with a reduction in meeting frequencies.</p>	<p>Please propose an alternative schedule of meetings along with a justification.</p>
	<p>3. Complete study of future stormwater compliance costs and funding alternatives.</p>	<p>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.</p>
	<p>4. Continue collaborative regional studies.</p>	<p>Regional Board staff has no objections to this recommendation.</p>