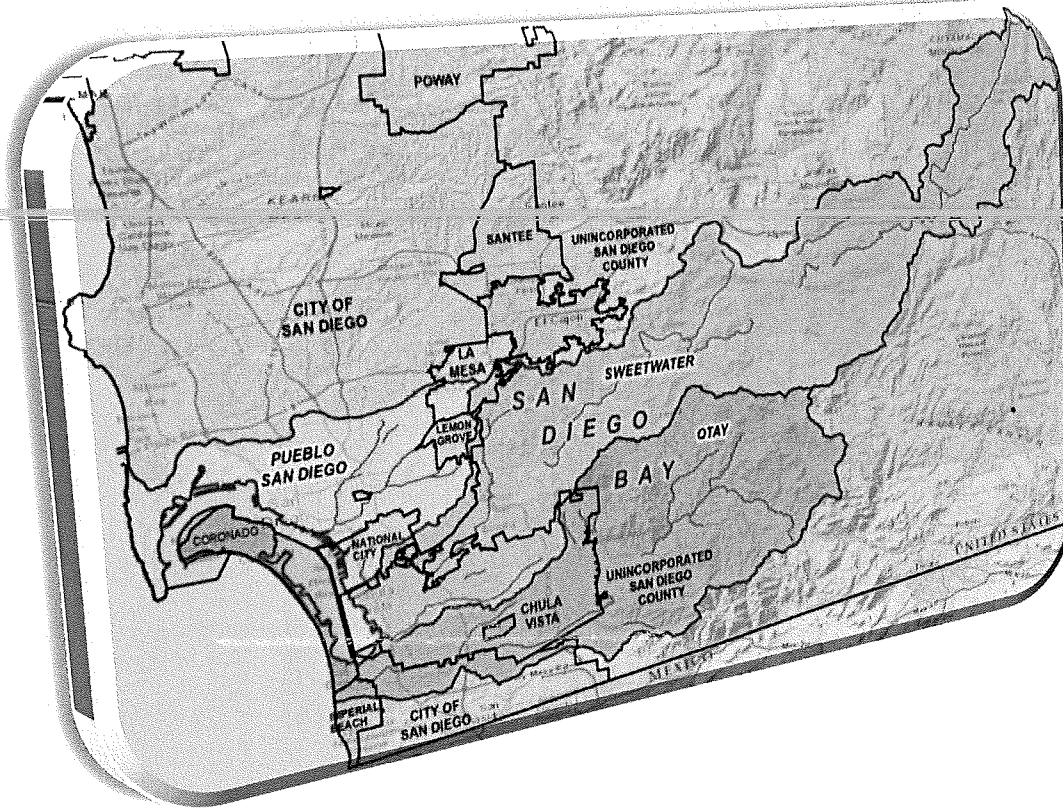


# San Diego Bay Watershed Management Area Water Quality Improvement Plan

## Final Deliverable: Water Quality Improvement Plan

Submitted to the  
San Diego Regional Water Quality Control Board  
by the San Diego Bay Responsible Parties



June Draft



## Executive Summary

In May 2013, the San Diego Regional Water Quality Control Board (Regional Board) adopted Order R9-2013-0001 – National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4) Draining the Watersheds within the San Diego Region (Municipal Permit). The Municipal Permit requires the owners of storm drain systems to implement management programs to limit discharges of non-storm water runoff and pollutants from the storm drain systems. The Municipal Permit requires Responsible Parties, in each of the region's watersheds, to develop Water Quality Improvement Plans. The San Diego Bay Watershed Water Quality Improvement Plan (Water Quality Improvement Plan) was developed in response to the requirements of the Municipal Permit.

The Municipal Permit is based on watershed program planning and program outcomes. The Municipal Permit's intent is to enable each jurisdiction to focus its resources and efforts to:

- Effectively prohibit non-storm water discharges to its MS4;
- Reduce pollutants in storm water discharges from its MS4; and
- Achieve the interim and final [Water Quality Improvement Plan] numeric goals.

The Responsible Parties within the San Diego Bay Watershed include the following agencies:

- City of Chula Vista
- City of Imperial Beach
- City of Lemon Grove
- City of San Diego
- San Diego Unified Port District (Port of San Diego)
- San Diego County Regional Airport Authority
- City of Coronado
- City of La Mesa
- City of National City
- County of San Diego
- California Department of Transportation

The purpose of the Water Quality Improvement Plan is to guide the Responsible Parties' Jurisdictional Runoff Management Programs (JRMPs) toward achieving improved water quality in MS4 discharges and receiving waters. In this Water Quality Improvement Plan, priorities and goals are established and strategies selected for implementation by the Responsible Parties in order to achieve progress toward improving water quality. This approach establishes the Water Quality Improvement Plan as the foundation that each Responsible Party uses to develop and implement its JRMP. "Responsible Parties' JRMPs contain the strategies, standards and protocols by

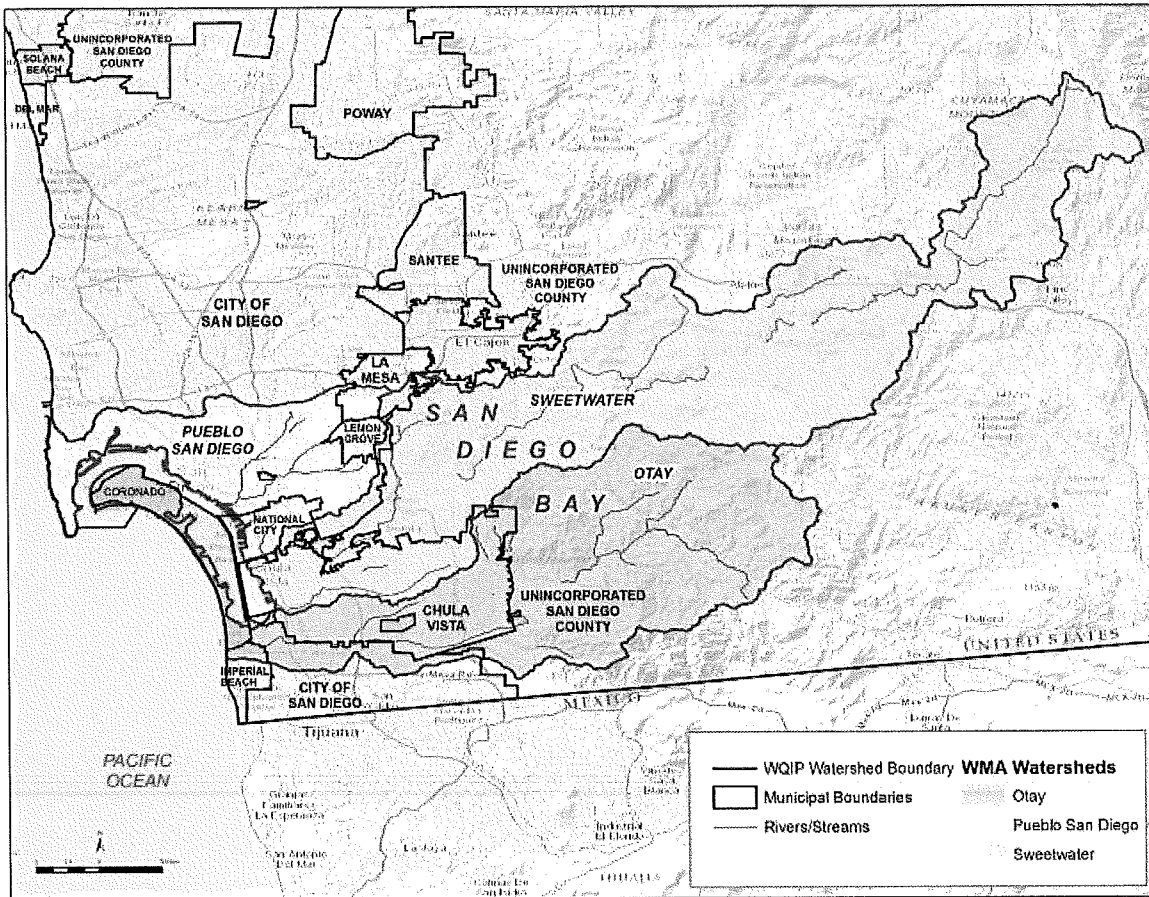
which each Responsible Party will implement its individual program in response to the priorities and goals established in the Water Quality Improvement Plan.<sup>1</sup>

As defined in the Municipal Permit, a permittee to a National Pollutant Discharge Elimination System (NPDES) permit is responsible only for permit conditions relating to the discharges from the MS4s for which it is an operator. Discharges from non-municipal sources and activities (e.g., runoff from agriculture and industrial land uses, federal and state facilities, Caltrans, and MS4 Phase II permittees) are regulated separately. However, the Municipal Permit requires the Copermitees to control pollutants originating from non-MS4 or non-municipal lands if those pollutants ultimately discharge into the MS4. Therefore, the Copermitees recognize the need to collaborate and improve communication between non-municipal entities within the San Diego Bay Watershed and the appropriate regulatory agencies to ensure that discharges are appropriately regulated before entering the MS4, and to improve water quality throughout the San Diego Bay Watershed.

Figure ES-1 presents the major watersheds in the San Diego Bay Watershed.

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<sup>1</sup> This Water Quality Improvement Plan sets forth activities that may occur within each Responsible Party's jurisdiction to satisfy permit requirements. Please note that the "Responsible Party need comply only with permit conditions relating to discharges from the MS4s for which they are operators (40 CFR 122.26(a)(3)(vi))," Order R9-2013-0001 at I.2 (emphasis added), and that each Responsible Party does not necessarily operate all portions of the MS4 within its jurisdiction. . Responsible Parties include Copermitees and other permitted dischargers (e.g., Caltrans) in the watershed.



**Figure ES-1**  
**San Diego Bay – Major Watersheds**

### **Development Process**

The Water Quality Improvement Plan was developed over a two-year period after the Municipal Permit adoption. The Municipal Permit set phased benchmarks for the development and submittal of the components of the Water Quality Improvement Plan. The First Interim Deliverable focused on the assessment of priority water quality conditions and identification of Highest and Focused Priority Conditions. The Second Interim Deliverable focused on the identification of water quality numeric goals and schedules for achieving the goals as well as selection of water quality improvement strategies to address the sources of pollutants contributing to the Highest and Focused Priority Conditions. The final step of the process, the Water Quality Improvement Plan, included development of the monitoring and assessment program and an adaptive management process that are integral to the Water Quality Improvement Plan iterative process. The plan will be implemented through the effective period of the 2013 Municipal Permit.

### **Public Participation**

During the two-year development process, public participation was a critical element. The Water Quality Improvement Plan process relied heavily on an active participation by the public. This process led to a greater amount of public participation than in

previous Municipal Permit related water quality planning processes. The public participation process included four primary components:

- (1) Public Workshops;
- (2) Public Input in Response to Calls for Data;
- (3) Water Quality Improvement Consultation Panel; and
- (4) Regional Board Public Comment Period.

During the plan development process, the Responsible Parties held two public workshops (September 10, 2014 and October 21, 2014) to inform the public of the Water Quality Improvement Plan process and to solicit input on water quality conditions; sources contributing to water quality conditions; strategies to address the sources; and numeric goals and associated schedules. As a result of the solicitations, the public provided a variety of data and information for consideration in the planning process.

The Responsible Parties selected a Consultation Panel from interested candidates. The goal of the Consultation Panel was to provide recommendations to the Responsible Parties during the development of the Water Quality Improvement Plan. The Consultation Panel includes members from the San Diego Regional Board, the environmental community, and the development community, as required, and also includes three at-large members, representing the development and business/industrial community, and residents of the WMA.

The First Interim Deliverable and the Second Interim Deliverable were submitted to the Regional Board and for each a 30-day public comment period was facilitated by Regional Board staff. Each public comment period yielded comments for consideration by the Responsible Parties in the preparation of the final Water Quality Improvement Plan.

Throughout the process, the Consultation Panel and the public provided substantial input, much of which was incorporated into the development process and the final Water Quality Improvement Plan.

### **Water Quality Improvement Plan Content**

#### *Highest and Focused Priority Conditions – Section 2*

The Responsible Parties evaluated available data, information, and public input and used the assessment process to identify water quality conditions in the San Diego Bay Watershed. Then the water quality conditions in the watershed were prioritized and several were identified by the Responsible Parties as the focus of their programmatic efforts, as appropriate – these are identified as Highest and Focused Priority Conditions. Although Responsible Parties will primarily target these conditions, it does not mean that other water quality conditions or pollutants will be ignored. To the contrary, many of the strategies implemented to address highest and/or focused priority conditions provide multi-benefit effects by also addressing many other pollutants and water quality conditions.

Table ES-1 summarizes the Highest and Focused Priority Conditions:

**Table ES-1.  
San Diego Bay Watershed Summary of Highest and Focused Priority Conditions**

HU	Condition	Pollutant/ Stressor	Geographic Extent (HU/HA)	Responsible Parties
<b>Pueblo (908)</b>	<b>Water Quality<sup>1</sup></b>	<b>Bacteria; Dissolved copper, lead, and zinc</b>	<b>Chollas Creek (908.22)</b>	<b>City of La Mesa City of Lemon Grove City of San Diego County of San Diego Port of San Diego Caltrans</b>
	Water Quality	Copper and zinc (Wet Weather)	Airport Authority jurisdiction within HA 908.21	Airport Authority
<b>Sweetwater (909)</b>	Riparian Area Quality	Various	Paradise Creek—lower Sweetwater, HA 909.1 <sup>2</sup>	City of National City
	Physical Aesthetics	Trash	The western portion of the City of Chula Vista within HA 909.1	City of Chula Vista Port of San Diego
<b>Otay (910)</b>	Swimmable Waters (Beaches)	Bacteria	Applicable RP jurisdiction within HA 910.1	City of Coronado City of Imperial Beach Port of San Diego
	Physical Aesthetics	Trash	Applicable RP jurisdiction in HA 910.2	City of Chula Vista City of Imperial Beach Port of San Diego

**Notes:**

HA = Hydrologic Area; HU = Hydrologic Unit; RP = Responsible Party

1. **The conditions in bold are the Highest Priority Conditions for the San Diego Bay Watershed.** Pollutants in regular font are the Focused Priority Conditions.
2. For the purposes of the Water Quality Improvement Plan, Paradise Creek is considered to be part of the lower Sweetwater area, for which the San Diego Bay priority condition analysis has identified potential impacts to beneficial uses such as habitat and non-contact recreation.

**Numeric Goals and Schedules – Section 4**

Next, the Responsible Parties developed numeric goals and schedules for achieving the goals and to measure progress toward addressing the Highest and Focused Priority Conditions. Numeric goals may take a variety of forms, but all forms should be able to quantify a benefit to water quality so that progress toward and achievement of the goals are measurable. Highest and Focused Priority Conditions may have multiple goals associated with them and goals may have multiple criteria or indicators. Goals for Highest and Focused Priority Conditions may be met in the receiving water or in MS4 discharges. Goals for Focused Priority Conditions may be based on the performance of water quality improvement strategies, on the successful completion of a restoration project, or on other metrics.

The Water Quality Improvement Plan identifies goals related to each Highest Priority and Focused Priority. Furthermore, individual schedules for each goal were established. Together, the goals and schedules define the targets that the Responsible Parties use to develop their programs and to measure progress.

*Strategies and Schedules – Section 4*

The Responsible Parties determined the strategies to be implemented that are intended to achieve the goals and improve the water quality conditions. The Water Quality Improvement Plan identifies strategies with schedules that include both core Municipal Permit compliance activities and best management practices that Responsible Parties have been implementing for a number of years (to comply with previous permit requirements) as well as new strategies to be implemented that were not a part of explicit permit requirements, e.g., creek restoration.

A summary of the types of strategies identified in the Water Quality Improvement Plan are described in Table ES-2.

**Table ES-2  
 Examples of Strategy Categories**

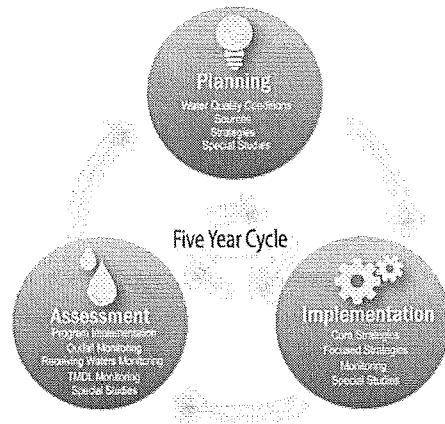
Strategy Category	Example
Planning efforts, assessment, and studies	Trash receptacle assessments
Structural best management practices	Installation of trash capture devices on catch basin inlets
Programmatic best management practices	Street sweeping
Requirement for best management practices of regulated entities	Enforce minimum BMPs for existing residential, commercial, and industrial development
Incentives	Residential and commercial rebate programs targeting water quality improvements
Activities, such as inspections and surveys	Targeted inspection programs

*Monitoring and Assessment – Section 5*

The Responsible Parties developed a monitoring and assessment plan that is specific to the Water Quality Improvement Plan. This program plays a key role in the Municipal Permit’s new paradigm of focusing on the outcomes of program implementation. The monitoring and assessment program contains three major types of monitoring including general permit-required monitoring, Highest and Focused Priority Condition monitoring, and additional monitoring. Monitoring is intended to measure the progress that the Responsible Parties make towards achieving the established goals and schedules. The program includes assessment for each of the monitoring types, as well as an integrated assessment to evaluate the overall progress in the watershed.

*Iterative Process and Adaptive Management – Section 6*

The Water Quality Improvement Plan is intended to be a living planning document that is regularly assessed and updated as-needed to reflect new data and input. The Responsible Parties use information as “lessons learned” from plan implementation to improve management decisions related to water quality conditions, numeric goals, strategies and associated schedules, and the monitoring and assessment program. The typical cycle for the implementation, assessment, and the next planning phase is illustrated in Figure ES-2.



**Figure ES-2.**  
**Iterative Process to Inform Adaptive Management**

The San Diego Bay Water Quality Improvement Plan includes an iterative process for making improvements to components of the plan. Plan improvements take the form of updates to components on the basis of assessed data and new information. Each iteration of the implementation, assessment, and planning cycle is anticipated to provide the Responsible Parties with justifications for plan adaptations. The adaptations to plan components are intended to increase the effectiveness and efficiency of the overall programs.