

## **1.0 ORGANIZATION OF THE WATERSHED MANAGEMENT PLAN**

The WMP is organized into the following sections:

### **Section 1 – Organization of the Watershed Management Plan**

*This section provides a brief overview of the watershed boundaries, beneficial uses, and SWRCB 303(d) list of water quality limited segments, and intended uses of the WMP.*

### **Section 2 – Existing Conditions Report**

*The physical character, land uses, water resources, biological resources and habitat quality, and socioeconomics of the watershed are described in this section.*

### **Section 3 – Watershed Issues and Objectives**

*This section describes the coordination process with the public and WSIG, and summarizes issues, goals, and objectives for the WMP based on results of the coordination process and the existing conditions report.*

### **Section 4 – Action Plan**

*The watershed management actions, associated activities, and potential projects that were developed in response to the issues/concerns and goals/objectives are described in this section. Projects are prioritized and funding opportunities are identified for the proposed actions. The summary and monitoring sections bring together the action items and suggest methods and strategies for implementation milestones and effectiveness assessments.*

### **Section 5 – List of Preparers and Contributors**

### **Section 6 – Literature Cited**

### **Appendix**

## **1.1 Introduction**

The San Dieguito Watershed Management Plan (WMP) is a comprehensive document to assist community groups, professional consultants, governmental jurisdictions, agricultural interests, environmental conservation groups, and water purveyors in the protection, enhancement, and restoration of the environment and beneficial uses of the San Dieguito Watershed. The WMP provides an overview of current conditions within the watershed, identifies and addresses watershed problems and issues, provides solutions to those problems in the form of an action plan of recommended measures and projects, and identifies potential funding opportunities to assist with implementation of the plan.

## ***San Dieguito Watershed Management Plan***

This section provides background information on the:

- introduction (Subsection 1.1)
- purpose and need of the WMP (Subsection 1.2),
- approach to preparing the plan (Subsection 1.3),
- goals for the WMP (Subsection 1.4),
- overview of the watershed (Subsection 1.5), and
- intended uses of the WMP (Subsection 1.6).

### **1.2 Purpose and Need**

The purpose of the WMP is to provide background and guidance to assist stakeholders with watershed management for the San Dieguito Watershed. Watershed management is the integration and coordination of activities that affect natural resources and water quality within a geographically defined drainage area. Watershed management fulfills an important planning need in that it strives to balance services such as flood protection, water conservation, and recreation with conscientious management to reduce pollution of waters and to protect and enhance natural resources.

Funding for this project has been provided in part through a contract with the State Water Resources Control Board (SWRCB) pursuant to the Clean Water Act Section 205(j) Planning Grant and any amendments for the implementation of California's Non-point Source Pollution Control Program. The SWRCB and nine Regional Water Quality Control Boards (RWQCBs), including San Diego (SDRWQCB), have implemented a statewide Watershed Management Initiative to provide water resource protection, enhancement, and restoration while balancing economic and environmental impacts. This initiative is to be accomplished using a watershed management approach. The contents of this document do not necessarily reflect the views and policies of the SWRCB, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

### **1.3 Approach to Preparing the Plan**

The preparation of this WMP involved a proactive approach by stakeholders in the San Dieguito Watershed to plan and implement watershed management solutions. The first step to preparing the WMP was to establish a technical advisory committee (TAC), executive committee, and the San Dieguito River Watershed Stewardship Initiative Group (WSIG). The WSIG, established after submittal of the grant application, includes local municipal representatives, agricultural associations, environmental groups, Regional Water Quality Control Board staff, County Water Authority staff, members of business and industrial associations, water and sewer service providers, community organizations, and private citizens.

#### ***WSIG Vision Statement:***

***“The San Dieguito Watershed—where working together preserves, protects, conserves and enhances a healthy, natural and sustainable river valley from crest to coast.”***

## San Dieguito Watershed Management Plan

The purpose of the WSIG is to create and support implementation of a comprehensive watershed management plan (WMP), which will address current and potential issues, potential solutions, prioritization of projects, funding opportunities, restoration/enhancement measures, and monitoring programs within the San Dieguito Watershed.

The WMP was prepared in full coordination with the WSIG. In addition, the plan was prepared in consultation with the public through public-noticed workshop meetings and consideration of review comments received on the draft WMP. Preparers of the WMP, including WSIG stakeholders that contributed to the development of this plan, are listed in Section 5 of this document.

The WMP was prepared in three stages. The first stage included gathering and summarizing information on the existing conditions within the watershed. In the second stage, concerns and issues of the watershed were identified, and goals and objectives for watershed management were developed. The last stage involved developing a framework and strategic action plan for watershed management that identifies measures and projects to achieve measurable environmental improvement, and outlines potential funding opportunities for proposed actions.

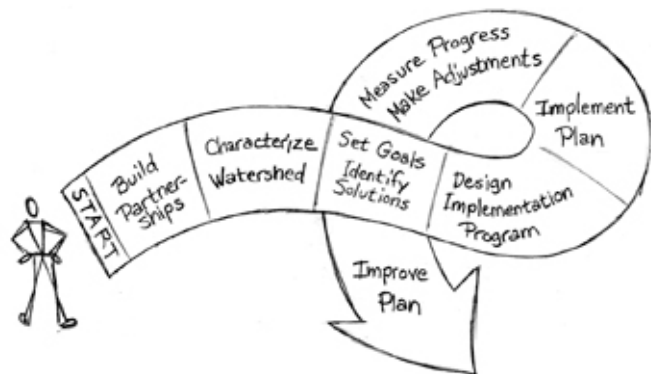
### 1.4 Goals of the San Dieguito Watershed Management Plan

The WSIG developed an existing conditions report and identified goals and objectives of the San Dieguito WMP. The goals are to:

- Protect and enhance water quality.
- Conserve, reuse, protect and maintain water supply.
- Protect, enhance, and restore native habitats and biological resources.
- Support social and community resource needs and watershed stewardship.

The objectives are to:

- Raise public awareness of the San Dieguito Watershed and encourage participation in management and protection of our watershed resources.
- Identify issues of importance to local citizens, groups, and users of the watershed.
- Reduce and eliminate degradation of the watershed and its resources through best management practices (BMPs).
- Promote, preserve, and protect beneficial uses of the watershed.
- Restore and enhance ecological systems of the watershed.
- Increase the viability, diversity, and health of the watershed.



- Promote science-based methods for water quality and environmental impact assessment of the watershed.
- Develop an effective approach to meet water quality regulations for the watershed.

**1.5 Watershed Overview**

The San Dieguito Watershed is located within the middle portion of San Diego County, California (Figure 1.5-1). The watershed encompasses approximately 346 square miles of land and water and includes all or portions of the following (Figure 1.5-2):

City of Del Mar	City of San Diego
City of Escondido	City of Solana Beach
City of Poway	Unincorporated County of San Diego
Cleveland National Forest	San Pasqual Kumeyaay* Tribal Lands
Santa Ysabel Kumeyaay* Tribal Lands	Mesa Grande Kumeyaay* Tribal Lands

\*All part of the greater Kumeyaay Nation

Many of the undeveloped areas are within existing conservation planning areas and are contiguous in nature which provides added ecological and community benefits. Additional detailed information about the watershed is provided in the existing conditions report (Section 2). The western lower portion of the watershed is predominantly urban and incorporated, while the eastern upper area is largely rural and unincorporated; which correlates to the dynamic topographic relief. The population in the watershed is 150,368 individuals with a density of 940 individuals per square mile. The highest densities are centered in or near the city limits of Del Mar, Escondido, Poway and the unincorporated community of Ramona. Water supply is limited and the majority of water use is from imported sources.

Since the majority of the watershed is undeveloped, drainage is primarily conveyed through the existing network of natural drainages with storm drain networks discharging to natural drainages in more densely developed areas. The SDRWQCB designates the San Dieguito River Hydrologic Unit into 5 hydrologic areas: Solana Beach (905.1), Hodges, (905.2) San Pasqual (905.3) Santa Maria Valley (905.4) and Santa Ysabel (905.5).

Ultimately, all the runoff from the watershed drains to the San Dieguito Lagoon and Pacific Ocean via the San Dieguito River, which is the largest river in the watershed (Figure 1.5-3). The San Dieguito River system begins at the headwaters of Santa Ysabel Creek along the flanks of Volcan Mountain. Numerous ephemeral, intermittent, interrupted and perennial tributaries feed several groundwater basins and the Sutherland and Hodges Reservoirs though not all water draining into the Hodges reservoirs stays in the San Dieguito Watershed. Some of the water is conveyed by a historical water flume to provide water to the R.E. Badger Filtration Plan and San Dieguito Water District.

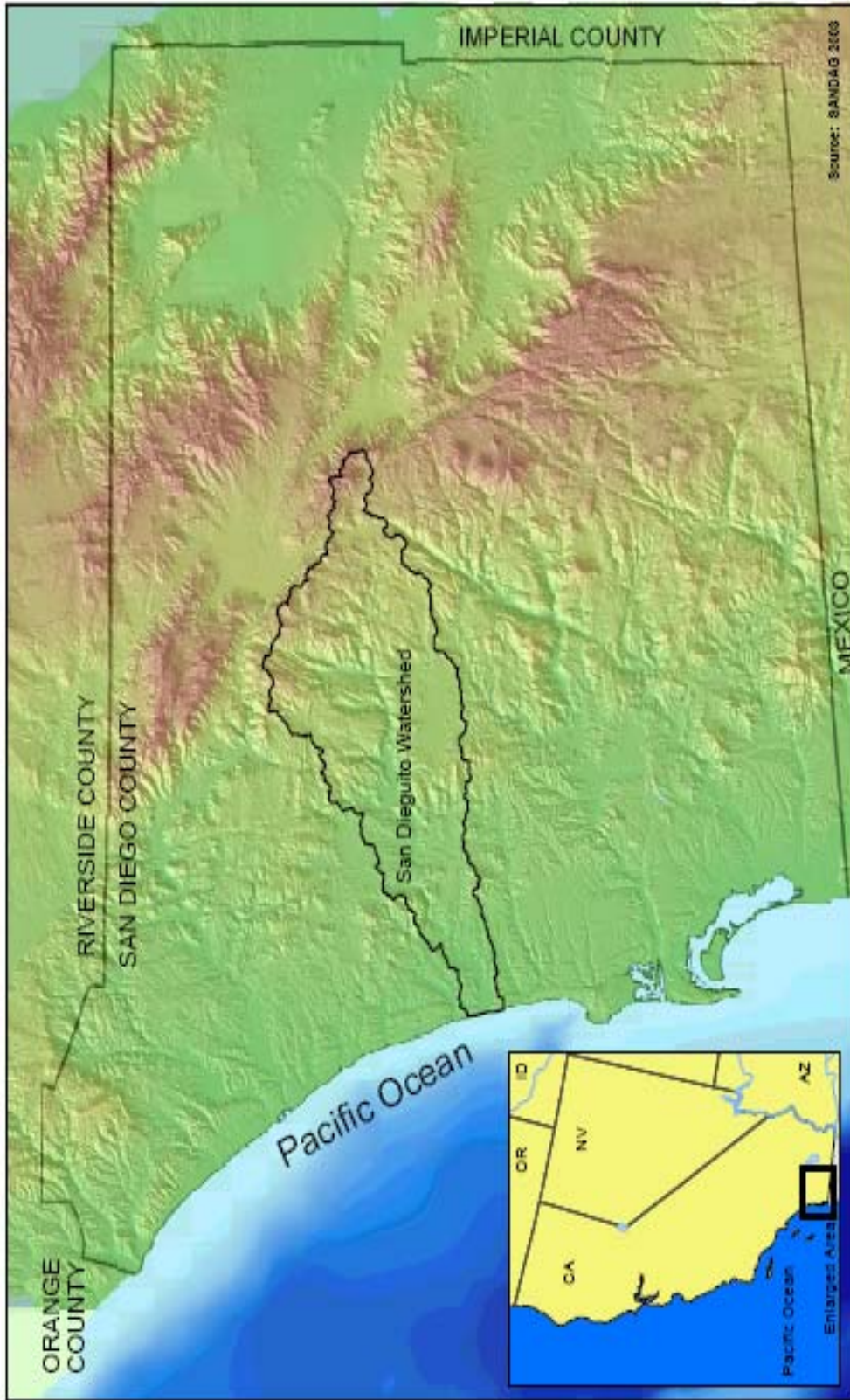


Figure 1.5-1. Regional map showing the location of the San Dieguito Watershed

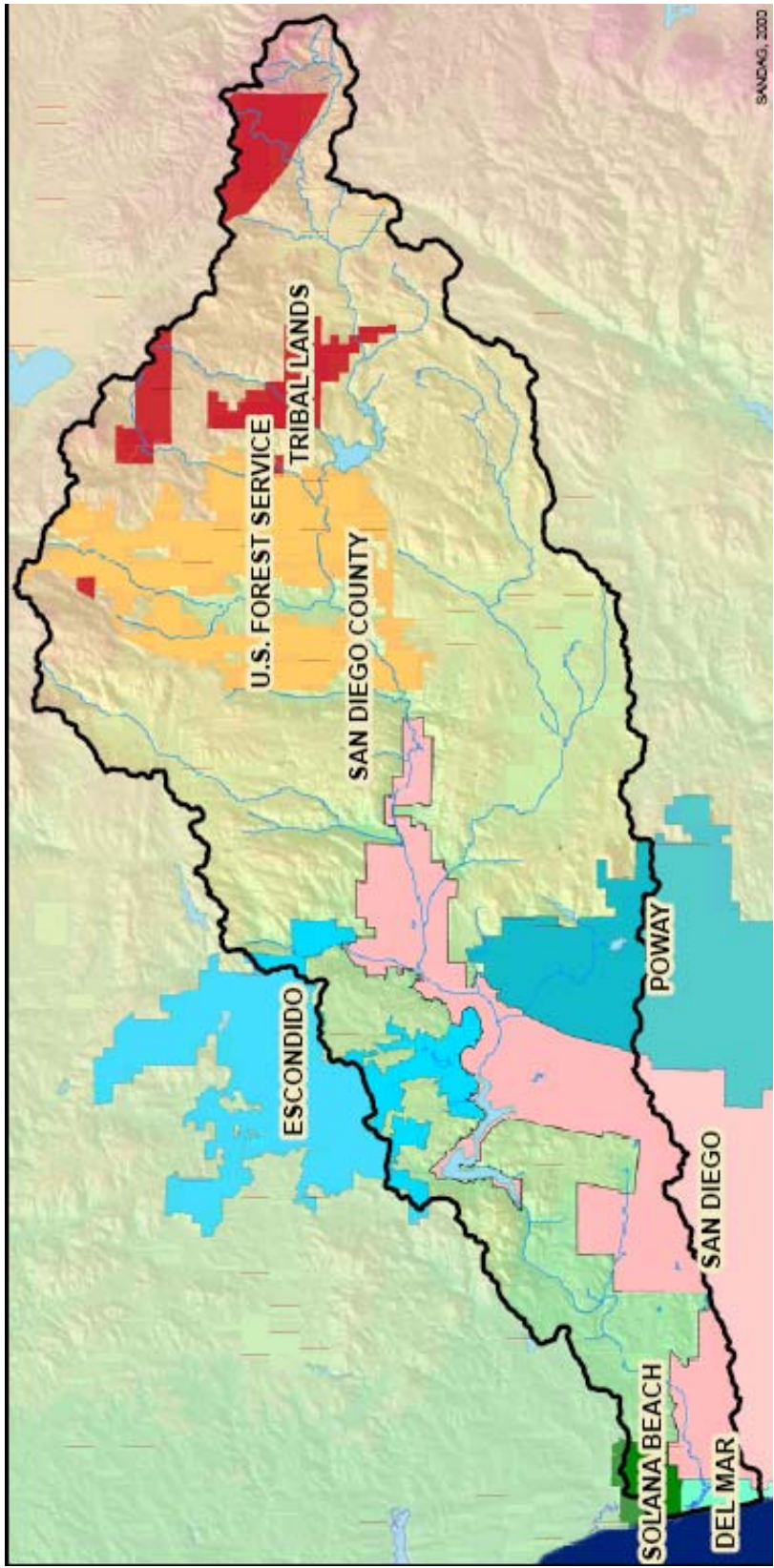


Figure 1.5-2. San Dieguito Watershed including municipal, federal, and tribal land designations.

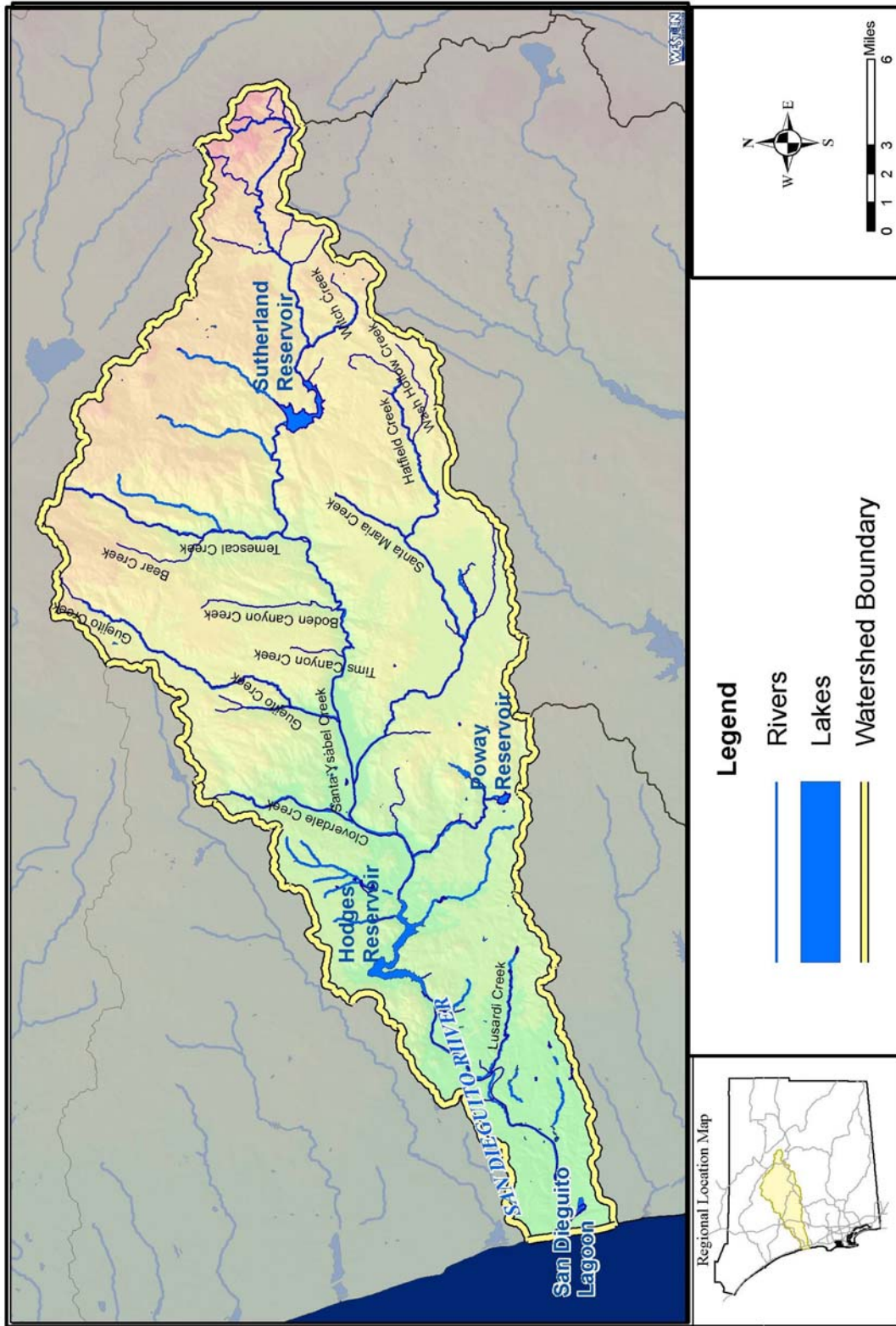


Figure 1.5-3. Location of surface waters in the San Dieguito River Watershed

**San Dieguito Watershed Management Plan**

Beneficial uses identified by the RWQCB for the water bodies in the watershed are summarized in Table 1.5-1. The RWQCB defines the beneficial use of water as “necessary for the survival or well being of man, plant or wildlife.” Water quality, water supply, and the physical characteristics of streambeds, river bottoms, and lagoons support these beneficial uses. If poor water quality, limited water supply, and/or alterations (natural or human-caused) to the physical characteristics cause water bodies to no longer support their designated uses, then sections or areas may be listed as “water quality limited” or “impaired.” A list of water quality limited segments in the San Dieguito Watershed is summarized in Table 1.5-2. Though it is not listed as a beneficial use by the RWQCB, another type of benefit to the community is the flood protection provided by the extensive flood plains and dams which form the reservoirs in the watershed. Ultimately, it is the goal of the RWQCB to fully restore all beneficial use so that there are no water quality limited segments. This goal is accomplished by identifying the many factors that contribute to poor water quality, limited water supply, and/or physical conditions and then correcting them, which may require the assistance of municipalities, businesses, and citizens. Several pollutant stressors that affect water quality, water supply, and physical characteristics include:

- microbiological (bacteria and pathogens, and algae),
- nutrients (nitrogen, phosphorus, iron other trace nutrients)
- toxic substances (metals, petroleum, pesticides)
- general (temperature, total dissolved solids (TDS), pH, turbidity)
- sediment (erosion, sedimentation)

**Table 1.5-1. Beneficial uses listed for surface and ground waters within the San Dieguito Watershed.**

Beneficial Uses	Coastal Waters	Lagoons	Rivers	Reservoirs and Lakes <sup>1</sup>	Ground Waters
Municipal and Domestic Supply			•	•	•
Agricultural Supply			•	•	•
Industrial Service Supply			•	•	•
Industrial Process Supply			•	•	•
Navigation	•				
Contact Water Recreation	•		•	•	
Non-Contact Water Recreation	•	•	•	•	
Commercial and Sport Fishing	•				
Biological Habitats of Special Significance	•	•	•		
Warm Freshwater Habitat			•	•	
Cold Freshwater Habitat			•	•	
Estuarine Habitat		•	•		
Wildlife Habitat	•	•	•	•	
Rare, Threatened or Endangered Species	•	•	•	•	
Marine Habitat	•	•			
Migration of Aquatic Organisms	•	•			
Aquaculture					
Shellfish Harvesting	•				
Spawning, Reproduction and/or Early Development	•	•			

<sup>1</sup> Notes: Fishing from shore or boat permitted, but other water contact recreation (REC-1) are prohibited

## San Dieguito Watershed Management Plan

Each of the water bodies within the San Dieguito Watershed shown in Table 1.5-2 has been listed by the SWRCB as impaired for a specific pollutant stressor which limits one or more beneficial uses.

**Table 1.5-2. Water bodies on the SWRCB list of water quality limited segments in the San Dieguito River Watershed (SWRCB 2005).**

Water Body Name	Hydrologic Sub Area (HSA)	HSA #	Pollutant Stressor
Pacific Ocean Shoreline	Solana Beach	905.11	Bacteria Indicators
Green Valley Creek	Solana Beach	905.11	Sulfates
Hodges Reservoir	Del Dios	905.21	Color, Nitrogen, Phosphorus, TDS
Kit Carson Creek	Del Dios	905.21	TDS
Felicita Creek	Felicita	905.23	TDS
Cloverdale Creek	Highland	905.31	Phosphorus, TDS
Sutherland Reservoir	Sutherland	905.53	Color

The San Dieguito Watershed encompasses approximately 221,304 acres. Undeveloped areas account for an estimated 42.2 percent of the entire watershed according to the existing conditions report (Table 2.3-5) which lists the undeveloped acreage at 93,404 in 2003. The dominant communities include chaparral (27 percent), oak woodlands (12 percent), grasslands (11 percent), and coastal sage scrub (10 percent). Several other upland communities account for an additional 10 percent of land cover. Wetland areas including riparian habitats, marsh, meadows, and open water constitute 2.5 percent of the watershed.

The many different types of habitats found within the San Dieguito Watershed provide a home for a large number of sensitive plant and animal species. The middle watershed segment is the largest of the three and hosts the most sensitive species, with 38 sensitive plants and 67 sensitive animal species. The lower segment has 34 sensitive plant species and 32 sensitive species of animals, while the upper segment has 6 sensitive plants and 9 sensitive animal species.

### 1.6 Intended Uses of the Watershed Management Plan

The WMP has several uses, which are to:

- Provide a physical description of the San Dieguito Watershed and its subwatersheds.
- Describe the characteristics of land uses, water quality, habitats and biological resource utilization within the San Dieguito Watershed.
- Provide an understanding of the linkages between watershed characteristics and impairments within the San Dieguito Watershed.
- Summarize the issues diagnosed by stakeholders of the watershed.
- Communicate the goals developed for the watershed.

- Describe actions, measures, and projects for reducing and ultimately eliminating impairments and for protecting, enhancing, and/or restoring beneficial uses.
- Present a strategic plan to implement prioritized projects.
- Identify types of grants that may provide funding opportunities for the watershed projects described in this plan.
- Provide a mechanism to update and amend the WMP.
- Identify a Lead Agency or group that will implement the WMP.