

3.0 WATERSHED ISSUES AND OBJECTIVES

Information was gathered from a variety of sources to identify issues and concerns associated with environmental health and protection of beneficial uses in the San Dieguito Watershed. Collectively, these issues served as the foundation for developing the goals and objectives that will guide the implementation of this WMP. Coordination with stakeholders was critical to this process, not only to ensure that the identified issues and objectives were representative and comprehensive, but also to initiate the public involvement that will need to be an integral part of the successful implementation of this plan.

This section is organized in three subsections. Section 3.1 describes the stakeholder coordination process. The issues and concerns, and methods used to gather this information, are presented in Section 3.2. Section 3.2 also identifies those issues and concerns considered to be most important to stakeholders. The goals and objectives are presented in Section 3.3, and the objectives that stakeholders recommend should have the highest priority for watershed management are identified.

3.1 Sources of Information

Issues for the watershed were identified from the following six sources of information:

- Findings from a background study and watershed Existing Conditions section (Section 2).
- San Diego Regional Water Quality Control Board Basin Plan.
- WSIG meetings.
- Focused stakeholder workshops.
- Public outreach.
- Questionnaires submitted to local jurisdictions.

The issues and concerns from each of these sources are given in the following subsections.



STAKEHOLDER MARKING PRIORITY WATERSHED ACTION ITEMS DURING THE WORKSHOP.

3.1.1 Results of Background Study

Several issues and concerns were identified during review of data and information used to prepare the Existing Conditions section (Section 2) of this document. These are organized by topic in the following subsections.

3.1.1.1 Land Use

A significant portion of the watershed land remains vacant and in private ownership and new developments are planned for several jurisdictions. Effective conservation of open space may be a challenge as jurisdictions within the watershed have varying and/or incongruent policies in

their general plans, however there are plans and programs established to conserve open space areas, such as the San Pasqual Valley Plan and the Multiple Species Conservation Program. In addition, much of the vacant land is in private ownership which presents great opportunities and obstacles for conservation. Efforts to acquire private property for conservation of open space have been attempted within the watershed with varying success. Jurisdictions generally rely on use of setbacks, buffers, and standards for common useable open space during review of new development and redevelopment projects as a means to conserve open space. Existing areas of development are a known cause of watershed issues, including water quality degradation, urban runoff, and loss of natural habitats. However, future development allows for conservation of land by implementing actions set forth in this watershed management plan, such as green development, coordinated land use planning, and increasing pervious surfaces.

Existing land use plans contain varying information and detail on land use, zoning, and municipal boundary decision making. Where existing watershed issues cross municipal boundaries or where multiple jurisdictional coordination and decision making would be required to address a watershed issue, the municipalities may have difficulty coming to a consensus due to differences in written policy. These differences include:

- Inconsistency of habitat corridor and buffer requirements along municipal boundaries.
- Urban Runoff Pollution Control Strategies.
- Conservation of natural resources.
- Conservation of natural canyons and hillsides for drainage control and wildlife habitat.
- Lack of useable open space in multiple family residential projects.
- Minimum buffer areas and setbacks.
- Need for more neighborhood parks, open space, and community centers.
- Need for integrated trail plans and bikeways across municipal boundaries.
- Preservation of areas of historic, cultural, and scenic significance.
- Preservation of wildlife habitats, and ecologically important areas within parks and recreation areas in a natural state.
- Protection and linking of open space areas across municipal boundaries.

Another issue related to land use includes small, homeless encampments, which occur in localized areas under freeway overpasses and in riparian areas. This transient land use is a social concern, and issue for the health of the watershed since these areas typically contribute trash, waste, bacteria, soaps, and debris to habitats and waters.

3.1.1.2 Water Resources**Water Quality**

Municipal storm drains; industrial discharges; and other nonpoint source runoff including agricultural discharges contribute a variety of pollutants to surface and ground water affecting water usability and water quality in the watershed. There are permits issued by the SDRWQCB to control these pollutants. Currently, the relative contribution of pollutants from these and other sources to surface and groundwater is unknown. Several pollutants have been identified in the Section 303(d) List of Water Quality Limited Segments (Table 2.4-14) and also by workgroup participants. Water quality issues in the watershed include the following:

- Elevated Total Dissolved Solids
- Bacterial Indicators that exceed water quality objectives
- Elevated Nutrients (Nitrogen, Phosphorus)
- Color
- Elevated Sulfates
- Excessive Trash and Litter
- Increased Sedimentation

Another identified issue relative to water quality is monitoring. Water quality monitoring is conducted by a variety of entities associated with NPDES discharge permits, stormwater permits, regional monitoring programs, and/or specialized studies. A lack of standardized methodology, gaps in sampling coverage of the watershed, and lack of any centralized data management or reporting mechanism have limited the availability and use of collected monitoring data for assessing overall watershed health. There is a regional effort to standardized data reporting and centralize data storage through a grant project submitted for approval through a recent Proposition 50 initiative: Integrated Regional Water Management. Those responsible for managing the San Dieguito Watershed would benefit from having centralized data storage and having the data in a public environment would support collaborative and informed decision making. The grant initiative focuses on securing water sources and ensuring clean water quality throughout watersheds from headwaters to coastal waters.

Water Supply

Regional concerns about diminishing water supply have surfaced in years of drought since the 1980's. Sutherland Reservoir in the upper watershed and Lake Hodges in the middle watershed provide significant surface water storage and provide raw water to several potable water treatment plants in the area. Olivenhain Reservoir located in the lower watershed was recently designated as an emergency storage reservoir and provides only a very limited supply of water for daily municipal use. Through the past few years, local newspapers have reported on Colorado River water rights in the San Diego Region and referenced feasibility studies for desalinization. The San Dieguito Watershed is not exempt from the need to ensure an adequate supply of water for the future since some of the water is diverted from the watershed and especially since there is proposed development and growth in population within the watershed. The following issues and concerns relative to water supply were identified from review of local

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jurisdictional General Plans and response to questionnaires submitted to jurisdictions to assist with development of this WMP.

- Conserve domestic water.
- Source water protection.
- Examine feasibility of alternative water resources (e.g., desalination).
- Maintain an independent water source.
- Minimize surface runoff and allow replenishment of soil moisture.
- Promote water conservation using drought resistant/native plants.
- Protect groundwater from contamination.
- Use reclaimed and recycled water where feasible.

Groundwater

Groundwater supply and quality is an important issue for the watershed. The Santa Ysabel and Santa Maria Basins in the upper watershed and the Hodges and San Pasqual Basins in the middle watershed have aquifers that partially serve rural, industrial, and agricultural uses. The Solana Basin located in the lower watershed currently does not support ground water extraction and use without treatment or extensive blending due to elevated total dissolved solids levels likely caused by seawater intrusion into the aquifer. Collectively all five basins provide significant storage capacity though their usability varies.

Groundwater extraction and replenishment are the two major factors affecting supply. Over utilization of groundwater resources by over pumping and natural factors can diminish the supply and indirectly affect the quality. There was a pumping depression and an overall drop in the groundwater levels within the Santa Maria Basins according to a 2004 groundwater bulletin published by the California Department of Water Resources. This same study cited possible changes in groundwater levels due to earthquake faults running through the groundwater basin. Thus, it is important to monitor and maintain groundwater supplies by managing extraction and ensuring recharge. Factors affecting groundwater recharge are related to geography, geology, and land use and managing groundwater supply should take into consideration how geology, geography, and land use decisions affect each factor. Each of the factors with exception of precipitation may be used as a mitigating factor to increase groundwater recharge (Table 3.1-1).

Table 3.1-1. Factors affecting recharge of groundwater

	Geology / Geography	Land Use Decisions	Mitigating
Precipitation	x		
Stream Flow Infiltration	x	x	x
Imperviousness of Watershed	x	x	x
Evapotranspiration	x	x	x
Ground Water Injection ¹	x	x	x

¹ Injection of ground water may include potable, reclaimed, or blended water.

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Groundwater within all five of the ground water aquifers have been affected to varying degrees by precipitation levels, natural geology, imported water, agricultural leaching, and private sewage disposal systems as evidenced by elevated TDS, sulfate, and nitrate levels in groundwater monitoring wells.

Flooding

Several flood control studies have been completed by the County of San Diego over the years for the San Dieguito River Valley. During those previous flood control studies, citizens and communities within the San Dieguito Watershed made it known that they do not support hardening of channels, installation of concrete conveyance systems, or installation of rip rap to protect encroaching land uses. This is largely why the San Dieguito River and its tributaries remain in their natural state. It has also been a goal of the communities to reduce encroachment into the floodplain and to maintain development outside the 100-year floodplain so that hardening or concrete protective measures are not necessary to protect property and structures. Where existing land uses encroach into the flood plain such as in agricultural areas, there has been effort to protect those farms where economically and environmentally feasible. Current land use plans show increases in developed areas over the next twenty years which will increase the imperviousness of the watershed and increase the peak flows in the river valley unless mitigating factors are implemented concurrent with developments and projects.

Cumulative effects of unmitigated runoff from existing and newly developed areas poses a significant threat to the structure and function of the river valley. Increased flows may cause more frequent scouring and destruction of stream habitat and more frequent flood may alter the riparian and wetland communities. Managing increases in the quantity of dry and wet season runoff from future development will be necessary to ensure natural flow regimes in the river valley.

Aquatic Organisms

Good physical conditions and water quality and adequate water supply combine to create suitable hydrological conditions that support aquatic organisms. Urbanization and alteration of land use contribute to changes in flow regimes as discussed in the flooding section and effect the biological composition of streams and rivers. Degraded benthic macroinvertebrate communities have been documented in the watershed and is an issue. Ensuring that existing and future land use changes do not further degrade the biological composition is important. Toxicity, fish and benthic macroinvertebrate monitoring have been employed within the watershed's lakes and streams as a biological metric of water quality. Aquatic communities have not been monitored for some streams and river segments. The lack of biological water quality information is an issue.

3.1.1.3 Biological Resources

Native habitats of varying quality constitute just fewer than 75 percent of the watershed as documented in Table 2.5-1 and are dominated by Chaparral, Coastal Sage Scrub, Grassland, and Oak Woodland. Natural habitats are generally unconfined and connected to other open space areas though edge effects are present at the native habitat/urban development interface. Many of the riparian and upland habitats are dominated by non-native exotic and invasive plants, one such area is the San Pasqual Valley riparian habitat which is dominated in some areas by *Arundo*

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donax. Active enhancement and restoration efforts are underway in the watershed, on such example is the San Dieguito River Valley (Lower) estuary restoration project.

The extensive natural habitats and open spaces and their inter-connectedness make for large contiguous habitats within the San Dieguito Watershed and creates a sustainable home to unique plant communities and several hundred species of plants and wildlife. Seventy-seven sensitive wildlife and fifty-four sensitive plant species have been observed in the watershed as shown in Tables 2.5-2 and 2.5-3 of the Existing Conditions section. Multiple land use and biological resource plans overlap to protect these sensitive resources.

Concern for biological resources and habitat are, as follows:

- Physical modifications of streams and stream flows.
- Exotic, invasive plant species and non-native animals.
- Habitat fragmentation.
- Narrow buffers to urban development and edge effects.
- Protection of sensitive species and habitats.
- Litter, trash, and debris.

3.1.2 San Diego Regional Water Quality Control Board Basin Plan

The SDRWQCB mission is "...to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations." The SDRWQCB accomplishes this mission through a multitude methods including: watershed planning, issuing discharge permits, conducting inspections, and enforcing violations. Two recent activities by the SDRWQCB affect the San Dieguito Watershed: Issuance of Waste Discharge Requirement Permit R9-2005-0213 for the restoration of San Dieguito Lagoon and Project 1 – Bacteria TMDL for Beaches and Creeks in the San Diego Region. These projects will involve rehabilitating, enhancing, restoring, and monitoring the beneficial uses in the San Dieguito River Valley (lower watershed). In addition, the SDRWQCB regularly issues permits and reviews and amends permits for the following dischargers:

- Industrial storm water dischargers
 - <http://www.waterboards.ca.gov/stormwtr/industrial.html>
- Construction storm water dischargers
 - <http://www.waterboards.ca.gov/stormwtr/construction.html>
- Above and below ground storage tanks
 - <http://www.waterboards.ca.gov/sandiego/programs/units/tsmc/tsmc.html>
- Municipal storm water dischargers
 - http://www.projectcleanwater.org/html/wg_monitoring.html

The website links listed beneath each discharge permit type includes data about the discharge permit and monitoring results from dischargers required to conduct monitoring as a part of their permit.

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The 2002 Section 303(d) List of Water Quality Limited Segments for the watershed includes designations for Bacterial Indicators, Sulfates, Color, Nitrogen, Phosphorus, and Total Dissolved Solids (see Table 2.4-14 in Section 2.4 of the Existing Conditions section for the complete Section 303(d) List with designations).

Waterbodies listed on the Section 303(d) List will ultimately be incorporated into a regulatory tool called a TMDL based upon priorities set by the SDRWQCB. This regulatory tool and associated implementation program designates and allocates limits on pollutant discharges to Waters of the United States. Municipalities and other dischargers will be required to identify and abate sources of the pollutants which will ultimately result in Section 303(d) delisting and restoration of beneficial uses. In advance of TMDL development and implementation, all agencies and groups conducting monitoring within the San Dieguito Watershed should coordinate activities and follow what the state standards when conducting water and sediment monitoring activities. Surface Water Ambient Monitoring Program (SWAMP) sets standards for data collection, analysis, and reporting so that data generated from multiple different monitoring programs is compatible and comparable which is important when documenting reductions in pollutant discharges and compliance efforts.

3.1.3 Stakeholder Participation

The initial framework and vision were established in May 2004 and this WMP was prepared in coordination with stakeholders of the watershed between January 2004 and August 2006. The WSIG was instrumental in ensuring participation with a diverse group of stakeholders that was facilitated by its regularly scheduled meetings and activities as shown in Table 3.1-2 **Error! Reference source not found.**

Table 3.1-2. San Dieguito Watershed Management Plan development timeline in 2005.

Activity	Timeline
Kickoff Field Meeting	Jan 27, 2005
Issues Framework Meeting	Feb 26 and April 28, 2005
Draft Existing Conditions Report Published	May 13, 2005
Upper, Middle and Lower Watershed Field Trips	May 19 and May 26, 2005
Watershed Framework Development	Aug 25 and Sept 22, 2005
Public Meetings: Facilitated Action Item Development	Oct 20, Nov 18 and Dec 15, 2005

Stakeholder coordination was facilitated and managed by five core participants and included focused workshops with staff from local jurisdictions and non-governmental organizations, and public outreach meetings. The roles each core participant played in the development of the WMP are summarized below.

- The Executive Team – sets the schedule of activities, scopes workplans, and responds to the public
- The WSIG – develops the goals, issues, concerns, and actions for the WMP

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- The Technical Advisory Committee (TAC) – organizes discussion and presentations of technical subjects such as monitoring, ecological framework, models, best management practices, and land use.
- Consultant Team (Weston Solutions, Inc.) – Facilitate workgroup and workshop discussions, write Existing Conditions section and WMP.
- City of San Diego – manages the grant administration and reports progress to the State Water Resources Control Board.

The San Dieguito Watershed Steward Initiative Group (WSIG)

The WSIG consists of stakeholders from governmental agencies, non-governmental organizations, industry, and the local community. In early 2004, the WSIG evolved from the Watershed Planning Guidance Group which began its planning efforts in late 2003 to guide the initial steps involved in developing this WMP. Founders of this group prepared an application and obtained a Section 205(j) Planning Grant, which was used to help fund the development of this WMP.



During the initial meetings where the WSIG worked to develop a list of watershed issues, speakers who had extensive watershed management or knowledge on watershed issues were invited to present information that would help the workgroup. The Building Industrial Association (BIA) and other interested parties were not able to speak at the initial meetings and therefore were not involved in the initial planning efforts. Future meetings should include all interested speakers and areas of expertise in order to address important watershed issues.

The topics and speakers are summarized below in Table 3.1-3.

The speakers covered topics related to water quality, water supply, biological resources and habitat, and social and community resources and the existing efforts, plans, and issues throughout the watershed. The workgroup discussions that ensued illuminated the multiple jurisdictions, policies, interests, issues, land uses, and zoning and emphasized the need for a collaborative process in developing the WMP. Through these meetings, the WSIG modified its Vision, Goals, and Objectives to meet the requirements of the diverse uses, interests, and issues within the watershed.

Stakeholder involvement in the WSIG was solicited by letters of invitation, word of mouth and an internet presence. Stakeholders remain involved in the WSIG because of the group's commitment to proactively address the issues in the watershed through a consensus-based approach.

Table 3.1-3. San Dieguito Watershed Management Plan speakers and topics.

Speaker	Affiliation	Topic
Bob Collins	City of San Diego – Water Department	Watershed Management Plan Development
Randy Rodriguez	City of San Diego – Planning and Land Use Department	Multiple Species Conservation Program (MSCP)
Trish Boaz	County of San Diego	Multiple Species Conservation Program (MSCP), Habitat Planning
Matthew Wittman and Chuck Badger	San Diego County Farm Bureau	Farming in the San Dieguito River Valley
Dick Bobertz, Craig Adams	San Dieguito River Park JPA; San Dieguito River Valley Conservancy	San Dieguito Lagoon Wetlands Restoration Project
Paul Gebert and Jeff Pasek	San Diego County Water Authority; City of San Diego – Water Laboratory	Water Systems in the San Dieguito River Watershed
David Gibson	San Diego RWQCB	Water Quality in the San Dieguito River Watershed- Land Use Changes, Regulator Mechanisms to Protect Water Quality
Bob McCullough, Jeff Pasek, Jesus Meda, Paul Gebert	City of San Diego Water Policy; City of San Diego Water Laboratory; City of San Diego Water Engineering; San Diego County Water Authority	Water Supply – Ground Water, Reservoirs, Precipitation
Mark Whitehead	WSIG Chairman	Lower Watershed Vision– Mouth of the San Dieguito Estuary, Agricultural Land Uses, Habitat.
Jeff Pasek	City of San Diego Water Laboratory	Middle Watershed Vision– Water Supply in Lake Hodges, Ground Water Recharge, Agriculture, Source Water Protection, Land Use Changes
Bill Simmons	WSIG Vice Chairman	Upper Watershed Vision- Accessibility with Improved Trail System and Need for Land Owner Planning

The WSIG met on a monthly basis, and the focus of these meetings to date has been the establishment of a vision, mission, and charter for the group; the development of goals, objectives, and issues to be addressed; and an action plan to address the issues which is the core of the WMP. The meetings are open to the public, and the WSIG posts their meeting agendas and meeting minutes and draft documents on the County of San Diego Project Clean Water Website http://www.projectcleanwater.org/html/ws_san_dieguito_stewardship.html.

3.1.4 Focused Workshops

The following focused workshops were held with members of WSIG and/or representatives from local governmental agencies and non-governmental organizations during the preparation of this WMP:

- The WSIG met to identify and discuss water related issues, concerns, and goals for the San Dieguito Watershed.

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- The TAC and WSIG organized field trips to the upper, middle, and lower watershed areas to help familiarize the group with existing special biological resources, land uses, open spaces, and surface waters.
- After the initial goal setting meetings and field trips, the WSIG conducted three facilitated public meetings to identify actions to address issues and concerns in the watershed.

3.1.5 Public Outreach

Several forms of effective public outreach have been conducted during preparation of the WMP as reflected by the diverse stakeholder affiliation and participation including: industrial and development sectors, municipal and state government, agriculture and farming, homeowners associations and property management, potable and wastewater reclamation facilities, and environmental conservancies. Public meetings were held to discuss development and content of the WMP. Several WSIG members attended planning commission meetings at local municipalities to spread the word about the current effort to develop a WMP and participate in public comment. In addition, many of the WSIG members utilized their affiliations with other environmental stewardship groups and conservancies to notify others about the effort to develop a WMP for San Dieguito Watershed and recruit participants.

Three public workshops were held with the general public in October, November, and December 2005.

The purpose of these meetings was to:

- Inform the public about the development of the WMP.
- Review the study approach for preparation of the WMP.
- Review the goals and objectives for the WMP.
- Review the issues, problems, and concerns associated with the San Dieguito Watershed.
- Develop actions, programs, and projects to identify social and community resource needs.
- Develop actions, programs, and projects to address existing watershed issues and concerns and support the goals and objectives of the WMP.
- Identify priority actions for the watershed.
- Discuss the importance and opportunities for public involvement in the implementation of the WMP.

A variety of notification strategies were used to inform and invite the public to the meetings. Over 50 stakeholders representing more than 40 interests were notified and formally invited to the public meetings and workshops. An announcement and agenda were emailed to the stakeholders, the agenda and announcement were posted on the official San Dieguito Watershed Management Plan website, and an announcement was placed in the local newspaper.



**PUBLIC WORKSHOP
PARTICIPANTS
RECORDING ISSUES**

The meetings objectives were clearly stated in an agenda which was mailed out prior to the workshop and the entire group voted to approve the agenda before beginning the workshop. The meeting agenda also allowed time at the beginning and end of each meeting for participants to share any praise reports, concerns, comments, quibbles, complaints, information, or other communication. In an effort to increase the number of response and improve group interaction, the large group was broken down into three smaller groups and the tasks were given. A list of actions verbs was posted in the room to remind participants to write the issues and actions as specific as possible. Each of the three small groups worked independently on the task items and recorded ideas on a large tablet of paper. Then, the three smaller groups gathered into one group and each group posted its tablet sheets on the wall and clarified and shared its ideas. As part of this process, the group crossed-off any ideas that were repeated. Finally, each participant was allotted seven votes and asked to individually place a mark beside ideas which were most important to them. Later, the votes were tallied to establish a priority list. The public workshops were very successful as indicated by participation, collaborative spirit, and accomplishment of developing issues and action matrices (Table 3.1-4, Table 3.1-5, Table 3.1-6). The WSIG members that participated in the development of this WMP are listed in Section 5 (Preparers and Contributors) of this document.

Compilation of the issues and prioritized action are summarized and presented in a matrix format in Table 3.1-4 (Water Quality and Water Supply), Table 3.1-5 (Biological Resources and Habitat), and Table 3.1-6 (Social and Community Resources). Across the top of the matrix are watershed issues and along the side of the matrix are watershed actions with a priority ranking. The issues also included a geographic consideration which are designated in the matrices as Upper, Middle, and/or Lower Watershed. An “X” indicates that an issue is addressed by an action. As can be seen throughout the matrices, there are some actions, that when implemented, address multiple issues.

Looking at the Water Quality and Water Supply Matrix, water quality modification, hydrologic modification, and water use issues were most directly addressed by the list of actions developed. While, physical modifications and invasive species categories were indirectly addressed by the actions. The first few priority activities are regional in nature and include expanding understanding of water quality throughout the watershed, expanding water conservation, and implementing natural pollution treatment methods.

The Biological Resources and Habitat Matrix identifies physical and hydrologic modifications, natural causes, and current land use planning as having the most impact upon the resources. The priority action items include expanding existing conservation and protection measures, creating a watershed council to participate in watershed planning and implement this watershed plan, coordinating existing different and complimenting education programs, and seeking changes in land use policy and municipal ordinances related to development and landscaping.

Table 3.1-4. Water quality and water supply issues and prioritized action matrix.

Priority	Issues	Watershed Segment	Water Quality Modifications							Physical Modifications							Hydrologic Modifications					Invasive Species			Water Use					Other										
			Nutrients / eutrophication / oxygen depletion	Silt / sediment	Toxics / toxicity	Pathogens posing risk to humans	Salinity / dissolved solids	Litter / trash / debris	Other	Fill / excavation of wetlands / riparian areas	Channelizing / confining / undergrounding streams	Development in floodplains / floodways	Barriers / obstacles	Clearing / grading / land use conversion	Hardscaping / impervious surfaces	Trampling / soil compaction	Erosion / erosion protection	Other	Reduced tidal exchange	Reduced stream flows	Increased stream flows	Lowered water table	Other	Plants	Animals	Other	Agricultural	Landscape irrigation	Indoor residential	Commercial / industrial	Other	Incompatible land use planning	Reservoir vegetation	Flooding / flood protection	Wildfire / wildfire protection	Drought	Wildlife disturbance	Data / information gaps	Other	
			Upper	•	•	•	•	•	??	○	○	○	○	○	○	○	○	??	○	○	○	○	??	•	○	??	•	○	○	○	??	○	○	○	○	○	○	○	○	??
			Middle	•	•	•	•	•	??	○	○	○	○	○	○	○	○	??	○	○	○	○	??	•	○	??	•	•	•	•	??	○	•	○	○	○	○	○	○	??
Lower	•	○	•	•	•	•	??	○	○	○	○	○	○	○	??	○	•	•	•	•	??	○	○	??	•	•	•	•	??	○	○	○	○	○	○	○	○	??		
9	Multi-faceted water conservation program	M,L	X	X	X	X	X										X	X	X					X	X	X	X								X					
8	Water Sampling/Monitoring for surface water and groundwater	A	X	X	X	X	X														X																	X		
7	Low flow treatment facility - treat water prior to entering Lake Hodges	M	X	X	X	X	X	X	X												X																			
6	Evaluate/Implement a regional level system of sedimentation and natural filtration basins	M,L	X	X			X	X							X	X																								
6	Remove non-native invasive plants and restore native (riparian) vegetation	A		X						X	X	X			X							X									X	X								
6	Animal Waste (domestic, agricultural) - Education; Regulation Enforcement; Economic Incentives	A	X			X																		X					X											
4	Develop and fund an animal waste management program for concentrated animal facilities	M,L	X			X																						X												
4	Water supply: groundwater; inflows/outflows; salinity	M,L	X			X					X	X	X		X		X	X	X	X	X				X	X	X	X	X	X					X					
3	Increase pervious surfaces in new and re-development	L																	X												X									
3	Incentives to implement source water protection guidelines for reservoir protection	U,M	X	X	X	X	X	X	X																															
3	Create saltwater barrier to protect groundwater quality	A					X												X																					
2	Create a database of existing water quality data	A																																				X		
2	Endorse and support existing urban runoff mgmt. programs (i.e. SUSMP)	M,L	X	X	X	X	X	X		X	X	X						X						X	X	X	X													
1	Expand use of reclaimed water (purple pipes)	M,L																						X	X			X							X					
1	Evaluate and utilize the water supply potential to the SPV basin, (recycled/imported storage - "reclaimed")	M							X								X	X	X	X				X	X	X	X	X						X				X		

Priority	Issues	Water Quality Modifications							Physical Modifications							Hydrologic Modifications					Invasive Species			Water Use					Other											
		Watershed Segment	Nutrients / eutrophication / oxygen depletion	Silt / sediment	Toxics / toxicity	Pathogens posing risk to humans	Salinity / dissolved solids	Litter / trash / debris	Other	Fill / excavation of wetlands / riparian areas	Channelizing / confining / undergrounding streams	Development in floodplains / floodways	Barriers / obstacles	Clearing / grading / land use conversion	Hardscaping / impervious surfaces	Trampling / soil compaction	Erosion / erosion protection	Other	Reduced tidal exchange	Reduced stream flows	Increased stream flows	Lowered water table	Other	Plants	Animals	Other	Agricultural	Landscape irrigation	Indoor residential	Commercial / industrial	Other	Incompatible land use planning	Reservoir vegetation	Flooding / flood protection	Wildfire / wildfire protection	Drought	Wildlife disturbance	Data / information gaps	Other / Cost Association	
		Upper	○	○	○	●	⊖	●	??	⊖	○	●	●	●	⊖	●	⊖	??	○	○	○	○	??	⊖	●	??	○	○	○	○	??	●	○	●	●	○	●	○	??	
		Middle	○	○	○	●	⊖	●	??	⊖	○	●	●	●	⊖	●	⊖	??	○	●	●	⊖	??	⊖	○	??	○	⊖	⊖	⊖	⊖	??	●	⊖	●	●	○	●	○	??
Lower	●	○	○	○	●	⊖	●	??	●	●	●	●	⊖	●	⊖	??	●	●	●	⊖	??	●	⊖	??	○	⊖	⊖	⊖	⊖	??	●	○	●	●	○	●	○	??		
	Simulate natural stream flows. Develop mechanism that ties water conservation to stream flows (conserve/release water)	A	X							X		X						X	X	X		X			X	X				X		X		X						
	Prevent urban sprawl - limit growth	A							X	X	X	X	X	X	X			X		X			X	X		X	X	X		X						X				
	Seek grant opportunities for habitat restoration	A	X	X	X				X	X	X	X	X	X	X			X	X	X			X	X						X		X	X	X	X					
	Respect "Viewsheds": Set backs, heights; Use native plant landscaping (reduce water use and runoff)	A	X	X	X										X				X				X			X														
	Monitor and manage resources	A																																					X	
	Support equity mechanism to support preservation of farmland	U,M											X							X					X				X											
	Educate Commercial business: Nurseries; Home Improvement stores; Landscape architecture	L,M	X	X	X		X								X										X	X	X	X											X	
	Find funding for "Low Flow" urban stream filtration	A	X	X	X	X	X			X								X																			X	X		
	Identify funding	A																																			X	X		
	Study / Establish habitat buffers	A							X		X												X	X						X							X	X		
	Establish cultural and historical interpretive programs	A																																				X		
	Support large lot zoning 80-160 acres to protect habitat and water quality	A									X																									X				
	Natural / native cover development requirements	A							X				X		X								X	X		X														
	Maintain soft bottom streams	A	X	X			X		X	X	X	X						X	X	X																X				
	Adopt a stream program	A						X																																
	Erosion control plan - risk plan		X	X			X								X	X																								
	Support MSCP and equivalent programs	A							X	X	X		X										X	X													X	X		

Watershed Segment: U-Upper; M-Middle; L-Lower; A-All
 Concern: ● = Direct; ⊖ = Indirect; ○ = Not

Priority	Issues	Watershed Segment	Water Quality Modifications							Physical Modifications							Hydrologic Modifications				Invasive Species			Water Use				Other												
			Nutrients / eutrophication / oxygen depletion	Silt / sediment	Toxics / toxicity	Pathogens posing risk to humans	Salinity / dissolved solids	Litter / trash / debris	Other	Fill / excavation of wetlands / riparian areas	Channelizing / confining / undergrounding streams	Development in floodplains / floodways	Barriers / obstacles	Clearing / grading / land use conversion	Hardscaping / impervious surfaces	Trampling / soil compaction	Erosion / erosion protection	Other	Reduced tidal exchange	Reduced stream flows	Increased stream flows	Lowered water table	Other	Plants	Animals	Other	Agricultural	Landscape irrigation	Indoor residential	Commercial / industrial	Other	Incompatible land use planning	Reservoir vegetation	Flooding / flood protection	Wildfire / wildfire protection	Drought	Wildlife disturbance	Data / information gaps	Other / Cost Related	
			Upper	Middle	Lower	●	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
			●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2	Litter: identify sources and causes; revise and implement regulations; provide receptacles	A						X																																
2	Identify existing/needed GIS coverages	A																																			X			
1	Devise a strategy for increasing the pervious cover in the watershed	A	X	X								X						X	X	X																X				
1	Education program - Maps; Signs (i.e. organic farms)	A																																		X	X			
1	Incorporate City of San Diego's SWPG's into development process procedures	A	X	X	X	X																		X	X	X			X											
1	Lobby to Farm Bill Legislation for pollution and other water quality control programs	A	X	X	X	X	X								X			X	X	X		X	X		X				X											
1	Prioritize key agriculture and open space parcels for preservation	M,L										X												X					X						X					
1	Encourage water use on farms	M,L					X																	X																
	Increase public ownership	U																											X								X			
	Evaluate regulations affecting agricultural ponds	A	X							X	X	X										X	X		X												X			
	Design communities for fire management protection	A																																						
	Inventory existing agricultural operations: (Williamson Act/Farm Bill Agreements; types of uses)																																				X			
	Develop list of agriculture BMP/agriculture stormwater permits in watershed - SDSU and RWQCB																																				X			
	Inventory existing conserved lands, irrigation sites, agriculture easements/agreements. Site new basins																																				X			
	Seek opportunities for weed and fire management using grazing; both public and private													X	X																						X			

Watershed Segment: U-Upper; M-Middle; L-Lower; A-All
 Concern: ● = Direct; ○ = Indirect; O = Not

The Biological Resources and Habitat issues and Social and Community Resources issues are very similar. The priority action items are similar and include establishing and utilizing functional buffers and compact development footprints, coordinating land use policies and inventories. Maintaining and enhancing the agricultural character of the watershed is supported by actions to implement BMP's at agricultural facilities and expand the recycled water availability to agricultural land uses. Notably, the action to establish and expand monitoring "Stream Teams" encourages watershed stewardship.

Many of the public meetings were held at the Escondido City Hall Complex which represents an easily accessible facility in the middle watershed area. Other meeting locations included the City of San Diego Metropolitan Wastewater Operations Center and Metropolitan Wastewater Biosolids Recycling Facility. All of the meetings were scheduled from 1:30 p.m. to 4:30 p.m. Participation varied between approximately 20-40 people.

3.1.6 Questionnaires

Questionnaires were prepared and submitted to representatives of each city, the county and special districts and non-governmental organizations within the watershed to solicit information on existing watershed management procedures, watershed problems, unmet needs, enhancement and restoration opportunities, and stakeholder goals. The questionnaire helped to characterize the workgroups general understanding of watershed familiarity, the importance of watershed functions, watershed issue awareness, and watershed actions needed. Questionnaire responses are summarized below.

Watershed Familiarity

How familiar are you with these parts of the watershed?

Based upon the responses about watershed familiarity, the workgroup participants and the workgroup as a whole were most familiar with the Middle Watershed, and less familiar with the Upper and Lower watersheds.

Watershed Functions

How important to you are these services and functions of the San Dieguito River Watershed?

Based upon the responses about the importance of watershed functions, the majority of participants rated water supply and water quality as the most important function of the San Dieguito Watershed, followed by biological resources and habitats, and finally, social and community resources.

Watershed Issues

Are you aware of any of the following issues in the San Dieguito River Watershed?

Regarding watershed issue awareness, participants were most aware of litter and invasive species within the watershed, followed by loss of habitat, domestic animal waste, floodplain development, wasteful use of water and irrigation runoff.

Watershed Actions

What actions do you think would be the most beneficial in the San Dieguito River Watershed?

Reviewing the rankings of watershed actions needed showed the following general actions as most important which are consistent with the four watershed functions: Water Quality, Water Supply, Biological Resources and Habitats, and Social and Community Resources:

- actions related to watershed sensitive land use planning
- general watershed education
- water conservation and water reliability
- preserving habitat
- preventing water pollution

3.1.7 Initial Stakeholder Efforts

Two meetings organized by the WSIG in February and April 2004 were held with the expressed purpose of identifying issues, concerns, problems, and goals for the San Dieguito Watershed. The information generated from these meetings helped provide important background information and framework for development of the existing conditions report.

The WSIG initially developed a brief list of concerns (presented in the Appendix) during a brainstorming session at a meeting in February 2005. Many of the issues were general in nature and lacked a geographic reference to the watershed. The group determined that it would need to better define the geographic extent of the issues so that action items, cost estimates, and feasibility could be better estimated and/or determined. This initial list of issues was referenced and used to facilitate further discussion and definition of issues in the three public workshops held in October, November, and December 2005. The initial list was summarized under four broad categories which, in part, later became important in helping structure the existing conditions report:

- Water quality and quantity, both surface water and groundwater;
- Land use planning; including residential and commercial development, agriculture, impervious surfaces, open space, and recreation;
- Habitat, fish and wildlife, and vegetation management; and,
- Public participation in the Watershed Management Plan and implementation of the Plan.

Meeting participants made the following suggestions relative to future public coordination and development of the WMP.

- Make public presentations available online.
- Save the Microsoft Word[®], Excel[®] electronic formats in older versions for better compatibility.
- Document all ideas and information on paper, summarize, and modify as needed by the workgroup.
- Make an effort to identify existing information sources and create an inventory.
- Need for a clear vision statement that can be modified as the WMP develops.
- Field trips should be organized to help visualize the issues.

3.1.8 Summary of Issues

The following issues were identified by most of the sources, and therefore, have a very widespread recognition by a diverse range of watershed stakeholders. These major issues and concerns include:

- Water Quality
- Physical Modifications
- Hydrologic Modifications
- Invasive Species
- Water Use
- Land Use Planning
- Flooding
- Wildfire Protection
- Monitoring Coordination and Data Integration

3.2 Goals

3.2.1 Goals

The goals for the WMP were developed by the WSIG, and reviewed with other stakeholders during the three public workshops held in October, November, and December 2005. The goals are consistent with other regional watershed management goals (e.g., SDRWQCB Basin Plan, Municipal Watershed Urban Runoff Management Plans).

The WSIG meetings, public workshops, and this WMP are based upon a vision/action-based matrix developed by the WSIG. Before meetings, the facilitators reminded the stakeholders to reference the matrix to ensure their comments, strategies, and actions protected the watershed functions and were consistent with the vision which is listed below and related in Figure 3.2-1.

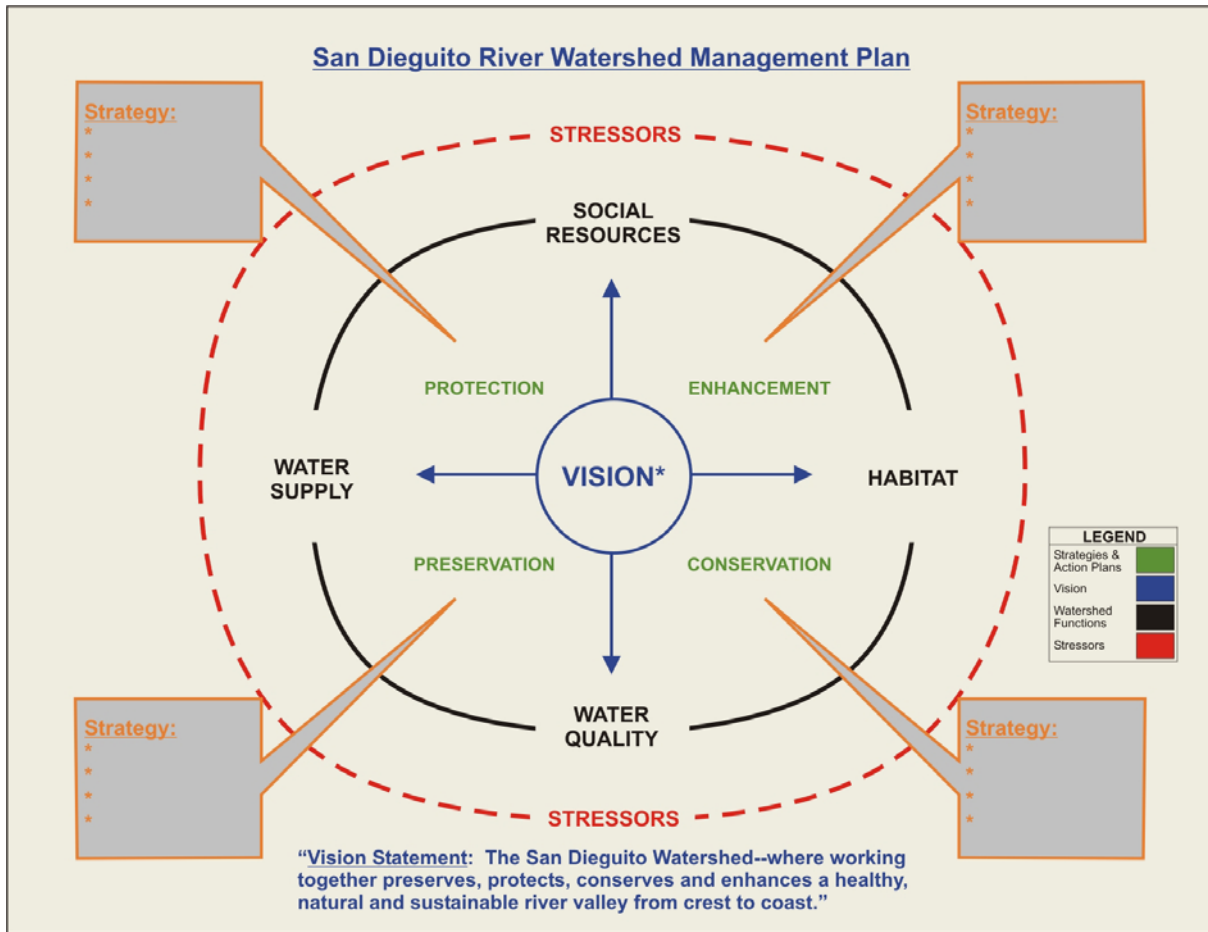


Figure 3.2-1. San Dieguito Watershed Management Plan Vision/Action Matrix

- Vision: The San Dieguito Watershed – where working together preserves, protects, conserves, and enhances a healthy natural and sustainable river valley from crest to coast
- Watershed Functions: Monitoring of Water Quality, Water Supply, Habitat and Biological Resources, Social and Community Resources
- Strategies: Preservation, Protection, Conservation, Enhancement
- Actions: See Section 4

The four goals of the San Dieguito WMP as decided by the WSIG are as follows:

- 1) Protect and enhance water quality.
- 2) Conserve, reuse, and recharge water supply.
- 3) Protect, enhance, and restore native habitats and biological resources.
- 4) Support social and community resources.



FACILITATED PUBLIC MEETING

3.2.2 Methods of Goal Implementation

Objectives were developed to address the issues identified for the watershed as a result of the stakeholder outreach process and the Existing Conditions section. In addition, the recommendations and suggestions made by the public during the workshop meetings also were considered.

Table 3.2-1 lists the objectives developed for the San Dieguito WMP relative to the four goals of the plan. As can be seen from the table, several of the objectives contribute to the fulfillment of more than one goal. It is recognized that achieving success in fulfillment of the goals and objectives will be expensive for the San Dieguito Watershed. Implementation of projects may require demolition and new construction, retrofit of existing infrastructure and systems, and a high degree of coordination to ensure effective implementation and monitoring of effectiveness. Funding should be directed towards programs and projects that have the most potential to yield meaningful results and that they be scheduled in a fiscally responsible manner.

3.2.3 Priority Action Items

The WMP Vision served as the foundation from which all goals, objectives, and actions were built. During stakeholder and public meetings, each participant voted on actions which they thought was most important. While all watershed actions are described in detail in Sections 4.3-4.6, the priority watershed actions are short-listed below.

- Develop functionality-based buffers to protect habitat and biological resources.
- Effect changes in land use plans to encourage smaller development footprints.
- Create and fund a Watershed Council.
- Complete the San Dieguito River Park.
- Protect Special Biological Areas: Rancho Guejito, Ramona Grasslands, and Volcan Mountain.
- Support Transnet Phase II Habitat Component.
- Coordinate a multi-faceted water conservation program that integrates storm water management and water conservation.
- Expanding monitoring of surface and groundwater in the watershed.

Table 3.2-1. Methods of implementation of watershed management goals for the San Dieguito Watershed.

Methods of implementation of goals	Goal 1 Protect and Enhance Water Quality	Goal 2 Conserve, Reuse, and Recharge Water Supplies	Goal 3 Protect, Enhance, and Restore Natural Habitats and Biological Resources	Goal 4 Support Social and Community Resources
Diminish and eliminate further degradation of the watershed and its resources through better management practices.	x		x	
Promote, preserve, and protect beneficial uses of watershed.	x		x	
Restore and enhance ecological systems of the watershed.			x	
Increase the viability, diversity, and health of the watershed.	x		x	
Promote science-based methods for water quality and environmental assessment of the watershed.	x			
Develop an effective approach to meeting water quality regulations for the watershed.	x			
Raise public awareness of the San Dieguito Watershed and encourage participation in management and protection of watershed resources.				x
Identify problems and issues of importance to local citizens, groups, and users of the watershed.				x
Document effectiveness of WMP actions.	x	x	x	x
Coordinate implementation of WMP among stakeholders.				x
Obtain funds to implement watershed improvement projects.	x	x	x	x
Protect the wetlands	x		x	
Public health in conjunction with environmental conservation				x
Classroom education in watershed issues				x
Work with various groups already conducting outreach				x
Keep the drains to San Dieguito Channel clean	x		x	
Improve aesthetics of the watershed				x
Increase supply and quality of reservoir water	x	x		