ATTACHMENT A

DATA DELIVERY

Sliicer.com® I/I Tools

Sliicer.com® is the I/I Answer Engine for online wet and dry weather analyses that improves decision making and lowers project costs.

Sliicer.com

Sliicer.com™ is a powerful set of online engineering tools designed for both the consulting and municipal engineer. These I/I tools examine wastewater collection system dry and wet weather flow data and provide rigorous performance measurements in one-tenth the time of other analysis tools.

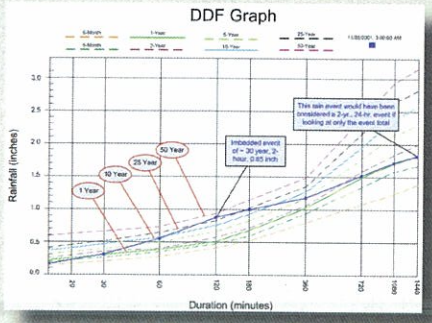
Municipal Engineers

Answer wet weather questions and validate rehab decisions in seconds with Sliicer.com. Through flow data analyses, calculate 'what-ifs'; incorporate scattergraph tools; assess the operational capacity of pipe; diagnose upstream and downstream SSOs; and animate the pipe's performance in rain events, all with speed and precision. With 'Human-viewing-speed graphics' Sliicer.com includes pre- and post- rehabilitation analyses, long term analyses and wet weather analyses featuring Rainfall, Dry Day, scattergraph, Storm-by-Storm RDII, System-wide RDII, and Q to i analyses.

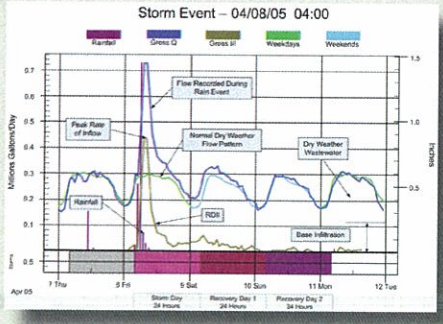
Consulting Engineers

Make ADS your wet weather expert and partner for I/I removal projects with Sliicer.com. In under five minutes Sliicer.com can process eight years of actual data divided into 32 quarters with flow data from over 35 meters and rain gauges and 375 storm events. It generates repeatable data in seconds, reducing expensive labor and answering questions about wastewater collection system performance. These powerful online tools automate 33 industry-accepted dry and wet weather calculations and help keep you focused on engineering tasks, while alleviating tedious spreadsheet calculations.

Simple Questions. Difficult Analyses. Fast Answers.



Rainfall Analysis shows how a storm is behaving and answers overflow questions.



Time series data reveal information about the quantity of flow generated by the system upstream of the monitor.

About ADS

ADS® Environmental Services, a division of ADS® LLC, is a leading technology and service provider and a reliable source of knowledge to the global wastewater collection system industry. Monitors manufactured, installed and maintained by ADS measure over 4 billion gallons of flow daily across the globe. ADS delivers value to its customers by providing industry-leading solutions for flow monitoring, data analysis, reporting and field services. These customers rely on Underground Intelligence® from ADS to manage planning and rehabilitation, satellite community billing, regulatory compliance, O&M, and model calibration.

ADS ENVIRONMENTAL SERVICES®
A Division of ADS LLC

FEATURES

Rainfall Analysis

Every collection system manager has a good idea of how much rainfall is required before problems occur in their system. But some rains just don't follow the rules. The DDF display (Depth Duration Frequency) allows the manager to immediately "see" how the storm behaved. What might appear to be a small 2-year, 24-hour storm could actually be a 30-year, 2-hour storm. This analysis can be performed in seconds for each rain gauge and for each storm.

Flow Quantities and Hydraulic Conditions

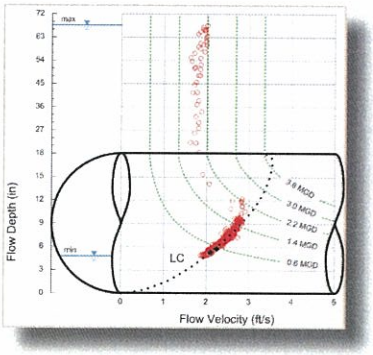
One of the most frequent analyses performed is the dry and wet weather analysis of flow — often to determine levels of RDII in a sewer system. One of the goals of such work is to correlate rainfall with RDII in such a way that this rainfall-to-flow relationship is used to characterize the performance of a sewer basin. Being able to monitor this relationship for each basin is key to getting an early warning of an invisible problem lurking in the sewer that could cause an overflow if not addressed.

Q to i Relationships

The rainfall-to-flow relationship is the key performance indicator of the wastewater production side of the collection system. It measures the "yield" or the amount of I/I generated in a basin. Tracking this yield can reveal one of the first "indicators of change" that a manager may see in the system. Analyzing Q-to-i relationships for several storms before and after an event make this a very effective evaluation. Managers also use Q to i relationships to quantify the impact of sewer rehabilitation projects.

Scattergraph Analysis

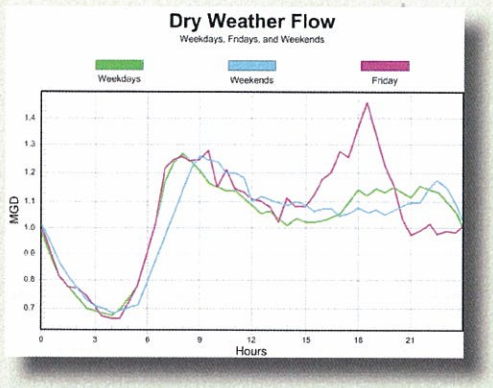
The scattergraph is a useful 'Human-viewing-speed graphic' that can reveal the hydraulic conditions in a sewer. Every SSO must be accompanied by a downstream restriction, whether it is a pump station, a treatment plant, or a problem with the pipe itself. A scattergraph can quantify the restriction and can often determine the type of restriction.



The scattergraph, shown at the left, is equipped with iso-Q lines (lines of constant flow rate) and shows that this pipe actually carries 60 percent of its design capacity and is surcharged to a depth of 70 inches. This operational capacity can change over time, and being able to quantify operational capacity is key to spotting "lurking problems." The problem, shown in this scattergraph, could be the result of tree roots, a structural defect, or a pending sewer failure.

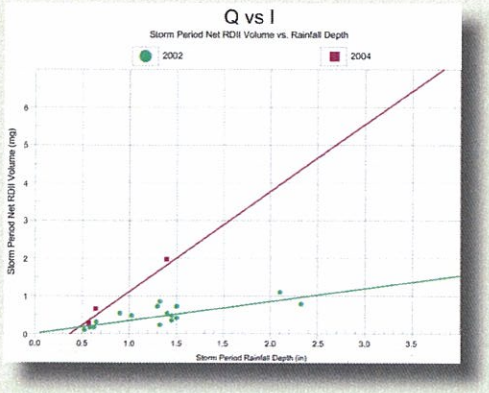
Add Sliicer.com and ADS to your winning team and gain the edge that wins the job, saves time, increases profitability, and answers more wet and dry weather analyses questions.

"You have to see it to believe it!"
Demo Sliicer.com at www.sliicer.com.



Dry Weather Flow Analysis

Dry weather flow is a critical component of calculating the rainfall to flow relationship that provides early warnings of blockages.



Q vs i Analysis

Collection system managers can spot severe problems by analyzing Q to i relationships.

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Toll Free: 1-800-633-7246

ATTACHMENT B

9665 Chesapeake Drive, Suite 201
San Diego, California 92123

Tel: 858-514-8822
Fax: 858-514-8833

www.brownandcaldwell.com

March 27, 2012

Brown AND Caldwell

City of San Diego
Metropolitan Wastewater Department
9192 Topaz Way
San Diego, California 92123

Attn: Ms. Monika Smoczynski

Subject: **As-Needed Engineering Services for 2008-2013: Scope of Work and Fee Estimate for the Metro Strength Based Billing Study**

Dear Ms. Smoczynski:

In accordance with your request, Brown and Caldwell is pleased to submit this Scope of Work and Fee Estimate for Engineering Services related to the Metro Strength Based Billing Study for the City of San Diego.

Brown and Caldwell proposes to complete the project as described in the attached Scope of Work on a time and materials basis for an amount not to exceed $151,926.

If you have any questions, please contact me at (858) 514-8822. Thank you for your time and attention.

Very truly yours,

BROWN AND CALDWELL

Victor Y. Occiano, Jr., P.E.
Program Manager

VO:rf

Enclosures:
Scope of Work
Compensation and Fee Schedule

Scope of Work

Metro Strength Based Billing

March 27, 2012

INTRODUCTION

The City of San Diego Public Utilities Department (PUD) operates the Metropolitan Wastewater System. The system serves the City and 15 participating agencies outside of the City's jurisdiction. The participating agencies pay for the services of the system based on a calculation which takes into consideration both the flow of wastewater and the strength measured by total suspended solids (TSS) and chemical oxidation demand (COD). Flow is measured through an extensive system of flow meters modified by adding or removing equivalent dwelling units (EDU) values for unmetered subareas. Strength is measured at approximately 30 locations throughout the service area to identify the values contributed by each participating agency. Each site is sampled quarterly for a 24-hour period.

The PUD wishes to review the sampling validity as to the "fairness" of the strength based billing for the participating agencies. Concerns include:

1. The number of older samples included in the database and strength calculation that may no longer be valid because of changing conditions including water conservation.
2. The locations and application of the sampling data and if the data appropriately represents the strength of flow from each agency.
3. There are at least two special conditions in the system where agencies treat wastewater and discharge the residual solids into the Metro System. PUD wants the complexities of these systems evaluated to be sure the billing is equitable.

The scope of work describes the tasks proposed by Brown and Caldwell (BC) for evaluating the strength based billing and making recommendations to ensure the billing of the participating agencies is equitable in relation to the value received from the Metro System.

SCOPE OF WORK

We propose the following tasks to achieve the objectives of this work:

TASK 1 – Obtain and Review Wastewater Flow and Strength Data

BC will obtain and review the historical flow and strength monitoring data from the existing meters and monitoring locations. We are assuming that the data is available in electronic spreadsheet of database format and can be evaluated without the need for additional data. We will review the data to evaluate the significance of trends due to water conservation and other changes that increase or decrease strength over the time period. The objective is to determine a time period that is appropriate to consider when averaging samples for strength based billing. Anticipated areas to review for each agency are:

- Concentration trend of each of the two strength based parameters over time.
- Trend for wastewater flow over the time period.
- Relative value calculated for strength if various time periods are utilized. For example only utilizing data from seven or five or three year historical periods.

TASK 2 – Review Practices in Similar Agencies

BC will discuss billing practices with up to two agencies that have similar practices in allocating operating costs to participating agencies or cities. The intent is to understand if there is a protocol for equitable allocation of costs as strength changes over a time interval. The issues to be considered include:

- What is their billing method and what is it based on?
- How often and what methodology they use to sample waste strength?
- How long are sample data points maintained in the billing data pool?
- How are outlying sample points determined and evaluated?
- How are upstream wastewater scalping facilities solids equitably allocated?

TASK 3 – Examine Each Participating Agency's Flow Measurement and Sampling Locations

The sampling locations and meter locations for each Participating Agency will be analyzed to confirm that the flows and strengths assigned are equitable and represent the contribution from each agency. The results will be summarized and included in the draft technical memorandum. Recommendations will be made in the technical memorandum prepared under Task 5.

TASK 4 – Examine Otay Water District and Padre Dam Municipal Water District's Flow Measurement and Sampling Locations

These two agencies have special process considerations since they operate wastewater treatment scalping facilities that treat wastewater for reclamation and discharge the solids back to the Metro System. The sampling and metering required are unique to these agencies and require additional evaluation as to the location and potential mass balance calculations. A meeting will be held with each agency to present and discuss preliminary findings and gain early input. Findings, recommendations, and agency feedback will be summarized in the technical memorandum prepared under Task 5.

TASK 5 – Prepare Technical Memorandum

BC will prepare a draft technical memorandum summarizing flow and strength data, evaluation of trends for the increase or decrease in waste strength, and impact of selected time periods to maintain samples in the data pool. We will indicate the results of our discussions with other agencies and describe how they manage their billing system for participating agencies. If we note any potentially non-equitable sampling or metering in our

examination of participating agencies we will note the issue and make recommendations. This will include the two agencies that maintain wastewater treatment facilities. Finally, we will make recommendations for maintaining the pool of data points for the Metro System including how to manage outlying data points and the time interval for maintaining samples in the pool. The draft technical memorandum will be provided to the PUD electronically. A meeting, attended by the City and representatives from the Participating Agencies, will be held to present and discuss the draft technical memorandum and its findings. BC will prepare an agenda, a brief presentation in Power Point format, and meeting minutes for that meeting. An additional coordination meeting (assumed to last 2 hours and attended by the BC's PM and one other BC personnel) has been added to this task. No Power Point presentation will be prepared for this additional coordination meeting.

BC will schedule a review meeting to discuss the City's and Participating Agencies' comments on the draft technical memorandum. A final version which addresses the comments received will be prepared. Five hard copies of the final technical memorandum will be submitted along with an electronic copy in PDF format.

TASK 6 – Project Management

This task includes QA/QC of the products developed, meetings, telephone conversations, preparing a cost tracking system, invoicing, and general management. This task also includes labor for conducting a kick-off meeting prior to commencing work.

TASK 7 – Presentations

BC will develop a Power Point presentation which we will deliver to a client-selected group of stakeholders. BC will provide the City with a draft presentation and refine the final presentation based on the comments received. It is anticipated that the project manager and one other person will attend the meeting.

TASK 8 – Additional Services

In the course of executing the project, there may be occasions when tasks must be performed which are not covered under Tasks 1 to 7 above. This additional services task is intended to cover these unforeseen events. Funds allocated under this task will not be accessed without prior written approval from the City.

Assumptions

- The PUD will provide electronic version of the historic flow and strength data and a CAD map(s) locating the meters, sampling points and pertinent features of the Metro System.
- It is anticipated that one kick-off meeting, one interim meeting, and one review meeting will occur with the City, and additionally, one preliminary findings meeting each with representatives of the Otay Water District and the Padre Dam Municipal Water District will be required for conducting the

work. We will also meet once or contact the other agencies with similar billing practices.

SCHEDULE

The draft technical memorandum will be developed within three months of the notice to proceed and our receipt of the historic electronic data. The final technical memorandum will be submitted two weeks after receipt of all comments on the draft technical memorandum.

FEE

See attached fee proposal.

END OF SCOPE

City of San Diego
Metro Strength Based Billing Study - Fee Proposal R2
March 27, 2012

Phase	Phase Description	Vice President (Project Manager)	Vice President (Qa/QC - Tech Support)	Principal Engineer	Senior Engineer	Supervisor, Word Processing	Project Coordinator II	Total Labor Hours	Total Labor Effort	Total ODCs	Total Effort
		$236.00	$236.00	$189.00	$167.00	$126.00	$107.00				
100	**Review flow and Strength data**	16	2	64	24	2	0	**108**	**20,604**	**0**	**20,604**
101	Prepare data trending analysis for agencies	2	0	40	0	0	0	**42**	**8,032**	**0**	**8,032**
102	Analyze impact of sample retention intervals	4	0	0	16	0	0	**20**	**3,616**	**0**	**3,616**
103	Analyze anomolies	4	0	16	0	0	0	**20**	**3,968**	**0**	**3,968**
104	Summarize trends and analysis	6	2	8	8	2	0	**26**	**4,988**	**0**	**4,988**
200	**Review practices in Similar Agencies**	18	8	0	38	2	0	**66**	**12,734**	**100**	**12,834**
201	Meet with LACSD	8	0	0	8	0	0	**16**	**3,224**	**50**	**3,274**
202	Meet with Los Angeles City	8	0	0	8	0	0	**16**	**3,224**	**50**	**3,274**
203	Other agencies	0	8	0	16	0	0	**24**	**4,560**	**0**	**4,560**
204	Summarize practices and protocols	2	0	0	6	2	0	**10**	**1,726**	**0**	**1,726**
300	**Examine Agencies Flow and Sampling Locations**	16	0	20	140	4	0	**180**	**31,440**	**0**	**31,440**
301	Analyze flow locations	4	0	8	48	0	0	**60**	**10,472**	**0**	**10,472**
302	Analyze sampling locations	4	0	8	68	0	0	**80**	**13,812**	**0**	**13,812**
303	Summarize findings	8	0	4	24	4	0	**40**	**7,156**	**0**	**7,156**
400	**Examine Agencies with Treatment**	28	8	0	88	4	0	**128**	**23,696**	**0**	**23,696**
401	Otay Water District	8	0	0	16	0	0	**24**	**4,560**	**0**	**4,560**
402	Padre Dam MWD	8	0	0	16	0	0	**24**	**4,560**	**0**	**4,560**
403	Agency Preliminary Review Meetings (2-of)	8	8	0	8	0	0	**24**	**5,112**	**0**	**5,112**
404	Summarize findings	4	0	0	48	4	0	**56**	**9,464**	**0**	**9,464**
500	**Prepare Recommendations**	40	20	12	76	16	0	**164**	**31,136**	**0**	**31,136**
501	Draft report	16	0	8	40	8	0	**72**	**12,976**	**0**	**12,976**
502	Draft Report Presentation with City and Pas	8	8	0	8	4	0	**28**	**5,616**	**0**	**5,616**
503	Review meeting	4	4	0	4	0	0	**12**	**2,556**	**0**	**2,556**
504	Final report	12	8	4	24	4	0	**52**	**9,988**	**0**	**9,988**
600	**Project Management**	40	24	0	8	0	8	**80**	**17,296**	**250**	**17,546**
601	Meetings, Kick off and interim	20	8	0	8	0	0	**36**	**7,944**	**250**	**8,194**
602	Quality	4	16	0	0	0	0	**20**	**4,720**	**0**	**4,720**
603	Management	16	0	0	0	0	8	**24**	**4,632**	**0**	**4,632**
700	**Presentations**	8	4	0	8	2	0	**22**	**4,420**	**250**	**4,670**
701	Presentations	8	4	0	8	2	0	**22**	**4,420**	**250**	**4,670**
800	**Additional Services**										**10,000**
	TOTAL	**166**	**66**	**96**	**382**	**30**	**8**	**748**	**141,326**	**600**	**151,926**

ATTACHMENT C

SAN DIEGO Integrated Regional Water Management

San Diego IRWM Summit - 2012

A REGIONAL APPROACH TO WATER RESOURCES MANAGEMENT

The Summit will address how integrated regional planning can resolve conflicts among water supply, water quality, natural resource, and flood control objectives.

Summit Objectives

The San Diego IRWM Summit is intended to gain input from regional stakeholders on how to enhance water resources management in the San Diego region. While regulation of water resources has become more complex and stringent, the demand for benefits from those resources has grown, leading to increased challenges in striking a balance and avoiding conflicting priorities. In the future, the ability to integrate different requirements, programs, and priorities in individual watersheds will be an essential element of effective water management. Key outcomes from the IRWM Summit will include:

1) common understanding of barriers and challenges to water resources management
2) possible solutions and strategies for overcoming those barriers and challenges
3) input on regional planning priorities for San Diego's 2013 IRWM Plan Update

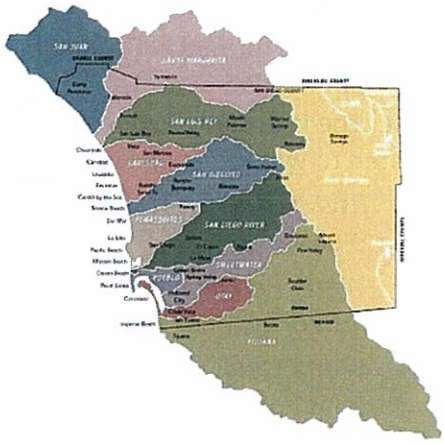
SUMMIT AGENDA

1. **Welcome:** Mayor Jerry Sanders, City of San Diego
2. **Keynote Speaker:** Fran Spivy-Weber, State Water Resources Control Board
3. **Local Vision:** Kathy Flannery, San Diego IRWM Regional Advisory Committee Chair
4. **Santa Margarita River Case Study:** Richard Williamson, Rancho California Water District and Jeremy Jungreis, USMC Camp Pendleton and San Diego County Water Authority Board
5. **Break**
6. **State Perspectives:** Dave Gibson, San Diego Regional Water Quality Control Board; Joe Yun, California Department of Water Resources; Fran Spivy-Weber, State Water Resources Control Board; and Sean Sterchi, California Department of Public Health
7. **Breakout Groups / Report Back**
8. **Closing:** Kathy Flannery, San Diego IRWM Regional Advisory Committee Chair

SAN DIEGO
Integrated Regional
Water Management

San Diego IRWM Region

The San Diego IRWM Region includes all or portions of eleven hydrologic units within San Diego County that discharge to coastal waters.



IRWM Vision

An integrated, balanced, and consensus approach to ensuring the long-term sustainability of San Diego's water supply, water quality, and natural resources.

IRWM Mission

To develop and implement an integrated strategy to guide the San Diego Region toward *protecting, managing, and developing reliable and sustainable water resources*. Through a stakeholder-driven process and adaptive process, the Region can develop solutions to water-related issues and conflicts that are economically and environmentally preferable, and that provide equitable resource protection for the entire Region.

IRWM Plan Goals

1. Optimize water supply reliability.
2. Protect and enhance water quality.
3. Provide stewardship of our natural resources.
4. Coordinate and integrate water resource management.

IRWM Plan Objectives

A. Maximize stakeholder and community involvement and stewardship
B. Effectively obtain, manage, and assess water resources data and information
C. Further the scientific and technical foundation of water management
D. Develop and maintain a diverse mix of water resources
E. Construct, operate, and maintain a reliable infrastructure system
F. Reduce the negative effects on waterways and watershed health caused by hydromodification and flooding
G. Effectively reduce sources of pollutants and environmental stressors
H. Protect, restore, and maintain habitat and open space
I. Optimize water-based recreational opportunities

Regional Water Management Group (RWMG)

The San Diego County Water Authority, City of San Diego, and County of San Diego formed the RWMG to fund, guide, and manage development of the IRWM Plan. The RWMG is now responsible for the day-to-day administration and implementation of the San Diego IRWM program. The RWMG meets bi-weekly to research, review, discuss, and formulate ideas and concepts for Plan implementation activities.

Regional Advisory Committee (RAC)

The RAC was formed in December 2006 to assist in completion of San Diego's first IRWM Plan and prioritization of projects both within the Plan and for future funding application(s) as they arise. The RAC composition provides diverse representation from various functional areas related to water management:

- *RWMG Agencies*: San Diego County Water Authority, City of San Diego, County of San Diego
- *Water Retailers*: Santa Fe Irrigation District, Yuima Municipal Water District, Sweetwater Authority, Helix Water District, City of Escondido
- *Water Quality (Wastewater/Stormwater)*: Padre Dam Municipal Water District, San Elijo Joint Powers Authority, City of Chula Vista, Industrial Environment Association
- *Natural Resources & Watersheds*: San Dieguito River Valley Conservancy, San Elijo Lagoon Conservancy, San Diego River Park Foundation, California Coastal Conservancy, Mission Resource Conservation District, The Nature Conservancy
- *At-Large Members*: San Diego CoastKeeper, Campo Kumeyaay Nation, Rural Community Assistance Corporation, Sustainability Consultant, Farm Bureau of San Diego County, San Diego Regional Chamber of Commerce, San Diego Association of Governments, U.S. Department of Navy/Camp Pendleton, Floodplain Management Association
- *Resource Agencies*: San Diego Regional Water Quality Control Board, U.S. Bureau of Reclamation
- *Tri-County FACC*: Rancho California Water District, County of Orange

The RAC has played a critical role in shaping and developing such key elements of the IRWM Plan as goals and objectives, long-term targets, the proposed institutional structure, and project prioritization. The RAC currently meets on a bi-monthly basis to provide guidance on upcoming IRWM planning and funding application activities. The RAC may be convened more frequently, as needed, for planning and funding proposals.

Tri-County Funding Area Coordinating Committee (Tri-County FACC)

The San Diego RWMG, Upper Santa Margarita RWMG, and South Orange County RWMG collaborate in an inter-regional body established via MOU and known as the Tri-County FACC. The Tri-County FACC enables the three RWMGs to balance the necessary autonomy of each planning region to plan at the appropriate scale with the need to improve inter-regional cooperation and efficiency. It ensures close coordination of the three planning regions to improve the quality and reliability of water in the San Diego Funding Area.

SAN DIEGO
Integrated Regional
Water Management

Overview of the San Diego Integrated Regional Water Management (IRWM) Program

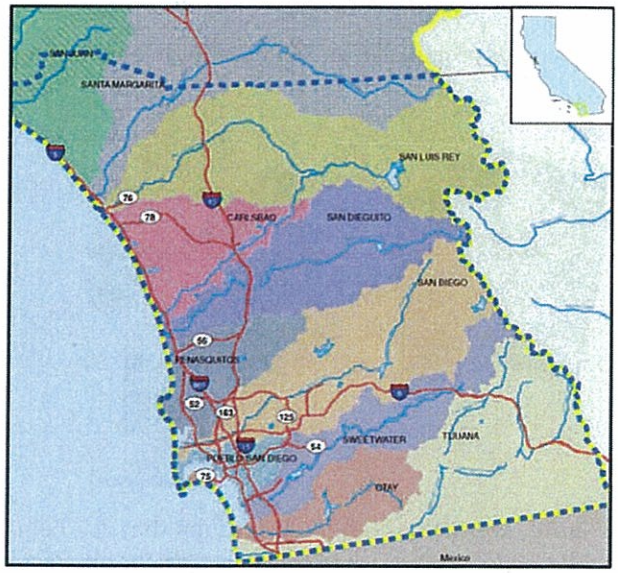
February 2012

Introduction

IRWM planning is a relatively new California initiative, aimed at developing long-term water supply reliability, improving water quality, and protecting natural resources. The Statewide IRWM Program is supported by Proposition 50 (2002) and Proposition 84 (2006), both of which provided bond funding to the California Department of Water Resources (DWR) to fund competitive grants for projects that improve water resources management. The San Diego region is currently embarking on an update to our 2007 San Diego IRWM Plan to become eligible for the next round of funding.

The San Diego IRWM Program began in 2005, and since then has achieved remarkable success! San Diego published its first IRWM Plan in 2007 and received $25 million in Proposition 50 grant funding to implement 19 prioritized water management projects. Under Proposition 84, the San Diego IRWM Program obtained $8 million to implement 11 more high-priority projects and $1 million for planning activities associated with preparing an IRWM Plan Update (currently underway).

San Diego's IRWM Program is an interdisciplinary effort by water retailers, wastewater agencies, stormwater and flood managers, watershed groups, the business community, tribes, agriculture, and non-profit stakeholders to improve water resources planning in the San Diego IRWM region. A key element of IRWM planning is to develop solutions to the critical water supply and water quality problems facing disadvantaged communities, tribes, and other stakeholders.



The San Diego IRWM Region includes all west-draining watersheds in San Diego County.

Stakeholder involvement is an essential element of the IRWM Program. To date, the San Diego IRWM Program has made significant efforts to identify and engage key stakeholders. A Regional Advisory Committee (RAC) was established to assist in completing the 2007 IRWM Plan and prioritizing projects to include within funding applications. The RAC, which currently consists of 32 diverse members, continues to play a critical role in shaping key elements of the IRWM Plan Update.

Go to www.sdirwmp.org and learn more!

San Diego IRWM Program Structure

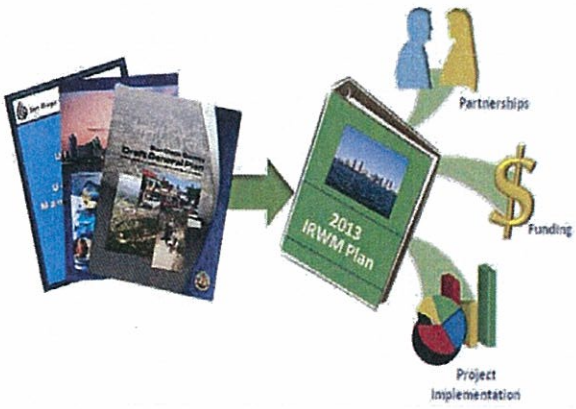
The San Diego IRWM Program is led by the San Diego Regional Water Management Group (RWMG) – which consists of the San Diego County Water Authority (CWA), the City of San Diego (City), and the County of San Diego (County). The combined jurisdiction of the CWA, the City, and the County comprises the entire Region, and their combined responsibilities address all facets of water management. The RWMG is responsible for day-to-day administration and implementation of the San Diego IRWM Program; however the RAC and Workgroups provide essential review, guidance, and recommendations to the RWMG on all IRWM planning topics.

What is an IRWM Plan?

"An integrated, balanced, and consensus-based approach to ensuring the long-term sustainability of San Diego's water supply, water quality, and natural resources."

-2007 IRWM Plan Vision

IRWM Plans are regional plans designed to improve collaboration in water resources management. IRWM Plans are designed to comprehensively address all aspects of water management and planning throughout an IRWM Region. IRWM Plans cross jurisdictional, watershed, and political boundaries; involve multiple agencies, stakeholders, individuals, and groups; and attempt to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions. To this end, IRWM Plans include integrated projects that achieve multiple benefits and address regional objectives set forth within the IRWM Plan. Projects included within an IRWM Plan are then eligible to receive funding through competitive grant processes administered by DWR. To date, the Region has received over $34 million through Proposition 50 and Proposition 84 grant funding.



DWR requires IRWM Plans to follow a set of sixteen (16) specific standards to ensure that each IRWM Plan includes specific content; however IRWM Regions have flexibility in how issues are addressed.

San Diego's IRWM Plan Update

The San Diego region adopted its first IRWM Plan in 2007, and is currently working to update the IRWM Plan by 2013.

The IRWM Plan Update will include information from planning documents published since 2007, as well as information produced from planning studies, workshops, and workgroups that are being conducted to address region-specific issues. Our stakeholders will work together to achieve sustainable water solutions in San Diego by:

- Collaborating with local land-use planners to more effectively manage water resources
- Investing in cost-effective, reliable local water supplies that will help meet present and projected future needs
- Identifying high priority and achievable water quality improvements
- Addressing climate change adaptation and mitigation for water resources

The 2013 IRWM Plan will allow the Region to continue to be eligible for Statewide IRWM grant funding, focus on updated priorities and issues, facilitate project integration, forge partnerships with a variety of stakeholders, and move the Region forward in implementing high-priority projects. Approximately $50 million in Proposition 84 grant funding remains allocated to the San Diego region to support water resources management in the future.

SAN DIEGO Integrated Regional Water Management

August 2011

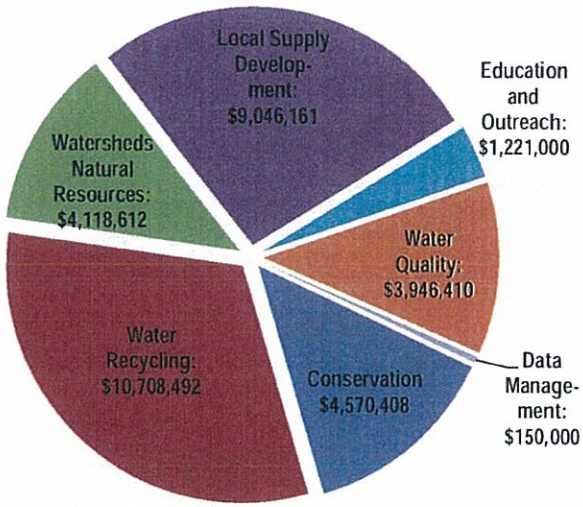
Prepared by the San Diego Regional Water Management Group and RMC Water and Environment

San Diego County Water Authority

San Diego IRWM Report Card
Executive Summary

The San Diego IRWM Program began in 2005, and since then has achieved remarkable success! The Program's major accomplishments are outlined below. (Please note: Because the IRWM Plan incorporates and tracks progress with goals set in other regional plans, much of the IRWM work is achieved by the IRWM Program stakeholders and is further supported by IRWM efforts.)

- ✓ **2005:** The City of San Diego, County of San Diego, and San Diego County Water Authority (SDCWA), who collectively comprise the San Diego Regional Water Management Group (RWMG), completed a Memorandum of Understanding (MOU) that formalized their commitment to fund, guide, and manage development of an IRWM Plan.
- ✓ **2006:** Establishment of the Regional Advisory Committee (RAC), which shapes regional planning and funding activities. The RAC is comprised of 32 members representing a broad spectrum of interests in San Diego County.
- ✓ **2007:** Finalization and adoption of the first San Diego IRWM Plan.
- ✓ **2008:** DWR awarded the San Diego IRWM region $25 million to support 19 high-priority local projects.
- ✓ **2009:** The San Diego region completed DWR's Region Acceptance Process and received formal approval of the region's boundary.
- ✓ **2009:** The San Diego RWMG, Upper Santa Margarita RWMG, and South Orange County RWMG formed the Tri-County Funding Area Coordinating Committee (FACC) as a collaborative inter-regional body that improved planning across regional boundaries and facilitated the allocation of Proposition 84 funding for IRWM projects.
- ✓ **2010:** DWR awarded the San Diego IRWM region a $1 million grant award for planning activities associated with preparing an IRWM Plan Update.
- ✓ **2011:** DWR awarded the San Diego IRWM region $8 million to implement 11 high-priority local projects.



Distribution of Funding Acquired through the San Diego IRWM Program by Program Area

Purpose of the IRWM Report Card

The San Diego IRWM Report Card provides an overview of the San Diego region's IRWM planning efforts. The 2007 San Diego IRWM Plan (available at www.sdirwmp.org) establishes a process to evaluate Plan performance. Each chapter of this report card serves to meet the Plan's evaluation requirements and provide an overview of progress to date.

Looking Ahead to 2012-2013 Plan Update

The San Diego IRWM Program will involve a continued and expanded focus on water supply reliability, impacts of climate change, salinity management, Total Maximum Daily Load (TMDL) compliance, ensuring regulatory certainty, and reducing delays in disbursements of funds from DWR. The Program will also focus on priorities that will provide a strong basis for selection of projects for funding. Moreover, the Program will look at diversifying funding sources to help ensure its long-term ability to support local needs.

San Diego IRWM Program
2011 Report Card on 2007 IRWM Plan

 Highest level of progress	 Substantial level of progress	 Moderate level of progress	 Plan targets have not been priority
Objective A Maximize public involvement 		**Objective F** Reduce negative effects on waterways and watersheds 	
Objective B Manage data effectively 		**Objective G** Reduce pollutants and stressors 	
Objective C Further water quality science management 		**Objective H** Protect habitat and open space 	
Objective D Develop diverse water resource mix 		**Objective I** Optimize water-based recreation 	
Objective E Operate reliable infrastructure system 			

Chapter 1 IRWM Program Status

1.1 Program Status

San Diego Regional Advisory Committee

The Regional Advisory Committee (RAC) was established in 2006 as an integral part of the San Diego IRWM Program, providing guidance and direction to the RWMG on IRWM planning efforts and grant applications. The RAC consists of 28 voting members and four non-voting members who represent water suppliers, wastewater agencies, environmental groups, flood managers, farm and business interests, disadvantaged communities (DACs), and tribes. RAC meetings are held approximately every two months and provide a forum in which to discuss IRWM planning topics. Thirty-two RAC meetings were held between March 2007 and June 2011. Meeting minutes and presentations can be found on the IRWM program's website: www.sdirwmp.org.

Regional Advisory Committee Meeting, April 2011

Stakeholder Outreach

One of the three long-term priorities of the San Diego IRWM Plan is to maintain public involvement. The San Diego region has carried out extensive stakeholder outreach, including workshops addressing Plan development and adoption, and grant opportunities. The following provides an overview on outreach efforts, including those focused on DACs and tribes.

Project Workshops

The San Diego IRWM Program held six workshops from April 2007 to August 2010 to educate people on the Proposition 50, 84, and 1E grant opportunities available through the IRWM Program. These meetings included information on how projects would be scored and ranked, and discussed requirements and criteria set forth by DWR for grant funding.

"The San Diego IRWM Program has taken the initial steps of bringing together organizations and individuals from diverse backgrounds, interests, and perspectives to work toward achieving a shared vision needed to guide the protection, management, and use of the region's water resources for the mutual benefit of people, wildlife, and habitats."

-Kirk Ammerman, Principal Civil Engineer
City of Chula Vista

Disadvantaged Communities

The San Diego IRWM Program held three outreach meetings between April and June 2010 with regional urban and rural DAC stakeholders and advocacy groups. The purpose of these meetings was to introduce DAC stakeholders to the IRWM Program, discuss grant opportunities, and discuss key water management issues facing DACs in the region.

As a result of these meetings and other outreach efforts, multiple projects aimed at meeting critical water supply and water quality needs of DACs were submitted for consideration of Proposition 84 grant funding. The final *Proposition 84 Implementation Grant Proposal* contained 11 high-priority projects, three of which have direct benefits to local DACs.

Tribal Groups

The San Diego IRWM Program held two outreach meetings for Tribal Groups in May and June 2010. These meetings provided an overview of the San Diego IRWM Program, and discussed grant opportunities and key water management issues facing tribes in the region.

Grant Opportunity Pursuits

The San Diego region, as an approved IRWM region with an adopted IRWM Plan, is eligible for grant funding through DWR's IRWM Program. The San Diego region has participated in three IRWM-related grant opportunities: Proposition 50, Proposition 84, and Proposition 1E.

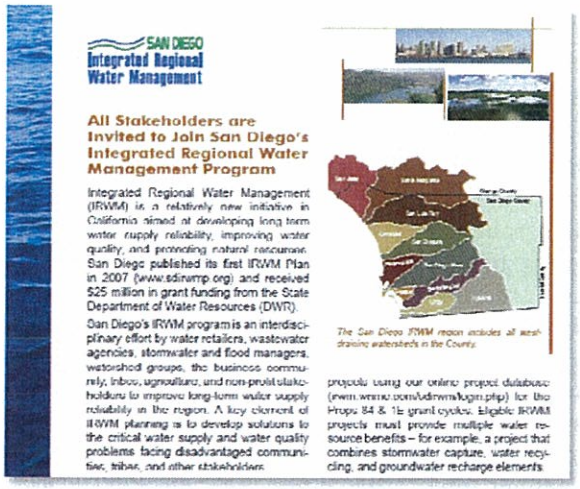
Proposition 50

In September 2007, the RAC recommended a project list that included 19 local projects for submission within San Diego's *Proposition 50 Implementation Grant Proposal*. The Proposition 50 Implementation Grant Program was a competitive process through which many IRWM regions in the state submitted projects for funding consideration. DWR awarded San Diego the maximum award of $25 million to support these regional projects. Specific details on San Diego's Proposition 50 projects are included in **Section 3.1.**

Proposition 84

The San Diego Region submitted one grant proposal for planning funds and one for implementation funds under the Proposition 84 Grant Program. In September 2010, the RAC recommended a work plan for submittal within San Diego's *Proposition 84 Planning Grant Proposal*. DWR awarded San Diego with $1 million to support planning and outreach activities associated with an IRWM Plan Update. Specific details of the work plan within San Diego's Planning Grant Proposal are included in **Section 3.2.**

In October 2010, the RAC recommended a project list with 11 high-priority projects for San Diego's *Proposition 84 Implementation Grant Proposal*. DWR awarded San Diego with approximately $8 million to support these regional projects. Specific details regarding the proposal are included in **Section 3.1.**


SAN DIEGO
Integrated Regional Water Management

All Stakeholders are Invited to Join San Diego's Integrated Regional Water Management Program

Integrated Regional Water Management (IRWM) is a relatively new initiative in California aimed at developing long term water supply reliability, improving water quality, and promoting natural resources. San Diego published its first IRWM Plan in 2007 (www.sdirwmp.org) and received $25 million in grant funding from the State Department of Water Resources (DWR).

San Diego's IRWM program is an interdisciplinary effort by water retailers, wastewater agencies, stormwater and flood managers, watershed groups, the business community, tribes, agriculture, and non-profit stakeholders to improve long-term water supply reliability in the region. A key element of IRWM planning is to develop solutions to the critical water supply and water quality problems facing disadvantaged communities, tribes, and other stakeholders.

The San Diego IRWM region includes all watersheds in the County.

projects using our online project database (rwm.wrmo.com/sdirwm/login.php) for the Props 84 & 1E grant cycles. Eligible IRWM projects must provide multiple water resource benefits – for example, a project that combines stormwater capture, water recycling, and groundwater recharge elements.

Excerpt from Outreach Handout Distributed Prior to Proposition 84 Grant Solicitation

Proposition 1E

As a result of the San Diego region's inclusion in DWR's IRWM Program, public agencies and non-profits in the region are eligible to apply for Proposition 1E Stormwater Flood Management Grant funding. Unlike the previous applications, Proposition 1E applications are submitted by individual agencies with support of the RWMG. Three municipalities within the region applied for grant funding in April 2011. Draft awards have not been released.

"We were very impressed with the San Diego IRWM program's willingness to think 'outside the box'. This creativity allowed rural disadvantaged communities that otherwise would have been left out of process to participate in this essential water resources program."

-Dave Harvey,
Southern California Regional Environmental Manager
Rural Community Assistance Corporation

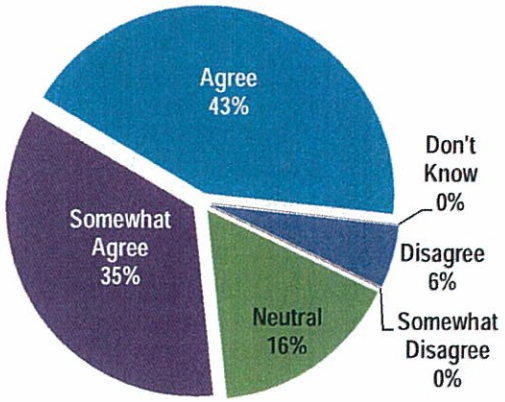
1.2 San Diego IRWM Survey Results

The RWMG recently distributed an online survey to all San Diego IRWM stakeholders. Fifty-four individuals representing agencies, stakeholders, local project sponsors, interested parties, and the general public submitted responses. The survey included questions regarding many aspects of the San Diego IRWM Program. **Appendix A** contains a detailed description of the survey results; below is a summary.

IRWM Planning

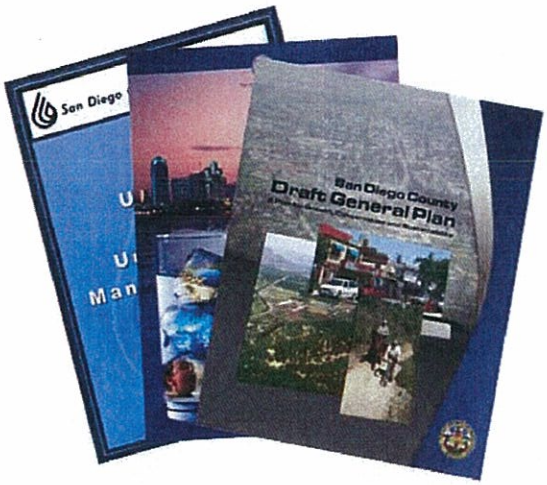
In total, regional stakeholders responded positively to IRWM Planning in the San Diego region. 87% of respondents said they consider the 2007 San Diego IRWM Plan as a resource for water resources information. Most respondents agreed that the 2007 San Diego IRWM Plan addresses the Region's key water issues.

Do You Think the 2007 San Diego IRWM Plan Addresses the Region's Key Water Issues?



Fifty-three percent of respondents noted that the 2007 San Diego IRWM Plan objectives need a little updating or revision, while 29% believe that the objectives remain current.

However, the survey indicated that the San Diego IRWM Plan is not having much influence in the development of individual agency water management plans or other local planning efforts. Only half of respondents noted that they have referenced the San Diego IRWM Plan in other planning documents. 82% of respondents said the IRWM Plan could be better integrated throughout the region by its inclusion in local General Plans, Urban Water Management Plans, and other regional planning documents.

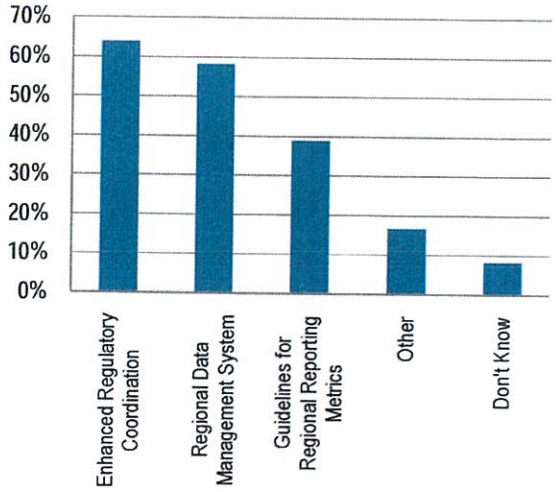


"The SDIRWM works effectively to bring diverse needs and opinions into a cohesive force to further common goals for the region's water resource planning requirements. They have developed consistent tools and protocols for those diverse interests to be heard and to fairly and objectively recommend projects that will ensure that the objectives of the region are met."

–Lori Vereker, Director of Utilities
City of Escondido

Looking into the future, the majority of respondents (64%) stated that they would like to see the IRWM Program include enhanced regulatory coordination with the Regional Water Quality Control Board, the California Department of Public Health, and other regulatory agencies. 58% of respondents said they would like to see the IRWM Program include a regional data management system, and 39% said they support development of guidelines for regional reporting metrics.

What Would You Like to See the IRWM Program Address in the Future?



IRWM Stakeholder Outreach

In terms of stakeholder outreach, the majority of respondents said that they use all three San Diego IRWM outreach and communication tools: RAC meetings, stakeholder emails, and the San Diego IRWM website. 82% said they find RAC meetings and presentations to be the most useful outreach and communication tools.

Several respondents noted that the San Diego IRWM Program should be reaching out to or increasing involvement with non-governmental organizations, including DACs and tribal groups.

IRWM Project Solicitation and Selection

The RWMG developed an online tool that allows local project sponsors to easily submit proposed projects during the grant application phase. The online project database facilitates easy collection of uniform information and is utilized by the Project Selection Workgroup to evaluate the merits of projects submitted for grant funding. While a large portion of respondents (45%) said that they did not use the online project database for the Proposition 84 project solicitation process, those who did had a generally positive experience.

IRWM Governance and Financing

San Diego's IRWM Program is financed by the three RWMG partners (the City and County of San Diego and SDCWA), and the IRWM Plan and updates must be adopted by each of the agencies' governing bodies. To date, the RWMG has committed $1,200,000 to the regional planning effort, in addition to in-kind contributions.

The three agencies are equal partners in all aspects of IRWM Program implementation. As the lead RWMG partner, SDCWA administers the IRWM Program.

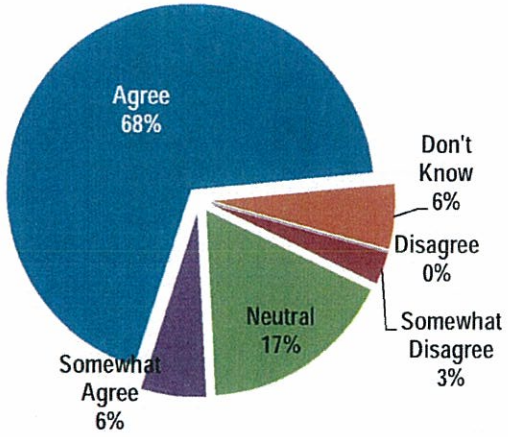
There has been much discussion regarding preferred governance and financing structures for the IRWM Program. Since time was of the essence when the Region applied for Proposition 50 grant funds, the current MOU structure was adopted with the promise that it would be revisited in the next Plan update.

With this in mind, the Survey asked several questions regarding the existing governance structure and potential options for the future. This discussion will be continued in the 2012 IRWM Plan update. Respondents largely stated that the existing governance structure has been successful so far. Approximately 74% of respondents consider the existing governance structure – with the RWMG, RAC and ad-hoc workgroups – successful, while 17% of respondents were neutral, and only 3% do not consider the current structure successful.

"The San Diego IRWM program brought together typically segregated sectors of sustainable planning – NGOs, water supply and water quality agencies, private sector, academia – and led to creating a more holistic and effective program proposal than any one of us had coming into the process."

– Paul Herzog, Ocean Friendly Gardens Coordinator Surfrider Foundation

Do You Feel the Existing Governance Structure Has Been Successful?



Respondents were mixed as to who they felt should pay for the San Diego IRWM Program in the future. 58% believe funding should come from RWMG members, while more than 25% believe RAC members, NGOs, tribes, and interested parties should also contribute. Respondents overwhelmingly agreed that DACs should not be asked to contribute to program financing.

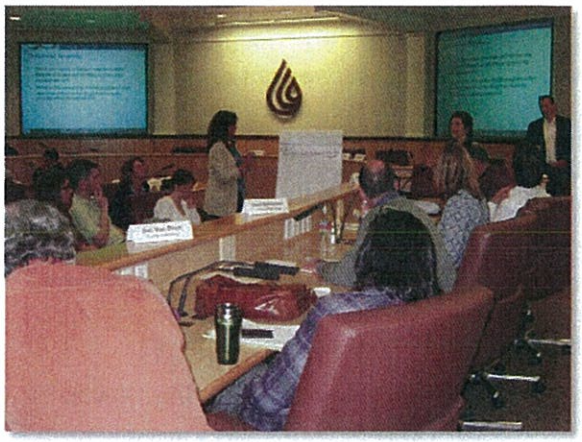
Respondents were mixed on whether they would be willing to pay for a share of the costs associated with preparing a grant application, if they had a project selected for future funding. 53% of respondents said they would be willing to pay, while 6% would not be willing, and 41% were unsure.

IRWM Regional Advisory Committee

Of the total respondents, 53% stated they currently serve or have previously served on the RAC. When asked what have been the most valuable topics addressed by the RAC to date, over 30% of respondents expressed interest in the following topics:

- Coordination with land use planning
- Salinity and nutrient management
- Stormwater management program
- Adapting to climate change
- Water supply for agriculture

Two-thirds of respondents (67%) noted that they feel the RAC forum contributes to integrated planning and projects.



Regional Advisory Committee Meeting, March 2010

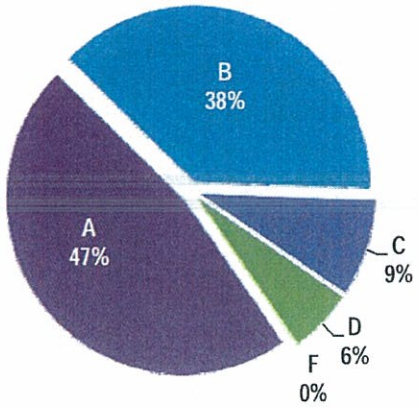
Survey Summary

Overall, respondents noted their support for the San Diego IRWM Program, giving the program a high "letter grade."

"The San Diego IRWM program enables local water agencies and NGOs to learn from each other and work together to protect the region's water and natural resources."

-Rob Hutsel, Executive Director
San Diego River Park Foundation

What Overall Letter Grade Would You Give the San Diego IRWM Program?



Chapter 2 IRWM Plan Performance

The 2007 San Diego IRWM Plan outlines a formal assessment process to evaluate overall performance of the IRWM Plan. The Plan established specific targets for measuring progress in achieving the designated IRWM Plan objectives. Section 2.1 below provides an overview of the objectives of the IRWM Plan, the targets established for achieving each objective, and the current progress towards meeting each target. **Appendix B** of this report provides a detailed table.

In addition to the targets and objectives outlined in Section 2.1, the 2007 IRWM Plan also identified seven short-term IRWM priorities. Section 2.2 discusses progress made toward these priorities.

2.1 Progress toward Achieving IRWM Plan Targets

The 2007 San Diego IRWM Plan includes 38 specific targets that were established for measuring progress in achieving the 9 designated IRWM Plan objectives. A summary of the objectives, their targets, and total progress to date is described below.

Please note that Section M, *Consistency with Local Plans* of the 2007 San Diego IRWM Plan notes that the IRWM Plan builds upon relevant planning documents and efforts within the San Diego Region. As such, many of the targets were based on existing efforts that are connected to, but not necessarily a part of IRWM planning efforts. Other targets are specific to the IRWM Program. Measures of success are directly related to achieving these targets.

Four graphics have been developed to easily identify progress toward each objective:

The highest level of progress has been made toward achieving IRWM Plan targets.

Substantial progress has been made toward achieving IRWM Plan targets, but modest additional progress is needed to fully meet the goals.

Moderate progress has been made toward achieving IRWM Plan targets, but moderate additional progress is needed to fully meet the goals.

Plan Targets have not been a priority for IRWM Plan implementation.

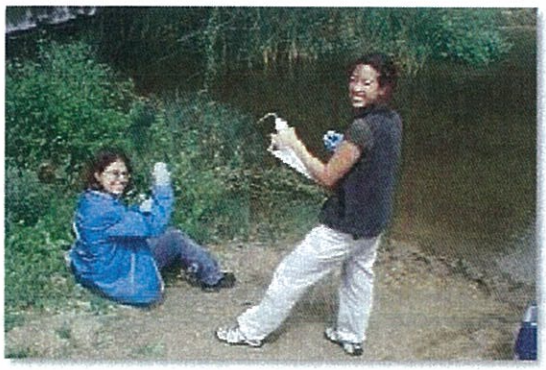
Objective A – Maximize stakeholder/ community involvement and stewardship.

The following four targets relate to Objective A:

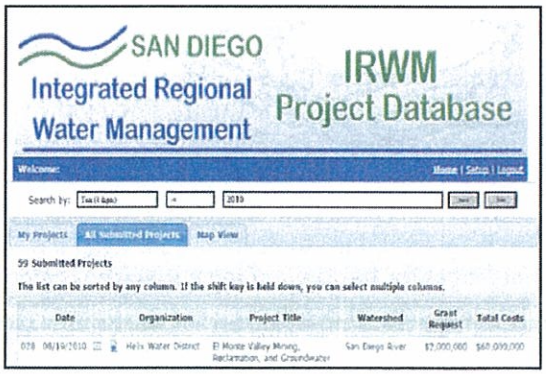
1. Develop by 2009 a regional IRWM website to provide centralized public access to water management data and information.
2. Develop by 2008 and implement by 2010 regional approaches to water management education.
3. Conduct water management outreach and solicit input from 2% of Region's population each year, including underserved and disadvantaged communities.
4. Provide "hands-on" stewardship opportunities in the Region's watersheds to 1% of Region's population each year, including underserved and disadvantaged communities.

Progress Summary: Objective A

- ✓ Successfully launched www.sdirwmp.org website in 2008.
- ✓ Successfully launched project database (www.sdirwmp.org) in 2010.
- ✓ Successfully launched online grant administration tool for projects awarded IRWM grant funding.
- ✓ San Diego IRWM stakeholder email list has approximately 180 members from a wide range of agencies and organizations.
- ✓ San Diego Municipal Stormwater Copermittees began implementing a Regional Residential Education Program.
- ✓ Various organizations provide ongoing "hands-on" stewardship opportunities for residents.
- ✓ San Diego IRWM projects:
  - *San Diego Regional Pollution Prevention Program / San Diego Regional Water Quality Assessment and Outreach Project (San Diego CoastKeeper)*
  - *Biofiltration Wetland Creation and Education Program (Zoological Society of San Diego)*
  - *Green Mall Porous Paving and Infiltration (City of San Diego)*
  - *Chollas Creek Runoff Reduction and Groundwater Recharge Project (County of San Diego)*



Volunteer Monitors for Proposition 50 Project: San Diego Regional Water Quality Assessment and Outreach Project



*SDIRWM Project Database (link from **www.sdirwmp.org**)*

Objective B – Effectively obtain, manage, and assess water resources data and information.

The following two targets relate to Objective B:

1. Develop standards for the integration and assessment of water management data and information by 2010.
2. Provide centralized public access to key water management data sets by 2010.

Progress Summary: Objective B

- ✓ Successfully launched project database (www.sdirwmp.org) in 2010.
- ✓ Successfully launched online grant administration tool for projects awarded IRWM grant funding.
- ✓ The Regional Board, partnered with the San Diego River Park Foundation, has developed a pilot website with public access to water quality data.
- ✓ San Diego IRWM projects:
  - *Regional Water Data Management Program (County of San Diego)*
  - *San Diego Regional Pollution Prevention Program / San Diego Regional Water Quality Assessment and Outreach Project (San Diego CoastKeeper)*

Objective C – Further scientific and technical foundation of water quality management.

The following five targets relate to Objective C:

1. By 2010, develop an agreed-upon system and metrics for tracking the progress of Basin Plan validation efforts through coordination with Regional Board staff.
2. Conduct water quality assessment for beneficial use attainment within 75 percent of surface waters by 2015.
3. Assess and validate Basin Plan beneficial uses and water quality objectives for the Region's watersheds by 2017.
4. By 2013, develop a system and metrics for tracking groundwater assessment information.
5. By 2015, develop a system and metrics for evaluating ocean water quality and marine habitat.

Progress Summary: Objective C

- ✓ Planning Grant is funding a white paper on coordination between the San Diego IRWM Program and Region Board on topics of mutual interest.
- ✓ RWMG was represented on the Regional Board's 2011 Triennial Review Advisory Committee (TRAC) to provide feedback on amendments to the Basin Plan from an IRWM perspective.
- ✓ RWMG will participate in the Regional Board's process of assessing water quality and developing four TMDLs to protect beneficial uses for regional water bodies.
- ✓ SDCWA partnered with the Southern California Salinity Coalition (SCSC) and the Regional Board to develop *Salinity and Nutrient Management Planning Guidelines* for basin planning within the region.
- ✓ San Diego IRWM projects:
  - *Implementing Nutrient Management in the Santa Margarita River Watershed project (County of San Diego)*
  - *Lake Hodges Water Quality and Quagga Mitigation Measures (SDCWA)*
  - *Regional Water Data Management Program (County of San Diego)*

Objective D – Develop and maintain a diverse mix of water resources.

The following eight targets relate to Objective D:

1. Increase water conservation savings from about 51,090 AFY in 2006 to at least 79,960 AFY by 2010 and 108,400 AFY by 2030.
2. Increase seawater desalination capability within the region from zero AFY to 34,690 AFY by 2015.
3. Increase recycled water use from 14,830 AFY in 2006 to 33,670 AFY by 2010 and 47,580 AFY by 2030.
4. Increase groundwater supply within SDCWA's service area from about 14,960 AFY in 2006 to 28,580 AFY by 2010 and 31,180 AFY by 2030.
5. Implement Colorado River conservation and transfer programs, increasing deliveries from 35,000 AFY in 2006 to 277,700 AFY by 2030.
6. Include an analysis in SDCWA's 2010 Urban Water Management Plan (UWMP) that assesses the effect of climate change on future water supplies.
7. Develop and implement regional drinking water source protection guidelines for the Region by 2012.
8. Meet groundwater supply and water quality objectives identified in the County's General Plan 2020 for groundwater-dependent communities by 2012.

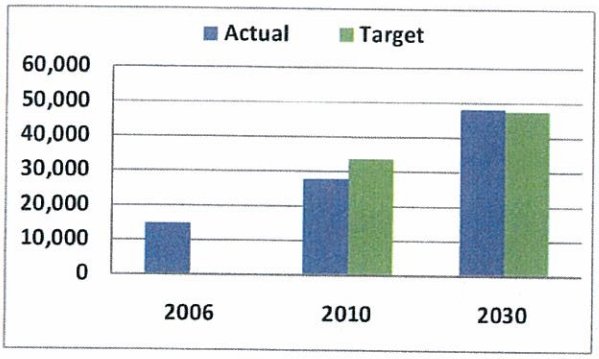
Progress Summary: Objective D

- ✓ SDCWA and member agencies reduced per capita water use by 27% between 2007 and 2010, and are committed to meeting a regional goal of 167 gpcd by 2020 under SBx7-7. Total conservation target for all member agencies of 138,400 AF by 2030. U.S. Marine Corps Camp Pendleton and SDCWA are exploring seawater desalination opportunities.
- ✓ Total recycled water from SDCWA member agencies was 27,931 AFY in 2010, and will total 48,278 AFY by 2030.
- ✓ The City of San Diego constructed an advanced water treatment pilot project that will produce 1 million gallons of purified water per day to study technologies for indirect potable reuse/reservoir augmentation.
- ✓ Groundwater supplies from SDCWA member agencies totaled 20,833 AFY in 2010, and will total 28,360 AFY by 2030. The City of Oceanside and Sweetwater Authority desalinate brackish groundwater for municipal use.
- ✓ SDCWA received 150,200 AFY in Quantification Settlement Agreement water in 2010.
- ✓ SDCWA coordinated its 2010 UWMP Update with its 24 member agencies, including both demand and supply assessment and the potential effect of climate change on future water supplies.
- ✓ San Diego IRWM projects:
  - *Implementation of Integrated Landscape and Agricultural Efficiency (SDCWA)*
  - *Irrigation Hardware Giveaway and Cash for Plants (City of San Diego)*
  - *Over-Irrigation/Runoff Reduction project (City of Encinitas)*
  - *Sustainable Landscapes Program (SDCWA)*
  - *Carlsbad Desalination Local Conveyance (Olivenhain MWD)*
  - *North San Diego County Cooperative Demineralization Project (San Elijo JPA)*
  - *Padre Dam Water Reclamation Facility Expansion Project (Padre Dam MWD)*
  - *El Monte Valley Groundwater Recharge and Restoration (Helix Water District)*
  - *Recycled Water Retrofit Assistance Program (SDCWA)*
  - *Recycled Water Distribution System Expansion and Parklands Retrofit, and Indirect Potable Reuse/Reservoir Augmentation Demonstration Project (City of San Diego)*

Progress Summary: Objective D

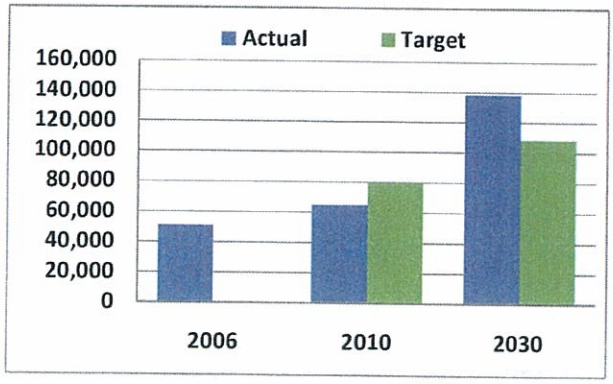
- *North San Diego County Regional Recycled Water Project (Olivenhain Municipal Water District)*
- *North San Diego County Cooperative Demineralization Project (San Elijo Joint Powers Authority)*
- *Santa Margarita Conjunctive Use Project (Fallbrook Public Utilities District)*
- *South San Diego County Water Supply Strategy (Sweetwater Authority)*
- *San Vicente Reservoir Source Water Protection through Watershed Property Acquisition (SDCWA)*
- *El Capitan Reservoir Watershed Acquisition and Restoration (San Diego River Park Foundation)*

San Diego IRWM
Regional Recycled Water Target (in acre-feet)



Completed Demonstration Project Improvements in City of San Diego, Proposition 50 Project: Recycled Water Distribution System Expansion and Parklands Retrofit, and Indirect Potable Reuse/Reservoir Augmentation Demonstration Project

San Diego IRWM
Regional Conservation Target (in acre-feet)



Regional conservation through Proposition 50 Project: Implementation of Integrated Landscape and Agricultural Efficiency Programs

Objective E – Construct, operate, and maintain a reliable infrastructure system.

The following four targets relate to Objective E:

1. Develop facilities and manage supplies to ensure adequate emergency and carry-over deliveries.
2. Increase local treatment of imported and local surface waters from 597 mgd to 860 mgd in 2010 and 920 mgd in 2030.
3. Develop the conveyance facilities necessary to deliver a reliable supply and assure adequate resources to maintain existing conveyance systems.
4. Develop the infrastructure needed to support the targets identified for developing recycled water, desalination, and groundwater supplies.

Progress Summary: Objective E

- ✓ SDCWA's Emergency Storage Project (ESP) will increase local emergency water supply reliability by providing up to six months of emergency water storage through a system of reservoirs, pipelines, and pumping stations.
- ✓ SDCWA completed the Twin Oaks Valley Treatment Plant in 2008, adding 100 mgd capacity to regional total. Olivenhain MWD and City of San Diego have also expanded water treatment capacity since 2005.
- ✓ San Diego IRWM projects:
  - *San Diego Reservoir Intertie Project Conceptual Design (Sweetwater)*
  - *Padre Dam Water Reclamation Facility Expansion Project (Padre Dam MWD)*
  - *El Monte Valley Groundwater Recharge and Restoration (Helix WD)*
  - *North San Diego County Cooperative Demineralization Project (San Elijo JPA)*
  - *Rural Disadvantaged Communities Partnership Project (Rural Communities Assistance Corporation)*
  - *Carlsbad Desalination Local Conveyance (Olivenhain MWD)*

Objective F – Reduce the negative effects on waterways and watershed health caused by hydromodification and flooding.

The following three targets relate to Objective F:

1. Develop and implement regional standards for Low Impact Development (LID) practices by 2010.
2. Develop and implement regional approaches to hydromodification management by 2010.
3. By 2010, implement a system to track rates of change in area of impervious surfaces regionally.

Progress Summary: Objective F

- ✓ MS4 Copermittees completed a Countywide Model Standard Urban Stormwater Mitigation Plan (SUSMP), which includes a design guide for LID.
- ✓ MS4 Copermittees developed a Hydromodification Plan that was adopted by the San Diego Regional Water Quality Control Board, and incorporated the plan and hydromodification criteria into the Model SUSMP.
- ✓ San Diego IRWM projects:
  - *City of San Diego Green Mall Porous Paving Infiltration (City of San Diego)*
  - *Chollas Creek Runoff Reduction and Groundwater (County of San Diego)*
  - *Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection Project (City of San Diego)*
  - *Pilot Concrete Channel Infiltration Project (City of Santee)*

Objective G – Effectively reduce sources of pollutants and environmental stressors

The following six targets relate to Objective G:

1. Implement Total Maximum Daily Loads (TMDLs) according to established schedules.
2. Reduce or avoid the need for TMDLs by monitoring and managing impacts to receiving waters, with an emphasis on 303(d)-listed water bodies and other Environmentally Sensitive Areas.
3. Develop by 2012 a regional management plan for Total Dissolved Solids (TDS).
4. Develop and implement comprehensive source management strategies to address regionally-significant constituents (e.g., pathogens, nutrients, sediments).
5. Reduce the frequency of sanitary sewer overflows in excess of 1,000 gallons from 180 overflows per year in 2005 to 120 overflows per year in 2012.
6. Reduce the volume of sanitary sewer overflows per mile of collection system.

Progress Summary: Objective G

- ✓ The Regional Board and jurisdictions with implementation responsibilities are on schedule with four adopted TMDLs.
- ✓ SDCWA partnered with SCSC and the Regional Board to develop *Salinity and Nutrient Management Planning Guidelines.*
- ✓ Proposition 84 Planning Grant will fund multiple Salinity and Nutrient Management Plans within the IRWM region.
- ✓ The City and County of San Diego are working on multiple methods to reduce sanitary sewer overflows.
- ✓ San Diego IRWM projects:
  - *San Diego Regional Pollution Prevention / San Diego Regional Water Quality Assessment and Outreach Project (San Diego CoastKeeper)*
  - *Over-Irrigation/Bacteria Reduction (City of Encinitas)*
  - *San Vicente Reservoir Source Water Protection through Watershed Property Acquisition (SDCWA)*
  - *El Capitan Reservoir Watershed Acquisition & Restoration Program (San Diego River Park Foundation)*
  - *Biofiltration Wetland Creation and Education Program (Zoological Society of San Diego)*
  - *San Dieguito Watershed Management Plan Implementation -- Lake Hodges Natural Treatment System Conceptual Design (San Dieguito Watershed Council)*
  - *City of San Diego Green Mall Porous Paving Infiltration (City of San Diego)*
  - *Chollas Creek Runoff Reduction and Groundwater Recharge Project (County of San Diego)*
  - *Lake Hodges Water Quality and Quagga Mitigation Measures (SDCWA)*
  - *Implementing Nutrient Management in the Santa Margarita River Watershed (County of San Diego)*
  - *Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek (City of San Diego)*
  - *Pilot Concrete Channel Infiltration Project (City of Santee)*

Concrete Channel in Woodglen Vista Creek, Proposition 84 Project: Pilot Concrete Channel Infiltration Project

Santa Margarita (SM) River, Proposition 84 Project: Implementing Nutrient Management, SM River

Objective H – Protect, restore, and maintain habitat and open space.

There are four targets relating to Objective H, including:

1. Conserve by 2012 a minimum of 10,000 acres of habitat and open space, including functional riparian habitat and associated buffer habitat, and functional wetland habitat.
2. Restore by 2012 a minimum of 1,000 acres of habitat and open space, functional riparian habitat and associated buffer habitat, and functional wetland habitat.
3. Remove and control a minimum of 1,000 acres of non-native invasive plants by 2012.
4. Monitor, manage, control, and prevent establishment of nuisance aquatic species.

Progress Summary: Objective H

- ✓ The San Diego County Multiple Species Conservation Program (MSCP) led to local acquisition of 6,454 acres and federal/state acquisition of 29,050 acres.
- ✓ The City of San Diego MSCP had led to conservation of 33,215 acres.
- ✓ SDCWA finalized its Subregional Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) in 2010.
- ✓ San Diego IRWM projects:
  - *San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration (SDCWA)*
  - *El Capitan Reservoir Watershed Acquisition and Restoration Program (San Diego River Park Foundation)*
  - *Northern San Diego County Invasive Non-Native Species Control Program (Mission Resource Conservation District)*
  - *Chollas Creek Integration Project (Jacobs Center for Innovation)*
  - *Lake Hodges Water Quality and Quagga Mitigation Measures (SDCWA)*

Objective I – Optimize water-based recreational opportunities

The following two targets relate to Objective I:

1. Develop 200 acres of water-based recreational open space that focuses on underserved areas and ensures equal access for disadvantaged communities.
2. By 2015 provide 20 new public access points (boat launch facilities, fishing floats or piers, swim beaches, trails, stairs, parking areas, or similar) to recreational surface waters.

Progress Summary: Objective I

- ✓ San Diego provides more than 45 recreational trails available for hiking, bird-watching, and picnicking at local reservoirs, lagoons, and bays.
- ✓ San Diego has 18 boat-launching areas providing recreational fishing and boating access to local water supply reservoirs.
- ✓ San Diego IRWM projects:
  - *San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration (SDCWA)*
  - *El Capitan Reservoir Watershed Acquisition and Restoration Program (San Diego River Park Foundation)*
  - *Chollas Creek Integration Project (Jacobs Center for Neighborhood Innovation)*

2.2 Progress on Short-Term Priorities

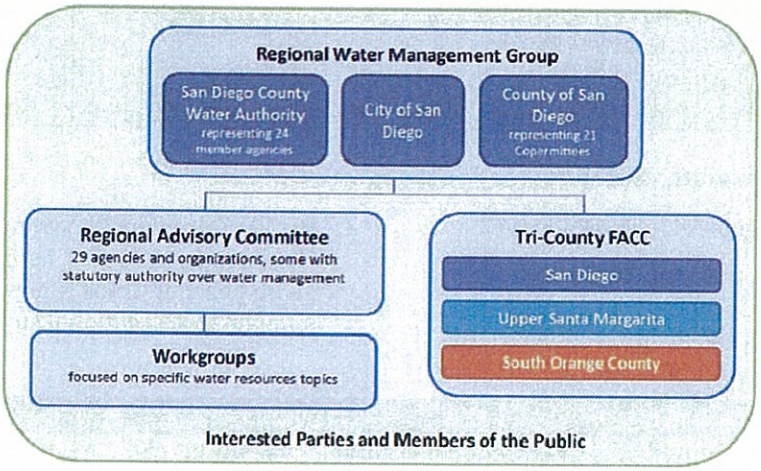
The 2007 San Diego IRWM Plan identifies seven short-term priorities that address immediate Plan implementation needs. The short-term priorities are listed below, followed by a discussion of progress toward achieving each priority.

Priority 1. Implement priority projects and programs that support the Region's IRWM goals and objectives.

- ✓ Project and program selection for IRWM-related funding programs (Proposition 50 and Proposition 84) has emphasized support for San Diego's IRWM goals and objectives.
- ✓ Each IRWM grant proposal submitted to DWR has included projects that meet multiple IRWM Plan objectives.

Priority 2. Formally establish a long-term institutional structure to guide the ongoing development and implementation of the San Diego IRWM Plan.

- ✓ The RWMG agencies adopted a revised MOU in March 2009 that clarified their roles and responsibilities through 2013.
- ✓ In 2009, the RAC indicated support for the existing institutional structure, which had been in place since before adoption of the 2007 IRWM Plan.
- ✓ The MOU serves as a formal establishment of an institutional structure for the San Diego IRWM region through 2013.



San Diego IRWM Governance Structure

Priority 3. Implement and update (as needed) a Public Outreach Plan that ensures key stakeholders and affected parties are informed and engaged in IRWM planning and implementation.

- ✓ The 2007 IRWM Plan included a *Public Outreach and Disadvantaged & Environmental Justice Community Involvement Plan* designed to ensure key stakeholders and others are involved in IRWM activities. The plan was updated in 2009.
- ✓ Since 2007, the RWMG and RAC have continued to identify stakeholders as necessary additions to the IRWM planning process. Original RAC members were selected to represent water suppliers, wastewater agencies, environmental groups, stormwater and flood managers, agricultural and business interests, and DACs. New RAC members invited to participate represent the Rural Community Assistance Corporation, the military community, U.S. Bureau of Reclamation, San Diego Regional Water Quality Control Board and representatives from adjacent Tri-County FACC regions.
- ✓ The RWMG has developed an email distribution list for the IRWM Program that is used to communicate regularly with stakeholders.

Priority 4. Establish a regional, web-based system for sharing, disseminating, and supporting the analysis of water management data and information.

- ✓ The RWMG has developed a website dedicated to IRWM planning for the San Diego region (www.sdirwmp.org).
- ✓ The website contains information about how one may get involved with the San Diego IRWM planning process, including how to submit projects to the IRWM project database.
- ✓ The region's Proposition 84 IRWM Implementation Grant includes funding for the County of San Diego's Regional Data Management Program, which will synthesize existing data management efforts.

Priority 5. Complete a needs assessment and develop recommendations for addressing existing deficiencies in the technical and scientific foundation of San Diego Basin Plan beneficial uses and water quality objectives.

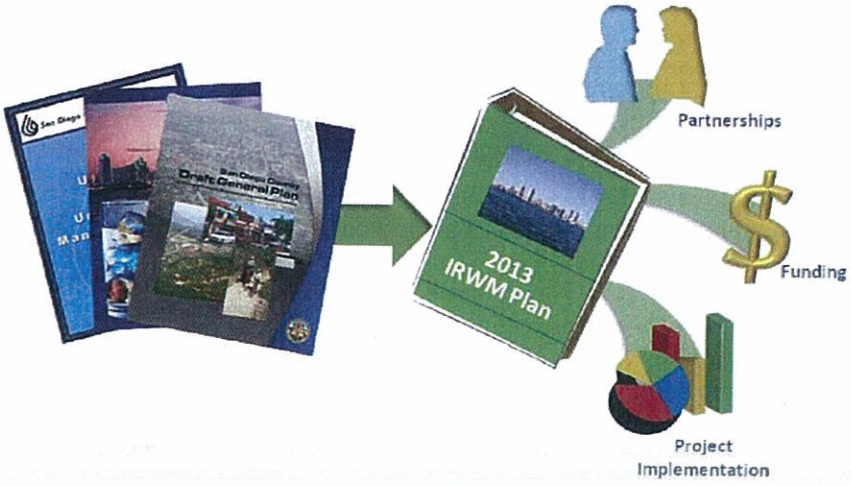
- ✓ The RWMG and RAC have identified resolving deficiencies in the San Diego Basin Plan as a major need for the San Diego Region. Filling the existing gaps in knowledge and data related to the link between beneficial uses and water quality objectives will provide a sound basis for improved decision-making and will allow for improved water quality.
- ✓ The RWMG will develop a white paper on collaboration with the San Diego Regional Board with input from the RAC and Regional Board staff. The RWMG will explore the extent to which the IRWM program may partner with the Regional Board to achieve greater regulatory certainty and better address supporting beneficial uses and meeting water quality objectives. Reviewing the technical and scientific basis for specific use designations and standards established under the Basin Plan will allow an open dialogue with IRWM stakeholders on the validity of water quality standards.

Priority 6. Complete an updated assessment of local water management plans to ensure effective and upfront input from these plans during all phases of IRWM planning and implementation. Where planning deficiencies are identified, address these deficiencies as part of the IRWM Plan update process.

- ✓ The RWMG will conduct a planning study of water management and land use planning in the IRWM Plan Update. This will involve an updated assessment of water management plans in the region, as well as acknowledgement and resolution of any inconsistencies with the IRWM Plan and local land use plans.
- ✓ The study will describe how the San Diego region may practice integrated land use and watershed management, including:
  - timely planning of water supply and wastewater improvements,
  - supporting use of recycled water by large-scale irrigators,
  - improved coordination with land use planning efforts,
  - coordinated flood management and stormwater capture,
  - enhanced habitat protection and restoration, and
  - improved protection of groundwater and surface water quality.

Priority 7. Revise the IRWM Plan and publish the Second Edition of the San Diego IRWM Plan.

- ✓ DWR awarded the San Diego Region a $1,000,000 planning grant to revise the 2007 San Diego IRWM Plan. This project is described in detail in Chapter 3, *Project Performance.* The RWMG is moving forward with the IRWM Plan update.



Chapter 3 Project Performance

3.1 Proposition 50 and 84 Implementation Grants

In 2007, the San Diego RWMG submitted a grant proposal to DWR for Proposition 50 funding. This proposal included 19 projects identified by the RWMG and RAC that would implement high priority programs to meet the San Diego Region's water supply, conservation, water quality, and natural resources needs. DWR awarded the Region the maximum award of $25,000,000 to support these projects

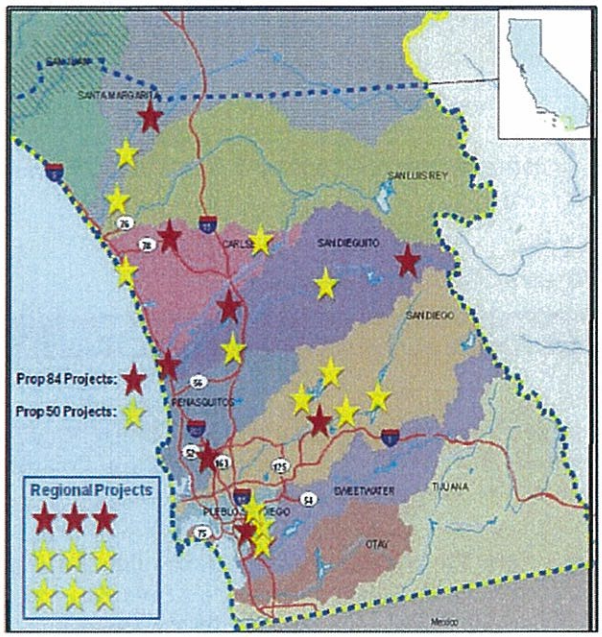
In January 2011, the San Diego RWMG submitted an implementation grant proposal to DWR for Proposition 84 funding. This proposal included 11 projects that would implement high priority programs to meet the San Diego Region's water supply, conservation, water quality, and data management needs. In May 2011, DWR recommended that the San Diego Region receive its entire implementation grant request of $7,900,000, plus an additional $70,000 as part of a joint project with the Upper Santa Margarita IRWM region (see map at right).

The following sections provide information regarding the performance of projects contained within the Proposition 50 and Proposition 84 Implementation Grant Proposals. These projects have been categorized into seven Program Areas: Conservation, Water Recycling, Watersheds/ Natural Resources, Local Supply Development, Education and Outreach, Water Quality, and Data Management.

The following provides an overview of each of the Proposition 50 Implementation Grant Projects, including funding allocated to each program to date, and alignment with the IRWM Objectives established within the 2007 IRWM Plan. This information is current as of June 2011, and is therefore subject to change as grant disbursements and matching funding are allocated to the various projects.

Since the Proposition 84 implementation grant contract has not been finalized, no funds have been billed to date for these projects. As such, the summaries contain information regarding any design completed for these projects.

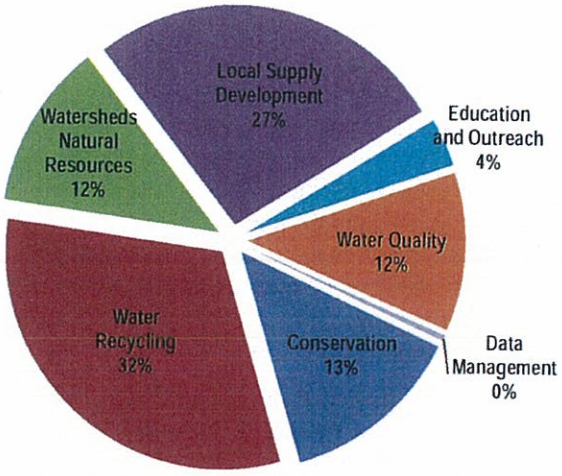
The graphic below indicates the approximate location of each Proposition 50 and 84 Implementation Grant Project, demonstrating that these projects span throughout the entirety of San Diego County.



Proposition 50 and 84 Implementation Grant Project Locations

Appendix C of this document contains a detail overview of each Proposition 50 and Proposition 84 Implementation Grant Project.

Ribbon-Cutting Ceremony at the 1st Completed San Diego IRWM Project: Biofiltration Wetland Creation and Education Program



Funding Allocation Percentage by Program Area (Proposition 50 and Proposition 84)

Program Area 1: Conservation

Program Description

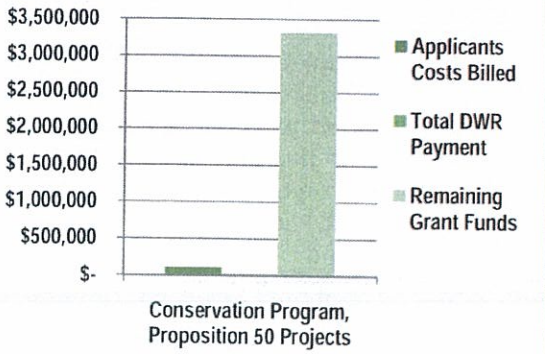
Three Proposition 50 projects and one Proposition 84 project fall in this Program Area. These projects were selected, in part, for their conformance with the 2007 San Diego IRWM Plan, which notes that future conservation programs in the San Diego Region will focus on landscape and commercial/industrial conservation. As such, the projects in this Program Area aim to implement agricultural, commercial, and residential energy efficiency projects.

- ✓ *Implementation of Integrated Landscape and Agricultural Efficiency (SDCWA)*
- ✓ *Irrigation Hardware Giveaway and Cash for Plants (City of San Diego)*
- ✓ *Over-Irrigation Runoff/Bacteria Reduction Project (City of Encinitas)*
- ✓ *Sustainable Landscapes Program (SDCWA)*

Program Status

Much work is under way on these projects. The City of San Diego is issuing cash for plants rebates, SDCWA has met its match requirements and is fully implementing the Agricultural Audit and Landscape Intern Programs. Other program elements are awaiting amendments from DWR due to change in scope. As demonstrated within the graphic to the right, to date applicants have billed a total of $101,293, $13,750 of which has been reimbursed by DWR. In total, $3,319,748 in grant funds remain for this Program Area.

The program design of the conservation project included in the Proposition 84 Implementation Grant Proposal will begin implementation in early 2012, once grant funds are available.



Program Area 2: Water Recycling

Program Description

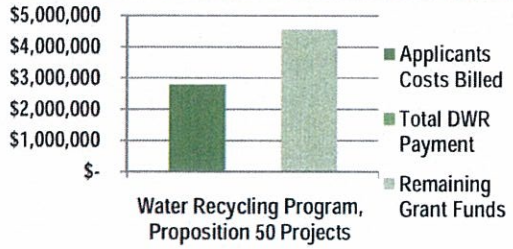
Three Proposition 50 projects and two Proposition 84 projects are in this Program Area. These projects were selected, in part, for their conformance with the 2007 San Diego IRWM Plan, which lists diversification of regional water portfolios as a major goal. As such, the projects in this Program Area are designed to increase recycled water supply throughout the San Diego Region.

- ✓ *Padre Dam Water Reclamation Facility Expansion Project (Padre Dam Municipal Water District)*
- ✓ *Recycled Water Retrofit Assistance Program (SDCWA)*
- ✓ *Recycled Water Distribution System Expansion and Parklands Retrofit, and Indirect Potable Reuse/Reservoir Augmentation Demonstration Project (City of San Diego)*
- ✓ *North San Diego County Regional Recycled Water Project (Olivenhain Municipal Water District)*
- ✓ *North San Diego County Cooperative Demineralization Project (San Elijo Joint Powers Authority)*

Program Status

As demonstrated in the graphic on the right, Proposition 50 recycled water projects are moving ahead and applicants have billed approximately $2,797,815 to date within this Program Area. A large portion of funding, $4,540,935, still remains for this program.

Although the Proposition 84 projects have not begun, design work has been initiated for both of the Water Recycling Program Area projects.



Program Area 3: Watersheds/Natural Resources

Program Description

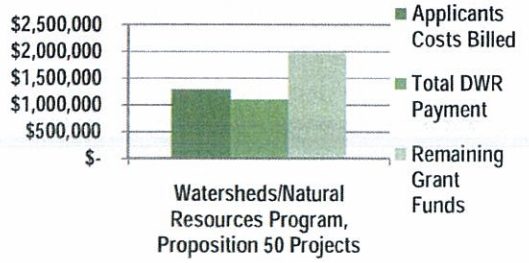
This Program Area includes three Proposition 50 projects and one Proposition 84 project. These projects were selected, in part, for their conformance with the 2007 San Diego IRWM Plan, which includes the objective of protecting, restoring, and maintaining habitat and open space. As such, this Program Area comprises the following projects.

- ✓ *San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration Project (City of San Diego)*
- ✓ *El Capitan Reservoir Watershed Acquisition and Restoration Program (San Diego River Park Foundation)*
- ✓ *Northern San Diego County Invasive Non-Native Species Control (Mission Resource Conservation District)*
- ✓ *Chollas Creek Integration Project (Jacobs Center for Neighborhood Innovation)*

Program Status

Substantial progress has been made towards completing Proposition 50 projects within this Program Area. To date, approximately $1,284,757 has been billed for these projects, and $1,096,478 has been reimbursed by DWR. A total of $1,967,639 remains in grant funds for the Watersheds/Natural Resources Program Area.

Design for the Proposition 84 Implementation Grant project in this Program Area has not yet begun, but is anticipated to be 90% complete by January 2012.



Program Area 4: Local Supply Development

Program Description

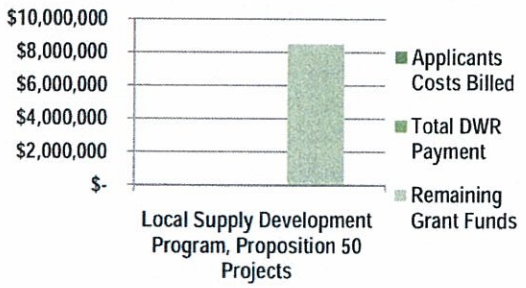
Five Proposition 50 projects and one Proposition 84 project fall in the Local Supply Development Program Area. These projects were selected, in part, because they conform to the 2007 San Diego IRWM Plan, which has an objective of developing and maintaining a diverse mix of water resources. As such, the projects in this Program Area aim to develop new water supplies and expand or protect existing local supplies.

- ✓ *Santa Margarita Conjunctive Use Project (Fallbrook Public Utility District)*
- ✓ *Carlsbad Desalination Project Local Conveyance (Olivenhain Municipal Water District)*
- ✓ *San Diego Region Reservoir Intertie Project Feasibility Study (Sweetwater Authority)*
- ✓ *South San Diego County Water Supply Strategy (Sweetwater Authority)*
- ✓ *El Monte Valley Groundwater Recharge and River Restoration Project (Helix Water District)*
- ✓ *Rural Disadvantaged Community Partnership Project (Rural Community Assistance Corporation)*

Program Status

Due to project changes due to altered circumstances and project-specific issues, only a small amount of money has been billed for Proposition 50 Projects within this Program Area. To date, approximately $78,206 has been billed for these projects, and $34,189 has been reimbursed by DWR. Therefore, $8,462,900 in grant funds remains for these projects.

Design for the Proposition 84 Implementation Grant project in this Program Area has not begun, but is anticipated to be complete by January 2012.



Program Area 5: Education and Outreach

Program Description

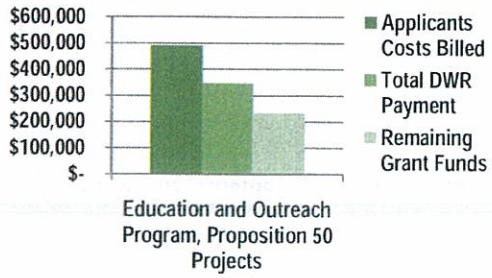
The Education and Outreach Program Area includes one project from the Proposition 50 grant program and one from the Proposition 84 program. These projects were selected, in part, for their conformance with the 2007 San Diego IRWM Plan, which includes maximizing stakeholder/community involvement and stewardship as an objective. The projects in this Program Area are designed to increase stakeholder/community involvement through education and other methods.

- ✓ *San Diego Regional Pollution Prevention (San Diego CoastKeeper)*
- ✓ *San Diego Regional Water Quality Assessment and Outreach Project (San Diego CoastKeeper)*

Program Status

To date, a substantial amount of the work for the Proposition 50 project within this Program Area has been completed. Approximately $489,508 has been billed by the project applicant, and $346,683 of this amount has been reimbursed by DWR. Only $231,492 of grant funding remains for this Program Area.

Design for the Proposition 84 project within this Program Area is not anticipated to begin until 2012.



Program Area 6: Water Quality

Program Description

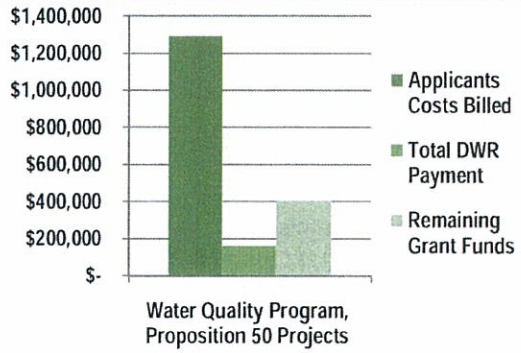
The Water Quality Program Area comprises four Proposition 50 projects and four Proposition 84 projects. These projects were selected, in part, for their conformance with the 2007 San Diego IRWM Plan, which lists water quality improvement as an important component. The projects listed in this Program Area intend to address high priority water quality concerns throughout the San Diego Region.

- ✓ *Biofiltration Wetland Creation and Education Program (Zoological Society of San Diego)*
- ✓ *San Dieguito Watershed Management Plan Implementation – Lake Hodges Natural Treatment System Conceptual Design (San Dieguito River Valley Conservancy)*
- ✓ *City of San Diego Green Mall Porous Paving and Infiltration, Phase 1 (City of San Diego)*
- ✓ *County of San Diego Chollas Creek Runoff Reduction and Groundwater Recharge (County of San Diego)*
- ✓ *Lake Hodges Water Quality and Quagga Mitigation Measures (San Diego County Water Authority)*
- ✓ *Implementing Nutrient Management in the Santa Margarita River Watershed (County of San Diego)*
- ✓ *Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed (City of San Diego)*
- ✓ *Pilot Concrete Channel Infiltration Project (City of Santee)*

Program Status

To date, a substantial amount of the work has been completed for this Program Area. As indicated in the graphic on the right, approximately $1,291,943 has been billed by project applicants under Proposition 50, and $158,844 of this amount has been reimbursed by DWR. Therefore, only $404,467 of grant funds remain in this Program Area.

Design work has been initiated for several of the Proposition 84 projects within this Program Area.



Program Area 7: Data Management

Program Description

The Data Management Program Area contains the Regional Water Data Management Program, which is sponsored by the County of San Diego and included in the Proposition 84 Implementation Grant Proposal. The intent of this project is to meet regional priorities described in prior sections of this report regarding data management and coordination.

Program Status

To date, no design work has been completed for the Regional Water Data Management Program.

3.2 Proposition 84 Planning Grant

In September 2010, the San Diego RWMG submitted a *San Diego IRWM Planning Grant Proposal* to DWR. This proposal included a work plan to update the 2007 San Diego IRWM Plan. In December 2010, DWR recommended that the San Diego Region receive its entire planning grant request of $1,000,000. Along with this funding, the RWMG anticipates allocating an additional $465,880 towards this planning effort. The following provides information regarding the anticipated work plan and schedule for this project. Please note that since the grant contract has not been completed with DWR, these items are subject to change.

Work Plan Overview

Task 1: Outreach and Communication – This task contains seven sub-tasks, including RWMG meetings and coordination, RAC Meetings and Coordination, Public Involvement, Coordination with Disadvantaged Communities, Coordination with Tribes, Coordination with Tri-County Funding Area Coordinating Committee, and IRWM Website Updates.

Task 2: Planning Studies – This task contains four sub-tasks, including collaboration with Regional Board, salinity and nutrient management planning, water management and land use planning, and integrated flood management.

Task 3: IRWM Plan Update – This task contains eight sub-tasks associated with revising the 2007 IRWM Plan and publishing the updated Plan.

Task 4: Proposal Administration – This task involves administration of the IRWM Planning Grant Proposal.

Proposal Status

This grant application received a final award recommendation from DWR, but is still awaiting a formal contract. As was established in the grant schedule, the RWMG began outreach and communication, planning studies, and IRWM update activities in January 2011. The RWMG has begun efforts towards Salinity and Nutrient Management Planning, collaboration with the Regional Board, and conducting the IRWM Plan Update.

Chapter 4 Looking Ahead

4.1 IRWM Program Evaluation

The San Diego IRWM program has succeeded in bringing stakeholders together to discuss water management issues, strategies, and priorities. The relationships and trust that have developed since 2005 allows for candid and productive discussions of how to solve the region's water resource challenges.

The IRWM program is further buoyed by the region's success in securing $34 million in grant funding for high-priority regional projects. In addition to this State funding, the IRWM program has also leveraged a much larger amount of local and federal funding to address local needs.

This success was reflected when respondents to this year's survey gave the San Diego IRWM program a "B+" for its wide-ranging accomplishments. This grade acknowledges the current success of the San Diego IRWM Program, and indicates that local stakeholders are in alignment with the direction of the Program moving forward into the IRWM Plan update.

4.1 IRWM Plan Update

Updating the San Diego IRWM Plan provides the region's stakeholders with an opportunity to revisit and, potentially, re-prioritize the water resource objectives identified in 2007 Plan. The Update will also allow local stakeholders to develop collaborative solutions to the water related conflicts that still exist among various agencies.

4.2 Challenges Ahead

While San Diego's IRWM Program has made a positive contribution to addressing the region's water supply reliability and water quality issues, its long-term viability is uncertain. Existing State grant funds are limited and it is not known if the Program offers sufficient benefit to keep its momentum without the grant funding element. In the meantime, the San Diego IRWM Program is exploring other opportunities for offering value-added services to the region.

San Diegans have long struggled with water management challenges and no one expects the San Diego IRWM Program to fully resolve all of the Region's water-related challenges. If San Diego's IRWM Program is able to continue its efforts, it does provide a unique forum for working through the Region's challenges in a holistic fashion. Through the relationships established by the IRWM program, these challenges and conflicts are being addressed, or at least discussed. Over time, as solutions are found and conflicts are resolved, the IRWM program will become a stronger forum for conflict resolution.

Regional Advisory Committee Meeting, April 2010

Supply Reliability

Historically, SDCWA has relied on imported water supplies purchased from MWD to meet the needs of its member agencies. MWD's supplies come from two primary sources: State Water Project (SWP) and Colorado River. Severe shortages from MWD during the 1987–1992 drought, combined with environmental concerns and associated pumping restrictions in the Sacramento River-San Joaquin Delta, motivated SDCWA to aggressively pursue actions to diversify the region's supply sources. SDCWA's portfolio currently includes SWP and Colorado River supplies, agriculture-to-urban transfer water from Imperial Irrigation District, and conserved water from the All-American and Coachella Canal lining projects. These imported supplies are augmented by member agency surface water supplies, groundwater, recycled water, and conservation. Future verifiable supplies include desalinated seawater from the Carlsbad

Desalination Project. Due to the unreliability of imported water supplies, the region will continue to pursue supply reliability as a primary objective of the IRWM Program.

Climate Change

Climate change is expected to impact the region through changes in precipitation and surface runoff volume. More extreme storm events may exceed reservoir storage capacity and therefore result in potential water supplies discharged to the ocean. Sea level rise may impact local aquifers and SWP water quality via seawater intrusion, as well as local coastal water and wastewater infrastructure. All of these uncertainties could further reduce delivery of imported supplies and the ability of local agencies to meet demands. In accordance with DWR's Plan Standards, the IRWM Plan Update will address both adaptation to and mitigation of climate change impacts.

Salinity

Salinity in both local and imported supplies will continue to be a challenge for local water agencies. SDCWA recently partnered with the Southern California Salinity Coalition and the Regional Board to develop *Salinity and Nutrient Management Planning Guidelines* to guide local water managers in development of basin-specific salt and nutrient plans in accordance with the State Board's Recycled Water Policy. The San Diego IRWM and Tri-County FACC partners will continue to collaborate on salinity management throughout the Funding Area.

Regulatory Uncertainty

Water and wastewater agencies in the region are concerned about the increasing uncertainty associated with regulatory permitting. Water quality permitting should allow for and support local supply development, while also protecting surface and groundwater quality. As part of the Plan update, the RWMG and RAC will explore a collaborative partnership between the IRWM Program and the Regional Board. The study will identify how Basin Plan water quality objectives might be informed and met by IRWM Plan and associated projects. In sum, the IRWM region is working to ensure that meaningful changes occur in the regulatory setting through coordination with the Regional Board.

TMDL Compliance

Surface water quality issues in the region are dominated by storm water and urban runoff, which contribute contaminants to local creeks and rivers, water supply reservoirs, lagoons, beaches, and bays. More than 40 inland surface water bodies within the region are designated by the Regional Board as not attaining water quality objectives. The Regional Board has adopted or is developing TMDLs for Chollas Creek, San Diego Bay, Tijuana River and Estuary, Agua Hedionda Creek, Los Penasquitos Lagoon, and many local water bodies. Implementation of these TMDLs will require significant regional investment in water quality programs over the long term. The San Diego IRWM Program is committed to targeting the various causes of pollution through collaborative efforts to improve water quality and protect beneficial uses.

Funding Delays

While the San Diego region appreciates the grant funding received from DWR through the IRWM Grant Programs, the region is concerned about delays that have occurred once invoices have been submitted to DWR. During administration of the Proposition 50 grant over the last 1½ years, grant reimbursements were made up to six months following submittal of invoices to DWR. These types of delays have a disproportionate impact on non-profits and DACs that are sponsoring IRWM projects, and threaten their ability to participate in future grant opportunities. In addition, budget shortfalls and delays throughout the State potentially threaten the long-term viability of IRWM-related funding.

The San Diego region has taken an active role in this issue, speaking directly with DWR and making recommendations on how to improve the process for future grant disbursements. The region is committed to continuing these actions to support its projects sponsors and increase the reliability of IRWM funding.

The San Diego IRWM Report Card can be downloaded from the San Diego IRWM website:

www.sdirwmp.org

(Click on "IRWM Plan" in box at right)

There are also three appendices available on the www.sdirwmp.org website, including:

Appendix A: Results of the San Diego IRWM Survey
Appendix B: Progress Toward Achieving IRWM Plan Targets
Appendix C: Proposition 50 and Proposition 84 Project Overviews

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ATTACHMENT D

Old Projection

North City Water Reclamation Plant

1. Wastewater intake ranges between 28.8-45.2mgd depending on the Alternative chosen.
2. Indirect Potable Reuse (IPR) production ranges between 15-27 mgd depending on alternative
3. Non Potable Reuse (NPR) production projected at 9mgd.
4. Solids sent to MBC
5. Remaining unused flow returned to system

Harbor Drive

1. Wastewater Intake ranges between 55-72 mgd depending on alternative
2. IPR production ranges between 41-53 mgd depending on alternative chosen
3. No NPR
4. Solids Returned to the system
5. Brine returned to system

South Bay Wastewater Treatment Plant

1. Wastewater intake at SV8 and South Bay Wastewater Treatment Plant is 31 mgd
2. IPR production is set at 15 mgd
3. NPR production is set at 9 mgd
4. All flows (31 mgd from SV8+13 mgd from GAPS) going to South Bay considered an offload to point Loma due to the presence of an outfall.
5. Solids returned to system from South Bay estimated at 2.2 mgd.

Point Loma Wastewater Treatment Plant

1. Total Metro System Flows is 215 mgd and based on old projections and does not include 10 yr flow event.
2. Total flows remaining at Point Loma estimated at 98.2 mgd
3. If the upgrade of Point Loma to secondary is to occur, it will be based on 100 mgd average

New Projection

North City Water Reclamation Plant

1. Wastewater intake ranges between 28.8-45.2mgd depending on the Alternative chosen. *(unchanged)*
2. Indirect Potable Reuse (IPR) production ranges between 15-27 mgd depending on alternative. *(unchanged)*
3. Non Potable Reuse (NPR) production estimated at 9mgd. *(unchanged)*

Harbor Drive

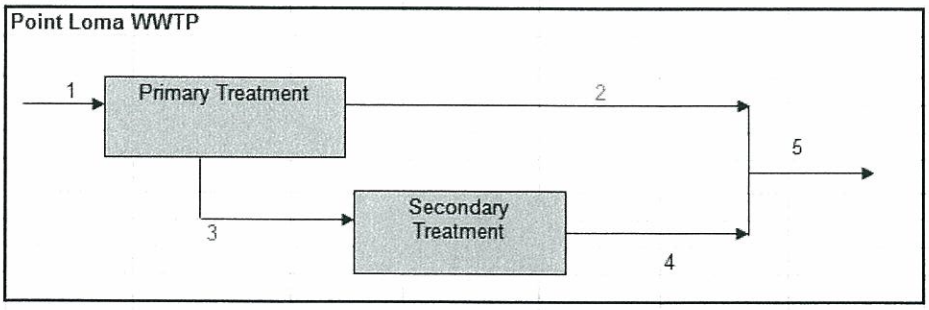
1. Wastewater Intake ranges between 55-72 mgd depending on alternative.*(unchanged)*
2. IPR production ranges between 41-53 mgd depending on alternative chosen. *(unchanged)*
3. No NPR. *(unchanged)*
4. Solids returned to system. *(unchanged)*
5. Brine returned to system. *(unchanged)*

South Bay Wastewater Treatment Plant

1. Wastewater intake at SV8 and South Bay Wastewater Treatment Plant is 47 mgd
2. IPR production is set at 15 mgd. *(unchanged)*
3. NPR production is set at 9 mgd. *(unchanged)*
4. Grove Avenue Pump Station 18 mgd max.
5. All flows (GAPS+SV8=65 mgd) going to South Bay considered an offload to point Loma due to the presence of an outfall.
6. Solids returned to system estimated at 4 mgd.

Point Loma Wastewater Treatment Plant

1. Total Metro System Flows is 278 mgd and is based on 10 yr flow event used in Metro's Master Plan.
2. Total flows remaining at Point Loma estimated at 145 mgd
3. If the upgrade of Point Loma to secondary is to occur, it will be based on 145 mgd Average and 246 mgd peak secondary capacity.
4. Peak capacity at Point Loma will be for 320 mgd (utilizing blending) per chart on next page.

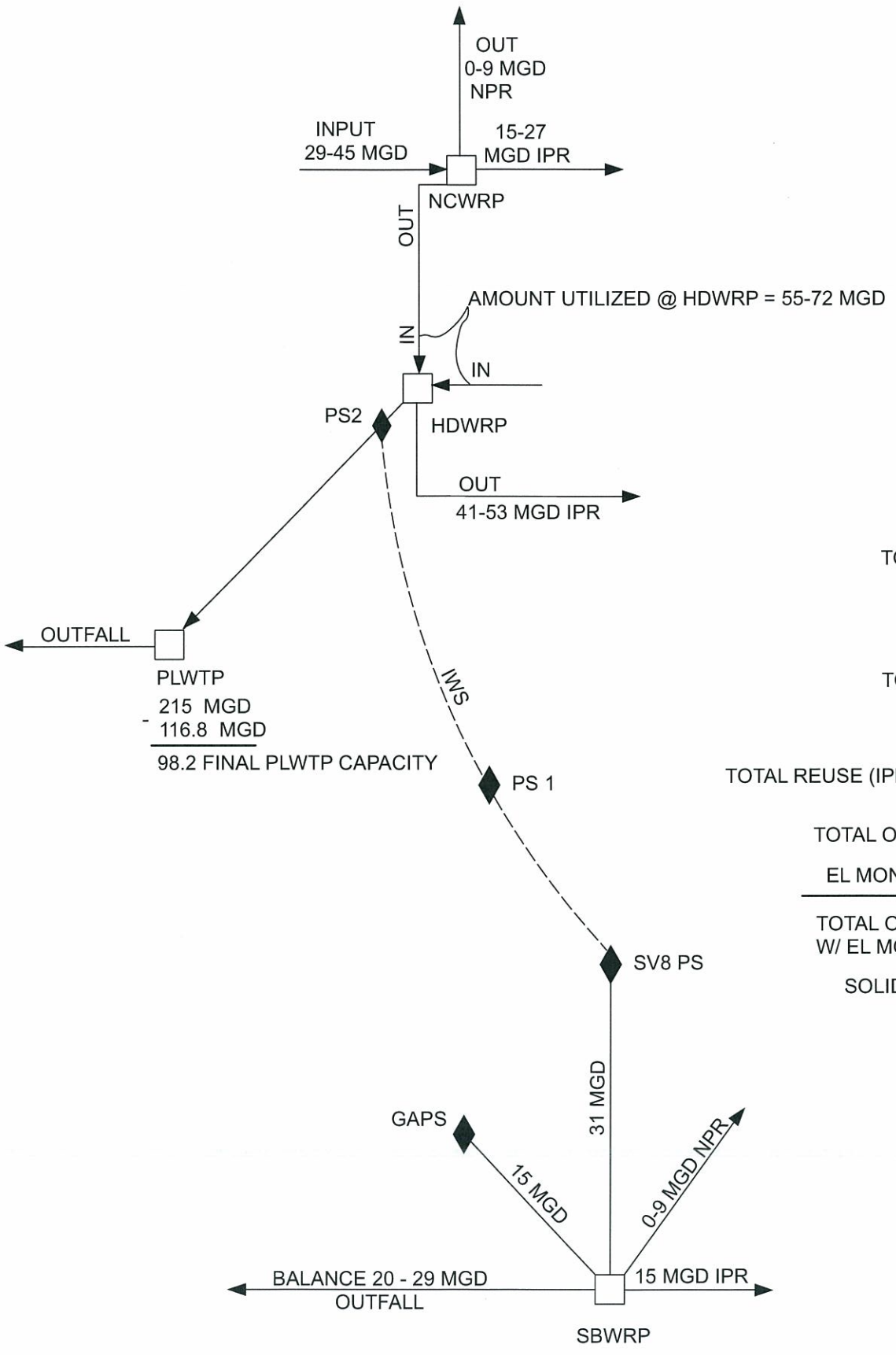


Year 2050
Peak Wet Weather

	Q1(mgd)	Q3 (mgd)	Q2 (mgd)	Conc. (mg/l)	Q4 (mgd)	Conc. (mg/l)	Q5 (mgd)	Conc. (mg/l)
TBOD	320	246	74	80	246	25	320	38
TSS	320	246	74	80	246	25	320	38

BAF average capacity 145 mgd
BAF peak capacity 246 mgd

OLD PROJECTION



TOTAL IPR 53 MGD
30 MGD
83 MGD

TOTAL NPR 9 MGD
9 MGD
18 MGD

TOTAL REUSE (IPR + NPR) = 101 MGD

TOTAL OFFLOAD = 114 MGD

EL MONTE	5 MGD
TOTAL OFFLOAD W/ EL MONTE	119 MGD
SOLIDS	-2.2 MGD
	116.8 MGD

TOTAL OFFLOAD = 31+15+53+15 = 114 MGD

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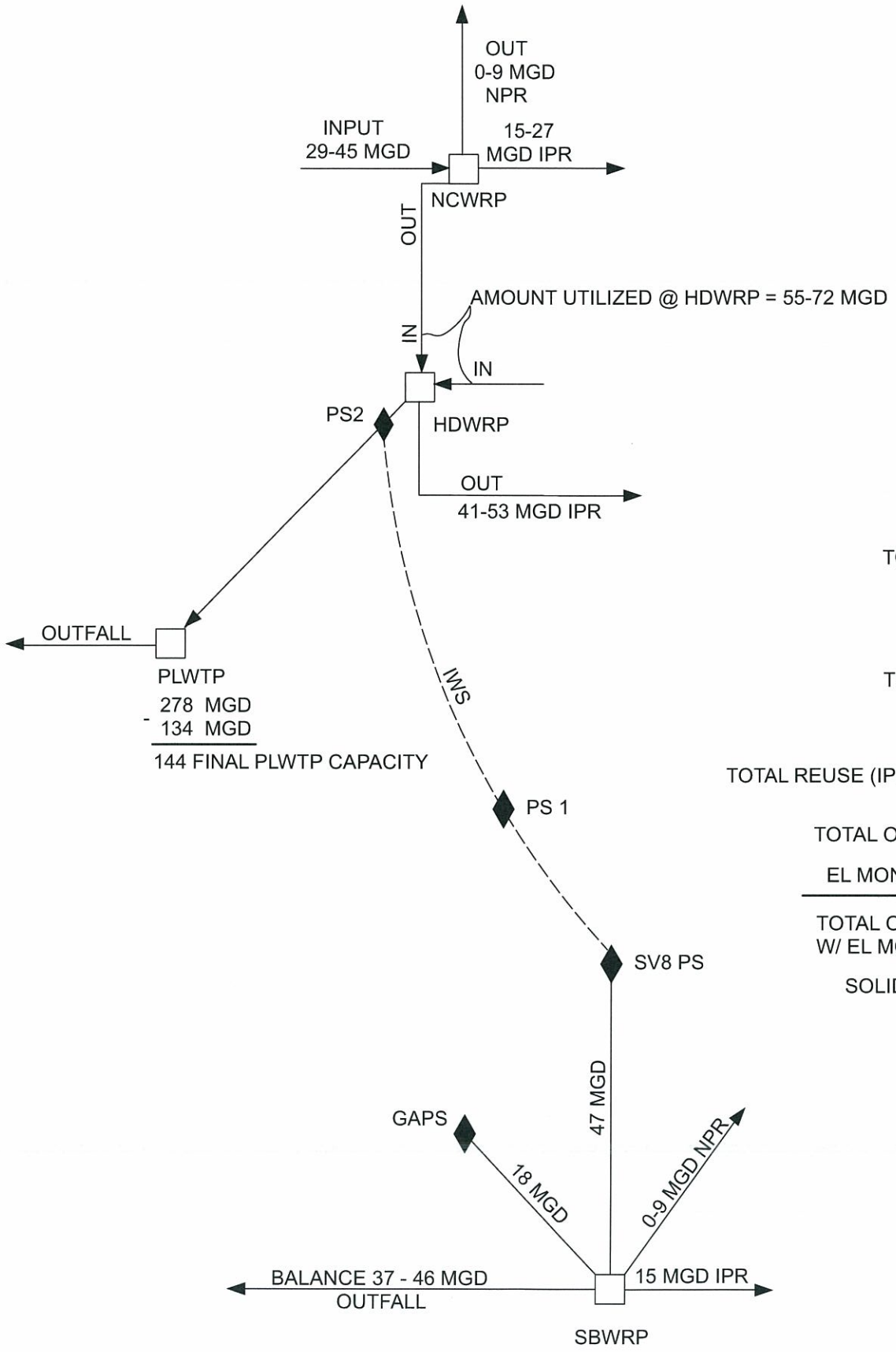
NEW PROJECTION



TOTAL IPR 53 MGD
30 MGD
83 MGD

TOTAL NPR 9 MGD
9 MGD
18 MGD

TOTAL REUSE (IPR + NPR) = 101 MGD

TOTAL OFFLOAD = 133 MGD

EL MONTE	5 MGD
TOTAL OFFLOAD W/ EL MONTE	138 MGD
SOLIDS	-4 MGD
	134 MGD

TOTAL OFFLOAD = 47+18+53+15 = 133 MGD

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