1 Introduction

The San Diego Integrated Regional Water Management (IRWM) Region extends east from the Pacific Ocean, through one of the most populous areas in the nation, to the ridgeline of a forested mountain range (ACS, 2017).

San Diego is an immensely complex border region consisting of 11 watersheds that jointly provide water sufficient to reliably meet only about 15% of the region's current water demands. The region's diverse habitats range from coastal to mountainous, and support more threatened and endangered species than any comparable land area in the nation (County of San Diego, 2009). Most of the 3.2 million people within the region inhabit the urbanized coastal areas, and the population of these areas is expected to increase by 29% percent by 2050, to over 4.0 million, according to the San Diego Association of Governments (SANDAG) forecast (SANDAG, 2013). The 2019 IRWM Plan Update presents an overarching assessment of the San Diego region's water supply, water quality and ecosystem challenges and provides recommendations for sustainable solutions.

The San Diego IRWM Region includes eleven parallel watersheds.

Seeking and implementing integrated water management solutions is not new to the San Diego region. With average precipitation levels of only 10 inches per year at the coast, collaboration has been instrumental to overcoming the challenges of water scarcity. For example, the federal government assisted local agencies with water management issues in 1908 with the formation of the Cleveland National Forest to protect source water supplies. With the formation of the San Diego County Water Authority (Water Authority) in 1944, the diverse communities of the San Diego region formally banded together to build the aqueducts needed to import freshwater supplies. Similarly, the region has worked together over the past 17 years through the Water Authority in the construction of a series of reservoirs, pipelines, treatment plants and pump stations that enable the Water Authority to deliver locally stored water to the region's residents in the event of a water supply outage. In 1998, the Metropolitan Wastewater Joint Powers Authority (Metro JPA) was formed to ensure stakeholder collaboration with regard to San Diego's ocean discharge at Point Loma. In 2000, Project Clean Water (http://www.projectcleanwater.org/) was launched to coordinate on water quality issues of regional significance, and serves as the Regional Clearinghouse for Municipal Stormwater Permit (MS4) plans, reports, data and studies.

A look into the future of integrated water management in San Diego suggests that new levels of collaboration are forthcoming. For example:

- The San Diego region is a leader in the development of potable reuse as a water supply. How will water and wastewater agencies collaborate to ensure effective partnering?
- New stormwater runoff regulations align well with water conservation best management practices (BMPs) for large landscapes. How might stormwater and water agencies work together and with regulators to efficiently partner on conservation programs?
- Stormwater is increasingly being considered as a resource. How might stormwater, water, and environmental agencies, such as the California Environmental Protection Agency and the San Diego Regional Water Quality Control Board, work together to maximize benefits of stormwater capture and use while remaining protective of human health and environmental needs?
- Many local surface waters face water quality impairment from non-point source pollution, bacteria, sediment, nutrients, salinity, metals, and toxic organic compounds. How can water agencies, stormwater agencies, land-use authorities, regulators, and others join forces to effect real local surface water quality improvements?
- The Region encompasses urban and rural disadvantaged communities (DACs) with water management issues in need of being addressed. How can DACs most effectively participate in water management projects benefitting them, and what methods can the IRWM Program use to effectively solicit feedback from and engage these communities?
- The Region includes 18 federally recognized tribes. Many people living or working on tribal lands face water management challenges. How can tribal water management issues be effectively integrated into San Diego's regional water management planning?
- The Region has improved its understanding of the impacts of climate change and is working to identify climate adaptation and mitigation strategies. How might water agencies, land use authorities, regulators, and others work together to increase climate resilience in the region?
- Water agencies have successfully partnered with one another on regional, beneficial programs, supported through IRWM and through their own initiatives. How can agencies and regulators in the region better support and encourage effective partnerships?
- The Region includes land use and water resource jurisdictions that span federal, state, and local levels. How can federal, state, and local resources be leveraged together to increase benefits to the region's water-related resources?

These are but a few of the questions that the San Diego region has begun to answer. Inherent in these opportunities are the cost drivers associated with water supply diversification, wastewater treatment, regulatory compliance, and maintenance of existing infrastructure. Integration is not an end-game, but rather an iterative, adaptive process.

Responsibilities for managing water resources span a multitude of agencies and entities. Natural water demarcations such as river systems do not correspond to political jurisdictions and each of the Region's watersheds span multiple cities and agencies. This often creates jurisdictional complexity for water management. Although water purveyors are integrated in their plans, those that are member agencies of the Water Authority are just one stakeholder group in water. IRWM offers a forum to bring together the diversity of stakeholders into a collaborative approach to water management with reduced overall costs and improved effectiveness and efficiency. The IRWM model, while still evolving, offers the San Diego Region an enhanced approach for sustainable water management.

1.1 IRWM Planning

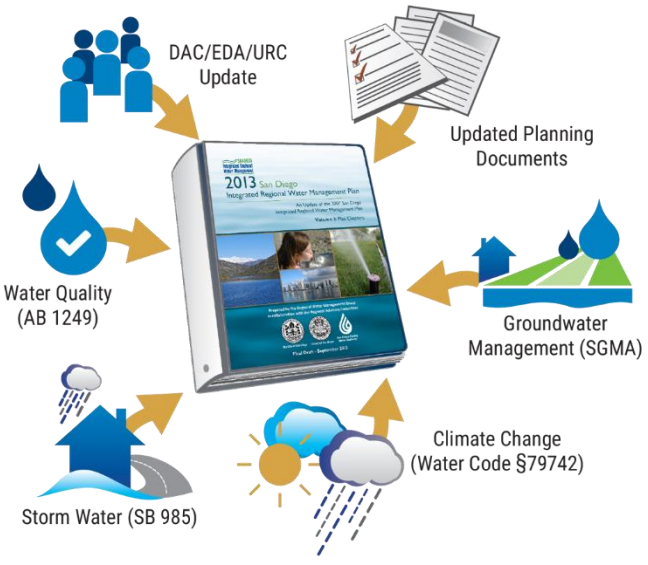
IRWM planning evolved from a California initiative, aimed at developing long-term water supply reliability, improving water quality, and protecting natural resources. In 2002, the Integrated Regional Water Management (IRWM) Planning Act (SB 1672) was chaptered into State law, establishing the basis of California's IRWM Program. The Statewide IRWM Program is supported by Proposition 50 (2002), Proposition 84 (2006), and Proposition 1 (2014), which are providing bond funding to the California Department of Water Resources (DWR) to fund competitive grants for projects that improve water resources integration and management. The most recent of these is Proposition 1, approved in 2014, which authorized $510 million in IRWM funding that is being used to fund four grant cycles through 2020.

The San Diego IRWM Program was established in 2005 by the San Diego Regional Water Management Group (RWMG), which consists of the San Diego County Water Authority (Water Authority), the City of San Diego (City), and the County of San Diego (County), and since then has achieved substantial success. The San Diego RWMG published its first IRWM Plan in 2007 and has received approximately $91 million to-date through voter-approved bond funding to fund 67 priority projects, the 2013 IRWM Plan Update, and the 2019 IRWM Plan Update. As a regional plan, the San Diego IRWM Plan helps improve collaboration in water resources management across the region and attempts to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions.

The 2013 IRWM Plan was a comprehensive update of the 2007 IRWM Plan. This 2019 IRWM Plan Update updates the 2013 IRWM Plan for compliance with the 2016 IRWM Guidelines developed by DWR under Proposition 1 (DWR, 2016). The 2019 IRWM Plan Update maintains the Region's eligibility to receive grant funds available through Proposition 1, and incorporates recent planning efforts in the region.

Unique and innovative features of the 2013 IRWM Plan Update included five planning studies developed to address identified water planning needs in the San Diego IRWM Region. The five planning studies were developed by a technical team in conjunction with IRWM stakeholders (see further detail in *Chapter 7, Regional Coordination*) and focused on:

- improving collaboration between IRWM stakeholders and the San Diego Regional Water Quality Control Board (San Diego Water Board),
- developing salinity and nutrient management guidelines and individual basin plans,
- recommending integrated flood management tools that may be utilized by water managers,
- incorporating climate change factors into IRWM planning, and
- examining how land use planning and water resources management may be better integrated.



This 2019 IRWM Plan Update incorporates new legislative initiatives and updated planning documents.

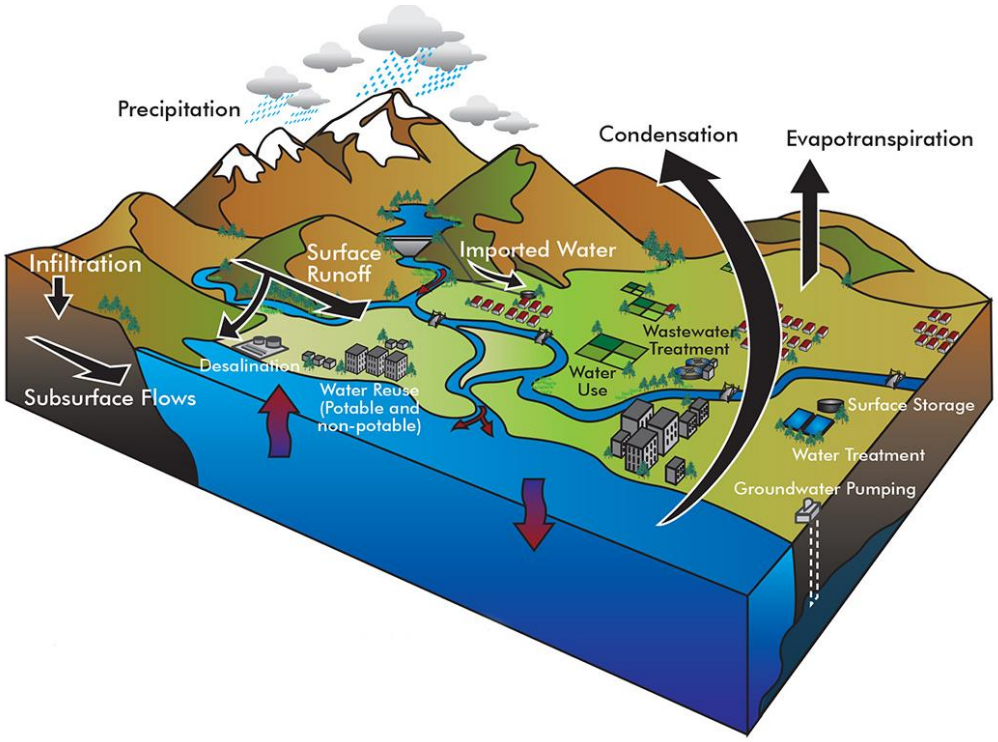
The 2019 IRWM Plan incorporates additional planning studies completed by various water management organizations in the Region and reflects revised statewide priorities and understanding of water resource management. It builds upon and further strengthens the 2013 IRWM Plan. Since adoption of the 2013 IRWM Plan, there have been a number of changes to water resource regulations and management priorities. The Region has identified a need to update its IRWM Plan as a result of the passage of multiple water-related pieces of legislation, an increased focus on beneficial reuse of stormwater, changes implemented as a result of the recent drought, new planning documents, new understanding of climate change and its potential impacts, and the ongoing success of the IRWM Program. The 2019 IRWM Plan achieves the following:

- an update of the 2013 IRWM Plan, consistent with the Plan Standards in the Proposition 1 2016 Guidelines, including a more robust climate change adaptation strategy and incorporation of the stormwater plans completed in 2017 and 2019,
- a planning study in support of the IRWM Plan – the Stormwater Capture and Use Feasibility Study (SWCFS) – that provides a comprehensive analysis and understanding of stormwater resource capture and reuse opportunities for the region, and
- updated descriptions of the conditions, needs, and engagement of disadvantaged communities (DACs), economically distressed areas (EDAs), underrepresented communities (URCs), and environmental justice (EJ) communities in water resources management within the Region.

These additions will improve the San Diego IRWM Region's planning efforts in developing water supply reliability, improving water quality, and protecting natural resources. In addition to allowing the Region to pursue future Proposition 1 funding opportunities, this update supports efforts for improved integrated water management in the Region.

1.1.1 The "I" in IRWM

The "I" in IRWM stands for integration, which is defined as combining or acting in harmony with the whole. The IRWM Program incentivizes agencies and organizations to integrate their water management activities within the "modern" hydrologic cycle – from managing different water sources to protecting water quality to restoring water-related habitat. This "modern" hydrologic cycle incorporates several human influences such as imported water, wastewater treatment and discharge, groundwater pumping, water reuse, and desalination. These human influences can change the natural flow of water within the hydrologic cycle, and where the potential for negative impacts to occur is present, must be managed to avoid negative outcomes while supporting the positive goals of water-resource projects (such as decreasing reliance on imported water, protecting water quality, etc.). IRWM planning seeks to integrate decision-making by the different water managers so that their management activities can further work together in a mutually supportive manner.



The "modern" hydrologic cycle includes precipitation, infiltration, surface and subsurface flows, as well as water importation, treatment, storage and reuse.

1.2 Plan Overview

The 2019 IRWM Plan Update incorporates stakeholder input, updated planning documents, planning studies completed since the 2007 and 2013 IRWM Plans, and lessons learned through the IRWM Program to identify and address the water management needs of the Region. This update reflects the achievements of the IRWM Program by shifting the focus of the IRWM Plan where necessary and utilizes the increased knowledge of the Region acquired through IRWM studies, projects, and other efforts to improve water resources management. The 2019 IRWM Plan Update reflects the priorities and needs identified by stakeholders through the stakeholder involvement process, and moves the Region's water resources management planning forward to address additional concerns such as sustainable water development, valuing stormwater as a resource, investing in marginalized communities' water systems, and optimizing regional and local infrastructure. The IRWM Program in the San Diego Region is now well-established and its processes and procedures are formalized in this 2019 IRWM Plan Update to reflect the evolution of the IRWM Program. The 2019 IRWM Plan Update further strengthens the Region's commitment to comprehensive regional water resource planning.

1.2.1 Purpose of Plan

The 2019 IRWM Plan Update presents an integrated approach for addressing water management issues within the Region. Through a process that identifies and involves water management stakeholders throughout the Region, the 2019 IRWM Plan Update:

- presents the San Diego IRWM Program's vision and goals,
- establishes water management objectives and measurable targets,
- identifies water management challenges and issues,

- identifies and evaluates applicable water management strategies,
- assesses the ability of the water management strategies to meet the regional objectives,
- identifies opportunities for integrating the regional water system, starting with integration of regional water supply, water quality, and watershed management strategies,
- establishes a system for prioritizing the strategies,
- presents a plan for implementing the water management strategies, and
- identifies the framework for overall integrated regional water management planning in the Region, including future updating of water management strategies and plan priorities.

1.2.2 Plan Organization

This IRWM Plan is organized into four major sections providing in-depth background information about the San Diego region and the identified strategies for moving integrated water management forward. Figure 1-1 illustrates the 2019 IRWM Plan Update structure.

Figure 1-1: Plan Organization

1.2.3 Benefits of Regional Approach

The IRWM planning process provides a mechanism for stakeholders to work together to identify and address the challenges that potentially exist among multiple planning efforts and across diverse disciplines. The IRWM planning process also provides a means to develop and update water management objectives to address the Region's water resources management challenges, overcome potential water management constraints, and identify water management projects and programs for grant funding that help attain the Plan objectives. The 2019 IRWM Plan Update is a result of this process and reflects changes to the Region's water resources management challenges and needs, as indicated by stakeholders.

1.2.4 Existing Planning Environment

Groundwater, inland surface waters, and coastal waters within the Region support a wide variety of water supply needs, recreational uses, and important ecosystems and habitats. Like many urbanized areas in California and throughout the nation, the Region faces challenges in ensuring the long-term sustainability of its water supply, water quality, and watershed resources. A number of agencies on the local, regional and state levels are responsible for developing plans for the San Diego region to help manage water, wastewater, and stormwater resources. Some of these plans are described here.

The Water Authority and 22 of its 24 member agencies prepare *Urban Water Management Plans* (UWMPs) every five years to articulate and balance water supplies and demands throughout their

respective service areas (the other two member agencies are not large enough to meet the threshold for preparing an UWMP). These UWMPs provide a summary of water use, wastewater volumes, and recycled water opportunities for each of the urban water suppliers. Water and wastewater agencies also prepare a variety of other water-related planning documents as needed to manage their assets, including reservoir management plans, groundwater management plans, wastewater master plans, and recycled water master plans.

The San Diego Water Board is responsible for regulating activities that affect the quality of the Region's groundwater and surface water resources. The San Diego Water Board adopted the current version of the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) in 1994, and has amended this plan periodically, most recently in 2016. The San Diego Water Board also implements the *Water Quality Control Plan for Ocean Waters* and the *Water Quality Control Plan for Enclosed Bays and Estuaries Plan*, which establish water quality standards for marine waters and enclosed bays and estuaries, respectively (State Water Resources Control Board; 2016, 2009).

DWR is responsible for preparing multiple statewide planning documents, one of which is the *California Water Plan*, which was most recently updated in 2013. The *California Water Plan Update 2013* identifies water management challenges within the state and provides a framework for meeting the challenges. The specific Resource Management Strategies (RMS) included within the *California Water Plan Update 2013* are the basis for the RMS described in the 2019 IRWM Plan Update (refer to *Chapter 8, Resource Management Strategies*).

The State Water Resources Control Board and DWR are jointly responsible for adopting water efficiency regulations under AB 1668 and SB 606, together referred to as the Long-Term Water Conservation Regulations. As part of these regulations, the state has or will establish indoor and outdoor water budgets for different urban uses, establish reporting requirements for urban use, revise the *Agricultural Water Management Planning Act* to improve agricultural water use efficiency, identify small water suppliers and rural communities at risk for drought and water shortages, and requires the adoption of water shortage contingency plans. It also requires urban water suppliers to submit annual reports to DWR and conduct annual drought risk assessments (ACWA).

In the San Diego IRWM Region, a number of different entities are responsible for distinct areas of water management. The Region includes 21 stormwater management entities, all of which participate in the Municipal Separate Storm Sewer System (MS4) permit program to reduce and manage non-point source pollution within their respective jurisdictions. Under the MS4 permit, Water Quality Improvement Plan (WQIPs) were developed for each of the ten watershed management areas (WMAs) in the region (which include each of the eleven watersheds in the San Diego IRWM Region). The WQIPs identify priority water quality issues in each watershed management area and develop an adaptive planning and management process to respond to water quality concerns and implement solutions. The Region's flood control agencies develop flood control plans for areas of high flood risk.

As the San Diego region continues to reduce its reliance on imported water supplies, agencies within the region are looking to leverage stormwater as a local water supply resource. The San Diego IRWM Region recently adopted the San Diego Region Storm Water Resource Plan (SWRP). The SWRP incorporated stormwater planning information from a variety of sources across the county, and developed criteria to assist project sponsors in identifying opportunities to provide multiple benefits. All stormwater and dry weather capture projects seeking funding through Proposition 1 are required to be included in the SWRP. In addition, this 2019 IRWM Plan Update incorporates the County of San Diego's Stormwater Capture and Use Feasibility Study (SWCFS), completed in 2019. The incorporation of the SWCFS strengthens the stormwater discussion in the IRWM Plan and helps identify and prioritize future stormwater use alternatives to augment water supply and other beneficial uses, where feasible, in the Region.

Governmental agencies and non-governmental organizations (NGOs) within the Region also develop local watershed management plans to help conserve and protect watershed resources and habitats. Finally, some jurisdictions also participate in development of habitat protection and Multiple Species Conservation Program (MSCP) plans to ensure protection of sensitive natural resources.

Regional and national efforts are under way to assess the impacts of climate change on water supply and the different adaptation approaches. The City of San Diego Public Utilities Department is working with the U. S. Bureau of Reclamation (Reclamation) to develop the San Diego Watershed Basin Study (Basin Study). The Basin Study identifies approaches to bridge current and future water supply gaps due to climate change and projected population growth, and is designed to be used as a decision making tool in water management and climate adaptation planning. The Basin Study evaluates water supply demand under current and future climate change conditions and evaluates how different climate adaptation approaches can alleviate impacts of increasing demand and climate change. Adaptation approaches evaluated in the study include recycled water, potable reuse, conveyance improvement, enhanced conservation, as well as other adaptation concepts, for a total of 15 Adaptation Concepts evaluated overall (see call-out box on next page). In addition to evaluating water supply benefits, the study uses a tradeoff analysis to understand the costs and benefits adaptation approaches, considering objectives such as cost, watershed health, quality of life, environmental justice, and other values in the region.

Regional water resource planning should involve consideration of and input from the Region's most vulnerable populations. A regional Water Needs Assessment was completed in 2019 to identify disadvantaged communities (DAC), economically distressed areas (EDA), and underrepresented communities (URC), as well as communities affected by environmental justice (EJ) issues, across the San Diego Funding Area, including the San Diego IRWM Region. The Water Needs Assessment engaged DACs in defining their water management needs, identified where these communities are located, and determined how to identify them in the future. Outcomes from the Water Needs Assessment are outlined in *Section 7, Regional Coordination*. The Water Needs Assessment outlines opportunities to address barriers to participation and next steps on how to increase and sustain DAC involvement in the IRWM Program over the long term.

The 2019 IRWM Plan Update is an umbrella document that encompasses the above local plans, but addresses water management issues on a Regional level. This Plan incorporates water resources management findings and recommendations from many of the Region's major water-related planning efforts. Implementing this Plan, however, will require additional effort to address short-term priorities and to incorporate water resources management planning from all of the Region's pertinent watershed, recreation, habitat protection, flood control, land use, and conservation plans.

San Diego Basin Study Adaptation Concepts

Conveyance Improvement: Improve local and regional conveyance systems to increase supply reliability, increase operational flexibility, and reduce GHG emissions by utilizing existing conveyance facilities and natural water courses and modifying existing pump stations, pipelines, interties and bypasses.

Drought Restriction/Allocation*: Implement temporary restrictions in water use to decrease demand or shift to other supply sources during periods of drought. Restrictions or allocations may be imposed at the local, regional, or State levels, and may include restrictions or allocations by water purveyors such as MWD.

Enhanced Conservation: Implement long-term or permanent restrictions in water use to decrease demand. Restrictions or allocations may be imposed at the local, regional, or State levels, and may include restrictions or allocations by water purveyors such as MWD.

Firm Water Supply Agreements*: Provide water supply by forming agreements for firm water supply volumes to be provided from external sources, such as the Quantification Settlement Agreement.

Gray Water Use: Offset potable water usage by encouraging, supporting and/or providing incentives for gray water system installation by residential customers.

Groundwater: Provide water supply by extracting and treating and/or desalinating groundwater from local freshwater and brackish aquifers and maintain sustainable groundwater supplies through implementation of projects to recharge groundwater basins with injected or infiltrated rainfall, recycled water, imported water, or a combination thereof.

Imported Water Purchases: Provide water supply by purchasing treated or untreated water from a water wholesaler outside of the region, such as MWD.

Local Surface Water Reservoirs*: Provide water supply by capturing, storing, and treating surface water runoff in lakes or reservoirs.

Potable Reuse: Provide water supply by producing advanced treated water from wastewater for direct or indirect (e.g., reservoir or groundwater augmentation) potable use.

Recycled Water: Offset potable water use by providing non-potable recycled water use for landscape irrigation, industrial purposes or to recharge groundwater.

Seawater Desalination: Provide water supply by utilizing or expanding existing facilities or constructing new facilities to remove salts from seawater.

Stormwater BMPs: Reduce adverse water quality impacts of stormwater through implementation of stormwater Best Management Practices (BMPs). BMPs are structural, vegetative or management practices used to treat, prevent or reduce stormwater runoff and pollution.

Stormwater Capture: Provide water supply by capturing stormwater through both centralized projects and regional decentralized efforts and treating it for both potable and non-potable uses.

Urban and Agricultural Water Use Efficiency: Increase water use efficiency by encouraging long-term behavioral change and implementing water use efficiency programs (e.g., rain barrel rebates, turf replacement credits, rebates for more efficient irrigation or plumbing fixtures, graywater system rebates).

Watershed and Ecosystem Management: Promote sustainable, high quality local water supplies through practices that support healthy ecosystems and improve or restore the condition of landscapes and biological communities. Such practices may include invasive species removal, restoration of native ecosystems, land acquisition for protection or enhancement, brush/forest management for wildfire risk reduction, remediation of aquifer and reservoir water quality through engineered or biological controls, management of non-point and point source pollution, and low impact development.

*Concept only represented in the Baseline Portfolio

1.2.5 Future of IRWM

In addition to establishing short-term priorities and facilitating the pursuit of outside funding, the 2007 IRWM Plan represented the first step in a long-term planning process. As this long-term process unfolded, stakeholder groups were expanded, governance structures refined, coordination with watershed groups enhanced, new emerging issues identified, and new priorities established. The 2013 IRWM Plan reflected these changes, refined the IRWM process, and built on the success of the original 2007 IRWM Plan. The 2019 IRWM Plan Update builds upon the progress made through the 2013 IRWM Plan Update by strengthening existing governance structures to achieve common goals.

The San Diego IRWM Plan is a living document; the 2019 Plan Update marks the third generation of IRWM planning in the Region, and the RWMG envisions that the IRWM Plan will continue to evolve in response to the changing needs of the Region. Through this stakeholder-driven, cooperative process of integrated regional water management, the San Diego Region has established itself as a leader in active water management planning.

1.2.6 Region Boundaries

Figure 1-2 (following page) presents the San Diego IRWM Region. This Region is entirely within the jurisdiction of the San Diego Water Board, and includes all portions of San Diego County that are tributary to coastal waters. The San Diego IRWM Region was approved by DWR through the 2009 Region Acceptance Process (DWR 2009).

1.3 Regional Water Management Group

The San Diego RWMG was formed in 2005 in accordance with provisions of the California Water Code (§79570 et seq.) to manage development and implementation of the IRWM Plan, and to manage the San Diego IRWM Program. The RWMG consists of:

- San Diego County Water Authority (Water Authority)
- City of San Diego (City)
- County of San Diego (County)

In accordance with terms in a Memorandum of Understanding (refer to Appendix 6-A), the three RWMG agencies are equal partners in the development of the 2019 IRWM Plan Update. The three agencies also equally share in the cost of conducting other IRWM planning activities, such as stakeholder outreach. The RWMG recognizes that cooperation with and input from stakeholders throughout the Region is critical to a successful IRWM Program. As a result, the RWMG has assumed a lead role in engaging stakeholders and soliciting stakeholder input for 2019 IRWM Plan Update development and implementation.

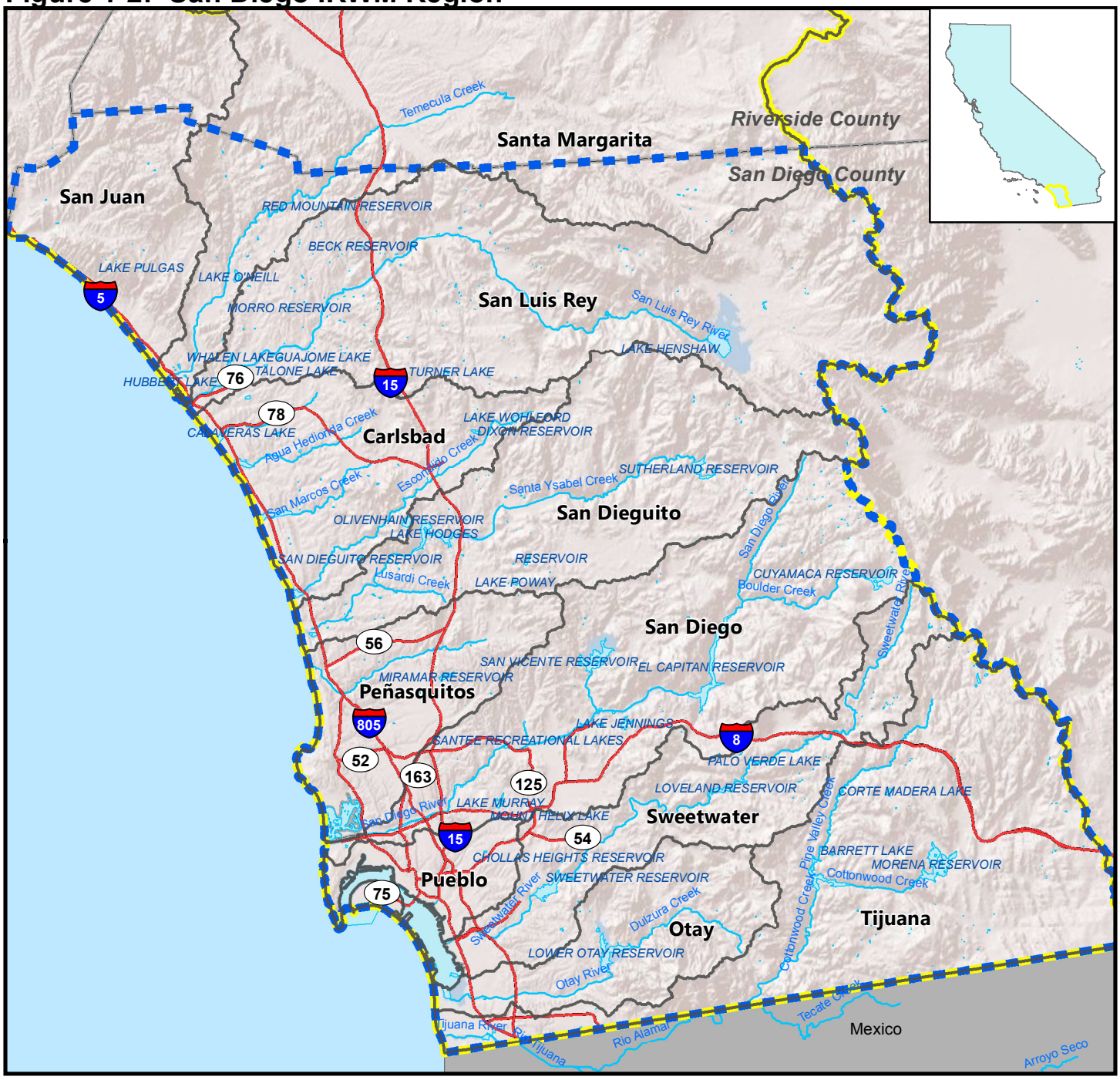
Figure 1-3 shows the jurisdictional boundaries of the three RWMG agencies. The combined jurisdiction of the three agencies encompasses the entire Region; the water supply service areas of the Water Authority and the City cover all urbanized portions of the Region. Table 1-1 summarizes water management responsibilities of the three RWMG agencies. Collectively, the three RWMG agencies have key involvement in water supply, wastewater treatment, watershed management, land use, and recreational aspects of water management within the Region.

Table 1-1: Summary of Water Management Responsibilities for Regional Water Management Group

Water Management Category	San Diego County Water Authority	City of San Diego	County of San Diego
Imported Water Delivery	●		
Water Supply Infrastructure	●	●	●
Water Supply Planning	●	●	○
Storing Raw Imported Water	●	●	
Capturing and Storing Local Runoff	○	●	●
Groundwater Supply	○[1]	●	●
Wastewater Treatment		●	●
Recycled Water Supply	○[1]	●	
Water and Recycled Water Regulation	○	○	●
Public Health Regulation			●
Municipal Stormwater NPDES Management		●	●
Flood Management and Control		●	●
Watershed Protection	○	●	●
Land Use Control and Management		●	●
Natural Community Conservation Planning	●	●	●
Parks and Recreation		●	●

● Direct water management involvement
○ Provides planning support
1 The Water Authority supports these efforts by its member agencies but does not directly produce recycled water or groundwater for sale to its member agencies.

Figure 1-2: San Diego IRWM Region



Legend

- San Diego IRWM Region
- Funding Area Boundary
- Watershed
- Waterbody
- Mexico
- River
- Freeway

N

0 2.5 5 10
Miles

Source: San Diego Association of Governments (SANDAG) - GIS Data Warehouse
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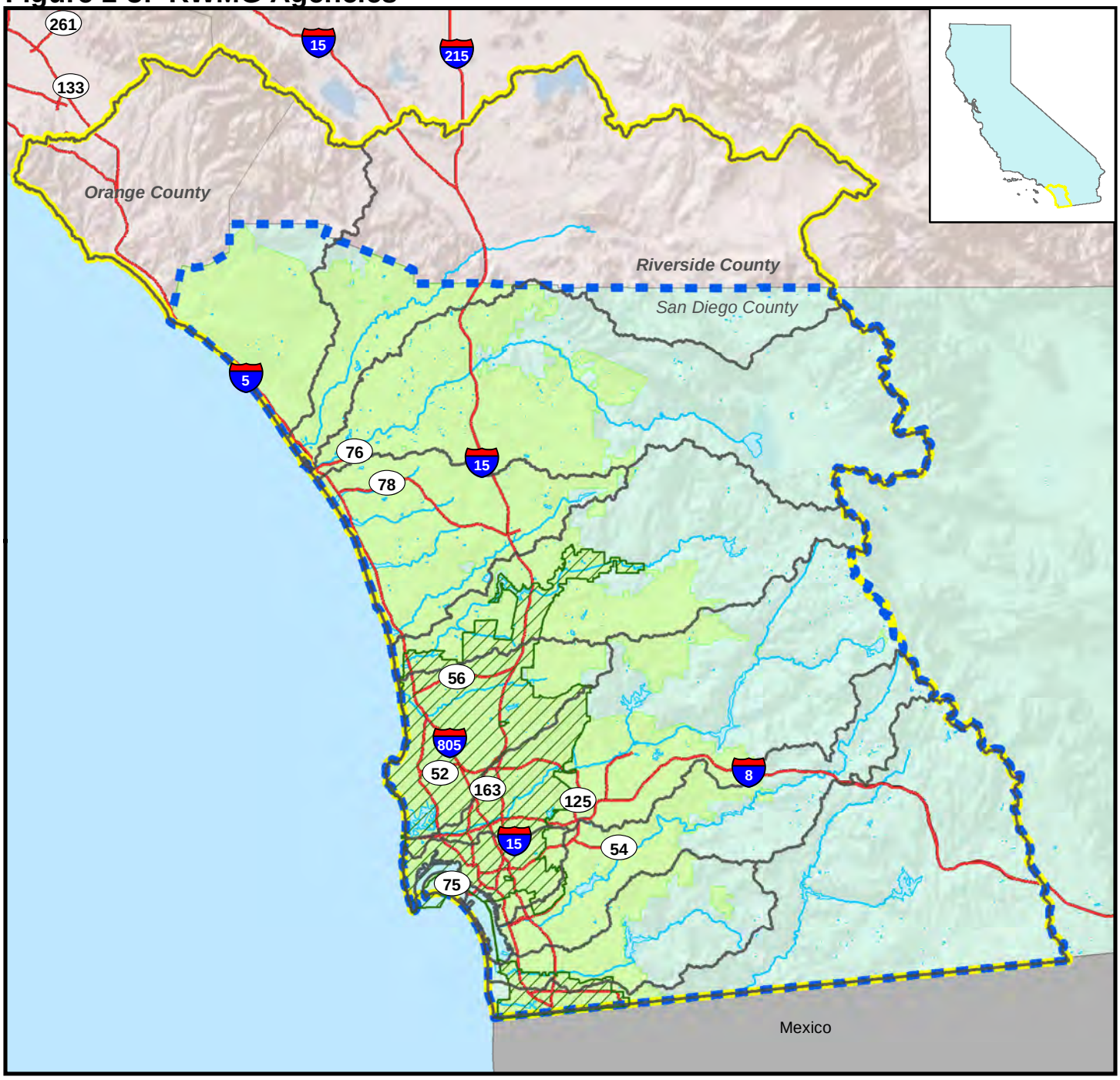
Figure 1-3: RWMG Agencies



Legend

- San Diego County Water Authority
- County of San Diego
- City of San Diego
- San Diego IRWM Region
- Watershed
- Funding Area Boundary
- Ocean
- Freeway
- Mexico

N

0 2.5 5 10
Miles

Sources: San Diego Association of Governments (SANDAG) - GIS Data Warehouse, Esri, USGS, NOAA
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The RWMG is leading the development of the 2019 IRWM Plan Update by providing staffing and consultant services towards the effort. Each of the RWMG agencies serves multiple water management roles within the Region and is involved in a number of region-wide water management coordination efforts. As documented in *Chapter 3, Region Description*, depending on regional hydrologic conditions, approximately 80% of the Region's water supply is provided through the Water Authority. In times of drought, this amount increases, as in 2015, when the Water Authority supplied nearly 90% of water in the Region (Water Authority, 2016). The City of San Diego, the Region's largest retail water agency, is involved in water management within six of the Region's eleven watersheds. The County is involved in watershed planning efforts in all but one of the Region's watersheds (San Juan). The City and County together provide wastewater service to a sizable portion of population within the Region. Additionally, the City and County are the largest Copermittees under the Region MS4 permit. The City and County are also responsible for land use planning and regulation within the majority of the Region.

1.3.1 San Diego County Water Authority

The Water Authority is the regional water wholesale agency in San Diego County. The Water Authority's mission is to provide a safe and reliable supply of water to its 24 member agencies, which serve a combined population of approximately 3.3 million (97% of the County's population) and support an annual regional economy of more than $231 billion.

The Water Authority's boundaries comprise the western one-third of San Diego County with a total area of 1,468 square miles. The urbanized parts of the Region are entirely within the Water Authority's service area. Water Authority member agencies include six cities, five water districts, eight municipal water districts, three irrigation districts, a public utility district, and the U.S. Marine Corps Base Camp Pendleton.

The Water Authority is a member agency of the Metropolitan Water District of Southern California (Metropolitan) and is the largest Metropolitan customer in terms of water purchases. The Water Authority also purchases conserved agricultural supplies through a water transfer agreement with the Imperial Irrigation District, and has been assigned rights to water saved by lining the All-American Canal and Coachella Canal in Imperial County. In addition, the Water Authority purchases desalinated seawater from the Claude "Bud" Lewis Carlsbad Desalination Plant. The Water Authority conveys water supplies to its member agencies via five parallel pipelines that run north-south from the Riverside County line in two rights of way called the First Aqueduct and Second Aqueduct. The Water Authority delivers both treated and untreated supplies to its member agencies through 88 service connections.

In coordination with its member agencies, the Water Authority has implemented an Emergency & Carryover Storage Project that enhances the Region's reservoir capacity and improves conveyance facilities. The Emergency & Carryover Storage Project is designed to make the regional water supply more reliable during an emergency that disrupts normal imported water deliveries; the new facilities also will improve the Region's water system flexibility and reliability at all times.

As part of water supply diversity plans set forth in the Water Authority's *2015 Urban Water Management Plan*, the Water Authority is active in coordinating with its 24 member agencies to plan and pursue water conservation, recycled water use, development of local groundwater supplies,

surface water storage and supplies, water transfers, seawater and groundwater desalination, and water quality protection projects.

1.3.2 City of San Diego

The City of San Diego exercises a range of water supply, wastewater, recycled water, stormwater, recreation, and watershed management responsibilities, and administers a number of programs that provide opportunities for the City and its partners to pursue integrated approaches with other agencies and jurisdictions.

The City of San Diego Public Utilities Department operates an extensive water system that currently provides drinking water to 1.33 million customers located within the cities of San Diego, Del Mar, Coronado, and portions of National City, Chula Vista, and Imperial Beach. In addition to providing drinking water to approximately half of the population of San Diego County, the City of San Diego Public Utilities Department also delivers untreated water to three adjacent agencies. On an annual basis, the City treats and delivers approximately 200,000 acre-feet of water to residential, commercial, industrial, and agricultural customers within a 340-square-mile service area. The City's water system includes nine water storage reservoirs, three water treatment facilities, 32 treated water storage facilities, and 3,293 miles of transmission and distribution pipelines (City of San Diego, 2016). The City of San Diego is the Water Authority's largest member agency in terms of land area, population, and water purchases. It is also the largest member agency in terms of representation, with 10 members on the 35-member Water Authority Board of Directors.

The City of San Diego Public Utilities Department also operates an extensive wastewater collection and treatment system that includes approximately 2,900 miles of sewer line servicing a 330-square mile area. The City Public Utilities Department is the operating agency for the San Diego Metropolitan Wastewater System (Metro System). The Metro System provides wastewater services to 2.2 million residents of the City of San Diego and 15 other cities and districts (called Participating Agencies) within a 450-square mile service area, and treats approximately 160 million-gallons per day of wastewater (City of San Diego, 2016). Approximately three-quarters of the County's population discharge their wastewater to the Metro System.

The City has been a pioneer in the field of water recycling. Two reclamation facilities with a combined treatment capacity of 45 million gallons per day of non-potable recycled water are in operation. Additionally, the City is actively pursuing potable reuse as an alternative water supply. The Pure Water San Diego program, which is the City's phased, multi-year program, will provide one-third of San Diego's water supply locally by 2035. A one million gallon per day water purification demonstration project has been in operation since the summer of 2011. Tests for 342 constituents and parameters over a one-year period showed the purified water met all regulatory limits and had concentrations similar to distilled water. For more information about Pure Water San Diego, see www.purewatersd.org.

The City of San Diego maintains storm drain structures, pipelines, and channels within the City, and is one of the 21 Copermittees in San Diego County regulated by San Diego Water Board under the 2013 Municipal Separate Storm Sewer System (MS4) Permit (Order No. R9-2013-0001 [NPDES No. CAS0109266]), as amended. There are also 12 Copermittees in Orange County and 6 Copermittees in Riverside County regulated under the same regional MS4 permit. The Storm Water Division in the Transportation & Storm Water Department leads the City's efforts to protect and improve the water quality of rivers, creeks, bays and estuaries, and the ocean within its jurisdiction. The Division's efforts are conducted to ensure compliance with the MS4 Permit and other surface water quality

regulations issued by the State of California. The Division's priorities are to identify sources of pollution and abate them through the implementation of innovative and efficient public education, watershed management, stormwater development regulations, enforcement, and citywide training programs, and to provide the most efficient storm drain system operation and maintenance services to San Diego's residents. This includes the popular "Think Blue" (www.sandiego.gov/thinkblue) educational program implemented in coordination with other organizations.

The City of San Diego Planning Department regulates land use and flood control within the metropolitan boundaries and is responsible for coordinating with other regional agencies in implementing the MSCP Plan.

1.3.3 County of San Diego

The County maintains a number of water and watershed-related program responsibilities within unincorporated portions of the Region. These responsibilities include: water supply (outside Water Authority service area), wastewater treatment, land use and planning, public health, parks and recreation, flood management and control, stormwater and water quality management, ecosystem and habitat protection, and watershed planning. The County appoints a non-voting representative to the Water Authority Board.

The County's Department of Planning and Development Services is responsible for developing the County's General Plan. The Department of Planning and Development Services also manages the MSCP South County Subarea Plan, the North County MSCP Plan, and the East County MSCP Plan. Additionally, the department manages the County's Agricultural Conservation Easement Program, maintains the groundwater and landscape ordinances, and manages environmental mitigation banks.

The County's Department of Public Works provides limited wastewater and drinking water services to unincorporated communities outside the imported water distribution service area. The Department of Public Works also provides the following services for the unincorporated portion of the County:

- stormwater conveyance service and maintenance
- residential recycling and composting programs
- erosion control and flood management services
- stormwater and watershed planning and protection programs and services

The County's Department of Environmental Health has regulatory authority for the beach recreational water use, site assessment and mitigation, on-site wastewater (septic) systems, recycled water use, small water systems and monitoring wells. The County's Department of Planning and Development Services has discretionary project approval authorities.

The County uses an inter-departmental approach for addressing county-wide issues such as habitat protection, watershed protection, and water quality improvement. The County implements its own stormwater program in unincorporated areas providing public education, employee training, water quality monitoring, source identification, code enforcement, watershed management, Total Maximum Daily Load (TMDL) implementation and the development and implementation of BMPs.

Historically the County has acted as Principal Permittee for the MS4 Permit that regulates MS4 discharges from the County of San Diego and 20 other Copermittees, which includes the 18 municipalities of the County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority. The County continued in this role during the two-year transition period under the 2013, as revised in 2014 and 2015, MS4 Permit. Following this transition period, the MS4 permit moved to a distributive watershed model in which the County is the lead permittee for the San Luis Rey and San Diego River Watersheds and a participant in the other watersheds.

project clean water

Starting in 2000, the County developed and supported Project Clean Water, a broad-based forum for developing stakeholder-driven solutions to pressing water quality problems throughout the Region. Through Project Clean Water's website (www.projectcleanwater.org) and stakeholder groups, the County assumed the primary responsibility for coordinating stakeholder input into the development of the 2007 IRWM Plan and the associated list of regional implementation projects. The Project Clean Water stakeholder process continues today in the form of the IRWM Program while the website continues as the permit-required Regional Clearinghouse that contains plans, reports, water-quality related data and studies conducted in the region, including the SWRP and SWCFS. As such, Project Clean Water is a water quality resource for the Region.

1.4 IRWM Program History and Accomplishments

The San Diego IRWM Program was initiated in 2005, and since then has achieved multiple successes. The Program continues to evolve with respect to increasing stakeholder diversity and input, changing conditions, and adapting to meet regional needs. The following is a brief timeline and outline of major accomplishments that the Program has achieved during its 12-year tenure.

"San Diego has been fortunate to have the IRWM program which has incorporated and welcomed so many different groups, such as NGO's, Tribal bands, farm associations, water agencies, local government and the public. It has leveraged diverse fields of knowledge from all of these groups to forge a living document to develop new water supplies, improve water quality and use throughout the region to benefit people, wildlife and habitats"

-Robyn Badger, RAC member representing Zoological Society of San Diego and Other Caucus (2013-2020)

- **2005:** The City of San Diego, County of San Diego, and San Diego County Water Authority, who collectively comprise the RWMG, completed a **Memorandum of Understanding (MOU)** that formalized their commitment to fund, guide, and manage development and implementation of the IRWM Program.
- **2006:** Establishment of the **Regional Advisory Committee** (RAC), a collection of professionals who represent diverse groups and points of view with a stake in water management in the region. The RAC has met regularly since its inception and is responsible for providing input and feedback to the RWMG with regards to regional planning and funding activities. Details on the RAC, its composition and role, are provided in *Chapter 6, Governance and Stakeholder Involvement*.
- **2007:** Wrote the **2007 San Diego IRWM Plan**. The 2007 IRWM Plan laid the groundwork for enhanced collaborative, multi-benefit water resource projects by facilitating cooperation between public agencies and non-profit organizations. The Plan was adopted by the Water Authority Board of Directors, County Board of Supervisors and San Diego City Council.

- **2008:** DWR awarded the San Diego IRWM Region **$25 million** to support 19 high-priority local projects under Proposition 50.
- **2009:** The Region completed DWR's **Region Acceptance Process** and received formal approval of the Region's boundaries and composition.
- **2009:** The San Diego RWMG and management groups from the neighboring IRWM Regions (Upper Santa Margarita and South Orange County) formed the Tri-County Funding Area Coordinating Committee (FACC) as a collaborative inter-regional body. The San Diego Funding Area was the **first** funding area in the State to formalize grant funding agreements to allocate IRWM funding (Proposition 84 funding) and promote inter-jurisdictional planning between IRWM regions.
- **2010:** DWR awarded the San Diego IRWM Region a **$1 million grant award** for planning activities associated with conducting stakeholder outreach, completing planning studies, and preparing the 2013 IRWM Plan.
- **2011:** DWR awarded the San Diego IRWM Region **$8 million** to implement 11 high-priority local projects under Proposition 84-Round 1.
- **2012:** Kicked off planning efforts to update the 2007 IRWM Plan. Initial outreach efforts included an **IRWM Summit** to raise awareness among the public and stakeholders about development of the 2013 IRWM Plan.
- **2013:** DWR awarded the San Diego IRWM Region a **$10.3 million** implementation grant to implement 7 high-priority local projects with potential grant funding support from Proposition 84-Round 2.
- **2013:** Completed and adopted the **2013 IRWM Plan, which subsequently was accepted by DWR as being consistent with the IRWM Planning Act**.
- **2014:** DWR awarded the San Diego IRWM Region **$15 million** in grant funding to implement 7 high-priority drought relief projects under Proposition 84-Round 3.
- **2015:** DWR awarded the San Diego IRWM Region **$31 million** to implement 13 high-priority projects under the final round of Proposition 84 funding.
- **2016:** DWR awarded the San Diego IRWM Region **$250,000** in Proposition 1 planning funds to update the 2013 IRWM Plan.
- **2016:** The San Diego IRWM Program celebrated the RAC's 10th anniversary by holding its second **IRWM Summit** to assess the Region's progress and to refine its goals.
- **2017:** DWR awarded the San Diego IRWM Region **$5.6 million** in grant funding for DAC planning projects, including the Water Needs Assessment under the Proposition 1 DAC Involvement grant program.

1.5 Addressing the Region's Water Management Challenges

Numerous water management plans have been developed by individual or multiple agencies or groups within the Region to address water supply, water quality, stormwater and flood, ecosystem and habitat protection and enhancement, watershed protection, conservation, recreation, climate change, and land use controls (see *Chapter 7, Regional Coordination* for a description of these plans). Each local plan addresses portions of the Region, but many of the plans overlap in geography, scope, or agency jurisdiction, which can contribute to regional water management conflicts and challenges.

Table 1-2 summarizes several key challenges or constraints that the Region faces in addressing water management issues. Table 1-2 also identifies how the IRWM Plan can assist in solving those challenges. The list of key challenges or constraints was developed by the RWMG and affirmed by the RAC and stakeholders at a public workshop held on June 5, 2013 and revisited by the RWMG in 2018. Given the importance of the challenges presented in Table 1-2, the Region will strive to implement projects to address these issues. Information about the Region's project prioritization and selection process is in *Chapter 9, Project Evaluation and Prioritization.*

Rural Community Assistance Corporation (RCAC) is addressing water quality concerns in the Tijuana River Valley (including trash, shown here) through a project funded through Proposition 84

Photo Credit: Jennifer Hazard, RCAC

As shown in Table 1-2, the IRWM Plan provides a process to address and resolve conflicts through a collaborative regional effort. Additionally, the IRWM Plan may prove useful in identifying, coordinating, and addressing environmental and regulatory issues on a regional basis.

In addition to resolving existing water management conflicts and prioritizing and focusing regional water management efforts, the IRWM Plan may help make water management projects and programs in the Region eligible for future state and federal funding. An approved IRWM Plan is necessary to apply for State Proposition 1 IRWM funding, which is administered by DWR. Further, it is possible that other forms of future state and federal funding will be tied into the IRWM Plan process.

Table 1-2: Current Challenges to Water Management within the Region and How the IRWM Plan Can Help Resolve the Challenges

Challenges and Conflicts in Water Management	How the IRWM Program Can Address Challenges
1. Regulatory Process/Administration: Regulatory constraints or disconnects – namely as they relate to the administration of regulations – can cause water management conflicts. This is particularly true for implementation of unfunded mandates, instances where there are conflicting priorities between entities, permitting or implementation of new/cutting-edge technology, and inconsistent regulatory requirements. Specifically, current regulations may be infeasible to implement from a cost and technology perspective, and implementation requirements may not yield desired benefits, or may create unintended consequences.	The IRWM Program provides a unified regional approach for identifying and assessing regulatory compliance issues. Implementation of the recommended action items were first steps in improving coordination between regulators and water managers. Because IRWM funding can be leveraged to increase scientific knowledge and fill data gaps, the Program can potentially provide the data and information necessary to address regulatory compliance issues.
2. Water Quality Objectives and Beneficial Uses: There is widespread concern that beneficial uses and water quality objectives that support the beneficial uses are not properly defined. This may result in unnecessarily strict or unrepresentative water quality standards for surface waters. Such restrictions impact the Region's ability to effectively and affordably manage water, including imported and reuse supplies. There is concern that because beneficial uses are not prioritized, management is not realistic as every use is considered equally.	The IRWM Program provides a forum for collaboration between water managers, the regulatory agencies which establish water quality standards, and other stakeholders, including potentially redefining beneficial uses. The IRWM Program provides a forum through which regulated entities, non-governmental organizations, and others can collaborate on potential win-win solutions to current issues associated with water quality objectives and beneficial uses.

Challenges and Conflicts in Water Management	How the IRWM Program Can Address Challenges
3. Integrated Planning: There are numerous entities involved in water management in the Region, including water agencies, non-governmental organizations, and other entities. Due to the number of entities in the Region, there are also conflicts with beneficial uses as different entities may not agree on which beneficial uses are most important from a water management point of view. Conflicts between jurisdictional and interested parties as well as beneficial uses are unavoidable, and demonstrate a need to integrate planning efforts in order to increase the ability to move forward in addressing water management issues. Although communication between water managers and land use jurisdictions has improved, ongoing disconnects may result in water quality, flooding, natural resources, and other water-related issues.	The IRWM Program provides a forum to bring different entities together to potentially resolve or avoid conflicts resulting from overlapping jurisdiction. It is also possible that the IRWM Program can help eliminate duplicative efforts by increasing cross-pollination of water management efforts in the Region. The IRWM Program can also bring together water managers from different disciplines, and therefore can help resolve management disputes regarding various beneficial uses. One example of this is how the IRWM Program helps to bring together water managers from different water sectors such as water supply and wastewater managers for efforts associated with potable reuse. In addition, the IRWM Program provides a regional forum for water managers to engage the land use community. Implementation of the recommended action items were the first steps in improving coordination between land use planners and water managers.
4. Stakeholder Involvement: Stakeholder involvement in the IRWM Program is a concern, particularly given the complex nature of the program and the number of entities involved. There is particular concern that due to the number of entities, all entities may not be involved in a meaningful way. There have been identified barriers for participation of various entities, particularly those that may not participate due to funding or regulatory restrictions (e.g. non-governmental organizations, tribal entities, and DACs).	The IRWM Program's outreach efforts have attempted to resolve participation barriers to the maximum extent feasible. Specific efforts have been made to create solutions that will resolve participation barriers, such as partnering non-governmental organizations with tribal governments and DACs for grant-funded projects to resolve grant contracting and implementation issues. In addition, the IRWM Program has commented to DWR on behalf of stakeholders in an attempt to resolve regulatory and programmatic complexities that may bar or discourage certain entities from participating in the Program. The Regional Water Needs Assessment has identified critical needs in marginalized communities so that the San Diego IRWM Program can better address and invest in these issues. Additional targeted outreach was conducted for the Water Needs Assessment to help identify DACs, EDAs, URCs, and EJs that have not been involved in IRWM and to consider ways to encourage sustained engagement with DACs, EDAs, URCs, and EJs.
5. Public Awareness and Education: Regional awareness of water management issues is a concern, particularly given that the public and elected officials may be less inclined to support water management financing (e.g., bond or fee programs) if they are unaware of the need for these efforts. Public awareness and expectations of the IRWM Program need to be managed, especially as the State faces uncertainties regarding future water bond funding.	The IRWM Program allows for greater public understanding and acceptance of water management issues and the potential solutions (projects) to address those issues through extensive outreach and education efforts. The San Diego IRWM Program requires projects funded through an IRWM grant include an outreach and education component. The IRWM Program conducts outreach in an attempt to educate the public on the potential future of the program.
6. Funding: Given the limited amount of funding available through DWR's IRWM Grant Program and the increasing amount of resource limitations for public agencies, there is a need for affordable solutions to manage water and address water-related issues. In addition, limited funding makes prioritization of water management needs imperative. Given the uncertainty of DWR's future IRWM Grant Program, which is based on voter-approved water bonds, there is a need to determine how the Region will augment future IRWM planning efforts.	The IRWM Program brings entities together to prioritize projects for IRWM Program funding. The Region's project prioritization process specifically takes long-term, triple bottom line cost-effectiveness into consideration when evaluating projects and the online project database that has been developed for the IRWM Program can also increase cost-effectiveness by allowing stakeholders to learn about similar projects, and potentially collaborate or coordinate efforts with other entities to reduce duplicative or redundant projects. The Regional Water Quality Control Board has also experienced interest in working with the San Diego IRWM Program and potentially using the online project database to prioritize supplemental environmental projects (SEPs). In addition, the IRWM Program keeps track of other (non-IRWM) grant opportunities that are available, and announces those opportunities to stakeholders during regular meetings and email announcements.

Challenges and Conflicts in Water Management	How the IRWM Program Can Address Challenges
7. IRWM Grant Administration: To-date there have been substantial concerns with IRWM grant funding delays by the State, as these delays affect the ability for the Region's local project sponsors to effectively implement projects and programs to manage water resources. Given the uncertainty of the IRWM Program's future, it is uncertain at this time if the Program will continue on its current path – that focuses on grant funding efforts – or become a larger, regional planning effort.	The IRWM Program is continuing to attempt to resolve grant funding issues through communications with DWR, meeting in Sacramento to discuss Region's needs, participation in DWR forums and workshops, and providing feedback to DWR. The IRWM Program has not created a long-term plan for governance or a programmatic structure in the absence of a MOU between the RWMG agencies or State grant funding.
8. Affordability: The Region is pressed to find solutions that meet regulatory, outreach, IRWM Program, and other needs, while maintaining affordability for the Region's residents. Affordability is an issue that is considered to span across all other issues listed in this table as it pertains to all aspects of the IRWM Program and of regional water management.	IRWM grant funding can be used to offset project-related costs in the Region. In addition, because the IRWM project prioritization process encourages projects with multiple benefits, the IRWM Program aims to fund projects that represent up-front investments with holistic solutions that can prevent negative impacts (and associated costs) from occurring. There are still additional costs incurred due to program administration and other components, which are not reimbursed by grant funding. As affordability is a regional issue, it cannot be wholly resolved by the IRWM Program.
9. Political Coordination: Regulatory, awareness, conflicts, and other items listed above present challenges to the Region's water managers with respect to political coordination. Specifically, issues that arise may present difficulties associated with project approvals that are necessary for the Region's water managers to move forward with water management efforts.	To-date the IRWM Program has not focused on political coordination, but rather has focused on public and stakeholder outreach efforts. Additional outreach and coordination efforts with other regulatory agencies and political bodies may be possible through the IRWM Program. Also, effective public outreach may impact political decision-making.
10. Managing Water Rights and Compliance: There is a need to reconcile water rights and water quality management for a variety of beneficial uses. Specifically, addressing water quality compliance concerns can result in reduced water recharge/discharge, which can potentially impact downstream or adjacent uses that may have an existing "right" to water sources.	The IRWM Program provides a mechanism to bring different entities together to potentially resolve or avoid water rights conflicts, including the potential for funding for water supply and water quality projects.
11. Sustainability of Water Resources: There is a need to manage water sustainably throughout the Region, meaning that solutions to water-related issues and conflicts, including climate change impacts, are economically and environmentally preferable, and also provide equitable resource protection for the entire Region. Sustainably managing the Region's water resources will help to ensure the long-term availability of water supplies for multiple beneficial uses.	The IRWM Program has adopted the concept of sustainability, and incorporated this concept throughout the IRWM Vision, Mission, Goals and Objectives (refer to *Chapter 2, Vision and Objectives).* The project prioritization process also encompasses the idea of sustainability by prioritizing projects that provide multiple benefits (to the environment and to people) and are also cost-effective. IRWM grant-funded projects throughout the Region have helped to reduce reliance on imported water, improve sustainability of local resources, and increase the region's resilience to climate change.

1.6 IRWM Plan Development

To facilitate plan review, the 2019 IRWM Plan Update is organized in accordance with DWR's IRWM Plan Standards established by the *2016 IRWM Program Guidelines* (DWR, 2016). Table 1-3 summarizes how the 2019 IRWM Plan Update chapters correspond with required elements of the IRWM Program Guidelines. Figure 1-1 (page 1-2) presents a schematic depicting how the chapters of the 2019 IRWM Plan Update are organized to establish Plan goals and objectives, select water management strategies, establish regional priorities, and identify how the Plan is to be implemented. Remaining chapters of the 2019 Plan Update address conformance with state-mandated planning elements as set forth in the IRWM Program Guidelines.

Table 1-3: Organization of the 2013 IRWM Plan

IRWM Program Guidelines Requirement[1]	2019 IRWM Plan Update Chapter that Addresses the Requirement
1. Governance	6. Governance and Stakeholder Involvement
2. Region Description	3. Region Description
3. Objectives	2. Vision and Objectives
4. Resource Management Strategies (RMS)	8. Resource Management Strategies
5. Integration	9. Project Evaluation and Prioritization
6. Project Review Process	9. Project Evaluation and Prioritization
7. Impacts and Benefits	11. Implementation
8. Plan Performance and Monitoring	11. Implementation
9. Data Management	10. Data and Technical Analysis
10. Finance	11. Implementation
11. Technical Analysis	10. Data and Technical Analysis
12. Relation to Local Water Planning	7. Regional Coordination
13. Relation to Local Land Use Planning	7. Regional Coordination
14. Stakeholder Involvement	6. Governance and Stakeholder Involvement
15. Coordination	7. Regional Coordination
16. Climate Change	* Incorporated throughout Plan – see Chapters 2, 3, 5, 6, and 7

[1]From Table 1 – IRWM Plan Standards in the 2016 IRWM Program Guidelines (Volume 2).

1.6.1 Plan Preparation Team

The RWMG provided overall direction in the development and preparation of the 2019 IRWM Plan Update. The RWMG was assisted in preparing both the 2013 and 2019 Plan documents by a team of consultants that included:

- Woodard & Curran (formerly RMC Water and Environment)
- Katz and Associates
- Michael R. Welch, Ph.D., P.E., Consulting Engineer
- CityPlace Planning
- PACE
- AECOM

1.6.2 Plan Development Process and Stakeholder Input

Development of the IRWM Plan involves a significant public input process (see *Chapter 6, Governance and Stakeholder Involvement*) that endeavored to secure participation from as many stakeholders as possible in the IRWM process. In past planning efforts, the RWMG and consultants coordinated with the following regional groups in organizing the stakeholder input process as well as organizing, preparing, and reviewing the IRWM Plan:

San Diego Regional Advisory Committee during a 2019 IRWM Plan Update Workshop, 2018
Photo Credit: Jen Sajor, Woodard & Curran

- *Regional Advisory Committee.* Policy-level input to the IRWM Plans was provided by the Regional Advisory Committee (RAC), which included subject matter experts representing environmental groups, academic entities, local business, agricultural groups, water suppliers, wastewater agencies, water quality interests, and regulatory agencies. The RAC includes representatives of both public agencies, non-profit organizations, DAC representatives and tribes. The RAC served as the primary organization that provided input to the RWMG for plan preparation.
- *Workgroups.* Technical input was provided by various workgroups that participated in planning studies. The workgroups comprised representatives from the RAC and other stakeholders and interested parties.

Additional technical and stakeholder input was achieved through an outreach effort to planning groups, environmental organizations, watershed groups, municipalities, water and wastewater agencies, transportation agencies, flood control agencies, regulatory agencies, business groups, community groups including DACs, environmental justice organizations, local Tribal Nations, and general members of the public. The outreach effort included workshops and workgroups conducted throughout both Plan updates to discuss Region-specific issues, priorities, and needs (see *Chapter 6, Governance and Stakeholder Involvement* for a detailed description of the IRWM Plan outreach effort).

1.6.3 California Environmental Quality Act (CEQA) Exemption

This 2019 IRWM Plan Update consists of a data collection effort and planning study that will not result in the disturbance of environmental resources. Approval or adoption of this Plan does not entail any direct commitment of resources by the RWMG or any other agency. Preparation and adoption of this Plan are thus exempt from the California Environmental Quality Act (CEQA) pursuant to Sections 15262 and 15306 of the CEQA Guidelines, and programmatic analysis under CEQA is not required.

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