11 Implementation

This chapter addresses requirements set forth in the Impact and Benefit Standard, the Plan Performance and Monitoring Standard, and the Finance Standard in the 2016 IRWM Program Guidelines (DWR, 2016).

11.1 Overview

The intent of this chapter is to document various aspects associated with implementation of the 2019 San Diego IRWM Plan. Specifically, this chapter includes information regarding:

- Progress made on actions identified in the 2013 IRWM Plan that were taken to implement priorities established in the planning studies associated with the 2013 IRWM Plan.
- Potential impacts and benefits that may result from implementation of the 2019 IRWM Plan, including impacts and benefits within the Region, between regions (inter-regional), and those directly affecting disadvantaged communities (DACs), environmental justice-related concerns, and Native American Tribal communities.
- Performance measures and monitoring that will document progress that is being made towards meeting the objectives set forth in the 2019 IRWM Plan.
- Actions that will be taken to ensure that the projects listed in the 2019 IRWM Plan are being implemented.
- Necessary monitoring to ensure that the projects included in the 2019 IRWM Plan comply with applicable rules, laws, and permit requirements.
- Financing information that demonstrates how the 2019 IRWM Plan will be adequately funded, and therefore implemented.

11.2 Implementation Action Plan

The following section provides detailed information regarding implementation actions that may be taken for various priorities identified in the previous 2013 IRWM Plan. Implementation of these priorities serves as a benchmark against which to assess how well the IRWM Plan has been implemented.

11.2.1 Implementation Action Plans for Regional Priorities

As described in detail in *Chapter 2*, *Vision and Objectives*, the workgroup that was convened to evaluate the vision, mission, goals, and objectives for the 2013 IRWM Plan (the Priorities and Metrics Workgroup) did not establish short-term and long-term priorities for the 2013 IRWM Plan. Instead, updated priorities were established based on technical work (planning studies) completed for the 2013 IRWM Plan. Each planning study conducted as part of the 2013 IRWM Plan (refer to *Chapter 7, Regional Coordination*) – the Regulatory Workgroup Report, the Land Use and Water Management

Planning Study, the Climate Change Planning Study, and the Integrated Flood Management Planning Study – include specific recommendations that were determined by and vetted through the stakeholder groups convened for each planning study. In the 2019 IRWM Plan, *Chapter 7, Regional Coordination,* has been updated with additional studies completed in the Region since the 2013 IRWM Plan, including climate change studies. The priority action items developed for the 2013 IRWM Plan were revisited and updated to incorporate these changes and Regional priorities.

The planning study recommendations, while aimed at addressing priority action items specific to each study, can also be considered priorities for the IRWM Program itself because they can be implemented through the IRWM Program. The recommendations may also be implemented through the IRWM projects included in and potentially financed through the IRWM Program. A complete list of the recommendations from the planning studies was presented to the RAC at a joint RAC Meeting/Public Workshop held on April 3, 2013. During this meeting, RAC members and members of the public were asked to review the list of planning study recommendations and take one month (April 10 to May 10, 2013) to identify which actions they would be willing to either 1) take responsibility as lead organization for accomplishing the task or 2) provide support and involvement.

A final list of recommendations to include in the 2013 IRWM Plan was presented to the RAC at the June 5, 2013 meeting. Table 11-1 provides an overview of the recommendations for the planning studies, the party or parties that have committed to implementing the recommendation(s), and the specific action that will be implemented (specific party commitment). Please note, that as indicated in Table 11-1, some of the commitments made by interested parties are not the same as the full recommendation action included in the planning studies. Further, Table 11-2 includes a list of the planning study recommendations that did not receive implementation commitments.

Since adoption of the 2013 IRWM Plan, substantial progress has been made on the 40 implementation actions with commitments that were identified in Table 11-1. So far, 34 actions have been completed, are underway as on-going efforts, partially completed through other efforts, or attempted (but ultimately abandoned due to lack of interest from other parties). The remaining six actions have not begun at the time of this writing. A summary of progress made is provided here.

Regulatory Workgroup Report

The Regulatory Workshop Report recommended improved coordination between IRWM and regulatory entities, and the use of science-based standards for the San Diego Basin Plan. Since the 2013 IRWM Plan, coordination between the San Diego IRWM Program and the San Diego Water Board has improved, with City of San Diego staff attending San Diego Water Board meetings on behalf of the IRWM Program and a San Diego Water Board representative invited to attend each RAC meeting. At the RAC meetings, the San Diego Water Board representative provides announcements and updates on San Diego Water Board activities that may be of interest to stakeholders and encourages participation in San Diego Water Board programs. During the San Diego Water Board's Triennial Review of the San Diego Basin Plan, IRWM stakeholders provided comments on the Basin Plan's Triennial Review. The San Diego Water Board has also spoken to the RAC about alternate funding opportunities available through their programs.

Land Use Planning Study

The Land Use Planning Study recommended collaborative water resource and land use planning efforts, as well as ongoing communication and information sharing between water resource and land use managers. Since the 2013 IRWM Plan, a model sustainable landscapes guide, a model stormwater management ordnance, and conservation plans and guidelines for community and backyard gardens were developed to support efforts to conserve water resources and reduce water quality impacts.

The 2nd IRWM Summit, held February 29, 2016, also served as a forum to bring together managers from different fields, including water resources and land use. At the summit, one speaker touched on the relationship between water resources and land use planning, the importance of a coordinated planning effort, and the value of encouraging relationships between different resource managers.

Two of the recommended actions from the Land Use Planning Study were ultimately dropped after efforts to engage additional organizations failed to result in a response. These actions were preparation of a model grey water ordinance and professional organization workshops with informal "meet & greets". Based on the lack of participation by stakeholders when implementation of these actions was initiated, they are no longer considered to be regional priorities.

Climate Change Planning Study

The Climate Change Planning Study recommended that the IRWM Plan include a climate change objective and associated targets. These were first incorporated into the 2013 IRWM Plan. As identified in *Chapter 2, Vision and Objectives*, the climate change objective has since been elevated to a goal in the 2019 IRWM Plan, which uses a climate change framework to help characterize how the IRWM Program addresses the Region's climate change vulnerabilities, adaptation, and mitigation. Climate change science and understanding of impacts to the region has been incorporated in more depth in the 2019 IRWM Plan, as compared to the 2013 IRWM Plan.

Integrated Flood Management (IFM) Planning Study

The IFM Planning Study recommended increased collaboration between floodplain managers and agencies to develop a better understanding of regional flood risks and a watershed database to assist in flood management planning, as well as to identify common agency and flood management issues and constraints, improve awareness of IFM, and define watershed flood management goals. Flood Management Association, an active participant in the San Diego IRWM Program that is represented on the RAC, holds regular luncheons and an annual conference that incorporates many of the recommendations for increased collaboration and improved understanding of regional flood risks.

Since the 2013 IRWM Plan, there have been changes to the State's approach to stormwater management, as agencies increasingly move towards treating stormwater as a resource. Since publication of the 2013 IRWM Plan, development of the Water Quality Improvement Plans (WQIPs), the Stormwater Resources Plan (SWRP), and the upcoming Stormwater Capture and Use Feasibility Study (SWCFS) have helped to improve regional understanding of stormwater management and opportunities. As a result, some of the recommendations in the IFM Planning Study are no longer relevant to the Region as envisioned. Updated understanding of stormwater in the Region is being incorporated in the 2019 IRWM Plan.

Table 11-1: 2013 Implementation Commitments from 2013 Planning Study Recommendations

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment	Status
Regulatory Workgroup Report[1]	Improve communication between IRWM Program and the San Diego Regional Water Quality Control Board (San Diego Water Board)	R-1	Assign IRWM liaison to San Diego Water Board	City Public Utilities	City will assign Senior Staff to be IRWM liaison to San Diego Water Board	Complete or Underway
		R-2	Provide periodic IRWM progress reports to San Diego Water Board	City Public Utilities	City's commitment will involve assigning existing staff to: 1) attend monthly meetings of the Water Board, 2) review agendas and proposed Board Actions ahead of each meeting, 3) report out at RAC meetings on Water Board actions, and 4) once or twice per year make a presentation to the Water Board about the status of the San Diego IRWM Program.	Complete or Underway
	Ensure consistency between IRWM Plan and San Diego Water Board Practical Vision	R-3	Monitor development of San Diego Water Board Practical Vision[2]	RWMG	Same as Recommendation Action	Complete or Underway
		R-4	Incorporate priority themes from San Diego Water Board Practical Vision into IRWM Plan	RWMG	Same as Recommendation Action	Complete or Underway
		R-5	Coordinate with San Diego Water Board for consistency in IRWM Plan and Practical Vision	RWMG	Same as Recommendation Action	Complete or Underway
	Identify science-based Basin Plan modifications that may warrant higher priority than provided in 2011 triennial review	R-6	Convene IRWM stakeholders to (1) review Basin Plan review priorities, resources, and schedules, (2) identify additional priorities of interest to IRWM stakeholders, (3) determine IRWM stakeholder interest in supporting San Diego Water Board to address additional priorities	RWMG IEA- Support[3]	RWMG will obtain input from IRWM Stakeholders regarding the three actions identified in the Recommendation Action	Complete or Underway
		R-7	Convene workshop with San Diego Water Board and IRWM stakeholders to discuss priorities identified by IRWM stakeholders	RWMG	Same as Recommendation Action	Complete or Underway

[1] Recommendations not prioritized
[2] The Regional Water Quality Control Board Draft Practical Vision is described in *Chapter 7, Regional Coordination*
[3] IEA is an abbreviation for the Industrial Environmental Association, a non-governmental organization

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment	Status
	Identify research, data collection, data management, data assessment, and resources required to support San Diego Water Board's process for science-based evaluation of the prioritized Basin Plan objectives	R-8	Convene workshop with San Diego Water Board and IRWM stakeholders to discuss research, data collection, management and assessment, and resources required to address objectives that warrant scientific update or development of site-specific objectives	RWMG IEA- Support	RWMG will provide a forum for the San Diego Water Board and IRWM stakeholders to convene, and will share outcomes with the RAC	Complete or Underway
Regulatory Workgroup Report[4]	Identify existing 303(d) listings that may warrant reevaluation or reclassification	R-9	Convene IRWM stakeholders to (1) review 303(d) listings of the Region's reservoirs, (2) identify 303(d) listings of reservoirs that may warrant reevaluation or reclassification, (3) determine IRWM interest in supporting San Diego Water Board reassessment or reclassification of 303(d) reservoir listings of concern	Water Authority IEA- Support[5]	Water Authority will obtain input from IRWM Stakeholders regarding the three actions identified in the Recommendation Action	Not Begun
		R-10	Convene workshop with San Diego Water Board and IRWM stakeholders to discuss 303(d) waters that may warrant reevaluation or reclassification to better support IRWM goals and Practical Vision priorities	RWMG	RWMG will provide a forum for the San Diego Water Board and IRWM stakeholders to convene, and will share outcomes with the RAC	Not Begun
	Identify projects or actions that could improve water quality of 303(d) listed waters and attain water quality objectives	R-11	Convene workshop with San Diego Water Board and IRWM stakeholders to identify (1) projects that could improve water quality of 303(d) waters and (2) alternate means to traditional TMDLS to achieve water quality objectives	RWMG City Stormwater - Support	RWMG will provide a forum for the San Diego Water Board and IRWM stakeholders to convene, and will share outcomes with the RAC	Complete or Underway
	Identify research, data collection, data management, data assessment, and resources required to support the San Diego Water Board's process for science-based evaluation of the prioritized 303(d) listings	R-12	Convene workshop with San Diego Water Board and IRWM stakeholders to discuss data collection, management, and assessment, and required resources to reevaluate or reclassify 303(d) listings	RWMG City Stormwater - Support	If needed, the RWMG will convene a workshop to discuss actions included in the Recommendation Action, and will share outcomes with the RAC	Complete or Underway

[4] Recommendations not prioritized
[5] IEA is an abbreviation for the Industrial Environmental Association, a non-governmental organization

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment	Status
	Develop and maintain a list of wetlands and riparian habitat restoration needs and opportunities	R-13	Convene regulators and IRWM stakeholders to discuss (1) means of identifying, coordinating, and prioritizing restoration needs and opportunities and (2) potential action plan for developing and maintaining habitat restoration needs and opportunities priorities list	RWMG	RWMG will assist regulators and IRWM stakeholders in discussing the actions included in the Recommendation Action	Complete or Underway
	Evaluate potential opportunities for coordination of San Diego Water Board SEP process and other compensatory mitigation programs to support and promote habitat restoration and recovery	R-14	Convene meeting with San Diego Water Board to assess means for coordinating IRWM Program support with San Diego Water Board SEP process and other mitigation programs	RWMG	Same as Recommendation Action	Complete or Underway
Land Use Planning Study[6]	Support or facilitate collaborative preparation of various joint water resources and land use planning efforts and work in the Region	L-2	Prepare model grey water ordinance	Zoo[7]	Same as Recommendation Action	Abandoned
		L-3	Prepare guidelines for distribution outside agencies to encourage "watershed friendly" design, construction, and maintenance of development	City Public Utilities	City's commitment will involve: 1) updating the Source Water Protection (SWP) Guidelines for New Development that the Water Department published in 2004, and 2) embarking on an outreach effort to have land use agencies put the SWP Guidelines to use, which would include informational documents.	Not Begun
		L-4	Prepare information sheets on potential water resource impacts of various land uses for land use planners to refer when evaluating proposals	City Public Utilities	Same as commitment for Recommendation Action L-3	Complete or Underway
		L-5	Prepare model sustainable landscape guidelines	Water Authority	Same as Recommendation Action	Complete or Underway

[6] Recommendations prioritized within each objective
[7] Zoo is an abbreviation for the Zoological Society of San Diego, a non-governmental organization

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment	Status
	Support or facilitate collaborative preparation of various joint water resources and land use planning efforts and work in the Region	L-6	Incorporate broader range of water resources goals which support IRWM Plan into SANDAG's Regional Comprehensive Plan	Water Authority	Same as Recommendation Action	Complete or Underway
		L-7	Prepare model stormwater management ordinance	City Stormwater	Same as Recommendation Action	Complete or Underway
		L-9	Prepare conservation or resource management plans/guidelines for community and backyard gardens	Water Authority	Same as Recommendation Action	Complete or Underway
	Provide opportunities for information sharing, regular communication, and meaningful collaboration for water resources and land use managers	L-15	Build relationships and share information through workshops, webinars, lunch sessions, etc. hosted by various professional associations (AEP, APA, APWA, etc.) Informal "meet & greet" preceding each event.	Zoo	Same as Recommendation Action	Abandoned
		L-16	Provide annual forum on topics of mutual interest and importance to water resources and land use agencies	Zoo Water Authority	Same as Recommendation Action	Complete or Underway
Climate Change Planning Study[8]	Include recommended objectives and targets in the Plan	C-2	Objective: Effectively address climate change through adaptation and mitigation in water resource management	Incorporated in 2013 IRWM Plan	Same as Recommendation Action	Complete or Underway
	Include recommended objectives and targets in the Plan	C-3	Target 1: Encourage development of cost-effective carbon-efficient strategies for water management projects	Incorporated in 2013 IRWM Plan	Same as Recommendation Action	Complete or Underway
		C-4	Target 2: Incorporate adaptation strategies to respond to sea-level rise, rainfall variability, and temperature variability in planning for water and wastewater management	Incorporated in 2013 IRWM Plan IEA- support	Same as Recommendation Action	Complete or Underway
		C-5	Target 3: Reduce or neutralize GHG emissions in all areas of water resource management	Incorporated in 2013 IRWM Plan	Same as Recommendation Action	Complete or Underway

[8] Recommendations not prioritized

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment	Status
Integrated Flood Management Planning Study[9]	Increase regional floodplain manager and agency collaboration	F-1	Develop framework and process for different level of communication for floodplain managers	County	Same as Recommendation Action	Not Begun
		F-2	Engage watershed stakeholders in workshop forum which brings together the regulators and floodplain managers to discuss different competing watershed issues (1) roadblocks to flood management, (2) regulatory constraints	FMA[10]	Same as Recommendation Action	Complete or Underway
		F-3	Provide basis for regional working forum of floodplain managers that allows increased collaboration and future regular meetings	County FMA	Same as Recommendation Action	Complete or Underway
	Increase regional floodplain manager and agency collaboration	F-4	Promote communication across jurisdictional boundaries and within watershed	County FMA	Same as Recommendation Action	Complete or Underway
	Improve understanding of regional flood risks	F-5	Develop understanding of the different types of flooding from both regional level, watershed level, and local level included specific flood problems for the different areas.	City Stormwater–Support FMA	Same as Recommendation Action	Complete or Underway
Integrated Flood Management Planning Study[11]	Improve understanding of regional flood risks	F-6	Provide methodology to define the magnitude of flood risks in order to better prioritize the level of flood risk which integrates potential flood damage	City Stormwater–Support FMA- Support	Same as Recommendation Action	Complete or Underway
	Improve understanding of regional flood risks	F-7	Review common recurring flood damage losses	City Stormwater - Support	Same as Recommendation Action	Not Begun
	Develop watershed database to assist in flood management planning	F-8	Collect and compile watershed mapping information related to flood hazards and watershed information in a GIS format, as well as developing a schema for managing the data to benefit future watershed planning	City Stormwater - Support	Same as Recommendation Action	Complete or Underway

[9] Recommendations not prioritized
[10] FMA is an abbreviation for the Floodplain Management Association, a non-governmental organization
[11] Recommendations not prioritized

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment	Status
	Identify common agency flood management issues and constraints	F-9	Develop background from stakeholder information on the common problems implementing flood hazard mitigation projects and the different constraints.	City Stormwater - Support	Same as Recommendation Action	Complete or Underway
	Define different watershed flood management goals	F-10	Develop understanding of the different priority goals of the watershed stakeholders based on the common recurring flooding issues/problems/hazards	City Stormwater - Support	Same as Recommendation Action	Complete or Underway
	Initiate understanding and awareness of "integrated flood management" (IFM)	F-11	Prepare educational material and information on background of IFM to encourage better understanding of the required thought process	City Stormwater - Support FMA- Support	Same as Recommendation Action	Complete or Underway
	Initiate understanding and awareness of "integrated flood management" (IFM)	F-12	Provide examples of IFM projects to assist in understanding how to apply and the basis of the key planning principles which are different from conventional watershed planning	City Stormwater - Support	Same as Recommendation Action	Complete or Underway
	Identify applicable IFM strategies on global and watershed basis	F-13	Define common types of IFM strategies which integrate different planning principles through different scales (1) watershed level, (2) city level, and (3) neighborhood/local level	IEA- Support[12]	Same as Recommendation Action	Complete or Underway

[12] IEA is an abbreviation for the Industrial Environmental Association, a non-governmental organization

Table 11-2: 2013 Planning Study Recommendations without Commitments

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment
Land Use Planning Study[13]	Support or facilitate collaborative preparation of various joint water resources and land use planning efforts and work in the Region	L-1	Distribute model water resources policies for use by municipalities	No responsible parties or commitments have been identified.	
		L-8	Prepare model guidelines for green infrastructure for public agencies and for private development		
		L-10	Coordinate BMPS in municipal codes when water agency is not the municipality		
		L-11	Prepare conservation or resource management plans/guidelines for agricultural operations		
		L-12	Prepare model green building standards		
	Provide opportunities for information sharing, regular communication, and meaningful collaboration for water resources and land use managers	L-13	Create GIS-based Resource Guide of all agencies, organizations, and stakeholders responsible for or involved in water management and land use planning for region. Host Guide on IRWM website. See study for details on what Guide would contain.		
		L-14	Expand SANDAG's emphasis on smart growth to encompass strategies that improve reliability and quality of water resources		
		L-17	Develop meeting template that includes all entities involved in land use planning and water resource planning and management for each jurisdiction.		
	Provide opportunities for information sharing, regular communication, and meaningful collaboration for water resources and land use managers	L-18	Utilize existing groups to disseminate key information and support integrated approach to water resources management and land use decision making		
		L-19	Include examples of viable land use practices that can improve reliability and quality of water resources on IRWM website		
		L-20	Develop a guide for engaging tribal nations in land use planning and water management		
		L-21	Utilize social media, pertinent websites, etc. to share key information with officials, planners, and water resources managers		
Climate Change Planning Study[14]	Use of adaptive management[15]	C-1	Encourage consideration of DWR's *Climate Change Handbook* recommendations on developing adaptive management plans: 1) Identify risk triggers 2) Quantify impacts and uncertainties 3) Evaluate strategies and define flexible implementation paths 4) Monitor performance and critical variables 5) Implement or reevaluate strategies when triggers are reached	No responsible parties or commitments have been identified.	

[13] Recommendations prioritized within each objective
[14] Recommendations not prioritized
[15] The process of adaptive management includes: 1) data gathering and analysis of vulnerabilities when determining triggers and 2) evaluating if triggers have been met. It is further anticipated that climate change vulnerabilities will be reassessed during future IRWM Plan updates.

Planning Study	Objective	#	Recommendation Action from Planning Study	Responsible Party	Party Commitment
Integrated Flood Management Planning Study[16]	Identify applicable IFM strategies on global and watershed basis	F-14	Develop background on specific types of "opportunities" within the watershed that facilitate the application of IFM	No responsible parties or commitments have been identified.	
		F-15	Develop regional mapping of both opportunities and constraints related to flood management		
	Develop watershed planning guidance program implementing IFM	F-16	Develop watershed planning process framework with key planning principles for implementing IFM that focuses on linking sustainability, water resource management, and land use planning to flood management and the entire hydrologic cycle.		
		F-17	Prepare guidance on integrating "land use planning" as central element of IFM and define how it can be utilized for different type of floodplain hazards issues		
		F-18	Develop overall guidance document that provides stakeholders the basis for watershed planning with IFM		
	Create watershed planning tools to facilitate IFM project development	F-19	Develop a specialized GIS based tool which assists in the defining locations of IFM projects at a regional scale and can provide maximum multiple benefits and provides method for prioritizing flood management projects		

[16] Recommendations not prioritized

11.2.2 Implementation Issues for Priority Projects

Some action items listed in Table 11-1 and Table 11-2 above may be implemented through projects that are designed to address Regional priorities. These projects may be implemented through the IRWM Program and subsequently funded through IRWM-related funding mechanisms, or may be implemented independently of the IRWM Program through other programs and funding mechanisms. Other priorities for the Region may be implemented by projects designed to address the Technical Development Areas developed for the 2019 IRWM Plan (see *Chapter 10, Data and Technical Analysis*): 1) Sustainable Water Development, 2) Stormwater as a Resource, 3) Invest in DAC-EDA-EJ Systems, and 4) Enhance Infrastructure.

If the programs are implemented independently of the IRWM Program, implementation issues may occur as a result of funding priorities. In other words, given that independent implementation would occur at the discretion of the implementing entities, those entities may experience prioritization shifts, budget changes, or other unforeseen funding issues that could delay or stall implementation.

If projects that are implemented to address the action items listed Table 11-2 are funded by the IRWM Program, there could be potential implementation issues associated with IRWM Program funding. Potential IRWM Program-related implementation issues that have been experienced to date and are anticipated to continue given the current status of the statewide IRWM Program include: 1) the ability to fund pilot projects and studies, 2) the amount of technical information required by IRWM grant applications, 3) regulatory requirements, and 4) potential lack of IRWM funding in the future. Those issues are described further below.

Funding Pilot Projects and Studies

Proposition 84 and Proposition 1 Implementation Grants administered through the California Department of Water Resources (DWR) emphasize the construction/implementation phase of projects, and therefore are best-suited to fund projects that are shovel-ready. This emphasis on implementation means that the IRWM Program provides limited funding for other types of projects, such as pilot projects and studies. While funding may be limited for pilot projects and studies, these types of projects are often necessary in order to assess alternatives and develop projects that can be successfully implemented to achieve desired benefits. The City of San Diego's Advanced Water Treatment Demonstration Project was partially funded by and IRWM grant, and played a critical role in development of the City's Pure Water San Diego project. Without pilot projects and studies, projects may be shelved, or money may be wasted implementing projects that encounter unexpected obstacles that could have been revealed and avoided through implementation of a pilot project or study. Encouragingly, DWR has proposed under the Proposition 1 Implementation Grant process to consider the use of innovative technology, though how DWR will use this when evaluating projects remains unknown at the time of this writing.

Technical Requirements

While anticipated to be less burdensome than previous Proposition 84 Implementation Grants, Proposition 1 Implementation Grant applications are anticipated to still require a substantial amount of technical information to complete and successful enter into a funding agreement, particularly with respect to environmental documentation, permitting, and alternatives analyses. The technical information required for IRWM Implementation Grants is often so involved that it is beyond the ability of project partners (local project sponsors) to provide in sufficient detail at the time of the proposal solicitation. This is especially true for small non-profit organizations, disadvantaged communities (DACs), economically distressed areas (EDAs), underrepresented communities (URCs),

environmental justice (EJ) communities, and tribes, which may not have the resources necessary to gather or generate this information. The technical requirements of IRWM-related grant opportunities have been noted by San Diego IRWM stakeholders as a barrier that prevents some stakeholders from seeking out IRWM funding; therefore, the technical requirements of IRWM-related grant opportunities may also be a potential barrier to implementation of priorities included in Table 11-1.

Regulatory Requirements

Proposition 1 Implementation Grants require grantees to comply with all applicable California regulations to be eligible for funding. Tribal nations in the Region have expressed concern that DWR may inappropriately apply California Environmental Quality Act (CEQA) requirements to tribal projects submitted to the IRWM Program. Tribal reservations are subject to the National Environmental Protection Act (NEPA), not CEQA. This requirement may be a significant barrier to tribal participation in the IRWM Program since it would require tribes to give up their tribal sovereignty in order to use State funding for a project on tribal land. In addition, DWR's Concept PSP for the Proposition 1 IRWM Implementation Grant – Round 1, which will occur in 2018 and 2019, included a requirement that CEQA be completed for all non-DAC and non-Tribal projects prior to grant agreement execution, which is expected to occur no later than six months after final grant award notification. This means that many project sponsors would need to begin the CEQA process prior to knowing whether the project received IRWM grant funding, and that IRWM funding may not be available to pay for development of CEQA documents. This represents a substantial financial barrier, especially for smaller agencies and non-profits.

Potential Lack of Future IRWM Funding

Funding support for DWR's IRWM Grant Program has resulted from voter-approved water bond measures in 2002, 2006, and 2014. A new water bond measure (Proposition 3) on the November 2018 state ballot offers no grant funding for IRWM projects, although it does contain a one-time allocation of $5 million to support planning and implementation activities by RWMGs that have been approved by DWR. There are 49 such approved RWMGs in California. The San Diego RWMG has played a leadership role in legislative advocacy as it relates to IRWM funding. The City of San Diego and Water Authority both actively participate in the Roundtable of Regions (a stakeholder-led group of RWMG practitioners) and the IRWM Stakeholder Focus Group established by DWR to help develop an IRWM Strategic Plan (renamed Stakeholder Perspectives upon release in March 2017). The RWMG agencies have also worked with the local legislative delegation in Sacramento to propose legislation to address IRWM grant funding issues that discouraged participation in IRWM by DACs. One such bill, SB 208, signed into law in 2015, provided advanced payment of the first 50 percent of grant funding to projects that benefit DACs and meet certain other requirements. Another bill, AB 2064, was introduced in 2018 to extend advanced payment to 100% of grant funds. Multiple RAC members and other stakeholders have also engaged with the San Diego delegation to support expanded IRWM funding and ease the burden of funding applications and project administration.

All of Proposition 1's IRWM funding is expected to be awarded by 2022. With no future IRWM funding on the horizon, implementing projects that address regional needs and priorities in the IRWM Plan may be more difficult. Many of the projects that have been funded by the San Diego IRWM Program to achieve goals established in the San Diego IRWM Plan would not have been implemented or would have been implemented in a non-integrated fashion without IRWM funding. Should IRWM funding no longer be available in the future, the San Diego IRWM Region anticipates a scaled-down IRWM Program moving forward, which will further increase the challenges of addressing the Region's needs.

11.3 Benefits and Impacts

The purpose of this section of the 2019 IRWM Plan is to document potential impacts and benefits associated with implementation of the Plan, and to clearly communicate those potential impacts and benefits to IRWM stakeholders. Implementation of the 2019 IRWM Plan involves both implementation of the IRWM Program itself and implementation of water management projects. As such, the following sections contain information regarding potential impacts and benefits of IRWM Plan implementation within the Region, between IRWM regions (inter-regional), and those that may directly affect DACs, EDAs, URCs, EJ-related concerns, and Native American Tribal communities. Table 11-3 includes a synthesis of this information, and also includes examples of potential projects that could be implemented to address each objective.

One of the central features of the 2019 IRWM Plan is the San Diego IRWM Objectives that were revised by stakeholders as part of the 2019 IRWM Plan development process (refer to *Chapter 2, Vision and Objectives* for more information). Due to the importance of the IRWM Objectives, the objectives were used to determine potential impacts and benefits associated with implementation of the 2019 IRWM Plan.

For the San Diego Region, pilot testing at the Advanced Water Purification Facility is leading to future supply reliability that will be achieved through the PureWater Program.

Photo credit: Marsi Steirer, City of San Diego

Projects that are implemented through the IRWM Program undergo an impact/benefit analysis during the project selection and vetting process as the project selection workgroup determines and weighs the benefits and impacts of each project. This benefit/impact evaluation process, including the numeric scoring criteria assigned to each project, is described in *Chapter 9, Project Evaluation and Prioritization.*

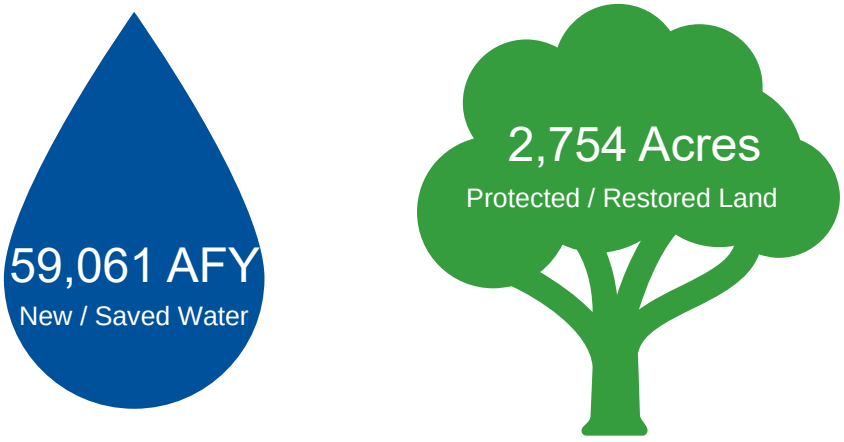
11.3.1 Potential Benefits and Impacts

Regional Benefits and Impacts

Implementation of the 2013 IRWM Plan (and achievement of the San Diego IRWM Objectives) is resulted in substantial benefits to the Region. As the 2019 IRWM Plan is implemented through projects, benefits to the Region derived from IRWM Program activities are expected to increase. Due to the wide-ranging nature of the San Diego IRWM Objectives, potential water resources benefits are anticipated to be diverse and extensive. Collectively, the San Diego IRWM Objectives would result in the regional benefits described in Table 11-3 below. The benefits associated with the IRWM Program and IRWM Projects are anticipated to address issues and concerns of stakeholders and interested parties within the Region and within the San Diego Funding Area. The Region's Proposition 50 IRWM Implementation Grant's projects have all been completed. Figure 11-1 demonstrates the primary

physical benefits provided to the Region as a result of those projects. Because the figure only shows the primary benefits, additional benefits to the Region were realized but not captured in the figure.

Figure 11-1: Primary Benefits to the Region from the Proposition 50 Implementation Grant-Funding Projects



Projects awarded grant funding through Prop 50 realized a multitude of benefits. A total of 59,061 AFY of water was saved or created through Prop 50 projects. In addition, Prop 50 projects were able protect or restore 2,754 acres of natural land. Of this total, 767 acres of protected/restored land came from reservoir restoration projects. During Prop 50, $25 million was awarded to fund 19 projects in the Region, of which 18 were ultimately implemented.

Implementation of the 2019 IRWM Plan could also potentially result in impacts to the Region. Potential impacts associated with the IRWM Program generally include time and costs associated with implementing the program. Potential impacts associated with IRWM projects would be similar to those impacts associated with any other water resources-related planning, design, or construction projects. Impacts may include short-term, site-specific impacts related to construction, and long-term impacts associated with project operation. Table 11-3 below provides a summary of potential impacts that could occur due to implementation of the 2019 IRWM Plan.

Inter-Regional Benefits and Impacts

Implementation of the San Diego IRWM Objectives is expected to result in benefits and impacts that extend beyond the IRWM Region. Collectively, the San Diego IRWM Objectives will result in the inter-regional benefits and impacts described in Table 11-3 below.

Benefits and Impacts to DACs, EDAs, URCs, EJs, and Native American Tribal Communities

Due to the diverse nature of benefits associated with the IRWM Program and with IRWM Projects, benefits are anticipated to span throughout the IRWM Region, and even potentially beyond the IRWM Region. As described in detail in *Chapter 3, Region Description,* DACs, EDAs, URCs, and EJ communities are dispersed throughout the Region. Further, Native American Tribal communities are also located throughout the Region, albeit more heavily concentrated in the eastern portion of the Region. Due to both the dispersed nature of potential benefits from the IRWM Program and IRWM projects and the dispersed nature of DACs, EDAs, URCs, EJ communities, and Native American Tribal communities, benefits provided to the aforementioned communities as a result of IRWM Program or IRWM project

implementation are likely to be similar to those that would occur throughout the Region as a whole. Table 11-3 highlights in italics how implementation of the IRWM Program and IRWM projects may specifically and directly benefit DACs, EDAs, URCs, EJs, and Tribal communities.

Similarly, impacts that would occur to the aforementioned communities as a result of IRWM Program or IRWM project implementation are not anticipated to be acute, and are likely to be similar to those that would occur throughout the Region as a whole.

Table 11-3: Summary of Potential Impacts and Benefits

San Diego IRWM Objectives		IRWM Program	IRWM Projects - Regional	IRWM Projects - Interregional	Project Examples
A. Encourage the development of integrated solutions to address water management issues and conflicts	**Benefits**	• Encourages development of integrated projects • Communication and trust-building among IRWM stakeholders enables partnerships for addressing water management issues	• Integrated solutions can be more cost-effective, saving the Region time and money • Integration can reduce conflicts, which can result in faster implementation and therefore faster accrual of project-related benefits • Integration may include a variety of sponsors, who can add expertise to a project and increase the overall benefits provided by the project • *Integration can potentially partner DACs, URCs, EDAs, EJ, and Tribal communities with other partners that can facilitate project implementation. This is especially true of Tribal communities that may find contracting with DWR difficult without a non-Tribal partner*	• Integration can result in more benefits than single-purpose projects. Such benefits could extend beyond the IRWM Region and directly benefit other IRWM regions • Provide guidance to the priorities and issues facing each sub-region	Any IRWM project that includes partnership integration (multiple partners), resource management integration, beneficial use integration, geographic integration, or hydrologic integration. Due to the importance of integration, projects are required to include a form of integration to be considered for IRWM Program funding (refer to *Chapter 9, Project Evaluation and Prioritization*)
	Impacts	• Will require an expenditure of public funds and/or staff time to accomplish	• Integration can require additional time and effort to implement as compared to single-agency, single-use projects • Integration may be difficult for projects that are shovel-ready	• Integrated projects within the San Diego IRWM Region could potentially detract from implementation of inter-regional projects	
B. Maximize stakeholder/ community involvement and stewardship of water resources, emphasizing	**Benefits**	• Enhance stakeholder participation • *May benefit DACs, EJ, and Tribes by connecting these groups with other IRWM stakeholders that they*	• Target resources to projects meeting urgent needs from different communities. Streamline prioritizing process with regional stakeholder meetings	• Address interregional water resource management issues with stakeholders, optimize resource allocation	Any IRWM project that directly involves stakeholder or community involvement could result in the benefits or impacts associated with this objective. Due to the

San Diego IRWM Objectives		IRWM Program	IRWM Projects - Regional	IRWM Projects - Interregional	Project Examples
education and outreach		*would generally not engage or partner with*			importance of stakeholder involvement, projects are required to meet this objective to be considered for IRWM Program funding (refer to *Chapter 9, Project Evaluation and Prioritization*)
	Impacts	• Increased coordination among the region's water resource managers could increase competition for limited State and federal grant funding • Increased stakeholder involvement could result in conflicting missions between stakeholders leading to increased difficulty in decision making	• Increased stakeholder involvement could lead to more projects requesting funding, making project selection more difficult, expensive, and time consuming	• Increased stakeholder participation could make interregional efforts more challenging	
C. Effectively obtain, manage, and assess water resource data and information	**Benefits**	• Collect and assess water resource management data for decision making and future resource management activities	• Active sharing of most current understanding on water management issues and alternative solutions	• Contributes accessible data for improved resource management within the San Diego Funding Area and throughout California	Any IRWM project that works to provide centralized public access to water management data or involves the collection and evaluation of water resources data to support decision-making or problem-solving
	Impacts	• Data requirements may reduce willingness to participate in IRWM efforts	• *Could increase costs to collect and manage data*	• Could contribute to interregional decisions based on regional data that may not apply to other regions	
D. Further scientific and technical foundation of water management	**Benefits**	• Obtain valid and empirical knowledge of water resource management • Active sharing of most current understanding on water management issues and alternative solutions	• Would help projects identify effective or efficient solutions • Increase project ability to receive funding by providing scientific support and justification	• Develop water management techniques and strategies applicable to other regions for improved resource management in California	Any IRWM project that works to collaborate with regulatory agencies to resolve water management issues; projects may include pilot projects or studies

San Diego IRWM Objectives		IRWM Program	IRWM Projects - Regional	IRWM Projects - Interregional	Project Examples
	Impacts	• Could lead to stakeholder conflict if perceived as only addressing a few management goals, rather than all management goals	• Science may not support the methods or goals of projects that stakeholders wish to pursue	• May result in conflicts between regional management.	
E. Develop and maintain a diverse mix of water resources, encouraging their efficient use and development of local water supplies	**Benefits**	• Can help water suppliers to coordinate management activities related to supply diversification	• Can help to increase water supply reliability for the region • Improve irrigation and landscaping efficiency • Development of local projects provides more local control over implementation and management of resource • Potential for improved water quality from local seawater and groundwater demineralization projects • *Could potentially increase the reliability of water pricing, which would directly benefit all water customers, but would specifically benefit DACs that are more heavily impacted by steep water rate increases*	• Could reduce dependence on imported water supplies that are ultimately sourced from outside the Region, thereby making those imported water supplies available for other users outside of the IRWM Region	Any IRWM project that increases local water supplies within the region. These projects may include recycled water supply projects (non-potable or potential potable projects) or projects that provide additional groundwater supplies
	Impacts	• Potential issues may arise between water suppliers if there are conflicts or disagreement regarding how water supplies should be diversified	• Some local water supply sources may be of lower water quality than existing sources, which could exacerbate water quality issues • Construction related impacts including dust, noise, and traffic generation associated with large-scale water supply projects • Alternative water supplies may be more expensive than existing	• Local water supply development in the San Diego Region may differ from water supply provisions and planning efforts in other regions, creating conflicts with other IRWM Regions	

San Diego IRWM Objectives		IRWM Program	IRWM Projects - Regional	IRWM Projects - Interregional	Project Examples
			water supplies from the perspective of end-users (water rate payers)		
F. Construction, operate, and maintain a reliable and resilient infrastructure system	**Benefits**	• Provide awareness and support for regional water-related infrastructure needs, and provide a forum for stakeholders to discuss infrastructure issues	• Provide infrastructure for water and wastewater treatment and conveyance to maintain supply reliability and improve water quality. • Provide infrastructure for stormwater treatment and conveyance to protect and restore water quality • *Will help address critical water supply and water quality needs of DACs and Tribes, which may suffer from unreliable or unsafe water infrastructure due to lack of funds or technical capacity*	• Improve interregional water supply reliability and water quality • Reduce risk to water supply and water delivery from natural or man-made disaster	Any IRWM project that directly or indirectly involves water-related infrastructure. These projects may include regional construction-related infrastructure projects that attempt to address emergency and carry-over water deliveries or site-specific habitat-related projects that attempt to maintain natural water resources functions
	Impacts	• Support for certain infrastructure projects and improvements may be controversial, potentially hampering stakeholder relations and outreach efforts	• Construction related impacts including dust, noise, mitigation, and traffic generation associated with large-scale infrastructure projects • Large-scale infrastructure projects can be costly to implement and could potentially cause rate increases.	• Local infrastructure development in the San Diego Region may detract from interregional infrastructure investments, such as those associated with imported water supplies. Such projects could potentially create conflicts with other IRWM Regions	
G. Enhance natural hydrologic processes to reduce the effects of hydromodification and encourage	**Benefits**	• Provide a forum for coordination of flood management efforts across various jurisdictions, and increase coordination between flood managers	• Protect and improve regional water quality downstream of areas with significant erosion • Alleviate flood protection requirements in downstream watersheds	• Promote collaboration on integrated flood management with adjacent regions • Enhancing flood protection in upstream	Any IRWM project that addresses hydromodification, either directly by enhancing or restoring natural hydrologic processes, or indirectly by promoting planning efforts

San Diego IRWM Objectives		IRWM Program	IRWM Projects - Regional	IRWM Projects - Interregional	Project Examples
integrated flood management		and other functional areas such as water quality and stormwater		regions is more cost-effective	to reduce hydromodification and related impacts
	Impacts	• Increasing coordination between functional areas could result in increased conflict or time to resolve flood-related issues	• Can be costly to implement • Hydromodification may have altered the stream in such a way that removal may not result in the expected or desired outcome	• May lead to conflict between flood management goals for different regions	
H. Effectively reduce sources of pollutants and environmental stressors to protect and enhance human health, safety, and the environment	**Benefits**	• Provide a forum to increase awareness for impacts associated with pollutants and environmental stressors	• Protect and improve regional water quality downstream of discharge locations • Reduce human health threats and environmental stressors in downstream water bodies. • Reduce run-off and pollutant discharge • Improve water quality • *Protect EJs, which suffer from disproportionately poor water quality and will benefit more from reduction in pollutants than non-EJs.*	• Promote collaboration on water quality issues with adjacent regions, such as large groundwater basins and water bodies that encompass multiple regions	Any IRWM project that directly addresses/reduces pollution by removing pollutant sources, or those projects that indirectly address water quality and environmental stressors through mitigation activities
	Impacts	• Could be conflict over true source of pollutants or stressors or what constitutes a "safe" level of these constituents	• There may be trade-offs between other project benefits and potential pollutants/environmental stressors	• There may be interregional conflicts between the sources of pollutants/environmental stressors and those who are impacted by impacts associated with these constituents	
I. Protect, restore, and maintain habitat and open space	**Benefits**	• Can provide an opportunity for agencies and parties that manage habitat and open space to coordinate and collaborate with water	• Maintain habitat for natural riparian and aquatic species, improve water quality and flood control in natural channels • Could contribute to improved public health through reduced	• Promoting habitat integrity across regions will increase habitat for natural species and enhance resource stewardship	Any IRWM project that directly protects and restores habitat and open space, or indirectly contributes to habitat and open space via water

San Diego IRWM Objectives		IRWM Program	IRWM Projects - Regional	IRWM Projects - Interregional	Project Examples
		managers and other parties that can both impact and benefit habitat and open space	pollution and increased recreation opportunities	• Habitat restoration could improve air quality and contribute to statewide air quality goals	quality protection, flood management, etc.
	Impacts	• Increasing coordination between different groups could result in increased conflict or time to resolve issues, including regulatory issues across federal, state, and local jurisdictions.	• Implementing habitat restoration and open space projects may conflict with other land uses and be inconsistent with flood management goals and objectives to maintain flood conveyance capacity.	• Integrated projects within the San Diego IRWM Region could potentially detract from implementation of inter-regional projects	
J. Advance water-based enriching experiences	**Benefits**	• Provide awareness and support for water-based recreational opportunities, including recreational beneficial uses established in the Basin Plan	• Maximize beneficial use of available water resources within the Region for recreational purposes • Protect and enhance the serviceability of existing recreational sites and create additional resources for recreational purposes • Could increase recreation-based tourism	• Water-based recreational opportunities in the San Diego Region may be utilized by residents of other IRWM Regions, or may reduce demands for water-based recreation opportunities in other IRWM regions	Any IRWM project that directly or indirectly supports water-based recreational opportunities, such as those projects involving habitat restoration, flood control, and watershed protection
	Impacts	• Support for recreational beneficial uses could conflict with support for other beneficial uses	• Could lead to increased impacts associated with pollution, traffic, etc. that may result from recreation or tourism • Increased competition for limited water resources in the region for other potential beneficial uses	• Support for recreational beneficial uses in the San Diego IRWM Region may conflict with other beneficial uses in upstream water bodies, including those located within other IRWM regions	

11.4 Finance

This section of the 2019 IRWM Plan documents a strategy for implementation and financing of the IRWM Program and IRWM projects included in this plan. As per requirements established by DWR, this section includes the following items:

- Known and potential funding sources, programs, and grant opportunities for the development and ongoing funding of the IRWM Plan.
- Potential funding mechanisms for projects that implement the IRWM Plan.
- An explanation of the certainty and longevity of potential funding sources.
- An explanation of how operation and maintenance costs for IRWM projects could potentially be funded.

As explained in *Chapter 6*, *Governance and Stakeholder Involvement,* the Governance and Financing Workgroup that was convened for the 2013 IRWM Plan provided input regarding potential funding mechanisms for the IRWM Program and IRWM projects. As such, the sections below contain information provided by the IRWM stakeholders that comprised the Governance and Financing Workgroup, coupled with updates from the RWMG.

11.4.1 Plan Financing

The Governance and Financing Workgroup discussed a variety of potential financing options for the IRWM Program. Information provided by the workgroup and elaborated upon through development of the 2019 IRWM Plan is summarized in Table 11-4.

The Governance and Financing Workgroup discussed four potential funding sources for the IRWM Program, including:

- *Business as usual*: the IRWM Program is funded by the RWMG (San Diego County Water Authority, City of San Diego, and County of San Diego). This option is abbreviated at "business as usual" in the following table.
- *501(c)(3)*: The IRWM Program officially becomes a 501(c)(3) non-profit organization, and raises funds accordingly. This option is abbreviated as "501(c)(3)" in the following table.
- *Regional sales tax*: The Region could impose a regional sales tax to fund the IRWM Program. This option is abbreviated as "tax" in the following table.
- *Participation fee*: Each participating agency (potentially RAC members or all stakeholders) could pay a small fee to participate in the IRWM Program. This option is abbreviated as "fee" in the following table.
- *Joint Powers Authority (JPA)*: Formation of a JPA with participating agencies paying a fee for inclusion in the JPA.

The Workgroup also discussed potential barriers that may exist to financing for the IRWM Program, including:

- It may be difficult to raise funds for the IRWM Program, because program management items do not necessarily result in tangible results. Tangible results are often required or desired for various funding sources, especially from public funding sources.

- Precedent has currently been set by the RWMG to fund the IRWM Program. It may be difficult for regional stakeholders to understand the need for IRWM Program funding given this precedent.

Table 11-4 provides an overview of the costs associated with each of the existing program elements that are undertaken to manage the IRWM Program, as well as costs required to prepare and manage the IRWM grant (Proposition 50, Proposition 84, and Proposition 1) process. The table also outlines the certainty and longevity of each potential funding source that was identified by the Governance and Financing Workgroup and RWMG, and describes the potential responsible entity associated with each funding source. Please note that as operations and maintenance costs are not applicable to the IRWM Program efforts, those costs are not elaborated upon in the following table.

Table 11-4: Potential IRWM Plan Financing Components[1]

Program Element	Likely Annual Project Cost	Likely RWMG Staff Commitment		Possible Responsible Entity	Potential Funding Source	Certainty/Longevity of Funding Source
IRWM Program Management						
RWMG Meetings	$42,000	8 hrs pp/month		RWMG agencies	Business as usual	RWMG MOU funds the IRWM Program through 2019. After 2019 there is no certainty of funding.
RAC Meetings	$36,000	8 hrs pp/quarter		501(c)(3) Executive Director and/or Staff	501(c)(3)	Very uncertain. Region would need to determine who would form the non-profit, and this process could take years to establish. This funding source could potentially be sustainable in perpetuity once established.
Tri-County FACC Meetings	$5,000	2 hrs pp/quarter				
DAC Outreach	$18,000	4 hrs pp/quarter		Stakeholders - unknown	Fee	Very uncertain. Governance and Finance Workgroup noted that imposing a fee would potentially reduce involvement in the IRWM Program. The potential longevity of this fee would need to be determined by the implementing entity.
Tribal Outreach	$18,000	4 hrs pp/quarter				
Public Outreach	$36,000	8 hrs pp/quarter				
SDIRWM Report Card	$29,000	8 hrs pp		Stakeholders - unknown	JPA	Very uncertain. Governance and Finance Workgroup noted that a JPA would require interested agencies that would not only participate in the IRWM Program, but would also be willing and able to provide funding. The certainty and longevity of the funding source would, therefore, be dependent upon the status of each agency willing to participate in the JPA.
Data Management System Administration	TBD	96 hrs/ quarter				
Future Update of the IRWM Plan						
Future IRWM Plan Update, including Highlights	$133,000	8 hrs pp/quarter		RWMG agencies	Business as usual	Very uncertain. The next IRWM Plan Update is anticipated in 2024 (in five years), if funding becomes available. There is no RWMG MOU in place for 2024, so there is no certainty of funding for a future IRWM Plan Update/Highlights document.

Program Element	Likely Annual Project Cost	Likely RWMG Staff Commitment		Possible Responsible Entity	Potential Funding Source	Certainty/Longevity of Funding Source
				501(c)(3) Executive Director and/or Staff	501(c)(3)	Very uncertain. The Region would need to determine who would form the non-profit, and this process could take years to establish. Funding sustainability is also dependent upon the funding stream(s) used by the non-profit.
				Stakeholders - unknown	Fee	Very uncertain. It is highly unlikely that the Region could levy a fee to pay for a future planning document.
				Stakeholders - unknown	JPA	Very uncertain. The certainty and longevity of the funding source would, therefore, be dependent upon the status of each individual agency willing to participate in the JPA.
Grants						
Grant administration – currently covered through Implementation Grant funding				RWMG agencies	Grants	Uncertain until grants are awarded. If proposals are only partially funded, cost may be difficult to fund.
Grant applications	$120,000	16 hrs/mo during grant preparation		RWMG agencies	Business as usual	RWMG MOU funds development of grant applications through 2019. After 2019 there is no certainty of funding.
				501(c)(3) Executive Director and/or Staff	501(c)(3)	Very uncertain. The Region would need to determine who would form the non-profit, and this process could take years to establish. This funding source could potentially be sustainable in perpetuity once established.
				Stakeholders - unknown	Fee	Very uncertain. Governance and Finance Workgroup noted that imposing a fee for project proponents would potentially reduce involvement in the IRWM Program. The potential longevity of this fee would need to be determined by the implementing entity.
				Stakeholders - unknown	JPA	Very uncertain. Governance and Finance Workgroup noted that a JPA would require interested agencies that would not only participate in the IRWM Program, but would also be willing and able to provide funding. The certainty and longevity of the funding source would, therefore, be dependent upon the status of each agency willing to participate in the JPA.
TOTAL	**$437,000**					

1 Costs are estimated based on hours spent on these activities over the past four years, multiplied by an average rate for consultant team.

The Region agrees that the intrinsic value of IRWM (using an integrated water management approach) and the relationships built since the Program's inception in 2005 are worth maintaining, but recognizes that the expense of doing so presents a challenge. Given the uncertainty of IRWM funding availability and future support from the State for IRWM efforts, the San Diego IRWM Region

is considering its options for the period after Proposition 1 funding is exhausted (anticipated around 2025). If the IRWM program is scaled back because of a lack of state funding for projects, it might include on-going grant administration and support to local project sponsors (LPS) through completion of grant agreement and monitoring requirements, on-going coordination between RWMG member agencies, and periodic notices to stakeholders of items that may be of interest. It may include fewer RAC meetings annually, reduced website updates (not including uploading project monitoring reports as described in *Chapter 10*, *Data and Technical Analysis*); ad-hoc workgroups of critical value to the Region may be eliminated. It would not include any IRWM-specific funding application preparation and may result in less frequent updates to the IRWM Plan itself.

The Region is in the process of identifying opportunities to engage with other programs being implemented or developed in the state, including efforts under the Sustainable Groundwater Management Act (SGMA), SWRCB's Stormwater Grant Program, the California Water Plan Update, and DWR's Water Atlas. Without additional State funding for IRWM, all costs incurred by the Region associated with maintenance of the San Diego IRWM Program would likely be borne by the RWMG member agencies alone, particularly because without the motivation of receiving project funding, it will be more difficult to secure stakeholder participation in alternative program funding opportunities such as a JPA or RAC membership fee.

11.4.2 Project Funding

IRWM planning provides an important first step in positioning the Region to secure the outside funding critical to allow the Region to implement much-needed water management projects and programs. An approved IRWM Plan is necessary for regions to be eligible for funding from the State of California under Propositions 50, 84, 1E, and 1. While there is potential for future funding opportunities to also require an approved IRWM Plan, currently such requirements are not included in any currently proposed bond language.

The Proposition 50 Chapter 8 IRWM Grant Program is a joint program between DWR and the State Board, which provides funding for projects that protect communities from drought, protect and improve water quality, and reduce dependence on imported water. The IRWM Grant Program includes two separate grant types - Planning Grants and Implementation Grants. The San Diego IRWM Region received $25 million under Proposition 50, to fund 19 projects. The San Diego IRWM Program closed its Proposition 50 grant in 2016, ultimately completing 18 projects over seven years. The $25 million grant helped fund projects totaling $72 million in work.

Proposition 84, consisting of four rounds of implementation funding, began in the summer of 2008, and provided approximately $64 million in funding for IRWM projects in the San Diego Region. As of this writing, 17 of the 38 implementation projects funded in the San Diego Region under Proposition 84 have either been completed or are at least 80 percent complete. Proposition 84 has exhausted all of its available IRWM funding.

Proposition 1E provided $300 million statewide for grants for stormwater and flood management projects that were consistent with an adopted IRWM plan. These funds are applied for by individual project sponsors, rather than the IRWM Program. Within the San Diego IRWM Region, the City of Escondido has received $15 million of Proposition 1E funds.

Proposition 1, passed by California voters in 2014, is expected to provide approximately $38 million to the San Diego Region for IRWM project implementation, planning, and DAC involvement. The San Diego Region opted to include project planning activities in its Proposition 1 DAC Involvement grant, which will support development of projects benefitting DACs, EDAs, URCs, and EJs, positioning them

to apply for future implementation grants. The first round of Implementation Grants under Proposition 1 is anticipated to begin in the Fall of 2018.

Proposition 1 also provides $200 million for SWRCB's Stormwater Grant Program (SWGP). In 2016, three of the Region's stakeholders received SWGP funding:

- City of National City: $1.3 million for the Sweetwater River Park Bioretention project
- City of Imperial Beach: $1.9 million for the Low Impact Development Urban Runoff Control Projects for the Tijuana Estuary
- City of Vista: $2.8 million for the South Santa Fe Green Street Project

These projects are designed to improve stormwater quality using natural systems and low impact development.

Projects funded through inclusion in the IRWM Plan range from pilot projects for innovative water treatment technology, recycled water systems, water quality and supply for DACs, flood control and stormwater management, and water supply and reliability. Beyond Propositions 50, 84, 1E, and 1, a variety of future state and federal funding opportunities for water-related projects are expected. Those additional funding opportunities are elaborated upon in the following section.

11.4.3 Project Financing Options

The 2013 Governance and Financing Workgroup also discussed potential financing options for projects included in the 2013 IRWM Plan. Information provided by the workgroup and elaborated upon through development of the 2019 IRWM Plan is summarized in Table 11-5.

The Governance and Financing Workgroup discussed multiple potential funding sources for IRWM projects, including those at the local/regional, state, and federal levels. Further, due to the diverse nature of projects included in the IRWM Plan, the Workgroup discussed projects by functional area (water supply, wastewater, recycled water, groundwater, stormwater, flood control, and habitat/open space). Information regarding potential funding sources for projects within each of the aforementioned functional areas is provided in Table 11-5.

Table 11-5: Potential IRWM Project Financing Options

Potential Funding Source	Description of Funding Source and Potential Certainty/Longevity	Functional Area							Funding Includes O&M?
		Water Supply	Wastewater	Recycled Water	Groundwater	Stormwater	Flood Control	Habitat/Open Space	
Local / Regional									
Capital Improvement Programs	A majority of the large infrastructure IRWM projects are included in Capital Improvement Program (CIP) budgets prepared and adopted by implementing agencies. The CIPs address project costs, project implementation schedules, and funding sources for implementing budgeted projects. Large-scale CIP projects are typically funded through debt (revenue bonds or general obligation bonds) serviced by water and sewer rates, capacity charges, standby charges, or agency shares of property taxes or assessments. Smaller scale CIP projects may be funded by the agencies with cash on hand, short-term lines of credit, or directly from water or sewer rates. Flood control CIPs may be funded through debt service (bonds) backed by agency general funds. CIP projects may also be funded, in part, by outside grants or financial assistance. Due to the varied nature of CIP budgets, the longevity and certainty of this funding source is highly variable.	x	x	x	x	x	x	x	No
Special Property Assessments	Special property assessments can provide funding for both capital projects and operations and maintenance. For example, monitoring Special Drainage Area fee is charged to development projects to fund new facilities or upsizing of old ones. Some districts pay special fees to maintain specific facilities, or a tax that contributes to flood control O&M. Note that a special property assessment would be subject to California Proposition 218 requirements.					x	x		Potentially
Water user rates	Water rates could be used to fund or partially fund IRWM Projects. These funds would likely be reserved for water supply, water supply quality, or wastewater projects, or those projects which have the potential to reduce future water rate inflation (e.g. projects that reduce dependence on imported water). These funds could potentially be used to fund operations and maintenance; however, the certainty and longevity of the funding source is dependent upon individual water users' willingness to pay.	x	x	x	x				Potentially

Potential Funding Source	Description of Funding Source and Potential Certainty/Longevity	Functional Area							Funding Includes O&M?
		Water Supply	Wastewater	Recycled Water	Groundwater	Stormwater	Flood Control	Habitat/Open Space	
Local Water Supply Development (LWSD) Program	The Water Authority's LWSD program provides member agencies with financial incentives of up to $200 per acre-foot for the development of recycled water and groundwater projects capable of relieving imported demands on Water Authority facilities. This incentive contribution offsets projects costs, especially in the early years of project start-up. In order to continue to qualify for these incentives, project expenses must exceed project revenues. Incentives are available for up to 25 years based on continued financial need. As cost of imported water goes up, the need for financial incentives will diminish and this program will phase out.			x	x				No
Local Resources Program (LRP)	The LRP program features financial incentives from the Metropolitan Water District of Southern California (Metropolitan) for recycled water and groundwater development projects that offset demands for imported water. The LRP is designed to ensure the financial feasibility of local projects during the initial years of operation. The LRP provides incentives of up to $250 per acre-foot for up to 25 years for qualifying recycled water and groundwater projects. This funding source is not currently available to the San Diego Region, but could potentially become available again in the future.			x	x				Yes
NGO Funding or Endowments	Non-government organization (NGO) funds may be derived from endowments, contributions, fundraisers, membership dues, or other similar sources. Many NGO-sponsored projects include some funding from these sources. Additionally, if the San Diego IRWM Program were to establish itself as a 501(c)(3) organization, additional funding for IRWM projects could be garnered directly by the IRWM Program. Due to the diverse and uncertain nature of this funding source, its use and longevity are also highly uncertain at this time.	x	x	x	x	x	x	x	Potentially
Private Grants	Hundreds of foundations or businesses provide support for environmental projects through private grants. If the San Diego IRWM Program were to establish itself as a 501(c)(3) organization, private grant funding for IRWM projects could be garnered from multiple sources. Due to the diverse and uncertain nature of this funding source, its use and longevity are also highly uncertain at this time.	x	x	x	x	x	x	x	Potentially
State									
Flood Protection Corridor Program (FPCP)	The FPCP program, funded by both Proposition 84 and Proposition 1E, to provide grant funding for nonstructural flood management projects. Eligible projects seek to acquire, restore, enhance and protect real property for the purposes of flood control protection, together with agricultural land preservation and/or wildlife habitat protection. The program provides grant funding of up to $5,000,000 per project. DWR administers the FPCP program. (http://www.water.ca.gov/floodmgmt/fpo/sgb/fpcp/)						x	x	No

Potential Funding Source	Description of Funding Source and Potential Certainty/Longevity	Functional Area							Funding Includes O&M?
		Water Supply	Wastewater	Recycled Water	Groundwater	Stormwater	Flood Control	Habitat/Open Space	
Urban Streams Restoration Program	The Urban Streams Restoration Program, administered by DWR, seeks to reduce property damage caused by flooding or erosion, restore or protect the natural ecological values of streams, and promote community involvement and stewardship. Eligible projects include creek cleanups, invasive removal, revegetation, channel reconfiguration, flood protection, and community involvement. Grant funding up to $1,000,000 is available to local agencies and NGOs (working together). (http://www.water.ca.gov/urbanstreams/)						x	x	No
Local Groundwater Assistance (LGA) Program	The LGA program, administered by DWR, provides funding for groundwater studies, management, and monitoring. The program provides grant funding of up to $250,000 per applicant. (http://www.water.ca.gov/lgagrant/)				x				No
Infrastructure State Revolving Fund (ISRF) Program	The Infrastructure State Revolving Fund (ISRF) program, through the California Infrastructure and Economic Development Bank, provides low-cost financing to public agencies for qualifying infrastructure projects. The ISRF program funding is available in amounts ranging from $250,000 to $10,000,000, with loan terms of up to 30 years. Interest rates are set on a monthly basis. Eligible project categories include drainage, water supply and flood control, environmental mitigation measures, parks and recreational facilities, sewage collection and treatment, and water treatment and distribution. (http://www.ibank.ca.gov/infrastructure_loans.htm)	x	x	x	x	x	x	x	Yes
Safe Drinking Water State Revolving Fund (DWSRF)	The DWSRF, through the California Department of Public Health (CDPH), provides agencies with low interest loans for projects that upgrade public drinking water infrastructure, including wells, pumps, storage tanks, treatment, surface water intakes, pipes, and other components. Prioritization is based on risk to public health. For construction, funding is available in amounts up to $20,000,000 per year per project and $30,000,000 per year per entity, with loan terms of up to 20 years. For planning, funding is available in amounts up to $500,000 per project, with loan terms of up to 5 years. These loans carry an interest rate equal to half of the State's general obligation bond interest rate. This below market interest rate can result in substantial savings on debt service. Further, a 0% interest rate and up to 80% grant (up to $3,000,000) is possible for projects serving DACs. (http://www.cdph.ca.gov/services/funding/Pages/SRF.aspx)	x			x				Yes

Potential Funding Source	Description of Funding Source and Potential Certainty/Longevity	Functional Area							Funding Includes O&M?
		Water Supply	Wastewater	Recycled Water	Groundwater	Stormwater	Flood Control	Habitat/Open Space	
Clean Water State Revolving Fund (CWSRF)	The CWSRF, through the State Board, provides agencies with low interest construction loans for wastewater, water recycling, and nonpoint source projects. The CWSRF funding is available in amounts up to $50,000,000 per agency, with loan terms of up to 20 years. These loans carry an interest rate equal to half of the State's general obligation bond interest rate. This below market interest rate can result in substantial savings on debt service. Principal forgiveness may be made available to projects serving DACs. Applications are accepted continuously. (http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml)			x	x	x			Yes
Water Recycling Funding Program	The Water Recycling Funding Program, through the State Board, provides agencies with low interest construction loans for water recycling projects, including treatment, distribution, and groundwater recharge. These loans carry an interest rate equal to half of the State's general obligation bond interest rate. This below market interest rate can result in substantial savings on debt service. Planning grants are also available to reimburse up to 50% of eligible costs, to a maximum of $75,000. Applications are accepted continuously. (http://www.waterboards.ca.gov/water_issues/programs/grants_loans/water_recycling/index.shtml)			x					Yes
Nonpoint Source Grant Program	The Nonpoint Source (NPS) Grant Program, through the State Board, annually allocates Clean Water Act Section 319(h) funding from the U.S. Environmental Protection agency to projects that address water quality problems in surface and ground water resulting from NPS pollution. The goal of these projects is to ultimately lead to restoring the impacted beneficial uses in these water bodies. Projects are required to be located in a watershed that has an adopted/nearly adopted Total Maximum Daily Load (TMDL) for the constituent of concern and has been identified in the NPS Program Preferences. A 25% funding match is required. (http://www.waterboards.ca.gov/water_issues/programs/nps/grant_program.shtml)					x			No
Groundwater Management Program Assessments	In areas where a Groundwater Management Program is established per requirements of the State of California Groundwater Management Act (AB 3030), the implementing agency may fund groundwater improvement projects through assessments levied against groundwater users (provided that voter approval of such assessments is granted).				x				Yes
California State Coastal Conservancy	The Coastal Conservancy provides funding for protection, public access, and restoration, and enhancement of coastal resources. There are no established minimum or maximum grant amounts; however, projects must be consistent with the purposes of available funding sources (e.g., Proposition 84). Applications are accepted continuously. (http://scc.ca.gov/category/grants/)							x	Potentially

Potential Funding Source	Description of Funding Source and Potential Certainty/Longevity	Functional Area							Funding Includes O&M?
		Water Supply	Wastewater	Recycled Water	Groundwater	Stormwater	Flood Control	Habitat/Open Space	
Storm Water Grant Program	The State Water Resources Control Board provides funding under Proposition 1 for multi-benefit stormwater management projects that include green infrastructure, rainwater and stormwater capture projects, and stormwater treatment facilities. Project must be included in a SWRP.				x	x	x		No
Federal									
Title XVI Water Reclamation and Reuse – Construction (Includes Water Infrastructure Improvements for the Nation [WIIN] projects)	The Reclamation Wastewater and Groundwater Study and Facilities Act (Title XVI, Public Law 102-575) authorizes the federal government, via U.S. Bureau of Reclamation (USBR), to fund up to 25% of the capital cost of congressionally authorized recycling projects. Funding for construction is available in accordance to each project's authorization and the funding opportunity announcement (FOA). (http://www.usbr.gov/WaterSMART/title/)			x					No
Title XVI Water Reclamation and Reuse – Feasibility Study	USBR also releases FOAs for development of new feasibility studies for congressionally authorized recycling projects. Grant funding is available up to $150,000 per applicant with a 50% cost share. Studies must be completed by March 2014. (http://www.usbr.gov/WaterSMART/title/)			x					No
WaterSMART Water & Energy Efficiency Grants	Through the WaterSMART, USBR provides 50% cost share funding to irrigation and water districts, Tribes, States and other entities with water or power delivery authority. Projects should seek to conserve and use water more efficiently, increase the use of renewable energy, protect endangered species, or facilitate water markets. Projects must be completed within 24 months that will help sustainable water supplies in the western United States. (http://www.usbr.gov/WaterSMART/weeg/index.html)	x		x				x	No
WaterSMART System Optimization Review Grants	USBR provides grant funding for System Optimization Reviews, which are a broad look at system-wide efficiency focused on improving efficiency and operations of a water delivery system, water district, or water basin. The System Optimization Review results in a plan of action that focuses on improving efficiency and operations on a regional and basin perspective. This grant program provides 50% cost share, up to $300,000. Agencies must be able to complete the System Optimization Review within 24 months. (http://www.usbr.gov/WaterSMART/sor/index.html)	x							No

Potential Funding Source	Description of Funding Source and Potential Certainty/Longevity	Functional Area							Funding Includes O&M?
		Water Supply	Wastewater	Recycled Water	Groundwater	Stormwater	Flood Control	Habitat/Open Space	
WaterSMART Advanced Water Treatment and Pilot and Demonstration Project Grants	USBR provides grant funding for pilot and demonstration projects that address the technical, economic, and environmental viability of treating and using brackish groundwater, seawater, impaired waters, or otherwise creating new water supplies within a specific locale. (http://www.usbr.gov/WaterSMART/awtg/index.html)			x	x				No
WaterSMART Grants to Develop Climate Analysis Tools	This program, through the USBR, is for research projects focused on the information gaps detailed in the joint USBR and United Stated Army Corps of Engineers (USACE) Report titled "Addressing Climate Change in Long-Term Water Resources Planning and Management: User Needs for Improving Tools and Information" (Section 3). This grant program provides 50% cost share. (http://www.usbr.gov/WaterSMART/cat/index.html)	x							No
WaterSMART Program for Basin Studies	This program, through the USBR, is for basin studies that complete work to evaluate and address climate change impacts. (http://www.usbr.gov/WaterSMART/bsp/)	x	x	x	x	x			No
Cooperative Watershed Management Program (CWMP)	The purpose of the CWMP, through the USBR, is to improve water quality and ecological resilience and to reduce conflicts over water through collaborative conservation efforts in the management of local watersheds. The CWMP will provide financial assistance to form new watershed groups, to expand existing watershed groups, and/or to conduct one or more projects in accordance with the goals of watershed groups. Establishment or expansion of a watershed group may be funded $100,000 for up to 3 years. Planning and implementation of a watershed projects may be 50% cost share. (http://www.usbr.gov/WaterSMART/cwmp/index.html)					x		x	No
Water and Waste Revolving Fund Grants	The U.S. Department of Agriculture (USDA) Rural Development assists communities with a population less than 10,000 with water and wastewater systems. The grant recipients will use the grant funds to establish a revolving loan fund. The loans will be made to eligible entities to finance pre-development costs of water and wastewater projects or short-term small capital improvement projects not part of the regular O&M of current water and wastewater systems. The amount of financing to an eligible entity shall not exceed $100,000 and shall be repaid in a term not to exceed 10 years. (http://www.rurdev.usda.gov/UWP-revolvingfund.html)	x	x		x				No

Potential Funding Source	Description of Funding Source and Potential Certainty/Longevity	Functional Area							Funding Includes O&M?
		Water Supply	Wastewater	Recycled Water	Groundwater	Stormwater	Flood Control	Habitat/Open Space	
Water and Waste Disposal Grants and/or Guaranteed Loans	USDA Rural Development assists communities with a population less than 10,000 with water and wastewater systems. To qualify, applicants must be unable to obtain the financing from other sources at rates and terms they can afford and/or their own resources. Funds can be used for design, construction, land acquisition, legal fees, equipment, and initial operations and maintenance. Projects must be primarily for the benefit of rural users. The rates that are used to calculate these loans are subject to change quarterly. Loans are made based on the applicant's authority and the life expectancy of the system's project, which may be up to the maximum of 40 years. (http://www.rurdev.usda.gov/UWEP_HomePage.html)	x	x		x				Yes

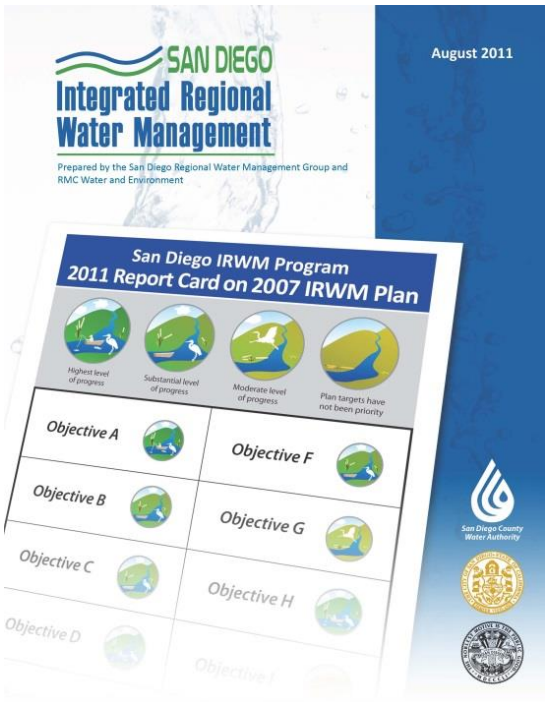
11.5 Plan Performance and Monitoring

11.5.1 Methods to Evaluate Plan Performance

The San Diego IRWM Program used a Report Card produced in August 2011 to evaluate IRWM Plan performance up to that time. The report card assessed the program's progress towards achieving IRWM Plan goals, objectives, and priorities, and implementing changes to improve performance. The Report Card provided an overview of the progress that had been made toward achieving the IRWM Plan goals and objectives (see *Chapter 2, Vision and Objectives*), the IRWM priorities (established in *Section 11.2* of this chapter), and anticipated benefits associated with projects funded through the IRWM Program. During this evaluation, the Impacts and Benefits section of the Plan will be revisited and updated, if necessary. The Report Card only assessed activities specific to the IRWM Program.

Data used to assess progress related to the IRWM Plan were compiled to provide quantitative assessments when appropriate and possible. Because achievements were found to be difficult to quantify, a qualitative assessment of progress using graphic designations for four degrees of progress was developed. These degrees of progress were as follows:

- Highest level of progress has been made towards achieving IRWM Plan targets
- Substantial progress has been made towards 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



The IRWM Report Card assesses both Plan and Project performance for the San Diego IRWM Program.

Given that the IRWM Plan Targets have been substantially updated to ensure the measurability of the IRWM Objectives, future iterations of the Report Card should contain more quantitative assessments than the initial version.

In addition, IRWM Plan performance was measured, in part, by the progress made towards achieving the short-term priorities described in this chapter. Short-term priorities were assessed using the same qualitative degrees of progress used to assess the objectives. As described above, each of the short-term priorities in the 2013 IRWM Plan has the support of the RAC, and at least one RAC member organization has been assigned the lead on each of these priorities.

Information pertaining to how plan performance and monitoring will be tracked with a Data Management System, including who will be responsible for maintaining the Data Management System, is included in *Chapter 10, Data and Technical Analysis.*

11.5.2 Methods to Evaluate Project Performance

The Report Card may also assess the performance of projects funded by the IRWM Program (through Proposition 50, Proposition 84, and Proposition 1). Assessment of projects is done in two ways: contribution to IRWM Plan objectives and individual project targets and metrics. Table 11-6 shows projects that have been funded by the IRWM Program, and how they contribute to IRWM Plan objectives. Note that some projects included in the table were funded under Proposition 50 and Proposition 84-Round 1, and are therefore consistent with the 2007 IRWM Plan Objectives. In contrast, the Proposition 84-Round 2, Round 3, and Round 4 projects were evaluated using the objectives in the 2013 IRWM Plan. All projects funded through the IRWM Program are required to comply with applicable rules, laws, and permit requirements, as tracked through provision of appropriate deliverables under the funding agreements with DWR.

Future Report Cards would provide a discussion of project progress and achievements. Further, it will evaluate projects by the individual targets and metrics described for each project in the grant applications and contracts. These targets and metrics are increasingly designed to correspond with appropriate objectives, targets and metrics in the IRWM Plan. Though there may not always be an exact correlation between project targets established for the grant application and contracting process and IRWM Plan targets, the project targets generally support IRWM Plan objectives. Therefore, as projects achieve their individual targets and objectives, they also contribute towards attainment of the IRWM Plan objectives. As the IRWM Program evolves, closer correlation between project targets and IRWM Plan targets is expected.

Project targets and metrics are used to measure future project performance and will be included in the performance measures in future grant applications. Additionally, a Project Assessment and Evaluation Plan (PAEP), or its equivalent (e.g., a project monitoring plan), will be developed after contract execution for each project selected for funding through the IRWM Program. This Project Assessment and Evaluation Plan will define how projects will be assessed, evaluated, and reported.

11.5.3 Adaptive Management

The San Diego IRWM Plan is a living document. As such, it is expected that periodic updates will occur. The 2013 IRWM Plan is one such update to the original 2007 IRWM Plan, and reflects changes that have occurred in the IRWM Region since the development of the 2007 IRWM Plan. Similarly, the 2019 IRWM Plan is an update to the 2013 IRWM Plan and incorporates new understanding of water resources and outcomes from IRWM Program activities. In order to remain relevant, and to ensure that the water management needs of the Region are identified and the structure exists to address these needs, it is anticipated that this Plan will be updated every 5 years through the life of the IRWM Program, though this timeline may be extended under a scaled-down version of the IRWM Program due to funding restrictions. It should be noted that the RWMG MOU currently extends through 2020. As this MOU provides the basis for managing and funding the IRWM Program, future updates to the IRWM Plan are contingent upon either a renewal/extension of the RWMG MOU or the development of an alternative governance structure and funding mechanism to implement the IRWM Program.

In addition to the planned updates to the San Diego IRWM Plan designed to provide opportunities for adaptive management, the IRWM Plan incorporates adaptive management through its project selection process. As described in *Chapter 9, Project Evaluation and Prioritization*, projects submitted to the IRWM Program are initially scored using the Project Selection Criteria. These criteria reflect a way to assess how projects address the objectives and purpose of the IRWM Program. The Project Selection Workgroup weights each of these criteria to emphasize which criteria are most important

to the IRWM Region at the time of project selection. This allows projects that address the most critical needs of the IRWM Region to be given priority, even as these needs change as they are addressed or as other changes affect the Region.

11.6 References

California Department of Water Resources (DWR). 2016. *2016 Integrated Regional Water Management Grant Program Guidelines*. July 2016. Available: https://www.water.ca.gov/LegacyFiles/irwm/grants/docs/p1Guidelines/2016Prop1IRWMGuidelines_FINAL_07192016.pdf

Table 11-6: Consistency of IRWM-Funded Projects with IRWM Plan Objectives

IRWM-Funded Projects	IRWM Plan Objectives Addressed**										
	A*	B	C	D	E	F	G	H	I	J	K*
Proposition 50 Projects											
Implementation of Integrated Landscape and Agricultural Efficiency Program		✓	✓	✓	✓						
Irrigation Hardware Giveaway and Dry Weather Runoff Reduction Demonstration		✓	✓	✓	✓						
Over-Irrigation/Bacteria Reduction		✓	✓	✓	✓			✓			
Santee Water Reclamation Facility Expansion Project		✓		✓	✓	✓				✓	
Recycled Water Retrofit Assistance Program		✓		✓	✓						
City of San Diego Recycled Water Distribution System Expansion, Parklands Retrofit, and Indirect Potable Reuse/ Reservoir Augmentation Project		✓		✓	✓	✓		✓		✓	
San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration					✓	✓	✓	✓	✓	✓	
El Capitan Reservoir Watershed Acquisition and Restoration Program					✓		✓	✓	✓	✓	
Northern San Diego County Invasive Non-Native Species Control Program			✓		✓		✓		✓		
Santa Margarita Conjunctive Use Project					✓						
Carlsbad Desalination Project Local Conveyance		✓		✓	✓	✓			✓	✓	
San Diego Region Four Reservoir Intertie Project Conceptual Design		✓		✓	✓	✓				✓	
South County Water Supply Strategy		✓	✓	✓	✓						
El Monte Valley Groundwater Recharge and River Restoration Project - Phases 1 and 2		✓		✓	✓	✓	✓	✓	✓	✓	
San Diego Regional Pollution Prevention		✓	✓	✓				✓		✓	
Biofiltration Wetland Creation and Education Program		✓		✓			✓	✓		✓	
San Dieguito Watershed Management Plan Implementation		✓		✓				✓	✓	✓	
City of San Diego Green Mall Porous Paving and Infiltration - Phase 1		✓	✓	✓				✓		✓	
County of San Diego Chollas Creek Runoff Reduction and Groundwater Recharge			✓	✓			✓	✓		✓	

IRWM-Funded Projects	IRWM Plan Objectives Addressed**										
	A*	B	C	D	E	F	G	H	I	J	K*
Proposition 84 – Round 1 Projects											
Sustainable Landscapes Program		✓	✓	✓	✓		✓	✓			
North San Diego County Regional Recycled Water Project - Phase I		✓	✓		✓	✓					
North San Diego County Cooperative Demineralization Project		✓			✓	✓		✓			
Rural Disadvantaged Community (DAC) Partnership Project - Phase I		✓			✓	✓		✓			
Lake Hodges Water Quality and Quagga Mitigation Measures			✓	✓	✓	✓		✓			
Implementing Nutrient Management in the Santa Margarita River Watershed - Phase I		✓	✓	✓				✓			
Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection		✓	✓	✓	✓					✓	
Pilot Concrete Channel Infiltration Project		✓	✓	✓	✓						
San Diego Regional Water Quality Assessment and Outreach Project		✓	✓	✓	✓			✓	✓		
Chollas Creek Integration Project - Phase I		✓	✓				✓	✓	✓		
Regional Water Data Management Program		✓	✓	✓							
Proposition 84 – Round 2 Projects											
North San Diego County Regional Recycled Water Project (NSDCRRWP) - Phase II	✓	✓	✓		✓	✓		✓			✓
Turf Replacement and Agricultural Irrigation Efficiency Program	✓	✓	✓		✓			✓			✓
Rural Disadvantaged Community (DAC) Partnership Project - Phase II	✓	✓	✓	✓	✓	✓		✓			✓
Failsafe Potable Reuse at the Advanced Water Purification Demonstration Facility	✓	✓	✓	✓	✓			✓			✓
Sustaining Healthy Tributaries to the Upper San Diego River and Protecting Local Water Supplies	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Chollas Creek Integration Project - Phase II	✓	✓	✓				✓	✓	✓		
Implementing Nutrient Management in the Santa Margarita River Watershed - Phase II	✓	✓	✓	✓							
Proposition 84 – Round 3 Projects											
Reynolds Groundwater Desalination Facility Expansion	✓	✓	✓		✓	✓		✓			✓
Fallbrook Plant Nurseries Recycled Water Distribution System Extension	✓	✓			✓	✓		✓			✓
Carlsbad Recycled Water Plant and Distribution System Expansion	✓	✓			✓	✓		✓			✓
Regional Demand Management Program Expansion	✓	✓	✓		✓			✓	✓		✓
San Diego Water Use Reduction Program	✓	✓			✓	✓		✓			✓
Rincon Customer-Driven Demand Management Program	✓	✓	✓		✓			✓			✓
Regional Emergency Storage and Conveyance System Intertie Optimization	✓	✓		✓	✓	✓		✓	✓	✓	✓

IRWM-Funded Projects	IRWM Plan Objectives Addressed**										
	A*	B	C	D	E	F	G	H	I	J	K*
Proposition 84 – Round 4 Projects											
Regional Drought Resiliency Program	✓	✓	✓		✓			✓			✓
Conservation Home Makeover in the Chollas Creek Watershed	✓	✓	✓		✓			✓			✓
San Diego Water Conservation Program	✓	✓			✓			✓			✓
Ms. Smarty-Plants Grows Water-Wise Schools	✓	✓	✓		✓						✓
Rural Disadvantaged Community Partnerships – Phase III	✓	✓			✓	✓	✓	✓	✓	✓	✓
Integrated Water Resource Solutions in the Carlsbad Watershed	✓	✓	✓		✓	✓	✓	✓	✓		✓
UCSD Water Conservation and Watershed Protection	✓	✓	✓	✓	✓	✓	✓	✓			✓
Escondido Advanced Water Treatment for Agriculture	✓	✓	✓		✓	✓		✓			✓
Padre Dam Advanced Water Treatment – Phase IA Expansion	✓	✓	✓	✓	✓	✓					✓
Safari Park Drought Response and Outreach	✓	✓			✓	✓					✓
San Diego River Healthy Headwaters Restoration	✓	✓					✓	✓	✓		✓
Sweetwater Reservoir Wetlands Habitat Recovery	✓	✓	✓	✓			✓	✓	✓		✓
Hodges Reservoir Natural Treatment System	✓	✓				✓		✓	✓		

* New IRWM Objectives that were not established at the time of the Proposition 50 or Proposition 84-Round 1 grant applications.

** Only includes objectives directly addressed by the Project