










Description	Meets IRWM Objectives
<b>Pollution Prevention</b>	
<p>This strategy is the control or reduction of pollutants from point and nonpoint sources that can affect multiple environmental resources including water supply, water quality, and riparian and aquatic habitat. Methods to accomplish this may include public education, efforts to identify and control pollutant contributing activities, regulation of pollution-causing activities, and the implementation of structural and nonstructural water quality best management practices that reduce containment concentrations. Pollution prevention strategies would benefit the Region's by preventing the contamination of local environmental flows and water supplies.</p>	
<b>Salt and Salinity Management</b>	
<p>The management of water resources to reduce salt loads that impact a region to secure, maintain, and recover usable water supplies. Salinity impacts are often slow to emerge but can result in loss of habitat, and a reduction in community growth potential. Implementation of this strategy would help the Region achieve objectives related to habitat, groundwater quality, and water supply reliability and resiliency.</p>	
<b>Urban Runoff Management</b>	
<p>Encompasses the control of urban runoff through interception, diversion, control or capture of storm or dry weather runoff. While there are not currently significant volumes of urban runoff within the Region, this strategy can help recharge groundwater systems while protecting natural habitat from contamination.</p>	

### 4.2.6 Practice Resource Stewardship

Table 4-6 contains RMS that aim to protect aquatic and riparian habitat and the Region's overall ecosystem health. Each of these strategies address the need to adapt to climate change impacts, including impacts to water dependent species and decreases in available habitat, as well as resiliency to water quality impacts from wildfires and erosions and water supply impacts. These strategies can also reduce GHG's through reduced need for water treatment and the development of new higher energy consuming supplies.

Table 4-6: Resource Management Strategies that Practice Resource Stewardship



Description	Meets IRWM Objectives
<b>Ecosystem Restoration</b>	
<p>The process of returning selected ecosystems to a state similar to its state before any disturbances. Disturbance may be the result of fires, floods, invasive species, or most commonly, human urbanization. This strategy aligns with several of Region's objectives, including increased habitat, as well as other benefits to water supply, including groundwater recharge and water quality.</p>	
<b>Forest Management</b>	
<p>The implementation of projects and programs to support water resources in relation to forestlands. Projects and programs may include long-term monitoring, multi-party coordination, communication between downstream and upstream communities and water users, and revisions to water quality plans. These projects and programs can help protect the Region's riparian and aquatic habitat through the revision and improvement of its management practices.</p>	
<b>Land Use Planning and Management</b>	
<p>The use of land controls to manage, minimize, or control activities that may negatively affect the quality of ground and surface waters, natural resources, or endangered or threatened species. The most effective and efficient practices would integrate the Region's water and land use planning with considerations of future economic development, land and property development, growth projections, and economic developments with their needs for water, energy, and other resources. Proper land use planning and management intersect and share benefits with many resource management strategies that can help the Region work towards all of its objectives.</p>	
<b>Recharge Areas Protection</b>	
<p>This encompasses the protection of lands that are conducive and contribute to groundwater recharge, including river and streambeds, open spaces that allow water to permeate into the ground, artificial recharge areas, ponds, and basins. Protection techniques the Region may use include land use planning, land conservation, and habitat protection programs.</p>	
<b>Sediment Management</b>	
<p>Encompasses the proper management of sediment levels and types of sediments in waterways. Sediment is beneficial in some areas, and detrimental in others, and can be variable in types, sizes, and compositions. Proper management within the Region is important not only to protect riparian and aquatic habitat, but for flood management and water infiltration as well.</p>	


Description	Meets IRWM Objectives
<b>Watershed Management</b>	
<p>Aims to restore and enhance watershed function through planning, programs, and projects encompassing a broader perspective on resource management which includes improving and protecting water quality, ecosystems, and open space. Using the watershed as a basic management unit promotes multi-benefit, integrated projects, and regional collaboration. Projects that use watershed management can help the Region to meet all of its objectives.</p>	

### 4.2.7 People and Water

**Table 4-7** includes RMS that focus on the education of the Region’s population about water resources and recognizing the importance of how water influences their local culture. Through this, pollution and contamination from anthropogenic sources may decrease, while water use efficiency and conservation may increase. The strategies can address climate change adaptation and mitigation by reducing overall water demand.

**Table 4-7: Resource Management Strategies that Connect People and Water**

Description	Meets IRWM Objectives
<b>Economic Incentives Policy (Loans, Grants, and Water Pricing)</b>	
<p>Economic incentives through loans, grants, or water pricing support are important for successful implementation of a project. Lack of adequate funding can often prevent projects from moving forward, while incentives can result in lower operational costs or lower local costs for implementing a project.</p>	
<b>Outreach, Engagement, and Education</b>	
<p>Education and outreach are important for all water resource management programs and projects including those focused on watershed and water resources. Outreach to stakeholders and educating the public about critical water issues facing the Region are important steps towards successful program and project implementation to improve the Region’s water supply, quality, and habitat. Additionally, performing engagement and outreach to other agencies and organizations allows for partnerships to be formed in order to enhance and advance programs and projects.</p>	

Description	Meets IRWM Objectives
<b>Water and Culture</b>	
Water and Culture acknowledges the cultural connection tribes have with their water resources. This strategy ensures that water resources on Native American lands within the Region are managed sustainably to ensure water quality and supplies are sufficient to maintain those cultural connections.	

### 4.2.8 Strategies Not Applicable to the Region

Some of the *California Water Plan* 2015 RMSs are not applicable to the San Gorgonio IRWM Region due to geographic or resource limitations or being deemed inappropriate and/or ineffective. These strategies were discussed by the SAC and RWMG, but they are not incorporated into the San Gorgonio IRWM Plan. These strategies are described in **Table 4-8**.

**Table 4-8: Resource Management Strategies Not Included in the IRWM Plan**

Strategy	Reason for not including
Desalination (Brackish and Sea Water)	Desalination is the removal of salts from saline waters, including sea water for coastal communities and brackish groundwater for inland water users. The Region is in an inland watershed and there is no known saline groundwater body.
Precipitation Enhancement	Precipitation enhancement, commonly called "cloud seeding," artificially stimulates clouds to produce more rainfall or snowfall than they would produce naturally. This is considered an ineffective strategy by the stakeholders in the Region.
Agricultural Land Stewardship	Agricultural land stewardship involves balancing water supply and environmental management in conjunction with the historical food production of a Region. The San Gorgonio Region does not have significant agricultural areas that produce food.
Water-Dependent Recreation	Water-dependent recreation protects and enhances water bodies such as lakes, reservoirs, beaches, and perennial streams and rivers, for recreation use. However, there are no water bodies in the Region that support water-dependent recreation.

### 4.2.9 Additional Climate Change Mitigation Strategies

In addition to the RMS from the *California Water Plan*, the Region identified additional climate change mitigation strategies from the State of California's 2011 *Climate Change Handbook for Regional Water Planning* at a climate change workshop conducted by the SAC. While the majority of the RMS already listed in this chapter will help mitigate climate change, the Region identified

the following additional strategies that would specifically mitigate against climate change through a reduction in energy consumption and GHGs. These strategies are described in **Table 4-9**.

**Table 4-9: Additional Climate Change Mitigation Strategies**











Description	Meets IRWM Objectives
<b>Optimize Sewer System</b>	
This strategy includes the construction, repair, or modernization of the Region's sewer system to increase reliability and functionality. It may incorporate recharge or recycled water infrastructure or planning.	  
<b>Conduct Emissions Inventory and Target</b>	
This strategy utilizes the study, data collection, and modeling of local emissions to calculate reduction goals.	 
<b>Treatment and Distribution Efficiency (Urban and Agricultural)</b>	
This strategy encompasses the efficient treatment and distribution of water supplies by ensuring waste, leakage, and energy inefficient processes are limited.	  
<b>Increase Use of Renewable Energy Sources</b>	
The implementation or continued expansion of renewable energies within the Region, such as solar and wind.	 

Table 4-10: Resource Management Strategies That Meet San Gorgonio IRWM Goals

Resource Management Strategies	San Gorgonio IRWM Goals									
	1) Increase regional and supply availability and reliability	2) Improve resilience of regional water distribution systems	3) Develop useable tools to understand hydrologic processes	4) Decrease impacts to groundwater quality	5) Increase resilience to changing water quality requirements	6) Enhance regional flood control infrastructure	7) Protect aquatic and riparian habitat	8) Support DACs and maintain the affordability of water	9) Support the economic vitality of DACs	10) Adaptation to Climate Change
<b>Reduce Water Demand</b>										
Agricultural Water Use Efficiency <sup>1</sup>	✓	✓		✓			✓	✓	✓	✓
Urban Water Use Efficiency	✓	✓		✓			✓	✓	✓	✓
Crop Idling for Water Transfers <sup>1</sup>	✓	✓		✓		✓	✓	✓	✓	✓
Water Meter Installation	✓	✓					✓	✓	✓	✓
Graywater Use	✓	✓					✓	✓	✓	✓
<b>Improve Flood Management</b>										
Flood Risk Management	✓	✓		✓	✓	✓	✓	✓	✓	✓
<b>Improve Operational Efficiency and Transfers</b>										
Conveyance – Delta <sup>1</sup>	✓							✓		
Conveyance – Regional/Local	✓	✓						✓	✓	✓
System Reoperation		✓			✓			✓	✓	✓
Water Transfers	✓			✓				✓	✓	
<b>Increase Water Supply</b>										
Conjunctive Management and Groundwater Storage	✓	✓	✓			✓		✓	✓	✓
Desalination	✓	✓		✓						
Municipal Recycled Water	✓	✓		✓					✓	✓
Surface Storage – Regional/Local	✓	✓		✓			✓		✓	✓
Surface Storage – CALFED (ISWP) <sup>1</sup>	✓	✓		✓			✓		✓	✓

Resource Management Strategies	San Gorgonio IRWM Goals									
	(1) Increase regional supply availability and reliability	(2) Improve resilience of regional water distribution systems	(3) Develop useable tools to understand hydrologic processes	(4) Decrease impacts to groundwater quality	(5) Increase resilience to changing water quality requirements	(6) Enhance regional flood control infrastructure	(7) Protect aquatic and riparian habitat	(8) Support DACs and maintain the affordability of water	(9) Support the economic vitality of DACs	(10) Adaptation to Climate Change
Irrigated Land Retirement <sup>1</sup>	✓			✓						
<b>Improve Water Quality</b>										
Drinking Water Treatment and Distribution	✓	✓		✓	✓		✓	✓	✓	✓
Groundwater Remediation/Aquifer Remediation <sup>1</sup>			✓	✓		✓				✓
Matching Water Quality to Use		✓		✓	✓		✓	✓	✓	✓
Pollution Prevention	✓	✓		✓	✓		✓	✓	✓	✓
Salt and Salinity Management	✓		✓	✓			✓			
Urban Runoff Management	✓	✓		✓	✓	✓	✓	✓	✓	✓
<b>Practice Resources Stewardship</b>										
Agricultural Lands Stewardship			✓	✓		✓				✓
Ecosystem Restoration	✓			✓		✓	✓	✓	✓	✓
Forest Management							✓	✓	✓	✓
Land Use Planning and Management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Recharge Areas Protection	✓	✓		✓	✓	✓	✓	✓	✓	✓
Sediment Management				✓	✓	✓	✓	✓	✓	✓
Watershed Management	✓		✓	✓	✓	✓	✓	✓	✓	✓
<b>People and Water</b>										
Economic Incentives Policy	✓		✓	✓	✓	✓	✓	✓	✓	✓
Outreach and Education	✓		✓	✓	✓	✓	✓	✓	✓	✓
Water and Culture	✓		✓	✓	✓	✓	✓	✓	✓	✓

<sup>1</sup> Supported RMS that can be indirectly beneficial to the meeting Region's goals and objectives but cannot be implemented within the Region.

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## 5. Projects

Implementing projects is an integral part of the IRWM Plan, providing the primary means for meeting the IRWM Plan's goals and objectives. This chapter describes how the SG IRWM Region will work to facilitate the development of project concepts and the process by which the Region will submit, review, and prioritize projects in the IRWM Plan.

### 5.1 Project Identification

One of an IRWM Program's primary functions is to support the development of projects that promote integration and collaboration from a regional perspective while addressing the needs of the Region's stakeholders and IRWM requirements. The projects included as part of the SG IRWM Plan were developed by stakeholders within the Region through multiple processes as described here.

#### 5.1.1 Initial Call for Projects

An initial call for San Gorgonio IRWM Plan projects was introduced at an SAC Workshop in November 2017. SAC Meeting attendees were given an overview of the project development and submittal process, including the *Project Nomination Form* (**Appendix E**). Potential project sponsors were given an opportunity to discuss their projects and/or project ideas with other stakeholders from the Region.

In addition to the SAC meeting, the announcement of the call for projects was sent to the Region's email distribution list and posted on the SGIRWM website, along with an information sheet describing deadlines, required information, and the submittal process. The potential project sponsors were given several weeks to prepare and submit the Project Nomination Form.

Since this process was newly developed and being implemented for the first time in the Region, the RWMG opted to allow for an initial project review step. If sponsors wanted to submit projects earlier, they would be reviewed for any potential issues and provided with relevant feedback. Any identified issues were reviewed with sponsors, allowing them to update the Project Nomination Form prior to the official close of the initial project call.

#### 5.1.2 Project Identification in Technical Studies

As part of SG IRWM's Proposition 1 Planning Grant, funding was allocated to conduct an assessment of regional water supply reliability and recycled water potential use. These planning efforts were used to inform the project process by identifying potential water supply and recycled water projects and conducting planning level feasibility analyses of the benefits, costs and implementation considerations. Some of the projects within these studies were submitted to the IRWM Plan by regional stakeholders.

##### Water Supply Reliability Plan

The *Water Supply Reliability Study* (**Appendix A**) was developed with the participation of an ad-hoc water supply committee made up of members of the RWMG. The Study identifies the water supply reliability related needs of the Region through a baseline assessment of the Region's current and projected water supplies and a gap analysis to evaluate the ability of the Region's water



purveyors to meet future demands under various hydrologic scenarios. A variety of water supply reliability project concepts are identified to address the water supply needs of the Region, and they are further developed for inclusion in the IRWM Plan. This Study also presents planning-level costs and associated unit costs for each of the options.

### **San Gorgonio Region Recycled Water Study**

Water recycling in the SG IRWM Region can create a local, drought-resistant source of water and reduce the nitrate levels in the groundwater. The San Gorgonio Region does not currently produce recycled water and the *San Gorgonio Region Recycled Water Study (Appendix B)* addresses the opportunities to do so through identifying regional recycled water project options and assessing the benefits and costs of these options. While individual agency recycled water planning efforts have been conducted within the Region, this Study is primarily focused on using a regional perspective and developing project concepts that can achieve multiple benefits for multiple entities. The Study is intended to support goals and strategies identified in the IRWM Plan by identifying recycled water project options in the San Gorgonio Region and evaluating the benefits of these project options. This Study also presents planning-level costs and associated unit costs for each of the project options.

## **5.2 Project Submittal, Review and Prioritization Process**

Beyond the initial call for projects, project submittal and review is intended to be an on-going and dynamic process to encourage new and beneficial projects to be incorporated into the IRWM Plan as they are developed. The submittal review and prioritization process used by the San Gorgonio Region seeks to minimize barriers for inclusion and promotes participation for all stakeholders within the Region.

### **5.2.1 Project Categories**

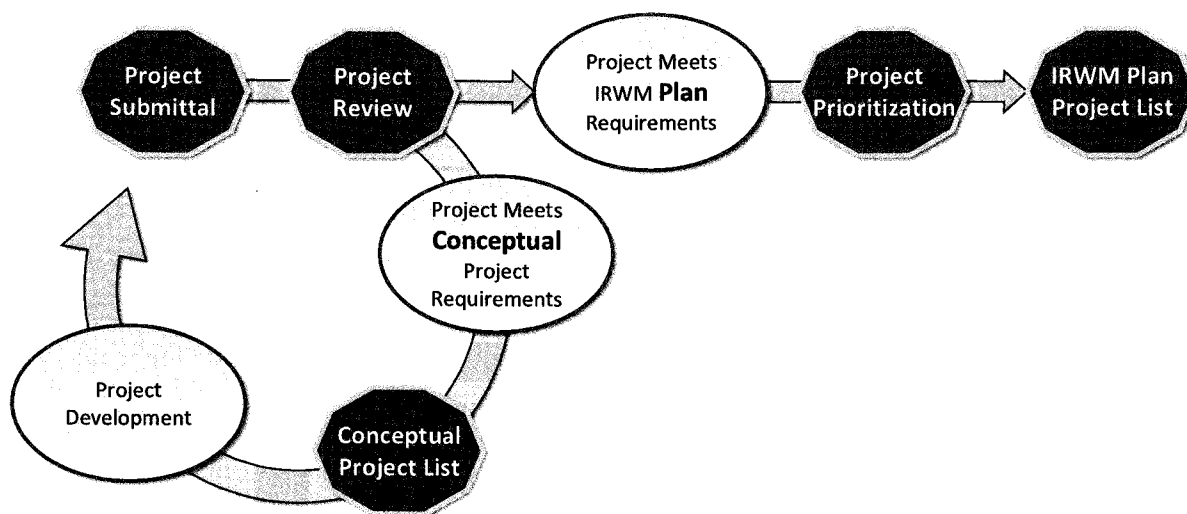
To facilitate the further development of project ideas that may not yet meet IRWM Plan project requirements, the RWMG allows for two categories of projects within the IRWM Plan:

- *Conceptual Projects*: Projects that do not yet meet the minimum DWR criteria for acceptance as an IRWM Plan Project but do support the goals and objectives of the IRWM Region. These projects are included in the IRWM Plan as a separate Conceptual Projects List and are tracked as part of the IRWM planning process for further collaboration and development into Plan Projects.
- *Plan Projects*: Projects that satisfy IRWM Plan requirements and benefit the Region. These plans, once approved, are prioritized and included in the IRWM Plan.

### **5.2.2 Notification and Project Submittal**

The Region encourages projects to be submitted or updated by stakeholders on an ongoing basis. However, the Region may also conduct a targeted call for projects as necessary to support any IRWM Plan updates and grant funding opportunities.

**Figure 5-1: Overview of Project Submittal, Review and Prioritization Process**



### **Submittal Process**

Stakeholders can submit projects at any time. To submit a project, stakeholders must first complete a *Project Nomination Form (Appendix E)*. The form and instructions can be found on the program website at [www.sgirwm.org](http://www.sgirwm.org). Once completed, the project sponsor emails the form directly to the SG IRWM Program Manager at [SGIRWM@ci.banning.ca.us](mailto:SGIRWM@ci.banning.ca.us). For stakeholders without internet access, a hard copy form may be obtained by contacting the IRWM Program Manager at the City of Banning.

If the Region issues a specific call for projects, there will be specific project submittal dates and requirements posted on the program website. This information will also be distributed to the stakeholder email list and announced at SAC meetings.

As project information changes or is further developed on an already submitted project, project sponsors can submit an updated Project Nomination Form for the same project.

### **Required Project Information**

Projects submitted to the IRWM Plan may be in different stages of development. For a project to be added to the IRWM Plan, sufficient technical development and vetting of the project needs to be completed by the project sponsor to indicate basic feasibility and value of the project.

**Information Required for Conceptual and Plan Projects**

- *Project type:* Indicate whether the project is a Conceptual Project or IRWM Plan Project.
- *General Project Information:* Basic information about the project, including name of the project sponsor, project title, project type (planning or implementation), project location, and list of potential partners if applicable.
- *Project Benefits:* Indicate which IRWM Plan Objectives would be supported by the project. All projects must support at least one IRWM Plan Objective.
- *Project Strategies:* Indicate which IRWM Plan strategies would be implemented as a result of the project. All projects must align with one or more Resource Management Strategies selected for use in the IRWM Plan.
- *Additional Project Benefits:* Indicate whether the project supports other specific IRWM tenets. Projects are not required to support any of the tenets to be included, but they are used for project prioritization. These include:
  - *Partnerships* – Establish partnerships through sharing data, funds, resources and infrastructure.
  - *Regionality* – Implements watershed-wide or regional-scale projects.
  - *Integration* – Meets objectives within multiple regional goals.
  - *Targeted Benefits* - Benefits DAC, Native American Tribal Communities and Environmental Justice Concerns.
  - *Sustainability* – Reductions to GHG emission compared to alternatives, adapts to climate change, or reduce Regional reliance on Sacramento/San Joaquin Delta.

**Additional Information Required for IRWM Plan Projects**

- *Project Cost and Funding:* Provide estimated project cost, a list of potential sources of funding for the project, and describe the basis for the project cost.
- *Project Feasibility:* Provide the status of the project, including the names of supporting documents, quantification of project benefits, and describe whether an economic feasibility analysis has been conducted.

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### 5.2.3 Review Process

Project review is performed by the Project Review Subcommittee of the SAC to provide recommendations to the RWMG on which projects should be included in the IRWM Plan and their prioritization. The PRS is composed of volunteers from the SAC and approved by the RWMG. PRS responsibilities include reviewing projects to determine if the information submitted is sufficient to include the project into the next IRWM Plan update or if it qualifies as a conceptual project. The PRS reviews all Project Nomination Forms to determine if the information provided is complete and reasonable but does not verify or fact check the responses provided by project sponsors. Once the PRS has concluded their review, it will provide recommendations to the RWMG which is responsible for voting on the final project determination. Members of the PRS can conduct the review process independently but must meet to obtain consensus on project recommendations to the RWMG.

The frequency at which the PRS reviews and provides recommendations on projects will be flexible relative to the number of project nomination forms submitted and any time sensitivities expressed by project sponsors. The RWMG determines the necessity and schedule for PRS reviews and meetings.

**Appendix F** has the IRWM Plan Project List as of April 2018. The most recent version of the list can be found on the San Gorgonio IRWM Program website at [www.sgirwm.com](http://www.sgirwm.com).

### 5.2.4 Prioritizing the Projects

DWR specifies that IRWM Regions should develop a process to prioritize submitted projects relative to the Region's stated objectives. The RWMG developed a project review structure based on a simple and straight-forward point system that is to be implemented by the PRS.

Based upon the review of the Project Nomination Forms, the PRS scores projects based upon the objective scoring criteria and weightings presented in **Table 5-1**. Scores are grouped into three categories: Group A (5-6 points), Group B (3-4 points), and Group C (1-2 points). Projects in Group A are considered to have a higher priority within the IRWM Plan. Plan prioritization is based heavily upon the potential for individual projects to best reflect the ideals of integration and regionalism promoted through the IRWM Program; however, it is not necessarily reflective of which projects should be prioritized for actual funding programs or implementation.

The PRS provides the RWMG with a recommended listing of new projects for inclusion in the IRWM Plan as well as a modified complete list of projects that includes the new recommended projects prioritized relative to all existing projects. The RWMG makes the final determination for the project prioritization and inclusion in the IRWM Plan. Once the projects have been approved for inclusion in the IRWM Plan, the Program Manager will make the list of projects available on the program website.

**Table 5-1: Project Prioritization Criteria and Scoring**

<b>Project Prioritization Criteria and Scoring (one point each)</b>	
<b>Criterion 1:</b> Meets objectives in at least two regional goals <u>and/or</u> implements at least two RMS	<i>The RWMG would like to see projects that align with and meet as many goals and RMS as possible to maximize potential benefit for the Region.</i>
<b>Criterion 2:</b> Forms partnership between multiple agencies <u>and/or</u> organizations	<i>Projects are encouraged to work and collaborate with other entities within the Region, as well as potential partners outside of the Region to fully utilize resources, data, knowledge, and experience.</i>
<b>Criterion 3:</b> Benefits DAC or Tribe	<i>Projects that benefit DACs or Native American Tribes are extremely important for Regional economic growth and stability.</i>
<b>Criterion 4:</b> Has at least one quantified benefit	<i>Projects should have documentation supporting the quantification of at least one benefit, but more are preferable to maximize and diversify the benefits gained by each project.</i>
<b>Criterion 5:</b> Has a completed cost/benefit analysis	<i>The RWMG must ensure projects will not only provide a net benefit, but also that funding and financing of the project have been evaluated by the project sponsor.</i>
<b>Criterion 6:</b> Adapts to climate change and/or reduces GHG emissions	<i>Based on IRWM Guidelines, reductions in GHGs and other climate change drivers are of high importance. Not only do these measures benefit the Region locally, they have a broader global impact.</i>

### 5.3 Implementation Grant Project Process

It is important to emphasize that the requirements for projects to be included as part of the IRWM Plan should be assumed to be different than the requirements or standards for inclusion in an IRWM implementation grant application. Inclusion in an approved IRWM Plan is, however, a requirement to be eligible to receive implementation funding from the IRWM Program.

If the San Gorgonio Region chooses to pursue a IRWM implementation grant, the RWMG will develop a specific process for submittal, review and selection of implementation grant projects relative to the unique requirements and scoring criteria of that funding opportunity. Any projects that are submitted through this specialized grant-related call for projects will also need to meet the basic IRWM plan requirements and be accepted by the RWMG into the existing IRWM Plan prior to inclusion in a San Gorgonio Region IRWM grant application.

## 6. Implementation

This chapter provides a roadmap for implementation of the IRWM Plan. The success of the IRWM Plan will depend on the Region's ability to anticipate challenges, monitor performance, and effectively respond to changing conditions through effective governance, outreach, and adaptive management. The SG IRWM Plan has developed an implementation framework that includes the following five components:

1. *Impacts and Benefits of Plan Implementation:* The Region identifies and communicates the potential impacts and benefits of IRWM Plan implementation, both within the IRWM Region and outside of the Region.
2. *Performance and Monitoring:* The Region monitors progress toward meeting planning goals and objectives and individual project performance.
3. *Outreach and Governance:* The Region maintains consistent governance and continued outreach to encourage further integrated and regional collaboration.
4. *Data Management:* The Region uses standardized processes of data collection, storage, and dissemination to promote information sharing and dissemination among project sponsors, stakeholders, the public, and the State of California.
5. *Funding and Financing:* The Region has identified potential sources of funding to support the continued implementation of the IRWM Plan.

### 6.1 Impacts and Benefits of Plan Implementation

The San Geronio IRWM Region has identified potential impacts and benefits from implementing the IRWM Plan. These include impacts and benefits within and outside the Region. It is also recognized that there will also be additional project-specific impacts associated with project implementation.

#### Planning Level Impacts and Benefits

The primary benefit from the preparation of the IRWM Plan has been the creation of a framework and implementation pathway for collaborative regional planning. This includes increased understanding of regional needs and opportunities, information sharing among stakeholders, opportunities for collaboration on project concepts, solving of regional conflicts, and accessing funding sources. There have been no substantive impacts identified as a result of completing this IRWM Plan, except the increased responsibility from the RWMG for funding, implementing, and managing the IRWM Plan.

**Table 6-1** below lists potential regional and inter-regional impacts and benefits associated with implementation projects in the IRWM Plan. The table is organized by categories of goals and objectives, as identified in **Table 3-1** from **Chapter 3**.

**Table 6-1: Potential Benefits and Impacts of Plan Implementation**

San Geronio Region		Inter-Regional	
IRWM Goals	Potential Impacts	Potential Benefits	Potential Impacts
<p><b>Water Supply</b></p> <p><b>Goal #1:</b> Increase regional supply availability and reliability</p> <p><b>Goal #2:</b> Improve resilience of regional water distribution systems</p> <p><b>Goal #3:</b> Develop useable tools to understand hydrologic processes and regional management</p>	<ul style="list-style-type: none"> <li>Short term construction and site-specific impacts such as ground, biological, and soil disturbances, as well as temporary aesthetic, air quality, noise, and transportation</li> <li>Reduced effluent discharge available for instream flows</li> <li>Increased water supply costs</li> </ul>	<ul style="list-style-type: none"> <li>Decreased potable demand</li> <li>Increased water supply and enhanced supply reliability</li> <li>Reduced dependence on imported water</li> <li>Potential to better understand and manage groundwater resources and prevent over-draft</li> <li>Reduced vulnerability from climate-change related reductions in overall water supply</li> <li>Benefits extend to broad Region, including any disadvantaged communities and Native American Tribes</li> </ul>	<ul style="list-style-type: none"> <li>Increased available water supplies through decreased consumption within the Region</li> <li>Increased availability of Bay-Delta water supplies</li> <li>Improved management of shared groundwater resources</li> </ul>
<p><b>Water Quality</b></p> <p><b>Goal #4:</b> Decrease impacts to groundwater quality</p> <p><b>Goal #5:</b> Increase resilience to changing water quality requirements</p>	<ul style="list-style-type: none"> <li>Increased short-term construction and site-specific impacts</li> <li>Increased water treatment and supply costs</li> </ul>	<ul style="list-style-type: none"> <li>Higher quality water for customers throughout the Region</li> <li>Improved health and safety for residents, including a high percentage of DACs</li> <li>Improved water quality that is more resilient to changes in quality standards</li> <li>Improved habitat quality for water dependent species</li> <li>Protection against accidental contamination</li> </ul>	<ul style="list-style-type: none"> <li>Decreased instream flow to downstream users</li> <li>None identified</li> </ul>

San Geronio Region		Inter-Regional		
IRWM Goals	Potential Impacts	Potential Benefits	Potential Impacts	Potential Benefits
<b>Flood Management</b> <b>Goal #6:</b> Enhance regional flood control infrastructure	<ul style="list-style-type: none"> <li>Increased short-term construction and site-specific impacts</li> <li>Changes in sediment loads and distribution</li> </ul>	<ul style="list-style-type: none"> <li>Reduced risk to property and life</li> <li>Reduced flood insurance costs</li> <li>Increased water supply, water quality, and habitat</li> <li>Advancement of integrated flood management engineering and application for use by other entities</li> </ul>	<ul style="list-style-type: none"> <li>Altered sediment loads to downstream regions</li> </ul>	<ul style="list-style-type: none"> <li>Advancement of integrated flood management engineering and application for use by other entities</li> </ul>
<b>Habitat and Open Space</b> <b>Goal #7:</b> Protect aquatic and riparian habitat	<ul style="list-style-type: none"> <li>Increased short-term construction and site-specific impacts</li> <li>Limiting urban land use for development</li> </ul>	<ul style="list-style-type: none"> <li>Reduced invasive species, and increased native and endangered species</li> <li>Improved passive recreation, education, water quality, water supply and flood control</li> <li>Improved ability to increase or maintain habitat corridors</li> </ul>	<ul style="list-style-type: none"> <li>None Identified</li> </ul>	<ul style="list-style-type: none"> <li>Improved ability to increase or maintain habitat corridors</li> </ul>
<b>Disadvantaged Communities</b> <b>Goal #8:</b> Support DACs and maintain the affordability of water <b>Goal #9:</b> Support the economic vitality of DACs	<ul style="list-style-type: none"> <li>Short-term increases to water costs</li> <li>Potential local construction disturbances</li> </ul>	<ul style="list-style-type: none"> <li>Decreased water cost over time</li> <li>Higher quality water supply</li> <li>More resilient water supply</li> <li>Increased health benefits from new infrastructure and higher quality supply</li> </ul>	<ul style="list-style-type: none"> <li>None Identified</li> </ul>	<ul style="list-style-type: none"> <li>Increased regional economic growth will attract more intra-regional travel and tourism to the Region and its neighbors</li> </ul>
<b>Climate Change</b> <b>Goal #10:</b> Adaptation to Climate Change	<ul style="list-style-type: none"> <li>Increased short-term costs for implementing programs</li> </ul>	<ul style="list-style-type: none"> <li>Improved air quality through decreased GHG and other emissions</li> <li>Decreased energy consumption</li> </ul>	<ul style="list-style-type: none"> <li>None Identified</li> </ul>	<ul style="list-style-type: none"> <li>Improved air quality through decreased GHG and other emissions</li> </ul>



### Project Level Impacts and Benefits

IRWM project impacts and benefits have been identified as part of the process for inclusion in the Plan. Since the IRWM project list is dynamic, the collective impacts and benefits are expected to change over time and so are not articulated within this chapter. An assessment of impacts and benefits for current IRWM projects can be found on the San Gorgonio IRWM website. The articulation of project-specific impacts and benefits will increase as projects are closer to implementation.

## 6.2 Performance and Monitoring

Performance monitoring is necessary for documenting the success of the IRWM Plan implementation. The Region assesses Plan performance in two areas:

1. *Plan Performance*: The RWMG tracks the Region's overall progress toward meeting the IRWM Plan's stated goals and objectives.
2. *Project Specific Performance*: The Region reviews the project monitoring plans for each project that is implemented through the IRWM Program to assess how projects are performing relative to expected goals, benefits and impacts.

### 6.2.1 Plan Performance

The RWMG is responsible for evaluating IRWM Plan Performance. The RWMG provides annual Plan performance updates that include a discussion on the funding and/or implementation of projects as well as the status of meeting IRWM Plan objectives and other planning requirements as identified in the IRWM Plan. An evaluation of new climate change information and tools that may help the Region with future planning efforts is included as well for discussion and consideration. Findings are presented to the SAC, and all information is provided on the program website at [www.sgirwm.org](http://www.sgirwm.org).

The Region's progress in meeting the goals and objectives of the IRWM Plan are measured using the performance measures described in **Chapter 3**. Each performance measure listed includes the potential source of the data or information necessary to determine how projects are advancing in terms of meeting IRWM objectives.

Focusing on IRWM Plan performance not only ensures that the Region is working toward achieving its goals, but it helps identify any gaps that stakeholders feel need to be addressed. The SAC participates in annual discussions to identify any parts of the IRWM Plan that should be updated to reflect regional conditions and needs and to incorporate new information. These lessons learned are incorporated in future updates of the IRWM Plan.

### 6.2.2 Project Performance

Pursuant to DWR guidelines, projects funded through IRWM-related grants are required to include a project specific monitoring plan so performance can be readily assessed. The project sponsors have the responsibility for development of projects' specific monitoring plans and are responsible for monitoring activities to determine if the project achieves its intended benefits. Required contents of monitoring plans include:

- Description of what is being monitored for each project (in a table format)
- Measures to remedy or react to problems encountered during monitoring
- Location of monitoring
- Monitoring frequency
- Monitoring protocols/methodologies, including who is responsible for monitoring
- Procedures to keep track of what is monitored
- Procedures to ensure monitoring schedule is maintained and adequate resources (including funding) are available

Project specific monitoring plans are prepared prior to the start of project construction or implementation, and the RWMG uses these monitoring plans to evaluate performance as projects are implemented. The RWMG is also be responsible for ensuring implementation project data are available to the RWMG, stakeholders, and other interested parties.

### 6.3 Outreach and Governance

The governance and outreach process to be used for Plan implementation is described in *Chapter 1: Regional Planning, Governance, Outreach and Coordination*. The RWMG reviews these procedures annually relative to any input received from the SAC or public and makes updates as needed.

### 6.4 Data Management

The IRWM Plan has been prepared through a collaborative process that has generated and will continue to generate data and information to support its implementation. The Region provides stakeholders and members of the public access to the Plan and information developed through IRWM planning and project implementation. These data can be a valuable resource to stakeholders, regional entities, and the State. The Region's stakeholders can utilize data developed through the IRWM Plan process to better manage water supply reliability, water quality monitoring, invasive species removal, aquatic/riparian habitat management, species of concern, recreation and open space, land use development, climate change impacts, and project progress.

The San Geronio IRWM Program website serves as the Region's primary data management system. The data management system will be provided at [www.sgirwm.org](http://www.sgirwm.org) in addition to the public meeting dates, agendas, and meeting summaries. This section provides an overview of data collection techniques, data dissemination, coordination with state databases, and data needs. The SG IRWM Program Manager is responsible for maintaining the operation efficiency and organization of the DMS, and project sponsors are responsible for submitting project specific information.

#### 6.4.1 Data Collection

The data and information used to evaluate IRWM Plan performance is collected from existing databases and monitoring efforts with established procedures, including:

- Urban Water Management Plans

- Annual Watermaster Reports
- Groundwater Management Plans
- Basin Studies
- General Plan land use
- MSHCP implementation data

Project specific data is provided by the project sponsor through project specific monitoring plans. The Region assumes that the agencies and organizations performing these monitoring efforts have quality assurance and quality control measures in place to ensure accuracy of the data.

### 6.4.2 Data Dissemination

Data dissemination occurs through several mechanisms including SAC meetings, website postings, email notices, and agency contacts. The CEQA and NEPA processes for implementation projects also provide opportunities for public input, review, and data dissemination.

Stakeholder workshops and SAC meetings are a primary means for data dissemination where partner agencies and organizations provide handouts, deliver presentations, and hold question and answer periods regarding implemented projects and programs. This not only ensures that data are made readily and easily available but also helps other project sponsors potentially use or align their own data collection practices for more efficient collaboration. The IRWM Plan and project performance reports are posted on the program website for the public to access. The performance reports include a description of recent activities on the IRWM Plan, project status updates, and performance statistics on meeting objectives.

### 6.4.3 Compatibility with Statewide Databases

The Region's agencies coordinate with the state to maximize opportunities to share data and meet statewide data needs. To the extent possible, data collected under the IRWM Plan are in a format compatible with statewide data programs, including the programs described in **Table 6-2**. To accomplish this, project sponsors work with the coordinating state agency to obtain the appropriate data formats for submission to these programs. In addition, the RWMG standardizes data gathered through IRWM planning efforts to integrate with applicable state data programs.

Additional data beyond that resulting from IRWM-funded project monitoring programs can also be added to the Region's data management system; however, the format and content of those data may or may not meet state standards since it was not necessarily funded through a state program. The Region has indicated that if stakeholders wish to share data within the Region, the IRWM Program data management system can be used for that purpose.

Table 6-2: State Databases

Program	Coordinating Agency	Description
California Environmental Data Exchange Network	SWRCB	Database to find and share information such as water quality, aquatic habitat, and wildlife health for California's water bodies, including streams, lakes, rivers, and the coastal ocean.
Water Data Library	DWR	Records data from various monitoring stations and types such as groundwater levels, water quality stations, surface water stage and flow sites, precipitation, climate observations, well logs, and other information.
California Statewide Groundwater Elevation Monitoring Program	DWR	Groundwater monitoring program to monitor and report groundwater elevations in all or part of a groundwater basin, as required by enacted legislation.
Surface Water Ambient Monitoring Program	SWRCB	Statewide monitoring effort designed to assess the conditions of surface waters using state, regional, and local agencies as well as the public and other NGOs.
Groundwater Ambient Monitoring and Assessment Program	SWRCB	Statewide basin assessment program designed to monitor groundwater for chemicals at low detection limits to improve statewide ambient groundwater quality monitoring and the availability of groundwater information and data.
California Environmental Information Clearinghouse	California Natural Resources Agency	Formerly known as the CA Spatial Information Library, this online directory facilitates the coordinated and sustainable development, maintenance, licensing and sharing of geospatial data and web map services by California government agencies, partners and stakeholders.

#### 6.4.4 Data Needs

One of the functions of IRWM Plan Projects is to collect valuable and regionally relevant data for use between local agencies and stakeholders. The Region identified data needs early on in the IRWM Plan and Region formation process which guided the technical studies included in the Appendixes of this document. Other needs identified by the RWMG include water supply and water quality data to produce more robust and scientifically supported water management decisions. The Region would also benefit from an expansion of the groundwater model to include more of the Region's groundwater storage units and basins. Lastly, additional data on existing and needed infrastructure within the Region would help streamline and identify efficient expansion and repairs of the system.

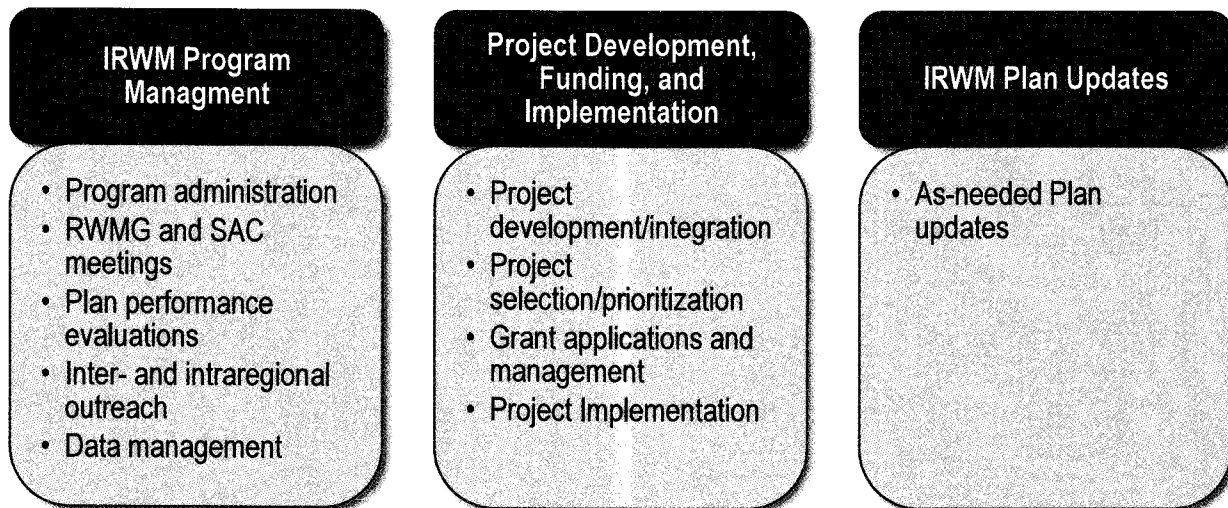
## 6.5 Funding and Financing

The purpose of this section is to provide adequate information on the potential costs and sources of funding to support the ongoing implementation of the IRWM Plan over time.

The first IRWM planning effort for the San Gorgonio IRWM Region was funded by a Proposition 1 Planning Grant issued by DWR. Of the estimated population of 30,255 within the San Gorgonio IRWM Region, 90% qualify as a DAC in accordance with State Guidelines. As a result, no other sources of local funding were required outside of in-kind contributions from the RWMG and the volunteers who participate in the SAC.

Following completion and adoption of the IRWM Plan, RWMG will need to secure ongoing revenues to support the cost of implementation. Projected costs of IRWM Plan implementation are primarily associated with three categories, listed in **Figure 6-1**.

**Figure 6-1: IRWM Components that Require Funding and Financing**



### 6.5.1 Funding and Financing Options

The Region plans to continue to secure funding and financing to implement the IRWM Plan and ongoing program management activities. Local funding may be limited because the majority of the Region is classified as a DAC.

#### Local Financing

Local financing and in-kind services are the foundation of a successful IRWM Program. The Region's program management activities such as administration, meetings, performance monitoring, outreach, and some data management are in-kind services performed by members of the RWMG. Project development and integration can also be contributed as in-kind services

RWMG agencies and local project sponsors are also expected to provide funding for project implementation and O&M costs. Potential funding sources and methods include local funding such

as rates, operating funds, water enterprise funds, taxes, assessments, and fees. It is also expected or required in some instances for sponsors who receive grant funds to provide local cost share.

Given that local revenue sources are not expected to be sufficient to fully fund all aspects of the IRWM Program's financing needs, the Region plans to fund its IRWM Program activities using a combination of local, state and federal funds.

### Additional Financing Opportunities

The Region will continue to evaluate and apply for state funding opportunities, including future water related propositions and funding opportunities for IRWM project implementation. Other state and federal funding opportunities will also be evaluated. **Table 6-3** includes a list of potential state and federal grants that could supply additional funding for Plan project planning and implementation. This list is not exhaustive but represents a sample of the type of opportunities that the Region could pursue at this time.

**Table 6-3: State and Federal Grants**

Sources	Description
<b>Grants Currently Awarded to the Region</b>	
IRWM Grant Program – Planning Grants – State Program	Intended for IRWM Planning activities. The IRWM Region's IRWM Plan must comply with current Guidelines and Plan Standards.
<b>Future IRWM Grants the Region Could Pursue</b>	
IRWM Grant Program – Implementation Grants – State Program	Intended for water resources projects. The projects must be included in a compliant IRWM Plan to be eligible.
IRWM Grant Program – DAC Involvement – State Program	These applications are submitted by Funding Area (not IRWM Region) and require IRWM Regions to collaborate and disperse funds among the Regions to support DAC planning and project activities.
<b>Other Funding Sources the Region Could Pursue</b>	
SWRCB Groundwater Sustainability – State Program	A grant program for projects that prevent or clean up contamination of groundwater that serves or has served as a source of drinking water.
DWR CalConserve Water Use Efficiency Revolving Fund – State Program	Meant for local agencies, two types of urban water use efficiency projects and programs are eligible; 1) Pilot projects for local agencies to provide water efficiency upgrades to customers at no upfront costs, and 2) Local agencies to provide low-interest loans to customers to finance the installation of onsite improvements to repair or replace water pipes to conserve water. All applications are on a rolling basis, first-come, first-serve.
SWRCB Site Cleanup Subaccount Projects– State Program	Intended for projects that remediate the harm or threat of harm to human health, safety, or the environment caused by surface or groundwater contamination. This is for human-made contamination only and will not fund projects related to naturally occurring contamination.

Sources	Description
Water Recycling Funding Program – State Program	A grant designated for planning and construction of water recycling projects by public agencies.
Clean Water State Revolving Fund Loan Program – State Program	Offers low interest loans for construction of publicly-owned facilities including wastewater treatment, local sewers, sewer interceptors, water reclamation facilities, and stormwater treatment.
Drinking Water State Revolving Fund– State Program	Offers low-interest loans for planning/design and construction of drinking water infrastructure projects including: treatment systems, distribution systems, interconnections, consolidations, pipeline extensions, water sources, water meters, and water storage.
Water Infrastructure Finance and Innovation Act– Federal Program	Similar to State Revolving Fund Programs, however there are project cost requirements and the interest rate is higher.
Title XVI Water Recycling and Reclamation Program and WIIN Subset of Title XVI – Federal Program	Administered by the U.S. Bureau of Reclamation and provides grants for construction of water recycling treatment conveyance facilities, including planning, design, and construction costs.
USDA Rural Development Water and Environmental Program– Federal Program	Offers rural communities (populations $\leq$ 10,000) to develop, construct, or improve water and wastewater infrastructure.
HUD Community Development Block Grants– Federal Program	Funds local community development activities that expand economic opportunities, principally for low and moderate-income areas. The program can fund drinking water and wastewater projects.
Department of Commerce Economic Development Administration (EDA) – Federal Program	Supports development in economically distressed areas of the U.S. through strategic investments that foster job creation and attract private investment. EDA's Public Works Program helps communities in economic decline upgrade their physical infrastructure, including drinking water and wastewater facilities.

## 6.5.2 Financing Plan

**Table 6-4** shows the Region's funding and financing plan to complete the IRWM Program management, project development and implementation, and IRWM Plan update activities. Cost sharing and financing plans have largely been outlined in the MOU, signed in September of 2016 (**Appendix D**). Responsibilities for ongoing program management and Plan updates will be shared among the RWMG. The RWMG will determine the cost-sharing arrangement to complete grant applications on a case-by-case basis and will consider the potential recipients of the funds.

Table 6-4: Financing Plan

Activity	Approximate Cost or Time Commitment	Funding Source	Certainty/Longevity of Funding
<b>IRWM Program Management</b>			
RWVG Meetings, SAC Meetings, Plan Performance, Outreach, Data Management, Program Administration	\$50,000 – 100,000 /yr	<u>In-Kind:</u> Program Manager/ RWVG Agencies/ SAC  <u>Funds:</u> RWVG Agencies	On-going agency staff allocations and RWVG members' operating budgets
<b>Project Funding and Implementation</b>			
Grant Applications, Grant Management	Cost varies by type of grant application	<u>In-Kind:</u> Program Manager/ Project Sponsors  <u>Funds:</u> RWVG Agencies	Contingent on funding available and the number of projects, as well as grant program success
Project Implementation	Cost varies by type and size of project	<u>In-Kind:</u> Program Manager/Project Sponsors  <u>Funds:</u> Project Sponsor, State Grants, Federal Grants	Agency and staff allocations. Contingent on available funding and grant program success
<b>Plan Updates</b>			
As Needed Plan Updates	Cost is expected to depend on the scale of the plan update	<u>In-Kind:</u> Project Manager/RWVG Agencies  <u>Funds:</u> RWVG Agencies, State Grants	Agency and staff allocations. Contingent on available funding and grant program success



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