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8 PLAN PERFORMANCE AND MONITORING

8.1 INTRODUCTION

This section defines the Plan Performance and Monitoring Strategy. The IRWM Plan legislation and DWR standards require that IRWM Plans include performance measures and a monitoring program to document progress towards meeting IRWM Plan Objectives, and a methodology that the Regional Water Management Group (RWMG) will use to oversee and evaluate implementation of projects. The purpose of the Plan Performance and Monitoring strategy is to document how the IRWM Plan Objectives are to be measured and how the projects will be overseen and evaluated in order to ensure the anticipated IRWM Plan objectives are being met. This section also describes the method to report the San Luis Obispo County Region's progress in meeting the objectives and implementing projects.

Performance in meeting IRWM Plan Objectives is tracked at two levels. First, at the IRWM Program-level, performance measures and monitoring methods are developed and used to evaluate the overall progress in meeting each objective. Second, at the IRWM Project-level, each project that is submitted for inclusion in the IRWM Plan is evaluated to see which objectives it will address (see **Section 6 – Project Selection Process**). The project sponsor or sponsoring group will provide information on project progress to the District and once complete, verify that the project meets the identified objectives. The results of the performance and monitoring effort at the two levels will be used by the District, referred to as lead agency to measure and track success, prepare regular progress reports to the RWMG, and present IRWM Plan results to public and stakeholders to maintain and gain further support for the IRWM Plan. These processes are described in more detail below.

The Lead Agency is responsible for:

- IRWM Plan implementation, evaluation, and monitoring the overall performance in meeting the Goals and Objectives
- Reaching out to local stakeholders of each Sub-Region and update the Sub-Region Priorities
- Annually evaluating the performance for implementing projects that contribute to meeting the overall Goals and Objectives
- Tracking all project sponsors, including aggregating reports of specific projects performance, and monitoring
- Budgeting resources to ensure the monitoring efforts are affordable given the limited resources of the project sponsors and lead agency

The annual review by the RWMG is part of the adaptive management strategy that will help guide changes to the IRWM Plan in the future. It will be used to facilitate discussion of “lessons learned” from project-specific monitoring efforts.

8.2 IRWM PROGRAM LEVEL PERFORMANCE MEASURES AND MONITORING METHODS

The IRWM Plan Objectives were established by the RWMG (**Section 4 – Goals and Objectives**). The RWMG broadly defines the objectives so that they are easy to communicate and achieve stakeholder consensus. **Section 4 – Goals and Objectives (Tables 4-3 to 4-7)** provides a qualitative and/or quantitative performance measure to assess each of the IRWM Plan Objectives. For the purposes of this section, the measures have been combined in one column in **Table 8-1** through **Table 8-5** below. The monitoring methodology for each objective has been added. Monitoring the objectives will inform the RWMG as to how the needs of the Region are being met and what projects or programs should be supported to address deficiencies.

8.2.1 Expected Level of Effort

The volume of information from each performance measurement is expected to vary significantly based on the nature of the metric. The District's efforts in periodically "checking-in" with specific monitoring agencies, stakeholders, and project sponsors and coordinating the expectations in the frequency, format, and interpretation can be considerable. The District will plan to develop and provide a comprehensive database design to capture and report qualitative and quantitative data. This effort is expected to be challenging both in terms of technology, staff training, and long-term funding. With an approximate 5-year monitoring period, maintenance to keep the database current, coordination in keeping the participants engaged and cooperative, and actions in maintaining vigilance over the quality of the data is considered to be a daily task undertaken by the District with a level of effort requiring at least one half of a full-time equivalent Grade 4 or higher Engineering Technician or Associate Civil Engineer.

The District's level of effort in the 5-year evaluation period of the monitoring data is also dependent on the level of interpretation made by the monitoring agencies. In cases where the District cannot make a determination or accurate assessment of the data, the monitoring agency, or a consultant, may be asked to assist in this effort. Costs may be allocated amongst benefiting parties depending on the nature of the data. If financial resources are not available, a qualitative discussion of the data is allowable.

Table 8-1: Water Supply Goal

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
<p>1. Maximize the accessibility to existing and supplemental water supplies in the Region through the utilization of existing infrastructure and development of new infrastructure and agreements.</p>	<p>Increasing amounts of total available surface water supply stored for subsequent years or provided to customers as an offset to groundwater pumping, creating in-lieu recharge.</p>	<p>The District collects water use and availability information on an annual basis from all water purveyors (see Section 9 – Data Management). Agricultural and rural water demand will be updated every 5 years as a part of the IRWM Plan’s 5-year update cycle. The water use information can be compared to water availability information to track how much water was available but not put to use or otherwise stored in each 5-year period.</p>
<p>2. Provide adequate and sustainable water supplies and infrastructure to address water deficiencies in all communities, including disadvantaged communities and designated low-income census blocks.</p>	<p>Decreasing number of communities with deficiencies.</p>	<p>The County collects system deficiency information biennially for its Resource Management System (see Section 12 – Relation to Local Water and Land Use Planning). The number of communities with deficiencies will be tracked via this program in order to support appropriate corrective projects.</p>
<p>3. Support sustainable potable water supply programs for rural residents.</p>	<p>Decreasing number of comments or complaints from the rural community regarding loss, or potential loss, of quality or quantity of their water supplies.</p>	<p>The District will coordinate with other County departments to maintain documentation of identified issues, including dry wells, to support appropriate responses.</p>
<p>4. Support sustainable water quality and supply programs for agriculture.</p>	<p>Decreasing number of comments or complaints from the agricultural community regarding loss, or potential loss, of quality or quantity of their water supplies.</p>	<p>The District will coordinate with other County departments to maintain documentation of identified issues, including dry wells, to support appropriate responses.</p>
<p>5. Support projects aimed to improve existing public water systems to meet state or federal drinking water quality standards.</p>	<p>Decreasing number of community water systems that do not currently meet state or federal drinking water quality standards.</p>	<p>The District will coordinate with the Public Health Agency and state agencies to maintain documentation of systems that do not currently meet state or federal drinking water quality standards so that the RWMG will know which communities need support.</p>

Table 8-1: Water Supply Goal, Continued

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
6. Develop and implement water management plans in communities of all sizes and water uses consistent with CWC requirements and accounting for environmental water needs.	Number of communities without water management plans.	The District will inventory the number of communities without water management plans as a part of the IRWM Plan's 5-year update cycle.
7. Develop and implement conservation programs, measures and practices to increase water use efficiency in all water use sectors in order to maximize water supplies.	Increasing number of acre-feet per year of urban, agriculture, and rural water saved through formal water use efficiency projects and programs.	The District collects water use and availability information on an annual basis from all water purveyors (see Section 9 - Data Management). Agricultural and rural water demand will be updated every 5 years as a part of the IRWM Plan's 5-year update cycle. Every 5 years, the extent to which all water use sectors have developed and implemented conservation programs, will be assessed.
8. Plan for potential regional impacts of greenhouse gas emissions, climate change, and droughts on water quantity and quality.	Existence of County-wide planning studies that identify greenhouse gas emission sources, regional vulnerabilities, and forecast the needed changes in water supplies and water supply infrastructure as a result of climate change.	The District will inventory climate change planning efforts as a part of the IRWM Plan's 5-year update cycle.
9. Diversify water supply sources, including the use of recycled and desalinated water.	Decreasing number of communities without a secondary water supply source.	The District will inventory the number of communities without a secondary water supply as a part of the IRWM Plan's 5-year update cycle.
10. Support watershed enhancement projects and programs to increase available water supplies to the Region.	Decreasing number of comments or complaints from the agricultural community regarding loss, or potential loss, of quality or quantity of their water supplies.	The County collects groundwater supply deficiency information biennially for its Resource Management System (see Section 12 - Relation to Local Water and Land Use Planning). The number of basins with deficiencies will be tracked via this program in order to support appropriate corrective watershed projects.

Table 8-2: Ecosystem and Watershed Goal

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
<p>1. Develop watershed plans or other methods to determine the existing conditions and critical issues of each watershed or water planning area.</p>	<p>Decreasing number of watersheds without plans or similar methods developed to understand the needs in watershed or water planning area.</p>	<p>The District will inventory the number of watersheds without plans or similar methods developed to understand the needs in watershed or water planning area as a part of the IRWM Plan's 5-year update cycle.</p>
<p>2. Preserve, enhance, restore and conserve riparian corridors and natural creek and river systems through wetland restoration, natural floodplains, riparian buffers, conservation easements, and other mechanisms to protect water supplies.</p>	<p>Increasing number of acres preserved for ecosystem restoration and/or preservation.</p> <p>Increasing number of acres of healthy or improved natural recharge areas associated with riparian corridors.</p>	<p>The District will coordinate with local agencies such as the County Planning Department, Land Conservancy, and Resource Conservation districts to track preservation acreage and mitigation activities that improve recharge areas along riparian corridors.</p>
<p>3. Increase watershed management activities (e.g., education, BMPs, monitoring, etc.) to reduce or prevent point and non-point source discharges of contaminants to surface water and groundwater resources to reduce the potential for developing additional total maximum daily load (TMDL) values.</p>	<p>Increasing number of programs with the intent to protect surface water and groundwater recharge areas and improve surface water and/or groundwater quality.</p> <p>Increasing number of creeks that have a water quality measuring program in place.</p>	<p>The District will coordinate with local agencies such as the Planning Department, Land Conservancy, and Resource Conservation districts to track mitigation activities that improve recharge areas along riparian corridors.</p> <p>The District will inventory the number of creeks that have a water quality measuring program in place as a part of the IRWM Plan's 5-year update cycle.</p>
<p>4. Develop public involvement and stewardship programs for public lands and ecosystems.</p>	<p>Increasing public involvement and stewardship programs that cover all public lands and ecosystems.</p>	<p>The District will inventory the extent to which public involvement and stewardship programs cover all public lands and ecosystems as a part of the IRWM Plan's 5-year update cycle.</p>

Table 8-2: Ecosystem and Watershed Goal, Continued

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
<p>5. Protect and recover threatened, endangered and sensitive species through habitat restoration, stream flow management, and fish passage restoration.</p>	<p>Increasing number of management programs and projects with the primary benefit to improve threatened, endangered, and sensitive species corridors.</p>	<p>The District will coordinate with local agencies such as the County Planning Department, Land Conservancy, and Resource Conservation districts to track miles of additional stream or land opened to species habitat or migration; miles of additional stream or watershed corridor restored and the decrease in threatened, endangered, and/or sensitive species populations.</p>
<p>6. Reduce impacts of invasive species by removal and/or other management/control methods to promote healthy ecosystems.</p>	<p>Increasing number of studies and management and/or prevention programs and projects established to reduce invasive species or re-establish native species populations.</p> <p>Decreasing number of invasive species problems.</p>	<p>The District will coordinate with local agencies such as the County Agricultural Commissioner’s Office and Resource Conservation districts to track the number of studies and management and/or prevention programs and projects established to reduce invasive species or re-establish native species populations and the number of invasive species problems.</p>
<p>7. Increase monitoring and promote research programs to obtain a greater understanding of the long-term effects of climate change and greenhouse gas emissions on the Region’s watersheds and ecosystems.</p>	<p>Existence of monitoring and research programs that identify the long-term effects of climate change and greenhouse gas emissions on the Region’s watersheds and ecosystems.</p>	<p>The District will inventory climate change monitoring efforts and the extent to which the long-term effects are understood for the Region as a part of the IRWM Plan’s 5-year update cycle.</p>

Table 8-3: Groundwater Monitoring and Management Goal

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
<p>1. Develop groundwater management Plans, including Groundwater Sustainability Plans, Salt and Nutrient Management Plans, or other methods to help understand groundwater issues and conditions.</p>	<p>Increasing percentage of the Region’s groundwater basins that have adopted Groundwater Management Plans and governance structures (only in basins where required).</p>	<p>The District will inventory the number of groundwater basins that have adopted Groundwater Management Plans and governance structures as a part of the IRWM Plan’s 5-year update cycle.</p>
<p>2. Improve groundwater management with direct support of locally driven processes, including potential formation of groundwater management structures/ organizations for the purpose of implementing water supply and conservation plans, programs, and projects.</p>	<p>Increasing percentage of the Region’s groundwater basins that have groundwater management structures for the purpose of implementing plans, programs, and projects.</p>	<p>The District will inventory the number of groundwater basins that have groundwater management structures for the purpose of implementing plans, programs, and projects as a part of the IRWM Plan’s 5-year update cycle.</p>
<p>3. Develop and implement projects and programs to further basin management objectives of local groundwater management plans or other objectives established under other methods used to define groundwater issues and conditions.</p>	<p>Increasing number of projects consistent with adopted Groundwater Management Plan Basin Management Objectives (BMOs) for the improvement of the health of a groundwater basin.</p>	<p>The District will track the number of projects and programs implemented consistent with adopted Groundwater Management Plan BMOs.</p>
<p>4. Work with local groundwater governance bodies in an effort to increase monitoring for groundwater basins in the region, where plausible, such as is required under Sustainable Groundwater Management Act (SGMA) and/or California Statewide Groundwater Elevation Monitoring (CASGEM).</p>	<p>Increasing number of basins meeting CASGEM standards.</p>	<p>The District will inventory the number of basins meeting CASGEM standards as a part of the IRWM Plan’s 5-year update cycle.</p>

Table 8-3: Groundwater Monitoring and Management (Groundwater) Goal, Continued

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
<p>5. Evaluate and implement groundwater recharge programs or efforts to increase the conjunctive use opportunities within the Region, where technically feasible and cost-effective.</p>	<p>Increasing percentage of acreage or groundwater basins within the Region that have been studied or looked at for viability of groundwater recharge.</p> <p>Increasing number of groundwater recharge projects implemented where technically feasible and cost-effective.</p>	<p>The District will inventory the number of basins that have been evaluated for recharge feasibility as a part of the IRWM Plan’s 5-year update cycle.</p> <p>The District will inventory the number of basins that have implemented recharge projects where technically feasible and cost-effective as a part of the IRWM Plan’s 5-year update cycle.</p>
<p>6. Protect and improve groundwater quality from point and non-point source pollution, including geothermal contamination and seawater intrusion.</p>	<p>Increasing number of projects/programs implemented for the improvement and protection of groundwater basin water quality.</p>	<p>The District will track the projects/programs implemented for the improvement and protection of groundwater basin water quality.</p>

Table 8-4: Flood Management Goal

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
1. Understand flood management needs per watershed or water planning area.	Decreasing number of watersheds without plans regarding flood management needs.	The District will inventory the number of watersheds without plans regarding flood management needs as a part of the IRWM Plan’s 5-year update cycle.
2. Promote the implementation of Low Impact Development projects and practices to reduce storm runoff to protect infrastructure and property from flood damage.	Increasing number of development projects where specific development conditions have been applied for the incorporation of storm water runoff reduction elements.	The District will coordinate with local agencies such as the County Planning Department, individual communities, Resource Conservation districts and the resource agencies to track the number of development projects where specific development conditions have been applied for the incorporation of storm water runoff reduction elements.
3. Integrate storm water controls, drainage and flood control structures into development projects and/or floodplain restoration to enhance natural groundwater recharge.	Increasing number of projects where specific development conditions apply directly to actions benefitting groundwater recharge.	The District will coordinate with local agencies such as the County Planning Department, individual communities, Resource Conservation districts and the resource agencies to track the number of development projects where specific development conditions have been applied for the purpose of groundwater recharge.
4. Improve flood control infrastructure and operations and flood management strategies to reduce frequency of downstream flooding, improve water quality, and reduce upstream erosion and downstream sediment accumulation.	Increasing number of improvements to flood control infrastructure and operations and flood management strategies for the purposes of reducing frequency of downstream flooding, improving water quality, and reducing upstream erosion and downstream sediment accumulation in watersheds where those issues are identified.	The District will coordinate with local agencies such as the County Planning Department, individual communities, Resource Conservation districts and the resource agencies to track the number of applicable flood management improvements.

Table 8-4: Flood Management Goal, Continued

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
<p>5. Develop and implement flood management and water storage projects that provide multiple benefits such as public safety, water supply, habitat protection, recreation, agriculture, and economic development.</p>	<p>Increasing number of flood management projects where multiple human and habitat-related benefits can be described.</p>	<p>The District will coordinate with local agencies such as the County Planning Department, individual communities, Resource Conservation districts and the resource agencies to track the number of flood management projects that address both human and habitat needs.</p>
<p>6. Develop and implement flood control projects that ensure health and safety and simultaneously protect, restore, and enhance the functions of rivers, creeks, streams, and their floodplains.</p>	<p>Increasing number of miles of waterways where deliberate measures have taken place to improve riparian floodplains. Increasing number of acres of floodplain acquired.</p>	<p>The District will coordinate with local agencies such as the County Planning Department, individual communities, Resource Conservation districts and the resource agencies to track the applicable floodplain projects in terms of waterway mileage and acres of floodplain.</p>
<p>7. Support the adequate protection of disadvantaged communities from flooding without unfairly burdening communities, neighborhoods, or individuals.</p>	<p>Demonstrated efforts to work with flood agencies to bring the flood management needs of DACs to the forefront for consideration of flood management actions.</p>	<p>The District will coordinate with local agencies such as the County Planning Department, individual communities, Resource Conservation districts and the resource agencies to track the number of flood management efforts for DACs.</p>

Table 8-5: Water Management and Communications Goal

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
1. Provide consistent, consolidated and informative public outreach on the coordination of IRWM implementation projects and water resources programs.	Implementation of the reporting plan contained within the IRWM Plan.	The District will track whether the reporting plan is followed.
2. Seek funding for IRWM implementation without unfairly burdening communities, neighborhoods or individuals.	Continuous effort to pursue grants and loans without unfairly burdening communities, neighborhoods or individuals.	The District will track efforts to pursue grants and loans for IRWM implementation.
3. Actively support and promote local control in addressing water resource issues through establishing stakeholder groups, working with local groundwater governance bodies, and partnering with cities, community services districts and other water purveyors when possible.	Development of a communication network for the purpose of reaching out in the most cost effective and timely manner. Total number of communication events making use of documented structured network and the estimated total number of people informed.	The District will coordinate with other local entities to track the occurrence of water management efforts in the Region that are supportive of local control and involve coordination amongst multiple entities, and collect information on the number of people informed and by what method.
4. Consider property owner rights, existing water supplies and cultural values in the planning and implementation of IRWM projects and programs.	Demonstrated efforts to work with planning and water agencies to protect existing water rights and private lands of those possible affected by their actions.	The District will track when property owner rights and cultural values are addressed during IRWM efforts in the Region and by what method.
5. Support efforts by the state, local agencies, water purveyors, and local groundwater governance bodies to align efforts to protect and manage water resources.	Demonstrated water resource management and protection efforts that integrate the state's, local governments', and water purveyors' policies.	The District will coordinate with local entities to track water resource management and protection efforts that integrate the state's, local governments', and water purveyors' policies.

Table 8-5: Water Management and Communications Goal, Continued

OBJECTIVES	PERFORMANCE MEASURES	MONITORING METHODS
<p>6. Seek opportunities for water management collaboration between urban, rural, and agricultural interests.</p>	<p>Demonstrated efforts to work with urban, rural and agricultural interest groups to bring them together on water issues. Number of meetings convened specifically to resolve issues and conflicts regarding urban, rural and agricultural differences in water supply.</p>	<p>The District will coordinate with other local entities to track efforts in the Region to resolve issues and conflicts regarding urban, rural, and agricultural differences in water supply, and collect information on the number of meetings.</p>
<p>7. Provide support and promote education for the participation of disadvantaged communities in the development, implementation, monitoring, and long-term maintenance of water resource management projects.</p>	<p>Demonstrated efforts to reach out to DACs and provide assistance and services through local- and state-funded programs for purposes of improving their water resource management projects. Number of grant/loan applications submitted and projects constructed as a result of this effort.</p>	<p>The District will coordinate with other local entities to track efforts in the Region to support water resource management efforts for DACs, and collect information on the number of grant applications and projects constructed.</p>
<p>8. Promote public education programs for groundwater management, watershed protection, conservation, flood management, and water quality.</p>	<p>Existence of public education programs for groundwater management, watershed protection, conservation, flood management, and water quality and efforts to promote them.</p>	<p>The District will coordinate with other local entities to track the existence of public education programs in the Region for groundwater management, watershed protection, conservation, flood management, and water quality and efforts to promote them.</p>

8.3 PROJECT-LEVEL PERFORMANCE AND MONITORING PLAN

The projects included and/or implemented through the IRWM Plan contribute to meeting the overall Regional IRWM Plan's Goals and Objectives. The scope of projects and programs included in the IRWM Plan are evaluated to determine which Plan Objectives will be addressed by implementation of the project or program (see **Section 6 – Project Selection Process**). As a part of the IRWM Plan's 5-year update schedule, or when the project list is updated, project proponents/sponsors will provide an updated form to reflect progress and any change in scope in order to re-evaluate the objectives met by the project or program.

Further, each of the projects' sponsors will develop detailed Project Performance and Monitoring plans if IRWM grant funds are received. Information generated from each of the Project Performance and Monitoring plans will be collected by the District for updating the IRWM Plan or the project list on a time schedule as outlined in the grant agreement. The projects and their physical benefits are to be developed during the planning and grant writing phase and are intended to set the stage for tracking a project's contribution to meeting the IRWM Plan Objectives. The performance measures and metrics provide a basis for further developing a detailed project performance database which will identify:

- Project goals
- Desired outcomes
- Output indicators – measures to effectively track output
- Outcome indicators – measures to evaluate change that is a direct result of the work
- Measurement tools and methods
- Measurable targets that are feasible to meet during the life of the proposal
- Monitoring measurements and interpretation of change in output indicators over time

Output indicators measure on-the-ground implementation of management actions, such as acres of habitat restored, miles of levees strengthened, etc. Output indicators also describe the level of activity that will be provided over a period of time, including a description of the characteristics (e.g., timeliness) established as standards for the activity. Outputs refer to the internal activities of a program – the products and services delivered.

The outcome measures should be tied to the goals and objectives of the program. These could also be specific numerical targets. These usually compare systems with and without (baseline) project conditions for large systems variables. The relationship of the projects' monitoring to existing or proposed regional programs and the ability to integrate monitoring efforts should also be evaluated.

Prior to a project's implementation, each project will provide an explanation of the following:

- Describe what is being monitored (e.g., water quality, water depth, flood frequency, and effects the project may have on habitat or particular species, before and after construction)

- Measures to remedy or react to problems encountered during monitoring
- Location and frequency of monitoring, also documenting any quality assurance projects plan (QAPP)
- Monitoring protocols/methodologies, including who will perform the monitoring
- Frequency of interpreting, reporting, and transmitting monitoring data for inclusion in overall IRWM Plan Performance and Monitoring

In addition, project sponsors will provide monitoring data to the state of California, in forms and formats needed to be included in the state’s databases, where this is a condition of any grant funding. The RWMG members are already participating in a number of regional monitoring efforts. One of the potential projects is to develop further regional monitoring for purposes of ensuring and demonstrating compliance with the TMDL requirements. Project sponsors will ensure the monitoring schedule is maintained and that adequate resources (funding) are available in maintenance and operations budgets in order to maintain monitoring of the project throughout the scheduled monitoring timeframe.

8.4 EVALUATING AND REPORTING PLAN PERFORMANCE AND MONITORING RESULTS

As custodian (or lead agency) of the IRWM Plan, the District (staff) has the responsibility of working with the RWMG, local and Sub-Region stakeholders, and the monitoring agencies, and tracking each of the performance measures in the form of their respective metrics. **Section 9 – Data Management** includes the description of the numerical data being collected throughout the IRWM region to improve the understanding of listed Regional Interest Classifications (see Table K-1). A different type of data collection effort takes place for measurement of the IRWM Plan’s performance.

Performance of the IRWM Plan is tied directly to implementation of the projects and programs identified as being the highest ranking in terms of meeting the stated Goals and Objectives. To accomplish the assembling of data and making the correlation of benefit to the IRWM program, a separate data collection program is required with a different set of database requirements and District, RWMG and stakeholder involvement in the data collection and reporting process. In the process of meeting with and capturing the Plan’s performance, local Sub-Region Priorities identified in **Section 4 – IRWM Goals and Objectives** will be evaluated, and, if necessary, updated to reflect current-day priorities. The means of monitoring, evaluating and reporting IRWM Plan performance at the Programmatic- and Project-level on a 5-year cycle is described below.

8.4.1 Programmatic-Level Monitoring and Reporting

The information collected in accordance with the monitoring strategies for each objective will be evaluated to determine whether there is progress in meeting the stated objectives. A color

coding system will be applied to the “Performance Measures” column of **Table 8-1 to Table 8-5**, relabeled as “Performance Category”:

- **Color 1:** Objective has been met (e.g., if the metric is simply “does it exist?” and it does, this monitoring element is satisfied and no longer requires additional monitoring)
- **Color 2:** Objective is being met (e.g., if projects have been implemented and are resulting in measurable increases or decreases in accordance with the stated metric and objective, monitoring and reporting is successful, and continues until the objective has been met (see Color 1))
- **Color 3:** The Objective was not addressed in any way in the last 5 years (e.g., if projects are planned and included in the plan, but not implemented, the reporting should include what factors are preventing the implementation from occurring.)
- **Color 4:** The Objective has never been addressed in any way (e.g., if no projects or programs are included in the IRWM Plan to meet the Objective, the reporting should state a methodology to begin exploring possible solutions.)

The “Monitoring Method” column will be used to describe the things that happened to result in the chosen color and renamed as “Methods of Achieving Objective.” **Table 8-6** provides an illustrative “fictitious” example showing this methodology for programmatic reporting. The use of Sub-Region reporting is used when appropriate. One objective may result in three colors, one for each Sub-Region. Sub-Region Objectives (see **Table 4-11**) are used to describe the local objective and provide context to the methods being used (e.g., North County methods focus on groundwater benefits and increased use of supplemental water supplies) to achieve the overarching IRWM Plan Objectives.

Table 8-6: Example of Programmatic Monitoring and Reporting Table

OBJECTIVES	PERFORMANCE CATEGORY	METHOD(S) OF ACHIEVING OBJECTIVE
<p>1. Maximize the accessibility to existing and supplemental water supplies in the Region through the utilization of existing infrastructure and development of new infrastructure and agreements.</p>	North Coast	North Coast Sub-Region has increased both recycled water and desalinated water supplies through system upgrades and interties.
	North County	North County Sub-Region is maximizing the National Pipeline by operating a new surface water treatment plant to meet urban demands, and providing additional surface water to agriculture offsetting groundwater use.
	South County	South County Sub-Region constructed a recycled water treatment plant to reduce salinity and nitrates in the groundwater.
<p>2. Provide adequate and sustainable water supplies and infrastructure to address water deficiencies in all communities, including disadvantaged communities and designated low income census blocks.</p>	North County	5 of the 5 identified water systems throughout the IRWM Region with water supply deficiencies affecting peak demand and annual average demand deliveries have been corrected through local and state grant funded projects and programs.
<p>3. Support sustainable potable water supply programs for rural residents.</p>	North County	No projects are taking place to directly benefit the objective. Agricultural Education programs can be expanded to include rural residents to improve quantity and quality of groundwater.
<p>4. Support sustainable water quality and supply programs for agriculture.</p>	North Coast	North County Sub-Region is seeing groundwater elevations rising in the most severely impacted areas through water use efficiency and increased use of surface water through improved conveyance programs.
<p>5. Support projects aimed to improve existing public water systems to meet state or federal drinking water quality standards.</p>	North County	10 of the identified water systems with water quality deficiencies have not been addressed in the last 5 years. Project sponsors are being solicited for projects to include in the next state grant cycle.

8.4.2 Project-Level Monitoring and Reporting

8.4.2.1 IRWM Past, Present, and Future Projects

By receiving Proposition 50 and Proposition 84 Implementation Grants between 2008 and 2016, the San Luis Obispo project sponsors and the RWMG have a responsibility to monitor project-specific performance and measurable physical benefits, if available; otherwise, qualitative benefits require detailed descriptions. **Table 8-7** shows all IRWM funded projects and studies and which goals of the IRWM Plan were advanced by the project. **Table 8-8** shows implementation projects funded through IRWM with a brief description of the monitoring activities taking place. These activities correlate directly to the Project Performance Monitoring Plans as described in the grant agreements.

Table 8-7: Existing IRWM Project Benefits Classified by IRWM Goals

Project	IRWM Goals				
	Water Supply	Ecosystem & Watershed Restoration	Groundwater Management	Flood Management	Water Management & Communication
Completed					
Groundwater Banking Plan					
Regional Permitting Plan					
Flood Management Plan					
Data Enhancement Plan					
Identification of Basins Requiring SNMPs					
Santa Maria Groundwater Basin Study					
Paso Robles Groundwater Basin SNMP					
Paso Robles Groundwater Basin Model					
Regional Recycled Water Strategic Plan					
Watershed Management Planning					
Los Osos Wastewater Project					
Nipomo Supplemental Water Project					
CSA 23-Atascadero MWC-Garden Farms Emergency Intertie					
Heritage Ranch CSD Emergency Turnout					
Cambria CSD Emergency Water Supply					
Well Head Treatment Project (San Simeon CSD)					
In Progress					
Flood Control Zone 1/1A - Modified 3c Project					

Project	IRWM Goals				
	Water Supply	Ecosystem & Watershed Restoration	Groundwater Management	Flood Management	Water Management & Communication
Upper Salinas River Basin Conjunctive Use Project (Templeton CSD)					
Water Resources Reliability Program (Oceano CSD)					
Disadvantaged Community Needs Assessment					
Turnout Pump Station Design and Water Master Plan Update (City of Grover Beach)					
Water Resource Recovery Facility Project (City of San Luis Obispo)					
Reservoir Expansion Project Development & Water Master Plan Update (San Simeon CSD)					
Wastewater Plant Upgrade Study & Recharge Basin Study (San Miguel CSD)					

Table 8-8: Existing Implementation Projects Monitoring Activities

Project Name	Grant	Monitoring Activities (Per Project Performance Monitoring Plans)
Los Osos Wastewater Project	Prop 84 Impl. Grant (2011) DWR No. 4600009717	Influent, effluent, recycled water, groundwater, disposal area, and biosolids monitoring. Specifically: Nitrate concentrations and trends in groundwater; gpd potable water use reduction; retrofit program participation.
Flood Control Zone 1/1A – Modified 3c Project		Streamflow and flood protection capacity
Nipomo Supplemental Water Project		Water supply increase (acre-feet per year); reduced reliance on groundwater
CSA 23-AMWC-Garden Farms Emergency Intertie	Prop 84 Expedited Drought Grant (2014) DWR No. 4600010880	Water supply increase in declared emergencies (acre-feet per year)
Heritage Ranch CSD Emergency Turnout		Water supply increase in declared emergencies (acre-feet per year)
Cambria CSD Emergency Water Supply		Water supply increase in declared emergencies (acre-feet per year)-
Templeton CSD Upper Salinas River Basin Conjunctive Use	Prop 84 Impl. Grant (2015) DWR No. 4600011487	Water Supply increase, reduction of Arsenic concentrations in groundwater supply
San Simeon CSD Well Head Treatment		water supply increase, reduction of seawater concentrations of groundwater supply

8.4.3 IRWM Future Project Monitoring

Foreseeable project-specific monitoring activities related to each of the selected IRWM projects include the following:

Table 8-9: Future Project Monitoring, Based on the Implementation List

Project Sponsor	Project Name	Projected Monitoring Activities
Cambria CSD	WWTP Nutrient Removal and Efficiency Improvements	Reduced Nitrate and other key nutrients values; reduction of power consumption
Cayucos Sanitary District	Cayucos Sustainable Water Project, Phase 1	Quantity of advanced treated effluent
Cayucos Sanitary District	Cayucos Sustainable Water Project, Phase 2	Acre-feet per year added to Whale Rock Reservoir
City of Pismo Beach	Central Coast Blue	Acre-feet per year injected to groundwater basin
City of San Luis Obispo	One Water SLO	Decreased nutrient concentrations in effluent, increased available recycled water available
City of San Luis Obispo	Mid Higuera Bypass	Increased flow and flood conveyance capacity
City of San Luis Obispo	Recycled Water Distribution System Expansion	increased connections and use
City of San Luis Obispo	Meadow Park Stormwater Capture and Use	Capture and Reuse volume available
Coastal San Luis RCD	Remediation and BMP Implementation in the Oso Flaco Watershed	Acres of ecosystem protection
Coastal San Luis RCD	Livestock and Land Program	Quantity of participating ranchers and capacity of installed BMPs
County of San Luis Obispo	Oceano 13th Street Drainage Project	Acre-feet of storage, reduction of flood events, Infiltration quantity
County of San Luis Obispo	Mountain Springs Road Sediment Control	Acre-feet of storage and sedimentation capacity
Estrella-El Pomar-Creston Water District	Huer Huero Recharge Project	Increased recharge capacity to groundwater basin
Los Osos CSD	8th Street Well Construction	Acre-feet per year reduction of sea-water contaminated well use
Morro Bay National Estuary Program	Los Padres CCC Center Stormwater LID	Stormwater flow reduction
Morro Bay National Estuary Program	Water Conservation Partnerships in Chorro Valley	Implementation of the Morro Bay comprehensive Conservation and Management Plan

Project Sponsor	Project Name	Projected Monitoring Activities
Morro Bay National Estuary Program	Baywood Park 2nd Street Stormwater Management	Quantity of stormwater captured and treated
Nipomo CSD	Supplemental Water Project, Final Phase	Increased capacity and deliveries of water system
Oceano CSD	Oceano LID Project	Quantity of stormwater captured and treated
San Miguel CSD	Wastewater Treatment Plant Expansion	Decreased nutrient concentrations in effluent; quantity of recharge to groundwater basin
San Miguelito Mutual Water Company	Lower San Luis Obispo Creek Fish Passage Improvement & Seawater Intrusion Barrier	Increased fish populations; groundwater basin health improvement
San Simeon CSD	Reservoir Expansion Project	Quantity increased storage for supply and fire protection
Upper Salinas-Las Tablas RCD	Santa Rosa Creek Floodplain Feasibility Study	Identification of implementable habitat restoration and enhancement projects
Upper Salinas-Las Tablas RCD	Santa Rosa Creek Streamflow Enhancement	Quantity of recharge and retention capacity
Upper Salinas-Las Tablas RCD	SLO County Key Percolation Zone Study	Identification of prime groundwater recharge basin areas for project priority and development

8.4.4 Plan & Program Performance Evaluation Report

The format of the 5-year report will closely follow the outline below:

- a) Current State of the IRWM Plan
- b) Summary of IRWM Planning Activities over the 5-Year Monitoring Period
- c) Description of Changes in Governance Structure, RWMG Actions and Plan Amendments
- d) Plan & Program Performance and Monitoring
 - i) Summary of Responsible Monitoring Agencies and Frequency of Reporting (Includes a table of agencies categorized by Monitoring Element and Performance Measurement)
 - ii) Summary Report on Plan Performance Measurements (where data exists)
 - iii) Project-Specific Monitoring
 - 1) Monitoring Results
 - 2) Comparison with Stated Project Benefits, if applicable
- e) Interpretations and conclusions of Plan and Project-specific monitoring
 - i) RWMG Recommended actions to be Taken Over Next 5-Year Monitoring Period

Section 'd' in the outline includes the Plan Performance and Monitoring results. The Plan Performance Evaluation Report is estimated to occur by Winter 2021.

8.4.5 Climate Change Evaluation

The information and tools available for addressing climate change are developing and progressing at rapid rates. As a result, a regular review and update of the climate change-related sections of the IRWM Plan is essential. As mentioned in **Section 14.12.7 – Annual Climate Change Update**, the San Luis Obispo RWMG agrees to hold an annual meeting dedicated to reviewing information, data, and tools relevant to the nexus of water management and climate change. The Plan’s list of climate change vulnerabilities and other related sections will be updated in accordance with the new developments in technology and information; this will ensure the procedures and recommendations included in the Plan remain appropriate for promoting adaptive management in the San Luis Obispo Region.

8.5 QUARTERLY REPORTING

For projects awarded IRWM grants, the process includes not only a Project Performance Monitoring Report, but also quarterly reports. These reports document:

- Task Level Discussion
 - Progress of Work Plan
 - Deliverable status
 - Milestones
- Project Level Discussion
 - Anticipated Work
 - Photo documentation
 - Schedule/Budget Status

Within these reports, each implementing agency details the status of the project in regard to the work plan and deliverables in a grant agreement. This discussion includes items such as invoicing, permitting, CEQA, design, construction, etc. Each of these discussions informs both the lead agency (District) and DWR of the project’s status in order to provide oversight and monitor compliance. For example, if a project requires a local coastal permit, RWQCB Discharge order and/or other types of permits, the quarterly report is key opportunity to check in on the status of a permit. All permits listed in a grant application and Environmental Information Form’s “permit acquisition plan” are listed in the quarterly report for oversight by DWR and the District.

8.6 MONITORING PLAN BUDGET PROCESS

The first year’s monitoring activities are set by the District Board of Supervisors with support from the RWMG and WRAC. With the available budget being the constraining factor to the level of effort associated with plan performance and project monitoring, the District provides a reasonable annual monitoring plan knowing that not all of the monitoring elements described

can be met, and assuming voluntary efforts by partnering agencies are used to their fullest extent.

Every year the RWMG meets to discuss the prior year's monitoring activities, the total costs incurred, and how the monitoring data is being used in the long-term water resources management of the Region, and to the betterment of the IRWM program. District staff seeks to prepare a sustainable (and meaningful) monitoring plan presenting the proceeding year's expected level of effort, and the estimated budget to complete the required monitoring requirements.

The section's monitoring elements are to be used as a reference and revised in the continued growth of the monitoring effort, especially as technology can reduce future costs over time. The 5-year reporting outline above communicates the importance of the monitoring data and why the state requires monitoring of the Region's water resources for purposes of positive change with their investment in the IRWM process (i.e., planning and implementation). Every attempt at acquiring funding through local, state, and federal sources should be made to meet the Region's monitoring goals by 2040.