Section E.

IRWM Goals and Objectives

Section E. IRWM Goals and Objectives

Table of Contents

Figures

Tables

(This page Intentionally left blank)

Section E. IRWM Goals and Objectives

This section identifies San Luis Obispo County (SLO) IRWM Region (Region) IRWM Plan Goals and Objectives. The Goals and Objectives provide a basis for decision making and are used to evaluate project benefits in terms of implementing the Region's IRWM Plan. The Goals and Objectives respond to input on what the Regional Water Management Group (RWMG) and Interested Stakeholders perceive to be the Region's major water resources issues. The Goals and Objectives:

- Focus the IRWM Plan
- Provide a basis for determining the most appropriate resource management strategies for the Region
- Are used to evaluate project benefits
- Guide IRWM project/program prioritization, development, and implementation

E.1 Process and Determination of IRWM Plan Goals and Objectives

E.1.1 Stakeholder Input: Identifying Critical Water Issues

A consensus-based approach was used to develop the IRWM Plan 2013/14 Update Goals and Objectives. As a first step to revising the Goals and Objectives, stakeholder participation was solicited to identify the critical water resources issues and review the 2007 IRWM Plan Goals and Objectives. Consistent with the IRWM Plan 2013/14 Update approach, consideration was given to the Region as a whole, as well as its three Sub-Regions (North Coast, North County, and South County shown in **Figure E-1**). This was facilitated through six Stakeholder/Community Outreach meetings held throughout the county (March 20-22, 2013) and three Sub-Region workshops (March 25- 26, 2013). Attendees included stakeholders with diverse water resource management interests and geographical bases:

- Cities/Municipalities/Community Services Districts (CSDs) representatives
- Mutual Water Companies (MWCs)/Private Water Purveyors representatives
- Agricultural representatives
- Environmental representatives
- Rural and urban residents
- Various advisory committee representatives
- Local media representatives

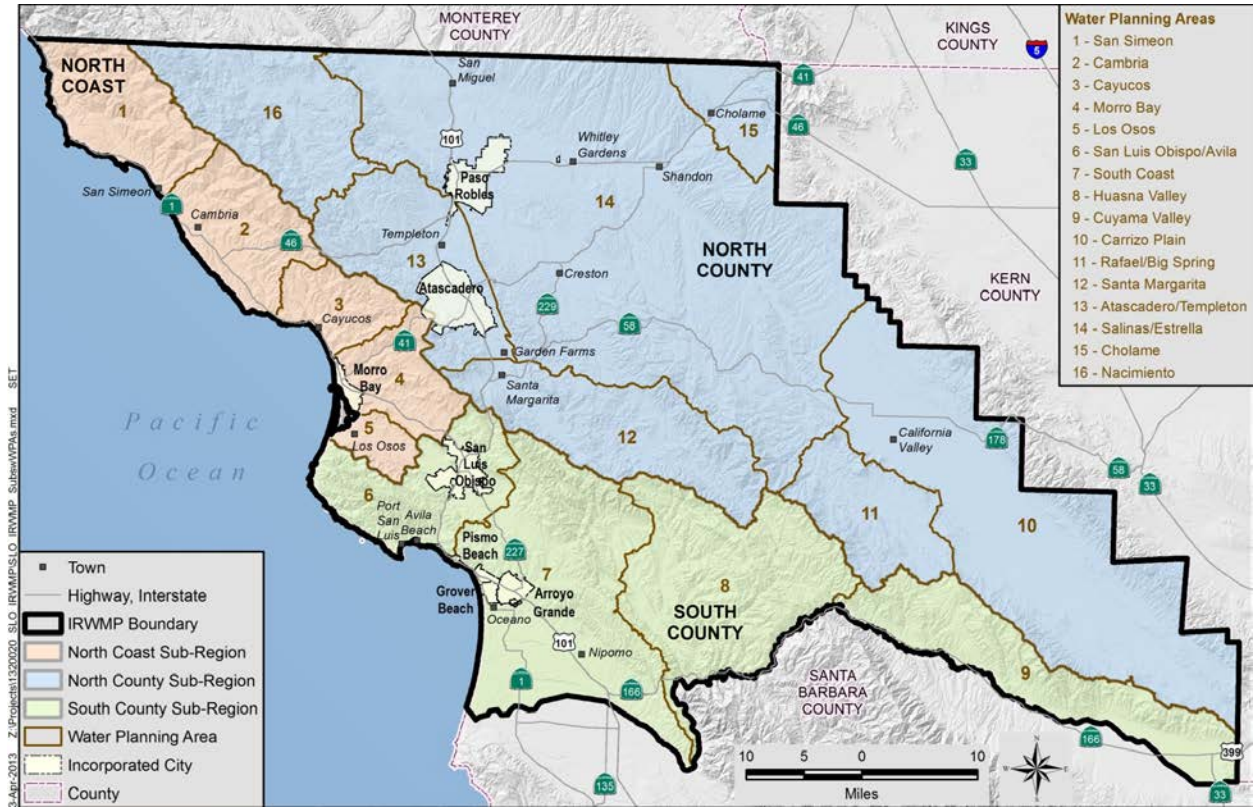

Figure E-1. San Luis Obispo IRWM Region and Sub-Regions

A list of the attendees and original comments on issues are provided in **Appendix D Notice of Public Meetings, Comments, and Outreach Material (see Appendix D-3 – List of Attendees and Public Meeting Comments)** of the IRWM Plan.

Stakeholders were asked to provide input on their Sub-Region's three most critical water resources issues. Answers varied, but the results show that many of the 2007 IRWM Plan Goals and Objectives remain as important issues facing the Region. **Table E-1** groups the primary issues (noted more frequently) under five major water management categories,[1] and then introduces secondary issues (noted less frequently) to capture the full range of input provided. These primary and secondary issues become the beginning of a Sub-Region priority list, explained later. The count for each issue reflects the number of times the issue was raised by the stakeholders.

[1] These categories closely reflect the 2007 IRWM Plan water management categories, with the exception of two that have changed. (1) The 2007 IRWM Plan had a Water Quality category. For this update, Water Quality issues have been folded into each category as applicable (e.g., water supply, groundwater). (2) The addition of a Water Resources Management and Communication category has been added to address management and public awareness issues.

Table E-1. List of Stakeholder Issues from Sub-Region Workshops

Issues Related to Water Management Categories	Primary Issues	Count	Secondary Issues	Count
Water Supply	Water Supply/Water Scarcity	26	Drought Planning/Reliability	2
	Water Reclamation and Reuse	18	Desalinization	2
	Water Conservation	7	Infrastructure/Water Delivery	2
	Climate Change	8		
Flood Management	Flood Protection/Storm Water Management	13	Low-Impact Development	1
Groundwater Monitoring and Management	Overall Groundwater Management	23	Well Destruction	2
	Groundwater Quality/Seawater Intrusion	23	Salt/Nutrient Management	2
	Well Metering	4	Understand Hydraulic Fracturing	3
Ecosystem and Watershed	Ecosystem Enhancement	4	Ocean Water Quality	1
			Watersheds	2
			Protecting Native Plans	1
Water Resources Management and Communication	Project Costs and Implementation	4	Energy/Water Nexus	1
	Property Rights and Water Rights	5	Consolidation of Information	2
	Maintain Local Control	4	Governance/Water Mastering	1
	Competing Water Uses: Agricultural/Urban/Rural Residential Water Uses	5		
	Coordination, Public Outreach, and Input	6		

The four figures described below depict the level of interest in each water resources issue by Sub-Region and then by SLO County Region as a whole. The figures show the issues along the bottom axis and the number of occurrences each issue was raised by stakeholders along the vertical axis. Water Quality is shown as a reminder that water quality is an issue inherently embedded in the other water resources issues.

These Sub-Regional water resources issues help revise the IRWM Plan Goals and Objectives to ensure the IRWM Plan considers critical issues. This IRWM Plan update also incorporates a new concept of "Sub-Region Priorities" (see **Section Table E-6**). The Sub-Region Priorities are organized and updated using the Region's IRWM Goals and Objectives for guidance.

Figure E-2 indicates water reclamation as the issue of greatest concern for the North Coast Sub-Region due to the small coastal communities not having sufficient groundwater supplies or sea water intrusion (the third most important issue) limiting groundwater basins' safe yield.

Figure E-3 indicates water supply and groundwater management as the issues of greatest concern for the North County Sub-Region due to the on-going water resources management challenges of the Paso Robles Groundwater Basin; the need for supplemental/other water

supply sources; and increased treatment costs to deal with degrading water quality (another important issue identified) as groundwater elevations decline.

Figure E-4 indicates groundwater management as the issue of greatest concern for the South County Sub-Region due to the challenges of managing the adjudicated Santa Maria Groundwater Basin and water shortage problems, though additional issues of concern relate to flood control (second issue of concern).

Figure E-5 shows the collective water resources issues of concern throughout the IRWM Region and the level of interest in these issues. Groundwater management, water supply, and water reclamation rank highest in the issues brought forth by the Interested Stakeholders.[2]

[2] Unlike the Sub-Region Figures E-2 through E-4, the SLO Region Figure E-5 should not be viewed as a prioritization of regional issues, but rather, simply as a means of visualizing the outcome of the Sub-Region workshops collectively.

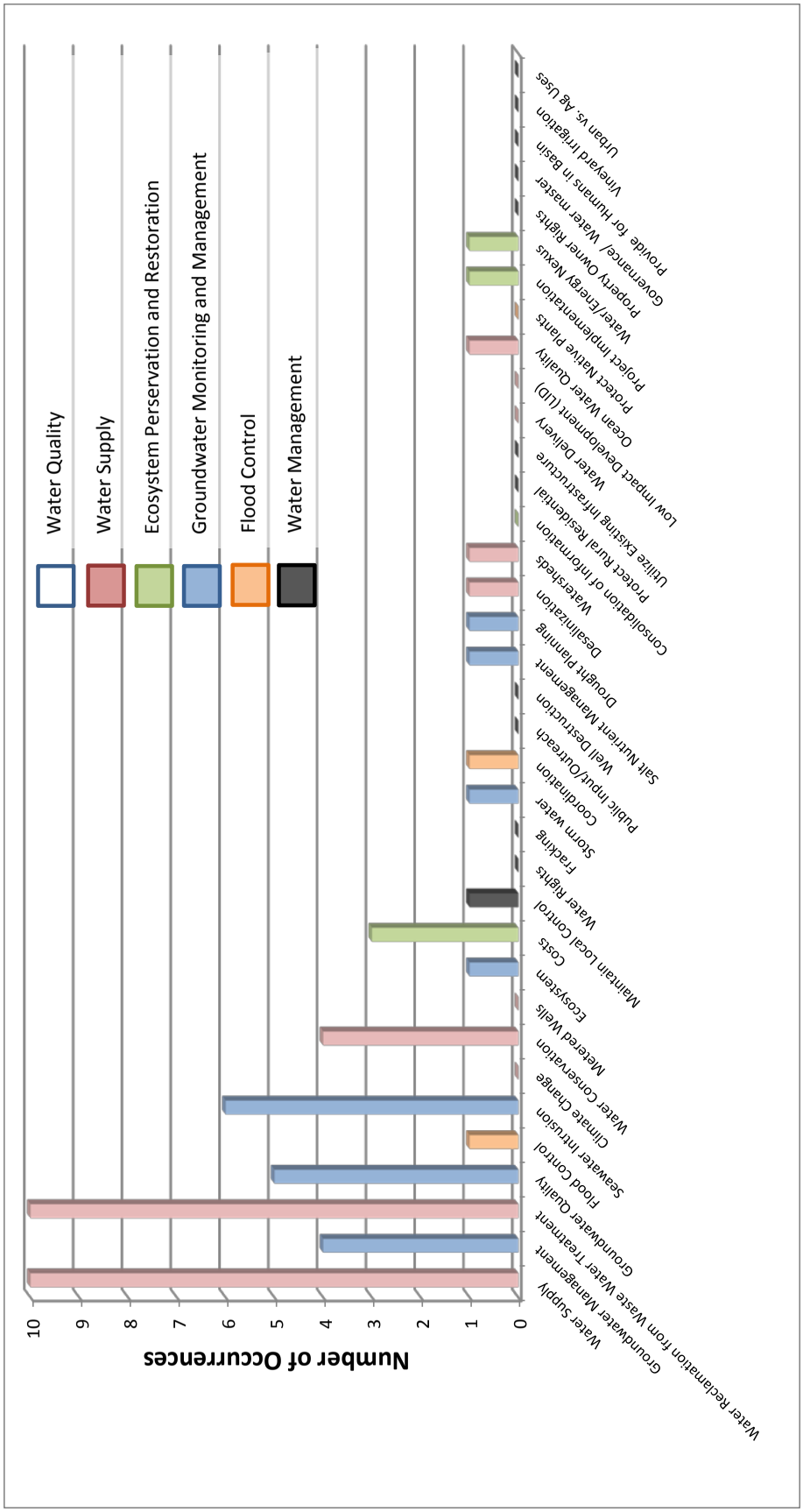

Figure E-2. North Coast Sub-Region – Summary of Stakeholder-Raised Water Resources Issues

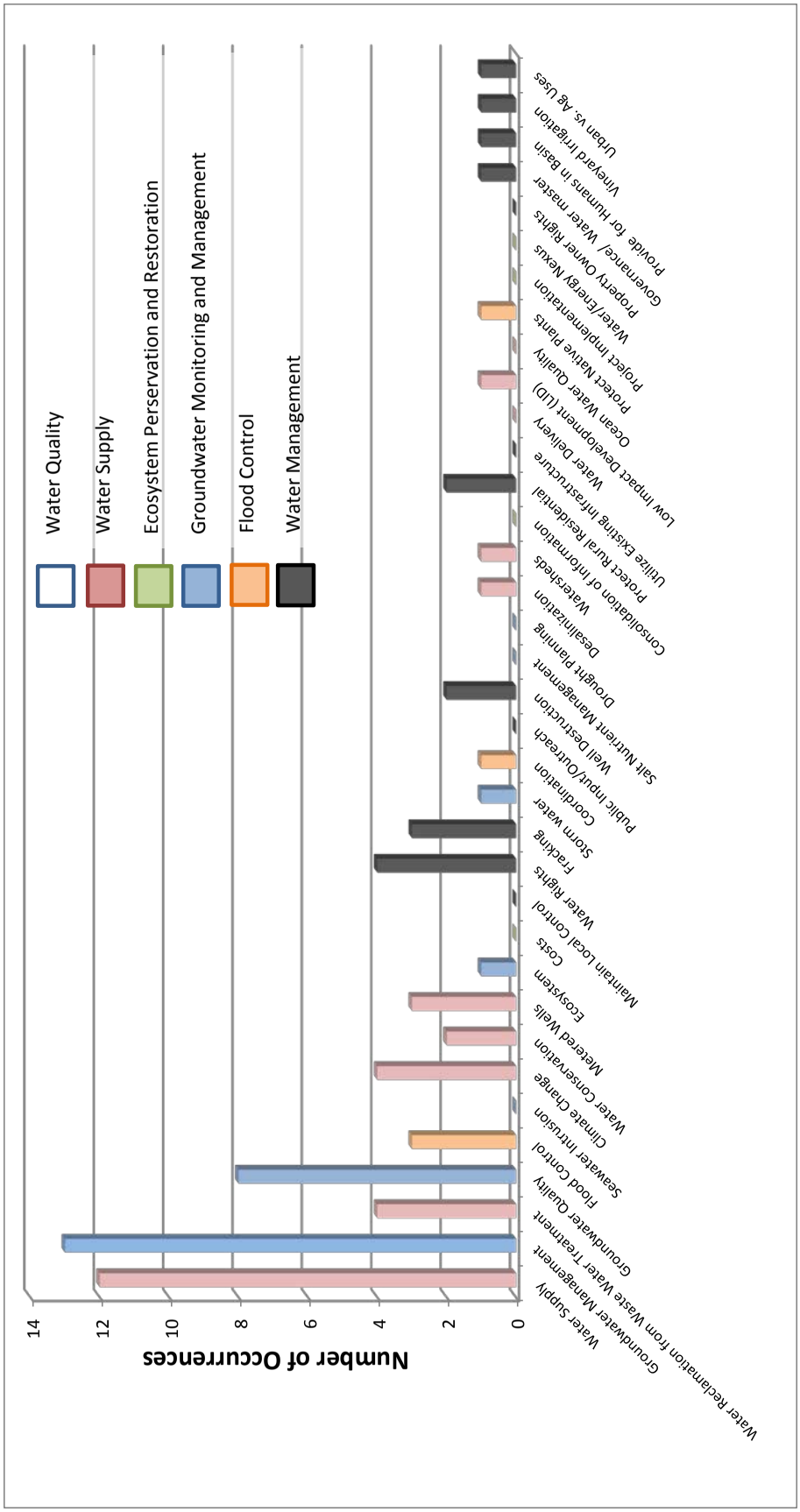

Figure E-3. North County Sub-Region – Summary of Stakeholder-Raised Water Resources Issues

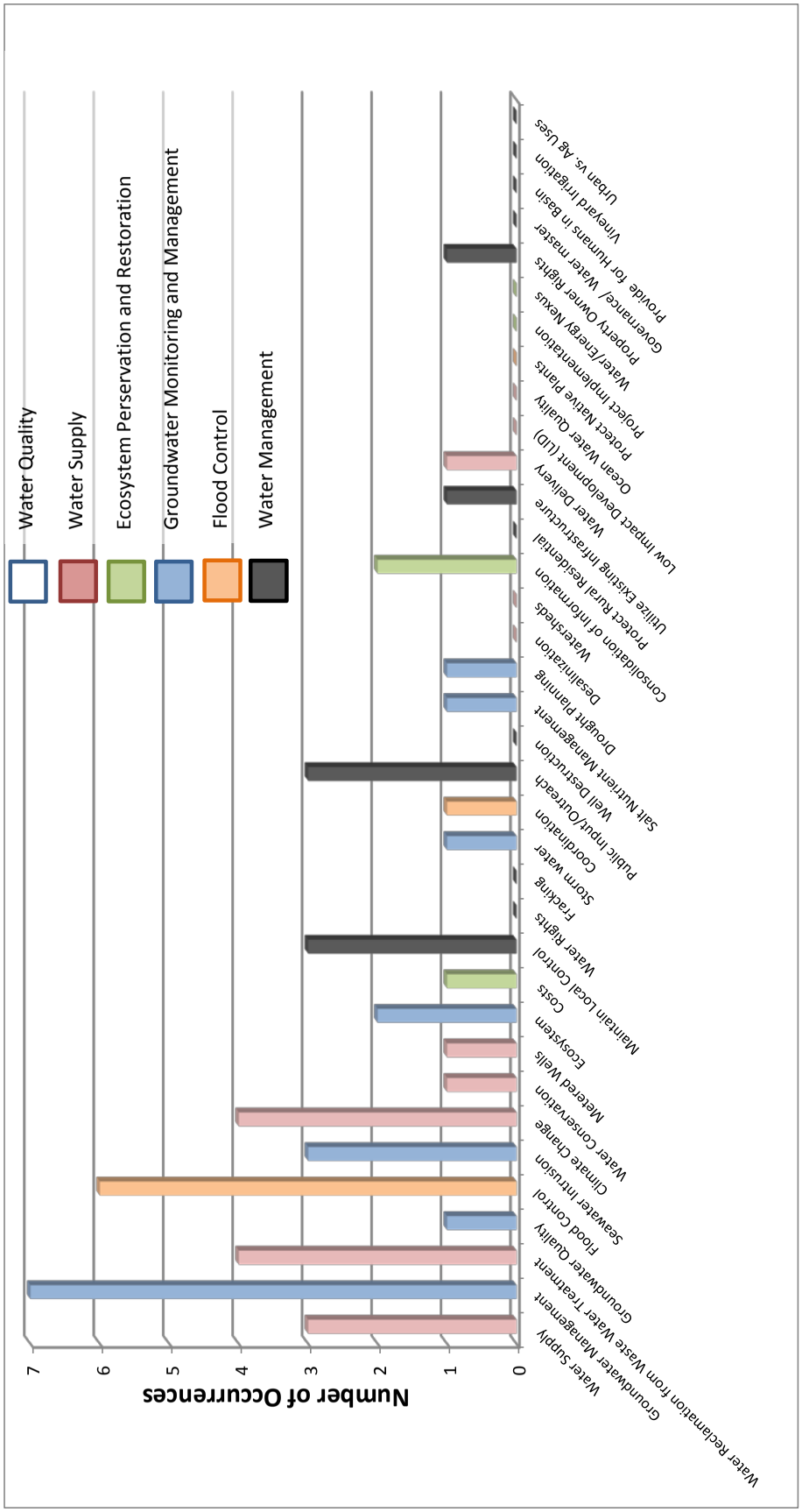

Figure E-4. South County Sub-Region – Summary of Stakeholder-Raised Water Resources Issues

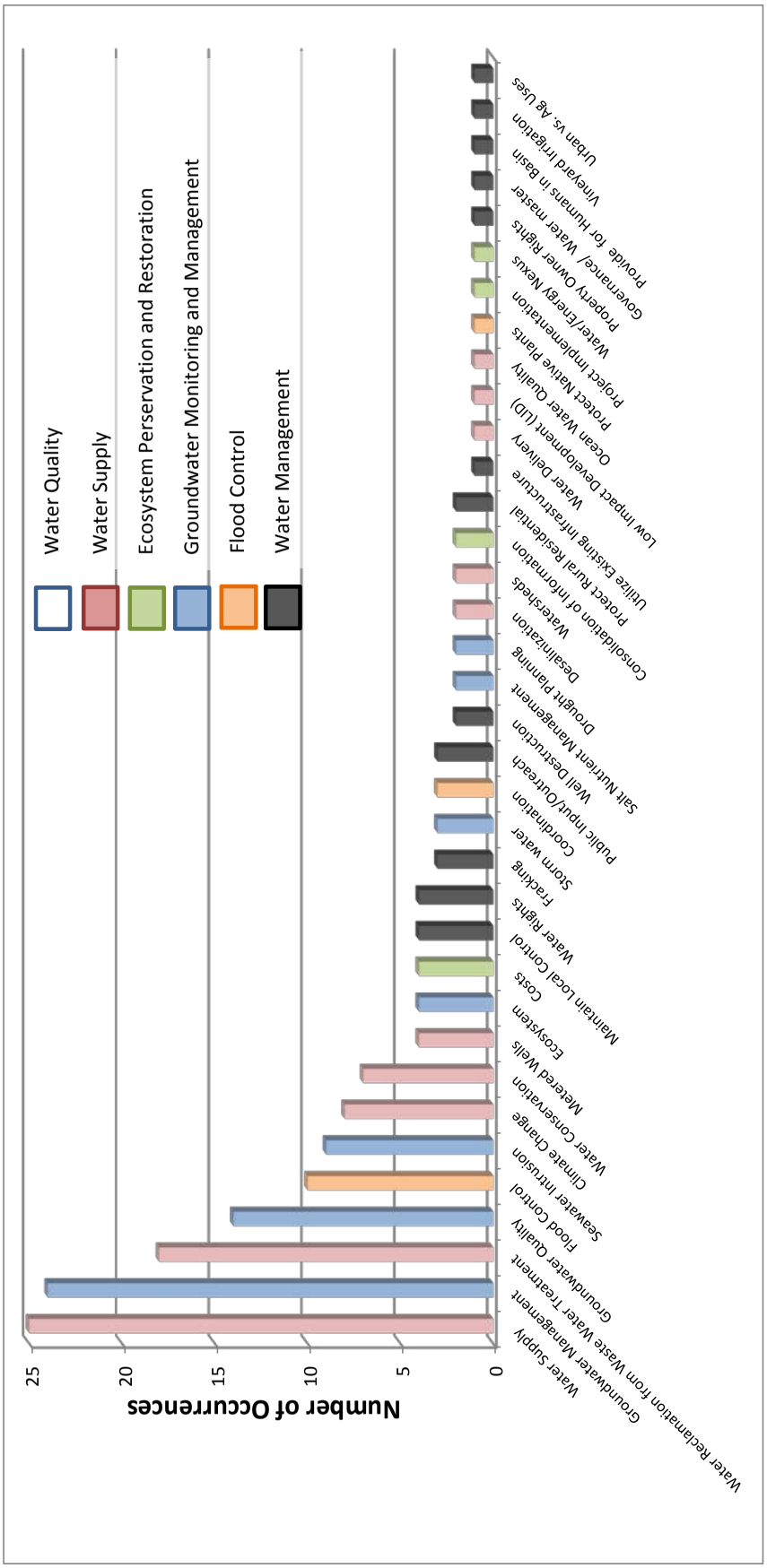

Figure E-5. San Luis Obispo IRWM Region – Summary of Stakeholder-Raised Water Resources Issues

E.1.2 Vision and Approach to Developing IRWM Goals and Objectives

The Goals and Objectives are intended to guide regional efforts toward solving the water resources issues of greatest concern listed in **Table E-1**. The Vision statement portrays the Region's overarching aim for the IRWM program and water resources, while the Mission statement describes what the IRWM Plan will do to get there.

IRWM Plan Vision:

Create a united framework among SLO County Stakeholders for sustainable water resource management

IRWM Mission:

Facilitate regional Plans, programs, and projects to further sustainable water resource management

Goals are comprehensive statements of what the RWMG and other IRWM Program Participants wish to accomplish under the broader IRWM Plan Vision and Mission statements. Objectives are more specific, tangible, and measurable activities that will help carry out the goals. The goals of this IRWM Plan encompass five categories of water resources management that define the focus of this Region's IRWM Planning effort. These categories are illustrated in **Figure E-6** as a collection of goals that will bring synergy to address important issues related to Water Quality, Disadvantaged Communities (DACs), and Climate Change. These goals are listed as follows:

1. Water Supply
2. Ecosystem and Watersheds
3. Groundwater Monitoring and Management (Groundwater)
4. Flood Management
5. Water Resources Management and Communications (Water Management)

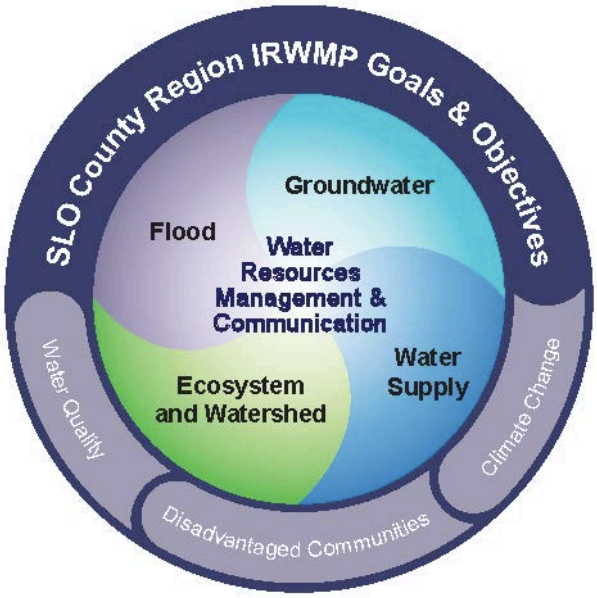

Figure E-6. Relationships and Synergies between IRWM Plan Goals

With the stakeholder-identified critical water resources issues in mind, the IRWM Plan 2013/14 Update then draws on a number of resource and guidance documents to develop the Goals and Objectives. Foremost of these is the 2007 IRWM Plan, which included Goals and Objectives in the following five areas of water resources management: Water Quality, Water Supply, Ecosystem Preservation and Restoration, Groundwater Monitoring and Management, and Flood Management. The IRWM Plan 2013/14 Update expands and reorganizes these prior Goals and Objectives by considering the current critical water resources issues. Additionally, the IRWM Plan update considers and/or seeks consistency with the following:

- DWR IRWM Guidelines (November 2012)
- Water Quality Control Plan for the Central Coast Basin (June 2011)
- 20x2020 Water Conservation Plan (February 2010; water efficiency goals)
- California Water Code (i.e., changes affected by SBx7-7)

The 2012 DWR IRWM Guidelines specifically require that all IRWM Plans consider overarching goals of the Central Coast Basin Plan, 20x2020 Water Conservation Plan, and California Water Code (CWC). All of these state-led documents are briefly described below.

E.1.2.1 DWR 2012 Proposition 84 and 1E IRWM Program Guidelines

Release of the 2012 Proposition 84 and 1E IRWM Program Guidelines (Guidelines) provided the lead document for the approach and content required for the Region's IRWM Plan update. The Guidelines served to update prior IRWM Guidelines and to reflect current legislation impacting

what should be included in, and funded under, IRWM Plans throughout the state of California. The Guidelines' IRWM Plan Standards discuss specific elements that must be part of an IRWM Plan (see **Table E-2**).

Table E-2. Specific State Guideline Requirements and Consistency with IRWM Plan

2012 DWR IRWM Guidelines Requirements for Objectives	How the IRWM Plan Addresses Requirement
1. IRWM Plan must clearly present Plan Objectives and describe the process used to develop the Objectives.	**Section E.1** reviews how the objectives were determined. **Section E.2** delineates the Region's IRWM Plan Goals and Objectives determined by stakeholders.
2. Plan objectives must address major water-related issues and conflicts of the Region.	**Section E.1** describes the process for identifying critical water resources issues by Sub-Region, as well as regionally.
3. Objectives must be measurable by some practical means so achievement can be monitored.	**Section E.4** provides the intended qualitative and quantitative metrics, as appropriate and practical, for each objective.
4. Objectives may be prioritized for the Region and must contain an explanation of the prioritization or reason why objectives are not prioritized.	**Section Table E-6** describes the Region's decision to utilize Sub-Regional priorities, and delineates what those are.
5. RWMGs must consider overarching state goals that apply to their area: • Basin Plan Objectives • 20x2020 water efficiency goals • Requirements of CWC §10540(c) RWMGs must also consider the objectives in the appropriate basin Plan or Plans and strategies to meet applicable water quality standards, CWC §10541.(e)(2). California set a goal of a 20% reduction in per capita water use by the year 2020 (20x2020). CWC §10608 *et seq.* presents the provisions to improve agricultural water use efficiency.	The remainder of this section (**Section E.1.2**) describes how the Region's Objectives are consistent with overarching state goals.

E.1.2.2 Central Coast Basin Plan

The Central Coast Basin Plan (Basin Plan) is the water quality control plan formulated and adopted by the Regional Water Quality Control Board (RWQCB) for the Central Coast region. The objective of the Basin Plan is to show how the quality of the surface and groundwaters in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The Basin Plan lists various water uses (Beneficial Uses), describes the water quality that must be maintained to allow those uses (Water Quality Objectives), and outlines an implementation Plan for achieving those standards. In addition, the Central Coast RWQCB has established the Planning goals for water quality in the Central Coast Region (RWQCB 2011), as compiled and addressed in **Table E-3**.

Table E-3. Specific Central Coast Basin Plan Objectives and Consistency with IRWM Plan

Central Coast Basin Plan	How the IRWM Addresses Requirement
1. Protect and enhance all basin waters, surface and underground, fresh and saline, for present and anticipated beneficial uses, including aquatic environmental values.	The Water Supply, Ecosystem, Flood Management and Groundwater goals include provisions for the protection of groundwater and surface water.
2. The quality of all surface waters shall allow unrestricted recreational use.	The Ecosystem goal seeks to maintain or improve ecosystems and natural resources, and includes public access on preserved lands.
3. Manage municipal and industrial wastewater disposal as part of an integrated system of fresh water supplies to achieve maximum benefit of fresh water resources for present and future beneficial uses and to achieve harmony with the natural environment.	The Water Supply and Groundwater goals seek to improve water quality to achieve maximum benefit of fresh water supplies, including consideration of recycled water/reuse.
4. Achieve maximum effective use of fresh waters through reclamation and recycling.	The Water Supply goal includes a specific objective to increase diversification of water supply sources, including use of recycled water.
5. Continually improve waste treatment systems and processes to assure consistent high quality effluent based on best economically achievable technology.	The Water Supply goal includes a specific objective to increase diversification of water supply sources, including use of recycled water.
6. Reduce and prevent accelerated (man-caused) erosion to the level necessary to restore and protect beneficial uses of receiving waters now significantly impaired or threatened with impairment by sediment.	The Ecosystem goal seeks watershed management activities that reduce point and non-point source discharges that might impact downstream surface or groundwater users.

E.1.2.3 California Water Code

In February 2008, Governor Schwarzenegger set a goal of a 20 percent reduction in per capita urban water use by the year 2020 (20x2020). Actions toward the 20x2020 goal were furthered by the passage of Senate Bill SBx7-7, which amended the CWC to contain provisions not only to improve urban water use efficiency, but to improve agricultural water use efficiency as well. Requirements of §10540(c): CWC §10540(c) states that, at a minimum, all IRWM Plans shall address the CWC requirements listed in **Table E-4**.

Table E-4. Specific California Water Code Requirements and Consistency with IRWM Plan

California Water Code Requirements	How the IRWM Addresses Requirement
1. Protection and improvement of water supply reliability, including identification of feasible agricultural and urban water use efficiency strategies.	The Water Supply goal seeks to maintain or improve water supply quantity for all water use sectors, as well as specifically promotes communities and water users from creating and adopting water management plans which would identify such efficiency strategies.
2. Identification and consideration of the drinking water quality of communities within the area of the IRWM Plan.	The Water Supply, Groundwater, and Flood Management goals all include objectives aimed at improving water quality for communities within the area of the IRWM Plan.
3. Protection and improvement of water quality within the area of the IRWM Plan consistent with relevant basin Plan.	See discussion in **Section E.1.2.2** for discussion on consistency with Central Coast Basin Plan. The Groundwater goal seeks to identifying issues and implementing strategies addressed in local basin Plans.
4. Identification of any significant threats to groundwater resources from overdraft.	The Groundwater goal seeks collaborative and cooperative local groundwater management to identify issues (such as overdraft) in groundwater basins.
5. Protection, restoration, and improvement of stewardship of aquatic, riparian, and watershed resources within the Region.	The Ecosystem goal encapsulates this requirement in its overarching title, and is reflected in the objectives.
6. Protection of groundwater resources from contamination.	The Groundwater and Ecosystem goals include objectives for the protection of groundwater quality from natural or manmade contaminants.
7. Identification and consideration of water-related needs of disadvantaged communities in the area within the boundaries of the IRWM Plan.	All goals include special consideration to identifying DACs and issues specific to all five goals within each of the three Sub-Regions.

E.1.3 Adopting the IRWM Goals and Objectives

The progression of steps in adopting the updated IRWM Plan Goals and Objectives was deliberate in ensuring consistency requirements were met and providing IRWM Program Participants the opportunity to review, comment, and edit the Goals and Objectives prior to being finalized. The steps taken were as follows:

1. List stakeholder-identified water resources issues by Sub-Region
2. Look to issues identified in 2012 County Master Water Report
3. Compare the 2007 IRWM Plan Goals and Objectives to various requirements listed above and recognize deficiencies based on identified issues
4. Bridge deficiencies by updating the IRWM Plan Goals and Objectives. Develop approach to measurement and reporting in meeting goals
5. Confirmation of no objective prioritization and introduce, in its place, Sub-Region Priorities to address specific watershed issues
6. Submit draft IRWM Goals and Objectives to IRWM Program Participants for comment
7. Revise draft IRWM Goals and Objectives after consideration of comments received

8. Submit final draft IRWM Goals and Objectives to RWMG for review and approval

At the June 5th 2013 RWMG meeting, the RWMG members reviewed the above list of water resources issues and the updated IRWM Plan Goals and Objectives and approved them for inclusion in the IRWM Plan 2013/14 Update. An initial Sub-Region Priorities list was also developed to speak specifically to Sub-Regional issues and what Sub-Regional objectives are going to be committed to by the stakeholders. The approved IRWM Goals and Objectives were considered by each Sub-Region to finalize a Sub-Region Priorities List. The Water Resources Advisory Committee (WRAC) supported the IRWM Plan Goals and Objectives at the June 5, 2013 WRAC meeting.

E.2 IRWM GOALS AND OBJECTIVES

Based on the list of stakeholder issues and the 2012 State Guideline requirements, five Goals and associated Objectives were formed. This is illustrated below in **Figure E-7**, using Goals and abbreviated Objectives followed by the count of Sub-Region Priorities relating to the Goals. The content of Figure E-7 is described in some detail in the following sections.

E.2.1 Water Supply Goal

The intent of the Water Supply Goal is to maintain or improve water supply quantity and quality for potable water, fire protection, ecosystem health, and agricultural production needs; as well as to cooperatively address limitations, vulnerabilities, conjunctive-use, and water-use efficiency.

Objectives:

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
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
3. Support sustainable potable water supply programs for rural residents
4. Support sustainable water quality and supply programs for agriculture
5. Support projects aimed to improve existing public water systems to meet state and federal Drinking Water Quality Standards

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
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
8. Plan for potential regional impacts of greenhouse gas emissions, climate change, and droughts on water quantity and quality
9. Diversify water supply sources, including the use of recycled and desalinized water
10. Support watershed enhancement projects and programs to increase available water supplies to the Region

E.2.2 Ecosystem and Watershed Goal

Maintain or improve the health of the Region's watersheds, ecosystems, and natural resources through collaborative and cooperative actions; with a focus on assessment, protection, and restoration/enhancement of ecosystem and resource needs and vulnerabilities.

Objectives:

1. Develop watershed plans or other methods to determine the existing conditions and critical issues of each watershed or water planning area
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
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 Loads (TMDLs)
4. Develop public involvement and stewardship programs for public lands and ecosystems
5. Protect and recover threatened, endangered, and sensitive species through habitat restoration, stream flow management, and fish passage restoration
6. Reduce impacts of invasive species by removal and/or other management/control methods to promote healthy ecosystems
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

E.2.3 Groundwater Monitoring and Management (Groundwater) Goal

Achieve sustainable use of the Region's water supply within groundwater basins through collaborative and cooperative actions.

Objectives:

- Develop groundwater management plans, including salt and nutrient management Plans, or other methods to help understand groundwater issues and conditions
- 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
- Develop and implement projects and programs to further basin management objectives of local basin Groundwater Management Plans or other objectives established under other methods used to define groundwater issues and conditions
- Work with local groundwater governance bodies in the development of the California Statewide Groundwater Elevation Monitoring (CASGEM) Program for groundwater basins in the Region where plausible
- Evaluate and implement groundwater recharge and/or banking programs or efforts to increase the conjunctive-use opportunities within the Region, where technically feasible and cost-effective.
- Protect and improve groundwater quality from point and non-point source pollution, including geothermal contamination and seawater intrusion

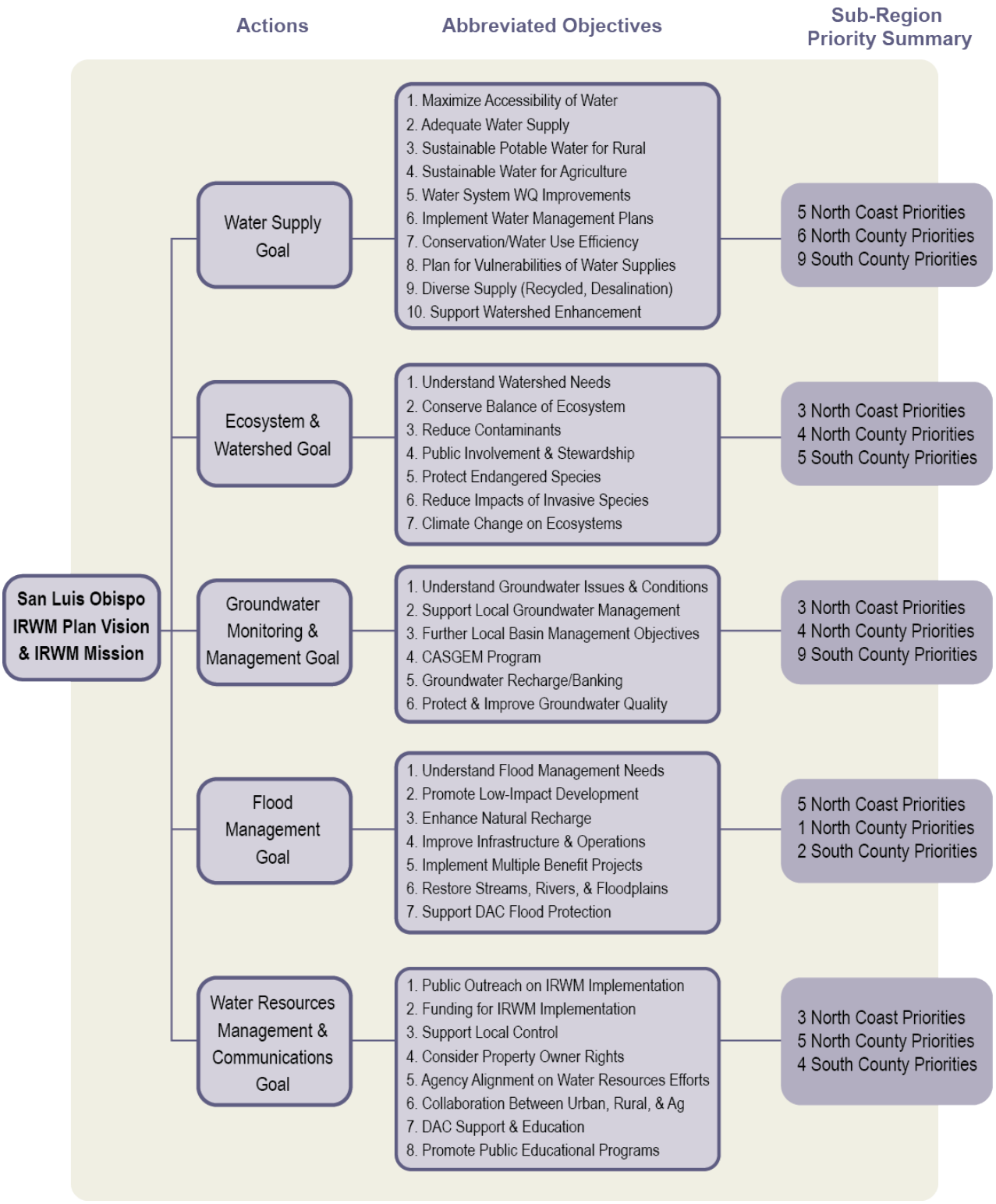

Figure E-7. Summary of IRWM Goals, Objectives, and Sub-Region Priorities

E.2.4 Flood Management Goal

Foster an integrated, watershed approach to flood management and improved storm water quality through collaborative community supported processes in order to ensure community health, safety, and to enhance quality of life.

Objectives:

- Understand flood management needs per watershed or water planning area
- Promote the implementation of Low Impact Development projects and practices to reduce storm runoff to protect infrastructure and property from flood damage
- Integrate storm water controls, drainage, and flood control structures into development projects and/or floodplain restoration to enhance natural groundwater recharge
- 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
- 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
- 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
- Support the adequate protection of DACs from flooding without unfairly burdening communities, neighborhoods, or individuals

E.2.5 Water Resources Management and Communications (Water Management) Goal

Promote open communications and regional cooperation in the protection and management of water resources, including education and outreach related to water resources conditions, conservation/water use efficiency, water rights, water allocations, and other regional water resource management efforts.

Objectives:

- Provide consistent, consolidated, and informative public outreach on the coordination of IRWM implementation projects and water resources programs
- Seek funding for IRWM implementation without unfairly burdening communities, neighborhoods, or individuals
- Actively support and promote local control in addressing water resource issues through establishing stakeholder groups, working with local groundwater governance bodies, and partnering with governance bodies, and with cities, community services districts, and other water purveyors when possible
- Consider property owner rights, existing water supplies, and cultural values in the Planning and implementation of IRWM projects and programs
- Support efforts by the state, local agencies, water purveyors, and local groundwater governance bodies to align efforts to protect and manage water resources
- Seek opportunities for water management collaboration between urban, rural, and agricultural interests
- Provide support and promote education for the participation of DACs in the development, implementation, monitoring, and long-term maintenance of water resource management projects
- Promote public education programs for water resources management (e.g., groundwater management, watershed protection, conservation, flood management, and water quality)

E.3 IRWM GOALS AND OBJECTIVES INTEGRATION

After the initial step of committing to any single IRWM Objective, the Objective's relevance to addressing the issues that were raised in Sub-Region workshops and in state and local resource documents was evaluated to ensure compliance. The role of each Objective is to shape and support projects and programs with measurable (quantitative and/or qualitative) physical benefits, and can demonstrate synergies with other stated IRWM Plan Objectives. Synergies occurring across goals are considered "integration of objectives." Much like building blocks that form the structure, in this case, the Objectives form and support the projects that address the issues.

This concept is explained further in **Section F – Resource Management Strategies**, **Section G – Project Solicitation, Selection, and Prioritization**, and in **Section H – Project Integration and**

Project Alternatives. The "integration of objectives" concept weaves itself into each step of the IRWM Plan's implementation, and is measured for integration at the Project Element and Water Management Strategy level, both of which strive to meet the state of California's Objectives and Resource Management Strategies. **Figure E-8** illustrates how the IRWM Objectives are used to begin the first steps towards meeting the state's Objectives. The double arrow implies integration in both directions as IRWM Projects are formulated and measured based on how well they meet both IRWM Objectives and state Objectives.

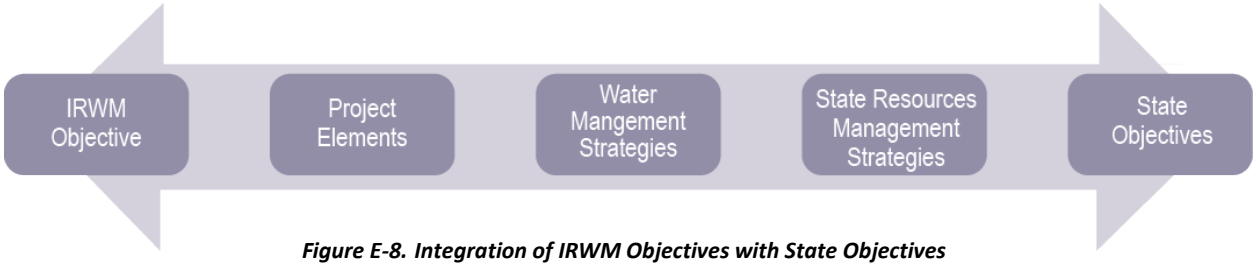

Figure E-8. Integration of IRWM Objectives with State Objectives

Table E-5 lists the initial validation of the integration of objectives by listing the Objectives from each Goal along the left side, and the distinct elements of each Goal along the top. The bullets to the right of each Objective and below the distinct Goal elements emphasize where the Objectives span across all multiple Goals, and therefore the other Goals' Objectives intent. For example, actions taken to satisfy the Water Supply Goal of providing an adequate water supply in all communities, can involve aspects of ensuring sustainable use of groundwater supplies (Groundwater Goal), open communication with stakeholders, and the protection and management of existing water supplies (Water Resources Management Goal). Several of the Water Resources Management Objectives span all Goals. For instance, DAC support and education is embedded in every action of the IRWM Plan's implementation to ensure the highest level of support to DACs over time.

Table E-5. Integration of and Synergies Between IRWM Plan Objectives and Goals

Objectives[2] \ Goals[1]		Water Supply				Ecosystem and Watersheds		Ground-water	Flood Management			Water Resources Management		
		Maintain or improve water supply quantity and quality	Address limitations and vulnerabilities	Conjunctive use	Water use efficiency	Maintain or improve health of watersheds, ecosystems, and resources	Assess, protect, and restore ecosystem and resource needs and vulnerabilities	Achieve sustainable use of water supply in basins	Integrate watershed approach to flood management	Improve storm water quality	Ensure health and safety and enhance quality of life for community	Promote open communication and resource cooperation	Protect and manage water resources	Education and outreach
Water Supply	Maximize accessibility of water	●						●				●	●	
	Adequate water supply	●	●	●	●			●				●	●	
	Sustainable potable water for rural	●		●	●			●					●	
	Sustainable water for agriculture	●		●	●			●					●	
	Water system WQ improvements	●	●										●	
	Implement water management Plans	●	●	●	●			●					●	
	Conservation/water use efficiency	●			●								●	●
	Plan for vulnerabilities of water supply	●	●				●	●					●	
	Diverse supply (recycled, desalination)	●	●		●			●					●	
	Support Watershed Enhancement	●	●	●		●	●	●					●	
Ecosystem and Watersheds	Understand watershed needs		●			●	●	●	●			●	●	
	Conserve balance of ecosystem		●			●	●	●	●	●	●		●	
	Reduce contaminants	●	●			●	●	●		●	●		●	
	Public involvement and stewardship					●	●				●	●	●	●
	Protect endangered species					●	●					●	●	
	Reduce impacts of invasive species	●	●			●	●						●	●
	Climate change in ecosystems	●	●			●	●	●	●			●	●	
Groundwater	Understand GW issues and conditions		●					●				●	●	
	Support local GW management	●		●				●				●	●	
	Further local basin management objectives	●						●				●	●	
	CASGEM Program	●	●		●			●				●	●	
	Groundwater recharge/banking	●		●				●	●	●		●	●	
	Protect and improve GW quality	●	●			●	●	●					●	

Table E-5. Integration of and Synergies Between IRWM Plan Objectives, Continued

Objectives[2] \ Goals[1]		Water Supply				Ecosystem and Watersheds		Ground -water	Flood Management			Water Resources Management		
		Maintain or improve water supply quantity and quality	Address limitations and vulnerabilities	Conjunctive use	Water use efficiency	Maintain or improve health of watersheds, ecosystems, and resources	Assess, protect, and restore ecosystem and resource needs and vulnerabilities	Achieve sustainable use of water supply in basins	Integrate watershed approach to flood management	Improve storm water quality	Ensure health and safety and enhance quality of life for community	Promote open communication and resource cooperation	Protect and manage water resources	Education and outreach
Flood Management	Understand flood management needs						●		●	●	●		●	
	Promote low impact development	●			●	●	●		●	●				
	Enhance natural recharge					●		●	●	●	●	●	●	
	Improve infrastructure and operations	●	●			●			●	●	●		●	
	Implement multiple-benefit projects	●		●		●		●	●	●	●	●	●	
	Restore streams, rivers and floodplains					●	●	●	●		●		●	
	Support DAC flood protection								●	●	●	●	●	
Water Resources Management	Public outreach on IRWM implementation	●	●	●	●	●	●	●	●	●	●	●	●	●
	Funding for IRWM implementation	●	●	●	●	●	●	●	●	●	●	●	●	●
	Support local control			●				●	●			●	●	
	Consider property owner rights	●						●			●	●	●	
	Agency alignment on water resource efforts	●		●		●		●	●			●	●	
	Collaboration between urban, rural, and ag	●		●				●	●		●	●	●	
	DAC support and education	●	●	●	●	●	●	●	●	●	●	●	●	●
	Promote public education programs	●			●	●		●	●		●	●	●	●

Notes: 1. Sub-Headings under each Goal along the top are the distinct elements extracted from Goal statement.
2. Each row represents an abbreviated Objective.

E.4 GOALS AND OBJECTIVES METRICS

The Objectives Standard in the 2012 DWR IRWM Guidelines requires that objectives be measurable with the most appropriate metric. Each IRWM Plan objective must include some metric(s) that the RWMG will use to determine if IRWM Plan implementation is meeting the IRWM Plan goals over time. The objectives' metrics apply to the projects and programs and resource management strategies as the IRWM Plan is implemented through these strategies, projects, and programs.

As one step in the objectives development process, a short analysis is performed to develop measurements of physical benefits. The measure for an objective is qualitative, quantitative, or both, depending on the Region's available resources, existing monitoring processes in place, and the nature of the objective.

Throughout IRWM Plan implementation, projects and programs will be implemented and data generated. A Plan Performance Matrix will be developed that lists the projects and programs and shows how (and the extent to which) each project carries out IRWM Plan objectives, using the quantitative and/or qualitative measures listed in the following the tables below (**Table E-6** through **Table E-10**, by overarching Goal). Please see **Section J – Plan Performance and Monitoring**, for a more detailed description of this process.

Table E-6. Water Supply Goal

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
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.		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.
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.		Decreasing number of communities with deficiencies (objective = 0 communities).
3. Support sustainable potable water supply programs for rural residents.	Decreasing number of comments or complaints from the rural community regarding loss, or potential loss, of quality or quantity of their water supplies.	
4. Support sustainable water quality and supply programs for agriculture.	Decreasing number of comments or complaints from the agricultural community regarding loss, or potential loss, of quality or quantity of their water supplies.	
5. Support projects aimed to improve existing public water systems to meet State and Federal Drinking Water Quality Standards.		Decreasing number of community water systems that do not currently meet state or federal drinking water quality standards (objective = 0 community water systems).

Table E-6. Water Supply Goal, Continued

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
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 (objective = 0).
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.	Every five years, review extent to which all water use sectors have developed and implemented conservation programs.	Increasing number of acre-feet per year of urban, agriculture, and rural water saved through formal water use efficiency projects and programs.
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.
9. Diversify water supply sources, including the use of recycled and desalinized water.		Decreasing number of communities without a secondary water supply source (objective = 0 communities).
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.	

Table E-7. Ecosystem and Watershed (Ecosystem) Goal

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
1. Develop watershed Plans or other methods to determine the existing conditions and critical issues of each watershed or water Planning area.		Decreasing number of watersheds without plans or similar methods developed to understand the needs in watershed or water planning area (objective = 0 watersheds).
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.		Increasing number of acres preserved for ecosystem restoration and/or preservation. Increasing number of acres of healthy or improved natural recharge areas associated with riparian corridors.
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 TMDLs.	Increasing number of programs with the intent to protect surface water and groundwater recharge areas and improve surface water and/or groundwater quality.	Increasing number of creeks that have a water quality measuring program in place.
4. Develop public involvement and stewardship programs for public lands and ecosystems.	Increasing public involvement and stewardship programs that cover all public lands and ecosystems.	

Table E-7. Ecosystem and Watershed (Ecosystem) Goal, Continued

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
5. Protect and recover threatened, endangered and sensitive species through habitat restoration, stream flow management, and fish passage restoration.	Increasing number of management programs and projects with the primary benefit to improve threatened, endangered, and sensitive species corridors.	
6. Reduce impacts of invasive species by removal and/or other management/control methods to promote healthy ecosystems.	Increasing number of studies and management and/or prevention programs and projects established to reduce invasive species or re-establish native species populations.	Decreasing number of invasive species problems (objective = 0 invasive species).
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.	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.	

Table E-8. Groundwater Monitoring and Management (Groundwater) Goal

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
1. Develop groundwater management Plans, including salt and nutrient management Plans, or other methods to help understand groundwater issues and conditions.		Increasing percentage of the Region's groundwater basins that have adopted Groundwater Management Plans and governance structures (only in basins where required).
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.		Increasing percentage of the Region's groundwater basins that have groundwater management structures for the purpose of implementing plans, programs, and projects.
3. Develop and implement projects and programs to further basin management objectives of local basin Groundwater Management Plans or other objectives established under other methods used to define groundwater issues and conditions.	Increase in the overall level of management and governance through adopted Groundwater Management Plans..	Increasing number of projects consistent with adopted Groundwater Management Plan Basin Management Objectives (BMOs) for the improvement of the health of a groundwater basin.
4. Work with local groundwater governance bodies in the development of the California Statewide Groundwater Elevation Monitoring (CASGEM) Program for groundwater basins in the region where plausible.		Increasing number of basins meeting CASGEM standards (objective = all basins).

Table E-8. Groundwater Monitoring and Management (Groundwater) Goal, Continued

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
5. Evaluate and implement groundwater recharge and/or banking programs or efforts to increase the conjunctive use opportunities within the region, where technically feasible and cost-effective.	Increasing percentage of acreage or groundwater basins within the Region that have been studied or looked at for viability of groundwater banking.	Increasing number of groundwater banking projects implemented where technically feasible and cost-effective.
6. Protect and improve groundwater quality from point and non-point source pollution, including geothermal contamination and seawater intrusion.		Increasing number of projects/programs implemented for the improvement and protection of groundwater basin water quality.

Table E-9. Flood Management Goal

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
1. Understand flood management needs per watershed or water Planning area.	Increasing number of development projects where specific development conditions have been applied for the incorporation of storm water runoff reduction elements.	
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.	
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.	
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.	

Table E-9. Flood Management Goal, Continued

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
5. Develop and implement flood management and water storage	Increasing number of flood management projects where multiple human and habitat-related benefits can be	
6. Develop and implement flood control projects that ensure health and safely and simultaneously protect, restore, and enhance the functions of rivers, creeks, streams, and their floodplains.		Increasing number of miles of waterways where deliberate measures have taken place to improve riparian floodplains. Increasing number of acres of floodplain acquired.
7. Support the adequate protection of disadvantaged communities from flooding without unfairly burdening communities, neighborhoods, or individuals.	Demonstrated efforts to work with flood agencies to bring the flood management needs of DACs to the forefront for consideration of flood management actions.	

Table E-10. Water Management and Communications (Water Management) Goal

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
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.	
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.	
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 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.
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.	
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.	

Table E-10. Water Management and Communications (Water Management) Goal, Continued

OBJECTIVES	QUALITATIVE MEASUREMENT	QUANTITATIVE MEASUREMENT
6. Seek opportunities for water management collaboration between urban, rural, and agricultural interests.	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.
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.	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.
8. Promote public education programs for groundwater management, watershed protection, conservation, flood management, and water quality.	Existence of public education programs for groundwater management, watershed protection, conservation, flood management, and water quality and efforts to promote them.	

E.5 PRIORITIZATION OF IRWM GOALS AND OBJECTIVES

The RWMG has made a deliberate decision not to prioritize the IRWM Plan Objectives on a regional level, but to prioritize them separately for each Sub-Region. The rationale for this decision is because the Region is a broad and complex geographic area made up of a diverse group of stakeholders having varying water resources issues depending on location. The RWMG has aimed to be as inclusive as possible of all stakeholders in the Region, encouraging their active participation in the IRWM Planning process and considering their concerns and needs. The IRWM Plan Objectives are based on the water resources issues perceived to exist in the Region, as identified by the three Sub-Region stakeholder groups (**Section E.1.1** above). The RWMG therefore recognizes that each Objective carries some level of importance for one or more groups of stakeholders. By prioritizing some Objectives over others, the needs of certain stakeholders may be undervalued, despite the original intent to capture and retain stakeholder interests. In order to maintain inclusivity, and to avoid the possibility of minimizing certain groups of stakeholders, or discouraging their participation in the IRWM Planning process, the RWMG has therefore decided not to prioritize the IRWM Plan's Objectives.

The purpose of introducing the Sub-Region Priorities is to allow for a ranking to take place within each of the unique Sub-Regions. The Sub-Region Priorities will stem from the regional Objectives, but speak specifically to local issues and what local objectives are going to be committed to in the implementation of IRWM Projects within each of the Sub-Regions. This approach provides for a discussion of relevant importance and prioritization to the regional Objectives based on the geographic location of the projects.

E.5.1 Sub-Region Priorities Lists

As discussed in **Section Table E-6**, Sub-Region Priorities are locally driven objectives that are tied to the IRWM Plan's Objectives at the regional level, but hold the emphasis and priority of the Sub-Region stakeholders. In this way, local projects can be formed around tangible objectives that are meaningful to the Sub-Region, and will inherently result in physical benefits and synergies with the regional Goals and Objectives.

The method for determining the Sub-Region Priorities began with the Sub-Region workshop list of issues and concerns (see **Appendix D-4 – Sub-Region Workshop Materials**). It is through the outreach efforts and public participation where the concerns were heard and documented, but were not fully addressed by the self-imposed constraint on the number and specificity of the regional Objectives.

A Sub-Region Priority is defined as an issue or conflict that is taking place in the Sub-Region, which can be resolved through local (or regional) actions within the control and jurisdiction of local agencies with support from state and federal regulatory agencies, and that is not a project or single action. Additionally the Sub-Region Priority shall meet one or more of the IRWM Plan Objectives and result in measurable physical benefits.

Based on this definition, the following Sub-Region Priorities in **Table E-11** have been approved by the Sub-Region representatives and have the support of the local stakeholders. It is the intent that each Sub-Region takes ownership of these priorities and updates the list and continues to prioritize to reflect changes occurring within their Sub-Region over the life of the IRWM Plan. The priorities are imbedded in the IRWM Plan's objectives, and the results of monitoring the Plan's performance in meeting the objectives will be shared with the Sub-Regions so they are able to monitor how well their priorities are being met.

Table E-11. Sub-Region Priorities

Regional Goal/Objectives	North Coast	North County	South County
Water Supply Goal 1. Maximize Accessibility of Water 2. Adequate Water Supply 3. Sustainable Potable Water for Rural 4. Sustainable Water for Agriculture 5. Water System WQ Improvements 6. Implement Water Management Plans 7. Conservation/ Water Use Efficiency 8. Plan for Vulnerabilities of Water Supplies 9. Diverse supply (Recycled, Desalinized) 10. Support Watershed Enhancement	• Update Water Supply Capital Programs for small coastal communities with alternatives analysis and financial requirements. • Conduct Sub-Region study on maximum use of recycled water. • Study the impacts of climate change on coastal community water supplies. • Seek agency cooperation in regionalizing drinking water, recycled water for irrigation and wastewater. • Implement water conservation programs and measures.	• Update Water Supply Capital Programs for small inland water systems with alternatives analysis and financial requirements. • Seek agricultural, rural, and urban opportunities, working with other agencies and regional partners, to develop conjunctive use and drought year water supplies, including private groundwater pumpers. • Pursue water conservation efforts in all use sectors and supplemental supply projects (non-groundwater) to reduce dependence on groundwater. • Pursue cost- effective and technically feasible conjunctive use projects to increase water supplies for agricultural, rural, and urban water users. • Ensure potable water is available for rural residents. • Seek funding for supplemental water supply.	• Seek agricultural and urban supplemental water supplies. • Study the impacts of sea level rise on coastal community water supplies. • Develop supplemental water supplies. • Evaluate potential for groundwater banking/conjunctive use programs and policies (locally or within State Water Project system). • Investigate options for optimizing use of local surface water storage. • Maximize production and delivery capacity of the local water supply infrastructure (e.g., capacity improvements to Lopez WTP, pipeline pigging, etc.). • Evaluate potential for enhanced rainfall. • Improved diversification of water supply resources for the South County agencies. • Implementation of coordinated regional conservation programs.

Table E-11. Sub-Region Priorities, Continued

Regional Goal/Objectives	North Coast	North County	South County
Ecosystem and Watershed Goal 1. Understand Watershed Needs 2. Conserve Balance of Ecosystem 3. Reduce Contaminants 4. Public Involvement and Stewardship 5. Protect Endangered Species 6. Reduce Impacts of Invasive Species 7. Climate Change on Ecosystems	• Conduct a study on cost-effective methods of improving wastewater discharge quality including improving source quality (i.e., reduced natural contaminants in groundwater) of potable water. • Understand flow needs and watershed functionality and identify priority areas for water supply enhancement and conservation projects to ensure watershed health. • Conserve the balance of ecosystem functions/services.	• Develop quantifiable control studies on manmade actions to improve groundwater quality and/or increase groundwater elevations using currently adopted best management practices. • Understand watershed functionality and identify specific priorities for ensuring watershed health. • Protect the Salinas River corridor. • Pursue land conservation projects that protect watersheds.	• Finalize/Implement AG Creek Habitat Conservation Plan. • Develop an inventory of diversions from surface water bodies. • Install stream gauges on key regional creeks. • Develop groundwater facilities or projects that increase operational and management flexibility. • Avoid Seawater Intrusion (identify risk measures and management thresholds and develop coordinated response).
Groundwater Monitoring and Management Goal 1. Understand GW Issues and Conditions 2. Support Local GW Management 3. Further Local Basin Management Objectives 4. CASGEM Program 5. Groundwater Recharge/Banking 6. Protect and Improve GW Quality	• Develop Groundwater Management Plan for all groundwater basins used as drinking water supply. • Create a state-approved groundwater monitoring program at community or Sub-Region level. • Determine the safe yield of coastal aquifers.	• Improve groundwater monitoring programs with participation from urban and agricultural pumpers to track changes in groundwater levels and groundwater quality. • Establish safe sustainable yields with an emphasis of improving the larger regional basin. • Seek funding for supplemental water, conjunctive use and/or groundwater banking programs to provide greater operational flexibility. • Work to balance groundwater basin through demand management and supply options.	• Develop management tools (conceptual and groundwater flow models). • Uniform groundwater monitoring program for the South County groundwater basins. • Uniform metering and reporting for all groundwater pumping in the South County. • Increased groundwater monitoring (focused on storage). • Install additional dedicated monitoring wells including down hole transducers in high priority areas.

Table E-11. Sub-Region Priorities, Continued

Regional Goal/Objectives	North Coast	North County	South County
			• Investigate and quantify subsurface flows between the SMGB management areas. • Investigate and quantify available storage and reliable yield. • Policies to maintain health of the South County's groundwater basins. • Prepare Salt and Nutrient Management Plan(s) to cover the Sub-Region.
Flood Management Goal 1. Understand Flood Management Needs 2. Promote Low Impact Development 3. Enhance Natural Recharge 4. Improve Infrastructure and Operations 5. Implement Multiple Benefit Projects 6. Restore Streams, Rivers and Floodplains 7. Support DAC Flood Protection	• Identify, protect, and enhance aquifer recharge areas. • Distinguish the root cause of flooding problems. • Restore floodplains, streams, and rivers. • Promote low impact development projects. • Develop financial programs for drainage and flood management projects.	• Identify, protect, and enhance aquifer recharge areas.	• Develop projects to improve the levels of flood protection in urbanized areas. • Increase storm water retention and percolation.

Table E-11. Sub-Region Priorities, Continued

Regional Goal/Objectives	North Coast	North County	South County
Water Resources Management and Communications Goal 1. Public Outreach on IRWM Implementation 2. Fund for IRWM Implementation 3. Support Local Control 4. Consider Property Owner Rights 5. Agency Alignment on Water Resources Efforts 6. Collaboration Between Agriculture, Rural, and Urban 7. DAC Support and Education 8. Promote Public Education Programs	• Develop methods to reach out to community on local water-related information and dates for Sub-Region meetings and workshops. • Develop an IRWM Plan Project for Round 3. • Initiate inner- and inter-watershed discussions on conservation and reuse options.	• Perform an assessment study on current water rights within the Paso Robles Basin and Salinas River. • Develop an IRWM Plan Project for Round 3. • Develop methods to reach out to community on local water-related information and dates for Sub-Region meetings and workshops. • Maintain collaborative efforts with groundwater basin and watershed stakeholders. • Evaluate zones of benefit and other groundwater governance structures.	• Develop methods to reach out to community on local water-related information and dates for Sub-Region meetings and workshops. • Develop an IRWM Plan Project for Round 3. • Improve collaboration and data sharing between urban, agricultural, and rural pumpers. • Maintain collaborative efforts between basin and watershed management groups.

San Luis Obispo Integrated Regional Water Management Plan