

Chapter 3 Goals and Objectives

IRWM Plan Standard 3

The IRWM Plan must clearly present objectives and describe the process used to develop the objectives. Plan objectives must address major water-related issues and conflicts of the region. In addition, objectives must be measurable by some practical means so achievement of objectives can be monitored. The IRWM Plan must contain an explanation of the prioritization or reason why the objectives are not prioritized.

3.1 Monterey Peninsula Regional Goals

Development of goals and objectives was a key step in the IRWM planning process for the 2007 IRWM Plan and goals and objectives were reassessed for this 2013 Update. Goals are established for broadly outlining the IRWM Plan direction, whereas objectives provide a reasonable basis for decision making, guide work efforts, and may be used to evaluate project benefits. The goals for this Plan were based on improving existing water resource conditions in the Region at the time the IRWM Plan was developed and were modified in 2012 as a result of the consideration of the 2011/2012 DWR Proposition 84 & 1E Guidelines. These represent achievable goals, but may not represent the highest function attainable for any particular goal due to present-day legal, financial, and physical constraints. However, an important function of the IRWM Plan is to outline a process for adaptive management, including a process to change goals based on new information and/or conditions.

In 2005, MPWMD coordinated several stakeholder meetings to solicit input on goals and objectives. Stakeholders appointed a Technical Advisory Committee (TAC) comprised of staff representatives from the Water Management Group (WMG) and other stakeholders within the Region including CSUMB, CRWC, MBNMS, Seaside, CRSA, the Planning and Conservation League, and Pebble Beach Co.

After DWR funded a planning grant for the Region in 2006, and based in part on the DWR/SWRCB review of Regional goals and objectives, stakeholders were asked to re-evaluate goals and objectives. The result was a set of regional goals based on statewide priorities, previous water management efforts, stakeholder involvement, and experience in regional issues. Between December 2006 and July 2007, MPWMD coordinated a series of workshops to finalize the goals and objectives for inclusion in the 2007 IRWMP.

For the 2013 Update, MPWMD coordinated additional stakeholder meetings and solicited input via email to reassess the goals and objectives from the November 2007 IRWM Plan in light of locally changed conditions and new guidance from the state and Regional Water Quality Control Board, Central Coast (CCRWQCB or RWQCB). Revisions to the objectives were aimed at meeting new guidelines for regions to consider climate change, an increased emphasis on disadvantaged community issues and outreach, new statewide priorities in the 2009 California Water Plan, revisions to the RWQCB Basin Plan, and other regulations and guidance.

The goals included herein best illustrate the shared regional vision for accomplishing integrated regional water resource plans and other future planning efforts in the area. Regional goals are organized into six general categories: water supply, water quality, flood protection and erosion prevention, environmental protection and enhancement, climate change (added for this IRWM Plan Update), and regional communication and cooperation. The goals for each of these categories are summarized in **Table 3-1**.

Table 3-1: Monterey Peninsula Regional Goals

Water Supply	Water Quality
Improve regional water supply reliability through environmentally responsible solutions that promote water and energy conservation. Protect the community from drought and climate change effects with a focus on interagency cooperation and conjunctive use of regional water resources.	Protect and improve water quality for beneficial uses consistent with regional community interests and the Regional Water Quality Control Board Basin Plan through planning and implementation in cooperation with local and state agencies and regional stakeholders.
Flood Protection/Erosion Prevention	Environmental Protection & Enhancement
Ensure that flood protection and erosion prevention strategies are developed and implemented through a collaborative and watershed-wide approach and are designed to consider climate change effects and maximize opportunities for comprehensive management of water resources.	Preserve the environmental health and well-being of the Region's streams, watersheds, and the ocean by taking advantage of opportunities to assess, restore and enhance these natural resources when developing water supply, water quality, and flood protection strategies. Seek opportunities to conserve water and energy, and adapt to the effects of climate change.
Climate Change	Regional Communication
Adapt the region's water management approach to deal with impacts of climate change using science-based approaches, and minimize the regional causal effects related to water resources.	Identify an appropriate forum for regional communication, cooperation, and education. Develop protocols for encouraging integration and reducing inconsistencies in water management strategies between local, regional, State, and Federal entities. Provide balanced access and opportunity for the public, stakeholders, and DACs to participate in IRWM efforts.

3.2 Objectives

The plan objectives have been developed and modified by the region's stakeholders iteratively since 2006 through the processes described below. The objectives are more specific than regional goals, and they have consistently addressed major water-related issues and conflicts of the region. Within subsequent chapters of this Plan, the following are presented to assist the Region in achieving the objectives:

- Resource Management Strategies (Chapter 4),
- planning grant projects approved in 2011, and
- 2013 IRWM plan implementation projects (Chapter 6).

3.2.1 Development of Objectives and Priorities for 2007 IRWM Plan

The process followed by the Stakeholder Group in 2005-2007 for identifying pertinent goals and objectives and then prioritizing regional projects under those goals and objectives consisted of the following key steps. These were as follows:

1. **Describe water-related issues.** There are several issues that the Region has grappled with for many years including limited water supply, decline of sensitive species, storm water management, groundwater management, flooding and erosion. Through a community outreach program,

workshops, and deliberation with stakeholders, the Water Management Group, TAC and Stakeholder Group identified the specific water-related issues to be addressed by this IRWMP.

2. **Develop List of Objectives.** This effort built upon ongoing planning efforts in the region, including the Carmel River Watershed Action Plan prioritization process, the development of the Monterey Regional Storm Water Management Program, the ongoing water supply planning processes, and the Carmel River Parkway Plan. Like the regional goals, the plan objectives were originally organized under five categories of water supply, water quality, flood protection and erosion prevention, environmental protection and enhancement, and regional communication and cooperation.
3. **Develop Criteria.** The Stakeholder Group and TAC considered the following criteria in setting regional priorities:
 - benefit multiple agencies and stakeholders or large portions of the Region;
 - meet water supply goals, improve or protect environmental resources, and improve existing infrastructure;
 - avoid negative impacts to infrastructure, water supply, or environmental resources; and/or
 - comply with Federal or State regulations.
4. **Develop and Refine Priorities.** The Stakeholder Group developed a draft set of priorities based on individual entity responsibilities, strategic plans, and short and long term goals. At a stakeholder meeting in December of 2006, a Technical Advisory Committee (TAC) was appointed to refine the priorities using the Priority Criteria, review project descriptions, and make recommendations about a prioritized suite of projects to the Stakeholder Group.
5. **Prioritization.** The TAC met regularly throughout the first half of 2007 to deliberate and refine priorities and develop a project scoring process. As a result of these workshops, a suite of projects was identified for inclusion in the Plan and a process to modify the Plan and project list in the future was determined.

3.2.2 Objectives/Prioritization for the 2013 IRWM Update

In July of 2012, a stakeholder meeting was convened to introduce stakeholders to the 2013 IRWM update process and the newly released Draft IRWM Plan Guidelines (DWR, August 2012), and to revisit the 2007 IRWM objectives and priorities for the region. The process of developing and updating objectives considered the following overarching goals that apply to the region:

Central Coastal Basin Water Quality Control Plan (“Basin Plan”)

The Basin Plan, which was updated in June 2011, is the water quality control plan formulated and adopted by the Central Coast Regional Water Quality Control Board. The objective of the Basin Plan is management of surface and ground water in the Central Coast region to achieve the highest water quality reasonably possible. The Central Coast region includes all of Santa Cruz, Monterey, San Luis Obispo, and Santa Barbara counties, most of San Benito County, and parts of San Mateo, Santa Clara, and Ventura counties. The Basin Plan lists various water uses (Beneficial Uses), describes the water quality which 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 established the following water quality planning goals (RWQCB 2011):

1. Protect and enhance all basin waters, surface and underground, fresh and saline, for present and anticipated beneficial uses, including aquatic environmental values.
2. The quality of all surface waters shall allow unrestricted recreational use.

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.
4. Achieve maximum effective use of fresh waters through reclamation and recycling.
5. Continually improve waste treatment systems and processes to assure consistent high quality effluent based on best economically achievable technology.
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 objectives for the Monterey Peninsula IRWM region promote actions to meet the water quality standards outlined in the Basin Plan, and are consistent with the overarching Basin Plan goals.

20x2020 Water Efficiency Goals

The 20x2020 Water Conservation Plan (20x2020 Plan) sets forth a statewide road map to maximize the state's urban water efficiency and conservation opportunities starting in 2009. It aims to set in motion a range of activities designed to achieve a 20 percent per capita reduction in urban water demand by 2020. These activities include improving an understanding of the variation in water use across California, promoting legislative initiatives that incentivize water agencies to promote water conservation, and creating evaluation and enforcement mechanisms to assure regional and statewide goals are met. The 20x2020 Plan discusses these many activities in detail. As of 2011, CAW had not yet achieved the required per capita reduction in its Monterey County District.¹ It should be noted that the baseline year for the conservation goals set in the 20x2020 Plan was 2005. The Monterey Peninsula region has implemented aggressive water conservation programs since the mid-1980s, which has resulted in the lowest per capita water consumption of any comparable community in the State of California at approximately 58 gallons per person per day. This can be compared to the California statewide average in 2005 of about 200 gallons per person per day (estimates vary depending on the source).

Requirements of CWC §10540(c)

At a minimum, all IRWM Plans shall address certain requirements of CWC §10540(c). The points below were presented to the region's stakeholders at the July 2012 meeting and are restated for consideration by reviewers of this document.

- Protection and improvement of water supply reliability, including identification of feasible agricultural and urban water use efficiency strategies.
- Identification and consideration of the drinking water quality of communities within the area of the Plan.
- Protection and improvement of water quality within the area of the Plan consistent with relevant basin plan.
- Identification of any significant threats to groundwater resources from overdrafting.
- Protection, restoration, and improvement of stewardship of aquatic, riparian, and watershed resources within the region.
- Protection of groundwater resources from contamination.

¹ 2010 California American Water Urban Water Management Plan for the Central Division, Monterey County District, Final Draft, May 21, 2012.

- Identification and consideration of water-related needs of disadvantaged communities in the area within the boundaries of the Plan.

Although these items are not required to be objectives in an IRWM Plan, IRWM Guidelines recommend that regions consider these points in all IRWM planning efforts, including modifications of IRWM Plan objectives.

At the July 2012 Stakeholder meeting, stakeholders were asked to provide general comments and input to a draft set of goals and objectives revised in accordance with the 2011/2012 Guidelines from DWR and new regional circumstances and conditions. To gather meaningful feedback, the participants were also provided written forms and asked to rank draft objectives as high, medium or low priorities for the Region. In addition, the Objectives Feedback form was provided to the full list of stakeholders via email to enable those who could not attend the meeting to provide feedback on the draft objectives. The results of the July 25, 2012 stakeholder meeting, including the Objectives Feedback/Prioritization Exercise Results, are included in Appendix ?? – Objectives Feedback Results.

Based upon stakeholder input (including verbal and written comments) and the Objectives Feedback/Prioritization Exercise, the draft objectives were modified and re-ordered. The 2012 objectives review process resulted in twenty five (25) total objectives, including eight (8) considered “high priority.” The result of the objectives review and prioritization effort is shown in **Table 3-3**.

Table 3-3: 2013 Prioritized Regional Objectives

Water Supply (WS)
WS-1. Meet existing water supply replacement needs of the Carmel River system and Seaside Groundwater Basin.*
WS-2. Maximize use of recycled water.*
WS-3. Seek long-term sustainable supplies for adopted future demand estimates.*
WS-4. Optimize conjunctive use of surface and groundwater.*
WS-5. Evaluate, advance, or create water conservation throughout the Region in compliance with the State's 20x2020 Water Conservation Plan.*
Water Quality (WQ)
WQ-1. Improve ocean water quality, including Areas of Special Biological Significance (ASBS), by minimizing pollutants in stormwater discharges.*
WQ-2. Improve inland surface water quality for environmental resources (e.g. steelhead) and potable water supplies.*
WQ-3. Protect and improve water quality in groundwater basins.*
WQ-4. Meet or exceed water quality standards established by regulatory agencies and stakeholders. *
Flood Protection and Erosion Prevention (FP)
FP-1. Develop regional projects and plans necessary to protect existing infrastructure and sensitive habitats from flood damage, erosion, and sea level rise, in particular, along the southern Monterey Bay shoreline and Carmel Valley.*
FP-2. Develop approaches for adaptive management that minimize maintenance and repair requirements (sustainable flood management systems).*
FP-3. Protect quality and availability of water while preserving or restoring ecologic and stream function.*
FP-4. Provide community benefits beyond flood protection, such as public access, open space, recreation, agricultural preservation, and economic development.
Environmental Protection and Enhancement (EV)
EV-1. Protect and enhance sensitive species and their habitats in the regional watersheds; promote the steelhead run.*
EV-2. Identify opportunities to assess, protect, enhance, and/or restore natural resources, including consideration of climate change, when developing water management strategies and projects.*
EV-3. Minimize adverse effects on biological and cultural resources when implementing strategies and projects.*
EV-4. Identify opportunities for open spaces, trails and parks along streams and other recreational areas in the watershed that can be incorporated into projects.
EV-5. Identify and integrate elements from appropriate Federal and State species protection and recovery plans.*
Climate Change (CC)
CC-1. Evaluate adaptation measures and mitigative solutions to climate change effects.*
CC-2. Support increased education, monitoring and research to increase understanding of long-term impacts of climate change in the region.*
CC-3. Support efforts to increase education, research and use of energy conservation measures and alternatives to fossil fuel and non-renewable resources to reduce greenhouse gas emissions associated with water and wastewater facility operations and IRWM projects.*
Regional Communication and Cooperation (RC)
RC-1. Identify cooperative, integrated strategies for protecting both infrastructure and environmental resources, including from climate change impacts. *
RC-2. Foster collaboration among regional entities as an alternative to litigation.*
RC-3. Identify and pursue additional opportunities for public education, outreach, and communication on water resource management and climate change, including to disadvantaged communities and stakeholders with interests in water management issues.*
RC-4. Build relationships with State and Federal regulatory agencies and other water forums and agencies.
NOTES: These objectives have been revised and renumbered compared to the draft objectives presented and evaluated at the 7/25/2012 Stakeholder Meeting.
High Priority Objectives based upon those objectives receiving the most points during the objectives prioritization exercise in July and August 2012 are presented in gray shading and bold type.
* = Objective is closely aligned with Statewide Priorities (see Table 3-4, below).

3.2.1 Program Preferences and Statewide Priorities by Objectives

In accordance with PRC §75026.(b) and CWC §10544, the 2012 DWR Guidelines state that preference will be given to proposals that:

- Include regional projects or programs (CWC §10544).
- Effectively integrate water management programs and projects within a hydrologic region identified in the California Water Plan; the Regional Water Quality Control Board (RWQCB) region or subdivision; or other region or sub-region specifically identified by DWR.
- Effectively resolve significant water-related conflicts within or between regions.
- Contribute to attainment of one or more of the objectives of the CALFED Bay-Delta Program. [NOTE: This preference is not applicable to the Monterey Peninsula region, see Section 2, Regional Description]
- Address critical water supply or water quality needs of disadvantaged communities within the region.
- Effectively integrate water management with land use planning.
- For eligible SWFM funding, projects which: a) are not receiving State funding for flood control or flood prevention projects pursuant to PRC §5096.824 or §75034 or b) provide multiple benefits, including, but not limited to, water quality improvements, ecosystem benefits, reduction of instream erosion and sedimentation, and groundwater recharge.
- Address statewide priorities (**Table 3-4** compares the Statewide Priorities for the IRWM Grant Program with the 2013 MP IRWM Plan Update Objectives).

3.2.2 Measuring Attainment of Objectives

The IRWM Guidelines require that objectives must be measurable by some practical means to enable monitoring of the achievement of the objectives and thus the success of IRWM Plan implementation. Because the IRWM Plan is implemented primarily through projects, these measures, or “metrics” apply to projects that seek to achieve the objectives. **Table 3-5** suggests potential qualitative and quantitative measurement metrics that will be further developed when projects under the plan have been implemented. Although this Draft Plan attempts to identify the most appropriate measures for a given objective, the suggested measures do not encompass the full breadth of possible ways to measure success in meeting the Plan goals and objectives. See **Chapter 8. Plan Performance and Monitoring** for additional detail about the future process for measuring achievement of goals and objectives.

Table 3-4: Statewide Priorities versus 2013 IRWM Plan Objectives

Statewide Priority Name/Description	Objectives
<p>Drought Preparedness. Proposals that contain projects that effectively address long-term drought preparedness by contributing to sustainable water supply and reliability during water shortages. Drought preparedness projects do not include drought emergency response actions, such as trucking of water or lowering well intakes. Desirable proposals will achieve one or more of the following:</p> <ul style="list-style-type: none"> Promote water conservation, conjunctive use, reuse and recycling. Improve landscape and agricultural irrigation efficiencies. Achieve long term reduction. Efficient groundwater basin management. Establish system inerties. 	<p>WS-1 though WS-5, WQ-2, WQ-3, FP-1</p>
<p>Use and Reuse Water More Efficiently. Proposals that include projects that implement water use efficiency, water conservation, recycling and reuse to help meet future water demands, increase water supply reliability, and adapt to climate change. Desirable proposals include those with projects that:</p> <ul style="list-style-type: none"> Increase urban and agricultural water use efficiency measures such as conservation and recycling. Capture, store, treat, and use urban stormwater runoff (such as percolation to usable aquifers, underground storage beneath parks, small surface basins, domestic stormwater capture systems, or the creation of catch basins or sumps downhill of development) or projects outlined in PRC §30916 (SB 790). Incorporate and implement low impact development (LID) design features, techniques and practices to reduce or eliminate stormwater runoff. 	<p>WS-2, WS-4, WS-5, WS-6, WQ-1, WQ-2, WQ-3,</p>
<p>Climate Change Response Actions. Water Management actions that will address the key Climate Change issues of: assessment of vulnerabilities as a result of climate change; adaptation to climate change; reduction of greenhouse gas (GHG) emissions; and reduce energy consumption.</p> <p>Proposals that contain projects that when implemented address adaptation to climate change effects in an IRWM region. Desirable proposals include those that:</p> <ul style="list-style-type: none"> Advance and expand conjunctive management of multiple water supply sources. Use and reuse water more efficiently. Water management system modifications that address anticipated climate change impacts, such as rising sea-level, and which may include modifications or relocations of intakes or outfalls. Establish migration corridors, re-establish river-floodplain hydrologic continuity, re-introduce anadromous fish populations to upper watersheds, and enhance and protect upper watershed forests and meadow systems. <p>Proposals that contain projects that reduce GHG emissions compared to alternate projects that achieve similar water management contributions toward IRWM objectives. Desirable proposals include those that:</p> <ul style="list-style-type: none"> Reduce energy consumption of water systems and uses. Use cleaner energy sources to move and treat water. <p>Proposals that contain projects that reduce not only water demand but wastewater loads as well, and can reduce energy demand and GHG emissions. Desirable proposals include: water use efficiency; water recycling; water system energy efficiency; and reuse runoff.</p>	<p>FP-1, FP-2, CC-1, CC-2, CC-3, EV-2, RC-1, RC-3</p>
<p>Expand Environmental Stewardship. Proposals that contain projects that practice, promote, improve, and expand environmental stewardship to protect and enhance the environment by improving watersheds, floodplains, and instream functions, and to sustain water and flood management ecosystems.</p>	<p>EV-1 through EV-5</p>
<p>Practice Integrated Flood Management. Proposals that contain projects that promote and practice integrated flood management to provide multiple benefits including:</p> <ul style="list-style-type: none"> Better emergency preparedness and response. Improved flood protection. More sustainable flood and water management systems. Enhanced floodplain ecosystems. LID techniques that store and infiltrate runoff while protecting groundwater. 	<p>FP-1 through FP-3</p>
<p>Protect Surface Water and Groundwater Quality. Proposals that include:</p> <ul style="list-style-type: none"> Protecting and restoring surface water and groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses. Salt/nutrient management planning as a component of an IRWM. 	<p>WQ-1 through WQ-5</p>
<p>Improve Tribal Water and Natural Resources. Proposals that include the development of Tribal consultation, collaboration, and access to funding for water programs and projects to better sustain Tribal water and natural resources.</p>	<p>Not applicable</p>
<p>Ensure Equitable Distribution of Benefits. Proposals that:</p> <ul style="list-style-type: none"> Increase the participation of small and disadvantaged communities in the IRWM process. Develop multi-benefit projects with consideration of affected disadvantaged communities and vulnerable populations. Contain projects that address safe drinking water and wastewater treatment needs of DACs. Address critical water supply or water quality needs of California Native American Tribes within the region. 	<p>RC-3 and RC-4</p>

**Table 3-5
Measuring Attainment of IRWM Plan Objectives**

Objective	Qualitative Measurement	Quantitative Measurement
Water Supply		
WS-1. Meet existing water supply replacement needs of the Carmel River system and Seaside Groundwater Basin.*	Identification and implementation of projects and initiatives/programs that will result in achieving water supply replacements for the Carmel River system and Seaside Groundwater Basin.	Measurable increase in water supply replacement amounts (i.e., in acre-feet per year, AFY) for the Carmel River system and Seaside Groundwater Basin.
WS-2. Seek long-term, sustainable supplies for adopted future demand estimates.*	Identification and implementation of projects designed to protect, enhance, and increase long-term sustainable supplies for adopted future demand estimates.	Measurable improvements in long-term sustainable supplies for adopted future demand estimates.
WS-3. Maximize use of recycled water.*	Identification and implementation of projects and initiatives/programs designed to increase use of recycled water.	Measurable increase of use of recycled water in lieu of potable water (AFY).
WS-4. Optimize conjunctive use of surface and groundwater.*	Identification of projects and initiatives/programs meant to optimize conjunctive use of surface and groundwater.	Acre-feet (AF) of water storage; number of conjunctive management projects developed; reduction in diversions in Carmel Valley Basin to SWRCB limits; reduction in use of Seaside Groundwater Basin native water to legal adjudicated limit.
WS-5. Evaluate, advance, or create water conservation throughout the Region in compliance with the State’s 20x2020 Water Conservation Plan.*	Identification of projects and initiatives/programs meant to evaluate, advance, or create water conservation.	Quantitative increase in water conservation; or number of new or enhanced conservation programs/projects.
Water Quality		
WQ-1. Improve ocean water quality, including Areas of Special Biological Significance (ASBS), by minimizing pollutants in stormwater discharges.*	Identification of sources of existing pollutants potential increases in runoff that may impact ocean water quality, including ASBS, and implementation of innovative and effective projects or programs to improve existing runoff conditions.	Increase in % of projects that include BMP, LID Standards, or other alternatives to minimize runoff that may impact ocean water quality. Number of projects or programs implemented to improve existing runoff conditions.
WQ-2. Improve inland surface water quality for environmental resources (e.g. steelhead) and potable water supplies.*	Identification of needs and opportunities to improve surface water quality for environmental resources. Design of projects or programs to improve conditions.	Number of projects or programs implemented to improve conditions. Measurable improvement in water quality attributed (at least in part) to the implementation of new projects/programs.
WQ-3. Protect and improve water quality in groundwater basins.*	Identification of projects and initiatives/programs designed to protect and improve groundwater quality.	Measurable improvements to groundwater quality (i.e., lowering of salinity, pollutant concentrations) through implementation of projects/programs.
WQ-4. Meet or exceed water quality standards established by regulatory agencies and stakeholders. *	Progress toward meeting established water quality objectives, including TMDLs, and NPDES limits.	Number of projects that benefit water quality of 303(d) listed streams or improve water quality of permitted discharges.

**Table 3-5
Measuring Attainment of IRWM Plan Objectives**

Objective	Qualitative Measurement	Quantitative Measurement
Flood Protection and Erosion Prevention		
FP-1. Develop regional projects and plans necessary to protect existing infrastructure and sensitive habitats from flood damage, erosion, and sea level rise, in particular, along the southern Monterey Bay shoreline and Carmel Valley.*	Demonstrated progress in eliminating potential for properties to flood damage.	Acreage of property (or square feet of habitable buildings) removed from flood zones identified in flood insurance study updates; reduction in annual losses/damages from flooding in dollars.
FP-2. Develop approaches for adaptive management that minimize maintenance and repair requirements (sustainable flood management systems).*	Identification of policies and programs that will require all new development to implement adaptive management methods (i.e., LID).	Estimated reduction in annual maintenance/repair costs; presence/absence of LID program; number of projects implementing LID.
FP-3. Protect quality and availability of water while preserving or restoring ecologic and stream function.*	Identification of natural stream /river ecological and hydrological functions.	Acres of enhanced or reconnected floodplains; acres of newly created treatment wetland areas; acres of upland enhanced through BMPs, revegetation, number of projects implementing LID.
FP-4. Provide community benefits beyond flood protection, such as public access, open space, recreation, agricultural preservation, and economic development.	Identification of opportunities to provide community benefits and design of projects or programs to provide them.	Number of projects or programs implemented resulting in community benefits.
Environmental Protection and Enhancement		
EV-1. Protect and enhance sensitive species and their habitats in the regional watersheds; promote the steelhead run.*	Identification, design, and implementation of projects or programs intended to protect and enhance sensitive species and habitats.	Acreage (or lineal feet of stream) of conserved, protected and enhanced sensitive species habitats, including length of stream opened to fish and other aquatic species for migration and watershed areas opened to upland habitat for other species. Measured increases in numbers of species populations.
EV-2. Identify opportunities to assess, protect, enhance, and/or restore natural resources, including consideration of climate change, when developing water management strategies and projects.*	Identification, design, and implementation of projects or programs intended to protect and enhance natural areas.	Increase in area of assessed, protected, enhanced, and/or restored natural areas.
EV-3. Minimize adverse effects on biological and cultural resources when implementing strategies and projects.*	Requirement of consideration and mitigation of potential adverse effects on biological and cultural resources when implementing strategies and projects.	Quantifiable measurement is specific to the project and type of resource affected. At a minimum, a no net loss policy should be implemented for potential adverse effects on biological and cultural resources.
EV-4. Identify opportunities for open spaces, trails and parks along streams and other recreational areas in the watershed that can be incorporated into projects.	Identification of opportunities to provide community recreational benefits along streams or in watersheds.	Area and/or number of projects or programs implemented providing community recreational benefits along streams or in watersheds.

**Table 3-5
Measuring Attainment of IRWM Plan Objectives**

Objective	Qualitative Measurement	Quantitative Measurement
EV-5. Identify and integrate elements from appropriate Federal and State species protection and recovery plans.*	Requirement to integrate Federal and State species protection and recovery plans into design of all projects, programs, or initiatives.	Number of projects implemented integrating Federal and State species protection and recovery plans.
Climate Change		
CC-1. Evaluate adaptation measures and mitigative solutions to climate change effects.*	Requirement to plan for potential future climate change impacts into design of all projects, programs, or initiatives.	Number of projects implemented incorporating consideration of future climate change impacts.
CC-2. Support increased education, monitoring and research to increase understanding of long-term impacts of climate change in the region.*	Improve access to data, reports on current science, documenting trends in climate change (rain fall, temperature, sea level rise, river flows). Development of clearinghouse of proposed and current monitoring programs related to climate change impacts.	Number of research/monitoring programs implemented to obtain greater understanding of long-term impacts of climate change in the IRWM Plan region, and/or monetary investment in research and monitoring programs.
CC-3. Support efforts to increase education, research and use of energy conservation measures and alternatives to fossil fuel and non-renewable resources to reduce greenhouse gas emissions associated with water and wastewater facility operations and IRWM projects.*	Compile data reports on current science, documenting trends in resource conservation. List of proposed additions for current monitoring programs to decrease resource demands of potential projects.	Number of research/monitoring programs implemented to decrease resource demands of potential projects in the IRWM Plan region, and/or monetary investment in research and monitoring programs.
Regional Communication		
RC-1. Identify cooperative, integrated strategies for protecting both infrastructure and environmental resources, including from climate change impacts. *	Meetings between local, regional, state, and federal entities to resolve infrastructure and environmental resources problem areas.	Incorporation of integrated strategies for protecting both infrastructure and environmental resources documented for potential projects
RC-2. Foster collaboration among regional entities as an alternative to litigation.*	Meetings convened between regional entities and stakeholders to discuss and plan regional water initiatives and/or resolve water-related conflicts. Positive indication of public support for implementation of water-related projects and/or programs.	Number of projects, programs, or initiatives successfully designed, permitted, or implemented that promote integrated planning, improved communication between agencies & interest groups, and development of projects meeting the IRWM Plan goals.
RC-3. Identify and pursue additional opportunities for public education, outreach, and communication on water resource management and climate change, including to disadvantaged communities and stakeholders with interests in water management issues.*	Implementation of programs to educate the public about water resources, with an emphasis on high priority geographic areas or demographic groups.	Number of presentations and outreach events which increase public education about water resources issues and needs.
RC-4. Build relationships with State and Federal regulatory agencies and other water forums and agencies.	Meetings convened and agreements reached between State and Federal regulatory agencies and other water agencies to facilitate the permitting, planning, and implementation of water-related projects.	Number of projects, programs, or initiatives successfully designed, permitted, or implemented as a result of improved communication.