

Attachment 1: IRWM Plan Objectives Contents

Attachment 1A – Excerpt from 2012 Guidelines “Objectives”

Attachment 1B – Revised Tahoe-Sierra IRWM Update Plan Objectives –
Without Track Changes

Attachment 1C – Revised Tahoe-Sierra IRWM Update Plan Objectives – With Track
Changes

supply and demand within the region. The Climate Change Standard has a detailed discussion on this matter and provides DWR's guidance on this topic.

To the extent possible, supply and demand projections should be expressed quantitatively. However, there is value in qualitative aspects of supply and demand projections so if available tools are not adequate to quantify all the future effects on supply and demand, quantify what can be, and also include qualitative descriptions for aspects that cannot be quantified.

- ↪ **Water Quality:** Describe the current and future (or proposed) water quality conditions in the region. Describe any protection and improvement of water quality within the area of the IRWM Plan. For current conditions include a discussion on the quality of the following water sources: groundwater, surface water, imported water, and water from storage facilities, both within and outside the region. Describe any Basin Plans, Watershed Management Initiatives, and the water quality goals and objectives for watersheds in the region. See Appendix A for links to the RWQCB websites. Describe any projects or examples within your region of matching water quality to water use.
- ↪ **Description of Major Water Related Objectives and Conflicts:** The description of region must include the major water management objectives and conflicts within the region (CWC §10541. (e)(3)). These items should be based on the parts of the description that have been previously mentioned. The focus of the collaborative integrated regional planning and management effort should be a shared vision of regional goals and objectives, rather than being driven by existing projects.
- ↪ **Explanation of Regional IRWM Boundary:** The IRWM Plan must include a description of the regional boundary, how it was determined, and why the chosen region is appropriate as an IRWM region. As stated previously, there are no size criteria that are mandated for an IRWM region. With the information determined from the aforementioned guidance items topics, the RWMG should generate enough information to formulate the regional boundaries focused more on water system, management of that system, and on common water management issues rather than using a political jurisdiction boundary.
- ↪ **Identification of Neighboring or Overlapping IRWM Regions:** Knowledge of and coordination with neighboring IRWM regions can help RWMGs define their region. Understanding these adjacent or overlapping regions may help confirm regional boundaries, indicate that multiple separate regions can function as one region instead of independently, and help identify inter-regional opportunities. Or, it may point to water management issues not yet considered. The description should explain the cooperation and coordination that occurs to foster a working relationship evidenced by establishing a reasonable and effective governance structure for developing and implementing its IRWM Plan.

Objectives

The intent of the Objectives Standard is to ensure IRWM regions establish the intent of their IRWM Plan. Clear objectives will demonstrate to the public which regional conflicts and water management issues the IRWM Plan is designed to address.

DETERMINING OBJECTIVES

Determining IRWM Plan objectives is the foundation of the planning process. Based on the Plan objectives, applicable RMS and implementation projects will be determined. Solid, regionally relevant objectives give focus to the IRWM Plan and are essential for successful plan implementation. Objectives may be determined once the character of the IRWM region (geography, stakeholder makeup, water management issues, conflicts, etc.) is identified. Objectives must be focused on addressing the water management issues, including flood management of the region. Keep in mind that all objectives should be precise enough to be measurable.

In developing IRWM Plan objectives, RWMGs must consider overarching goals that apply to their area. These include:

- ↪ Basin Plan Objectives

- ↪ 20x2020 water efficiency goals
- ↪ Requirements of CWC §10540(c)

RWMGs must ensure that Plan objectives are consistent with such overarching goals as they apply to specific regions. RWMGs must 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.

CWC §10540(c) states that, at a minimum, all IRWM Plans shall address all of the following:

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

Although these items do not necessarily have to be included in the objectives, IRWM planning efforts should consider these points as they modify or develop Plan objectives.

DESCRIBING THE PROCESS

It is important to illustrate the collaborative process and tools used to establish objectives. This reinforces the regional relevance of the IRWM Plan and will prevent readers of the Plan from concluding the objectives were arbitrarily assigned. The discussion does not have to be lengthy and may be as simple as referring to relevant sections of the governance text, if applicable. The text should give the reader a clear understanding of:

- ↪ How the objectives were developed
- ↪ What information was considered (i.e., water management or local land use plans, etc.)
- ↪ What groups were involved in the process
- ↪ How the final decision was made and accepted by the IRWM effort

MEASURING OBJECTIVES

The Objectives Standard requires that objectives must be measurable. A measurable objective means there must be some metric the IRWM region can use to determine if the objective is being met as the IRWM Plan is implemented. Remember that IRWM Plans are implemented through projects, relevant to measuring objectives; it implies that metrics must apply to projects which in turn relate back to Plan objectives. Objectives can be measured quantitatively or qualitatively.

Neither quantitative nor qualitative metrics are considered inherently better. What is vital is the chosen metric be the most appropriate for the given objective. For example, an IRWM effort may have a general objective of restoring ecological function to a local wetland. Depending on the region's available resources for measuring this objective, it may be easier to express the objective quantitatively or qualitatively:

Example 1

Objective	Qualitative Measurement	Quantitative Measurement
Restore ecologic function to a local wetland	Presence/absence of key wetland species	Number of acres restored to wetland conditions

In this case meeting the objective can be expressed either qualitatively, with the presence of wetland species indicating restored ecologic function; or quantitatively, with ecological function measured as acres restored. Both measurements could be appropriate. For some objectives, only one method may be appropriate.

Example 2

Objective	Qualitative Measurement	Quantitative Measurement
Meet TMDL requirements for nitrates in a local creek	N/A	Nitrate concentration

In Example 2, a qualitative measurement will not provide the detail required to confirm that TMDL requirements have been met. A quantitative measurement is the most appropriate.

Example 3

Objective	Qualitative Measurement	Quantitative Measurement
Improve communication between groundwater management agencies and private well owners	Positive participation at public meetings; increased correspondence	N/A

In Example 3, a qualitative assessment is the most appropriate. Quantifying “improved communication” may not be practical for determining if the objective has been met.

A quantitative measurement could be constructed, such as counting the number of positive and negative comments at public meetings, or sending surveys to stakeholders to collect data, but these methods will not give much more insight than the qualitative expression. They will, however, require more effort and time from the RWMG to measure them.

PRIORITIZING PLAN OBJECTIVES

The IRWM Plan must contain an explanation of how objectives are prioritized or why objectives are not prioritized. Objectives, RMS selection, and Implementation Projects are all linked. To meet plan objectives, certain RMS may be used and specific projects may be implemented. Therefore, prioritizing objectives may help with prioritizing RMS and project implementation.

There is no required framework for prioritizing objectives. It is not necessary to establish a specific numerical priority. A RWMG may use the prioritization tools they perceive to best meet their planning needs such as the following:

- ↪ Tiered or grouped together as one priority for implementation
- ↪ Grouped as short-term and long-term priorities for implementation
- ↪ Grouped as spatial or temporal priorities for implementation, for example:
 - ◆ Reducing upstream erosion may be more important to address before addressing downstream sedimentation
 - ◆ Conducting surveys during appropriate seasons

Flexible priorities are fundamental to any adaptive management plan, such as an IRWM Plan. Priorities may change depending on a change in regulations, shift in regional water uses, or the fulfillment of a plan objective. Prioritizing the objectives can help guide the course of adaptive management. However, if a RWMG chooses not to prioritize plan objectives, the basis for this decision should be clearly stated in the IRWM Plan.

OBJECTIVES, GOALS, AND THE PLANNING HIERARCHY

The terms “goals” and “objectives” may have been used by some RWMGs interchangeably. RWMGs may choose to use goals as an additional layer for organizing and prioritizing objectives, or they may choose to not use the term at all. It may be reasonable for some RWMGs to organize numerous objectives under one larger, more general objective or goal. Alternatively, the complexity of water management issues in some regions may require sub-objectives for better organization.

Whichever nomenclature a RWMG uses for describing objectives, the organization and the significance of the terms must be **clearly explained** and **remain consistent** throughout the Plan.

Resource Management Strategies

The intent of the RMS Standard is to encourage diversification of water management approaches as a way to mitigate for uncertain future circumstances and comply with PRC §75026.(a) and CWC §10541(e)(1). An RMS, as defined in the CWP Update 2009, is a project, program, or policy that helps local agencies and governments manage their water, and related resources. An IRWM Plan must consider each RMS in the CWP Update 2009 which is listed below in Table 3.

Table 3 – CA Water Plan Update 2009 Resource Management Strategies

<ul style="list-style-type: none"> • Agricultural Water Use Efficiency • Urban Water Use Efficiency • Crop Idling for Water Transfers • Irrigated Land Retirement • Conveyance – Delta • Conveyance – Regional/local • System Reoperation • Water Transfers • Flood Risk Management • Agricultural Lands Stewardship • Economic Incentives (Loans, Grants and Water Pricing) • Ecosystem Restoration • Forest Management • Recharge Area Protection 	<ul style="list-style-type: none"> • Conjunctive Management & Groundwater Storage • Desalination • Precipitation Enhancement • Recycled Municipal Water • Surface Storage – CALFED • Surface Storage – Regional/local • Drinking Water Treatment and Distribution • Groundwater Remediation/Aquifer Remediation • Land Use Planning and Management • Matching Quality to Use • Pollution Prevention • Salt and Salinity Management • Urban Runoff Management • Water-Dependent Recreation • Watershed Management
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The discussion in this section focuses on RMS as separate topics. In reality, the various RMS are often connected to one another, as well as to other activities such as land use planning. The operating assumption in this section is to intentionally find ways to diversify a water management portfolio. Also, considering differing RMS individually is helpful. Other IRWM Plan standards, such as Integration, address the relationships and synergies that can be gained by combining RMS. The CWP Update 2009 also provides a detailed discussion of each individual RMS, so RWMGs may wish to use the CWP as an information source to assist them in evaluating the various RMS. See Appendix A for a link to the CWP. At the link, RWMGs will also be able to find information on current efforts on development of CWP Update 2013. CWP Update 2013, when issued as Final, may include additional RMS or provide revised information of the 2009 RMS.

Revised Tahoe-Sierra IRWM Update Plan Objectives

Revised 7/19/13

The five objectives of the Tahoe Sierra Plan Update are: 1) Protect and improve water quality, 2) Protect the community water supply, 3) Manage groundwater for sustainable yield, 4) Contribute to ecosystem restoration, and 5) Implement integrated watershed management throughout the region.

1. Water Quality Objectives:

WQ1 Meet TMDL standards.

WQ2 Reduce pollutant loads to and meet standards for receiving water bodies.

WQ3 Maintain and enhance water quality monitoring, and information consolidation and sharing.

WQ4 Ensure that drinking water continues to meet Federal and State standards.

WQ5 Restore degraded streams and wetlands to re-establish natural water filtering processes.

2. Water Supply Objectives:

WS1 Provide adequate water supply for a 20-year management window.

WS2 Build reliable infrastructure to supply water.

WS3 Implement and promote water conservation measures and practices.

WS4 Install water meters to track water use and encourage water conservation.

WS5 Coordinate water storage, release and exchange.

3. Groundwater Management Objectives:

GWM1 Improve reliability of groundwater supply.

GWM2 Protect groundwater quality.

GWM3 Manage groundwater for multiple uses.

GWM4 Recognize impacts of groundwater extraction on environment.

4. Ecosystem Restoration Objectives:

ER1 Enhance and restore degraded water bodies, wetland and riparian areas to support healthy watershed, and viable native fish, wildlife and plant populations.

ER2 Restore wetlands, riparian areas and natural biogeochemical cycles.

ER3 Prevent colonization of invasive species.

ER4 Manage forest health and wildfire risks.

ER5 Minimize disturbance caused by urban development.

ER 6 Enhance filtration in ecosystem to improve hydrology to more native conditions.

5. Integrated Watershed Management Objectives:

IWM1 Ensure sound planning that is based on watershed science.

IWM2 Ensure collaboration among multiple jurisdictions within a watershed.

IWM3 Ensure sharing of resources, take advantage of cost sharing opportunities, and exchange information.

IWM4 Increase public education and awareness of watershed functions, protection and restoration needs to encourage stewardship by the public.

IWM5 Provide adequate flood protection.

IWM6 Improve understanding of climate change challenges to respond effectively to water resource management challenges and opportunities.

Revised Tahoe-Sierra IRWM Update Plan Objectives

Revised 7/19/13

The five objectives of the ~~2007~~ Tahoe Sierra Plan Update are: 1) Protect and improve water quality, 2) Protect the community water supply, 3) Manage groundwater for sustainable yield, 4) Contribute to ecosystem restoration, and 5) Implement integrated watershed management throughout the region.

1. Water Quality Objectives:

WQ1 ~~Develop~~ Meet TMDL standards.

WQ2 Reduce ~~nutrient and sediment~~ pollutant loads to and meet standards for receiving water bodies.

WQ3 ~~Meet nutrient and sediment standards for tributary streams and stormwater runoff.~~ Maintain and enhance water quality monitoring, and information consolidation and sharing.

WQ4 Ensure that drinking water continues to meet ~~the~~ Federal and State standards ~~of the Safe Drinking Water Act.~~

WQ5 Restore degraded streams and wetlands to re-establish natural water filtering processes.

~~WQ6 Increase public awareness of regional water quality issues and their role in improving the quality of local water bodies.~~

2. Water Supply Objectives:

WS1 Provide adequate water supply for a 20-year management window.

WS2 Build reliable infrastructure to supply water.

WS3 Implement and promote water conservation measures and practices.

WS4 Install water meters to track water use and encourage water conservation.

WS5 Coordinate water storage, release and exchange.

3. Groundwater Management Objectives:

GWM1 ~~Create~~ Improve reliability of groundwater supply.

GWM2 Protect groundwater quality.

GWM3 Manage groundwater for multiple uses.

GWM4 Recognize impacts of groundwater extraction on environment.

4. Ecosystem Restoration Objectives:

ER1 Enhance and restore degraded ~~water bodies, wetland and riparian areas~~ stream environment zones (SEZs) to support healthy watershed, and viable native fish, wildlife and plant populations.

ER2 Restore wetlands, riparian areas and natural biogeochemical cycles.

ER3 Prevent colonization of invasive species.

~~Educate public about ecosystem services provided by healthy wetlands and SEZs.~~

ER4 Manage forest health and wildfire risks.

ER5 Minimize disturbance caused by urban development.

ER 6 Enhance filtration in ecosystem to improve hydrology to more native conditions.

Revised Tahoe-Sierra IRWM Update
Plan Objectives

Revised 7/19/13

5. Integrated Watershed Management Objectives:

IWM1 Ensure sound planning that is based on watershed science.

IWM2 ~~Encourage~~ Ensure collaboration among multiple jurisdictions within a watershed.

IWM3 ~~Form partnerships to~~ Ensure sharing ~~of~~ resources, take advantage of cost sharing opportunities, and exchange information.

IWM4 Increase public education and awareness of watershed functions, protection and restoration needs to encourage stewardship by the public.

IWM5 Provide adequate flood protection.

IWM6 Improve understanding of climate change challenges to respond effectively to water resource management challenges and opportunities.