

Chapter 8 Plan Implementation

For the East Stanislaus IRWMP to be successful, projects included in the Plan must continue to move forward with planning, design, permitting, environmental documentation, construction and ultimately operation. Implementation of projects and programs included in the IRWMP will help the Region achieve its identified regional goals and objectives and will contribute to solutions to address issues and conflicts in the region. The process the East Stanislaus Region will apply for IRWMP implementation is described in Section 8.1. Potential financing options for continued IRWMP development and implementation is summarized in Section 8.2.

8.1 Implementation Process

Implementing the East Stanislaus IRWMP consists of:

- Implementing projects and programs included in the IRWMP;
- Monitoring projects and programs included in the Plan that are implemented to ensure they are meeting their goals and objectives and contributing to the East Stanislaus regional objectives.
- Regularly evaluate the East Stanislaus IRWMP to determine if movement has been made in achieving the regional objectives, and modifying the IRWMP, as necessary, to ensure that Plan (and the projects it contains) are on track to achieve the overall Plan goals.

The IRWMP must include a plan for implementation and financing of projects and the Plan itself. The financing discussion must, at a minimum, include the following:

- List of possible funding sources for development and ongoing funding for the IRWMP.
- List of funding mechanisms for projects that implement the IRWMP.
- An explanation of the certainty and longevity of known or potential funding for the IRWMP and projects.
- An explanation of how O&M costs for projects that implement the IRWMP would be covered and the certainty of funding.

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Implementation of the East Stanislaus IRWMP will be completed through cooperation among the participating entities, including the East Stanislaus Regional Water Management Partnership (ESRWMP), the regional water management group for the region, the Steering Committee, Public Advisory Committee, project proponents, and stakeholders. In August 2011, the Cities of Ceres, Hughson, Turlock and Modesto signed a Memorandum of Understanding (MOU) for IRWM planning, forming the ESRWMP and agreeing to develop the East Stanislaus Region's first IRWMP. Upon completion and adoption of the East Stanislaus IRWMP, the ESRWMP will continue to coordinate implementation of the Plan and perform future IRWMP updates (as discussed in Section 8.4). Coordination with the project proponents will be necessary through the IRWM planning process, even after Plan adoption. While some of the projects included in the East Stanislaus IRWMP are projects to be implemented by the present ESRWMP member agencies, others are led by outside entities and stakeholders such as the Tuolumne River Trust, City of Waterford, and Keyes Community Services District. Individual project proponents will move projects forward as funding and staff is available, and as appropriate. For example, some projects included in the East Stanislaus IRWMP are considered ready to proceed, that is, ready for construction, but do not have adequate funding to construct. Others are at the conceptual level and require additional planning, design, and project development prior to construction and implementation. Regardless of the project status, funding must be available in order to proceed with project development and implementation. Financing is discussed in more detail in the following sections.

Implementation of the East Stanislaus IRWMP also involves monitoring performance of the IRWM program as a whole. Regular assessment of IRWMP performance and updates is described in Section 8.4, below.

8.2 Financing Plan

Because the East Stanislaus IRWMP is a living document and will require implementation and updates in the future, and because there are projects included in the Plan that will be implemented to achieve the region's goals and objectives, a financing plan is necessary to help ensure funding sources are available to do so. Additionally, as projects are implemented, not only is funding necessary for capital costs, but also for ongoing operation and maintenance (O&M) of the projects. The following sections discuss the potential funding sources that may be available for developing, maintaining, and updating the East Stanislaus IRWMP, the potential funding sources for projects that implement the IRWMP, and the certainty and longevity of the funding sources.

8.2.1 Funding for Development of IRWMP

Thus far, the cost of developing and maintaining the East Stanislaus IRWMP has been borne by the local entities involved in the ESRWMP, which includes the Cities of Modesto, Turlock, Ceres, and Hughson. In June 2010, the four cities entered into a cost-sharing agreement to prepare the East Stanislaus IRWMP. Additionally, city staff has contributed significant time and resources to completing the IRWMP, coordinating and participating on the Steering and Public Advisory Committees, and organizing stakeholder outreach efforts. The East Stanislaus region is committed to developing a useful and implementable IRWMP, which includes Plan performance monitoring and updating the Plan in the future to help ensure that Plan implementation addresses the conflicts and issues currently present in the region.

Many of the same potential funding sources available to local entities involved in the East Stanislaus IRWMP may be used for developing and updating the IRWMP, implementing projects and programs (i.e. funding capital costs of projects included in the IRWMP), as well as funding project O&M costs. An overview of potential funding sources is provided in Table 8-1. The primary sources of funding for developing, maintaining, and updating the East Stanislaus IRWMP are the cities' General Funds (or Capital Improvement Funds), utility rates, or local, state, or federal grants. According to the City of Modesto's Comprehensive Annual Financial Report for the fiscal year ending June 30, 2011, primary revenue sources of the City have been directly impacted by economic influences, causing a reduction in the City's General Fund budget. The City of Turlock also continues to weather through the protracted economic downturn, but Turlock's General Fund revenues seem to have stabilized over the decline of the last five years. The City of Ceres is also seeing decreases in sales and use tax revenues, property tax revenues, and investment revenues. Over the last three years, the General Funds have faced significant deficits due to increased costs and declining revenues, and local entities are still struggling to fund major infrastructure projects without assistance of other funding avenues. It is likely the same declines in general funding budgets are being experienced in cities throughout the East Stanislaus Region.

While funding for future IRWMP updates has not yet been secured by the ESRWMP member agencies, it is possible that funding will be available as the participating agencies and other regional stakeholders understand the critical nature of updating the IRWMP and addressing the region's changing issues and conflicts as conditions change, and will coordinate these updates with other required planning studies, such as the five-year Urban Water Management Plans.

Table 8-1: Potential Funding Sources Available for IRWMP Development, Project Implementation, and O&M Costs

Potential Funding Source	Description	Certainty / Longevity
Capacity Fees	<ul style="list-style-type: none"> Used by water agencies as a means to achieve and maintain equity among its past, present and future customers. Typically charged per connection, measured in equivalent dwelling units (EDUs). A single connection may encompass more than one EDU. In addition to the connection fee aspect of capacity fees, water agencies may also assess other fees (e.g., Commercial Acreage Fee [per acre] and Other Service Fee [per acre]). 	Dependent upon rate structure adopted by project proponents and Proposition 218 process
User Fees	<ul style="list-style-type: none"> Monthly user fees are assessed by some water agencies where an argument can be made that new facilities directly benefit existing customers. In many cases, income from this monthly revenue source is used to pay debt service on debt financed assets. 	Dependent upon rate structure adopted by project proponents and Proposition 218 process
User Rates	<ul style="list-style-type: none"> User rates (also referred to as rate recovery) pay for O&M of a water agency or public utility's system. Within a water agency user rate, there is a fixed cost component that covers costs that do not vary with the amount of supplied water, such as labor and overhead expenses, and a variable cost component that covers costs that are based on the amount of pumping and applied chemicals to meet the water demands of the customers and vary with the amount of supplied water, such as the electrical and chemical costs. A water agency customer pays a monthly fixed rate and a variable rate based on the metered usage. In cases in which billing is not based on a metered usage, a single monthly rate is assessed that combines the average of the fixed and variable rates. 	Dependent upon rate structure adopted by project proponents and Proposition 218 process
General Funds	<ul style="list-style-type: none"> General or capital improvement funds are monies that an agency sets aside to fund general operations and/or facility improvements, upgrades and, sometimes, development. These funds are usually part of their overall revenue stream and may or may not be project-specific. The general fund budget is supported by revenues generated from a variety of taxes including sales tax, property tax, franchise fees, and a variety of permit fees. 	Dependent upon annual budgets adopted by project proponents and participating agencies
Bonded Debt Service	<ul style="list-style-type: none"> In cases in which a large facility is needed to support current services and future growth, revenue bonds are issued to pay for new capital. This allows for payment of the facility by bonded debt service at the time of construction with repayment of the debt service over a 20- to 30-year timeframe. Preferred approach to paying for high cost facilities because it avoids the perceived over-collection of fees from past customers that go toward facilities that serve present and future customers. The downside to bonded debt is that it cannot be accomplished with capacity fees alone due to the variability and uncertainty of new development over time. A user rate is needed as a bond document covenant in the event that development fees are not adequate to make the required annual payment for the debt service. 	Dependent upon bond market and existing debt of project proponents

Potential Funding Source	Description	Certainty / Longevity
Grants	<ul style="list-style-type: none"> Typically require local matching funds. The matching requirement shows a local commitment to promoting and completing the study, plan, or project. Typically administered and contracted by a single agency within the region that works directly with the state or federal agency administering the grant. Grants typically carry relatively high administration cost because extensive grant reporting may be required, and typically only a small portion of the grant may be used to cover grant administration. 	Grant programs at the local, state, or federal levels are periodically available. Some projects have secured grants as shown in the table in Appendix Q.
Low-interest loans	<ul style="list-style-type: none"> Several funding agencies administer low-interest loans for implementation of water- and wastewater-related projects. Low-interest loans can save the implementing agency significant amounts of money by reducing interest payments as compared with traditional bonds. SWRCB offers low-interest loans for wastewater and recycled water projects through its Clean Water State Revolving Fund (SRF) loan program. Approximately \$200 million to \$300 million available annually. The interest rate is half of the most recent General Obligation (GO) Bond Rate at the time of the funding commitment. Over the last five years, the Clean Water SRF loan interest rate has ranged from 1.8% to 3.0%. CDPH administers a similar SRF loan program (Safe Drinking Water SRF loan program) for drinking water-related projects. Amounts available through the CDPH Safe Drinking Water SRF loan program vary, but approximately \$100 to \$200 million is available annually. The California Infrastructure and Economic Development Bank (I-Bank) administers the Infrastructure SRF loan program for financing implementation projects such as sewage collection and treatment, water treatment and distribution, and water supply projects. 	Dependent upon the specific program and federal appropriations to each

8.2.2 Funding for Projects that Implement the IRWMP

Agencies within the region have explored a variety of potential regional water resource planning and implementation funding vehicles including the State Revolving Fund (SRF), U.S. Bureau of Reclamation's Title XVI Reclamation and Recycling Program, and other State and Federal grant and loan programs, in addition to rate revenues, bond financing, assessments, and potential county and municipal revenue sources.

With regard to projects and programs which implement the East Stanislaus IRWMP, estimated capital and O&M costs are shown in Appendix J, along with potential funding sources, exclusive of additional local, state or federal grant funding. It should be recognized that each implementing organization has a unique set of revenue and financing methods and sources.

Ongoing support and financing of the O&M of projects in this IRWMP are expected to be derived from many of the same sources that were identified to fund project implementation, as shown in Table 8-1. Support and financing will likely come primarily from local sources, including user rates, fees and assessments. Since regional projects and programs often involve multiple partner agencies, the range of local sources available is broadened. The details of financing these larger, multi-partner projects are typically worked out on a project-by-project basis. Large multi-purpose projects typically adhere to standard cost accounting and cost of service principles which are typically described and codified in the agreements for ownership. Operation and maintenance of facilities is typically developed as part of a project financing package.

O&M costs of proposed implementation projects must be evaluated as the overall viability of a particular project effort is determined. Any project that is advanced for implementation consideration must include an analysis to determine the ability to operate and maintain the project and project benefits. The annual fiscal impact on user rates, and the willingness of ratepayers to accept any increased cost of service as may be required for project implementation must be included in this analysis. The need for water and the economic hardship impacts that would occur, should the new source not be available, may also be considered as part of the analysis.

8.3 Plan Performance and Monitoring

Plan performance and monitoring is vital in IRWM planning as it helps a region determine if implementation of its IRWMP is contributing to meeting its identified goals and objectives. Measuring the success of Plan implementation is directly related to IRWMP project implementation, and therefore, the monitoring required as part of the East Stanislaus IRWMP implementation will evaluate both project-specific performance in meeting project goals, in addition to how the overall IRWMP implementation is meeting the Region's goals and objectives.

The IRWMP must contain performance measures and monitoring methods to ensure the Plan Objectives are met.

This Plan Performance and Monitoring section shall describe the method of evaluating and monitoring the RWMG's ability to meet the objectives and implement the projects in the IRWMP.

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As described in Section 6.2.4, individual project proponents implementing projects through the East Stanislaus IRWMP will be responsible for collecting data in accordance with approved project-specific monitoring plans and submitting data to appropriate statewide databases. These data will include the information necessary for monitoring project-specific

performance. Projects that affect surface water quality shall include a monitoring component that

allows the integration of data into the California Environmental Data Exchange Network (CEDEN). Similarly, groundwater-related project, must monitor and report groundwater elevation data, as required by CWC §10920 *et seq.* and may be required to monitor groundwater quality, depending on the project's nature.

Monitoring the East Stanislaus Plan performance will be based on the results of project-specific performance monitoring, and cumulatively will help ensure:

- The Region is making progress towards meeting the goals and objectives as specified in the IRWM Plan.
- Projects included in the East Stanislaus IRWMP are being implemented.
- Each project in the IRWM Plan is monitored to comply with all applicable rules, laws, and permit requirements.

Project-specific monitoring plans will be prepared and implemented by the project proponents for projects that are implemented as part of the East Stanislaus IRWMP (i.e. projects funded through the IRWM grant program). The project proponent will also be responsible for all project-specific monitoring activities and for reporting the results of the monitoring program to the designated ESRWMP agent. While projects that are not implemented through the East Stanislaus IRWMP will not be required to have project-specific monitoring completed, project proponents and participating entities will be encouraged to prepare and implement performance monitoring plans as part of their project implementation. Performance data for non-IRWMP projects will be collected and evaluated as made available.

In general, project-specific monitoring plans will include the following information:

- The project name and a brief description
- List of the project goals and objectives
- Identified targets to be achieved over the life of the project (e.g. reduce water loss from the tank by 8%)
- Description of what is being monitored for, in table format (see example below), including the location of monitoring, monitoring frequency, methods used to collect data, and procedure for data collection/storage
- Measures to remedy or react to problems encountered during monitoring. An example would be to coordinate with the Department of Fish and Game if a species or its habitat is adversely impacted during construction or after implementation of a project.

Table 8-2: Example of Monitoring Table included in Project-Specific Monitoring Plan

Parameter	Location of Monitoring	Frequency	Monitoring Protocol / Methodology	Data Collection, Storage, and Dissemination Procedures
Surface water diversion	Water meter at San Joaquin River mile X	Weekly	Use meter data to monitor monthly surface water diversions	Store data on City of Modesto existing DMS, upload project monitoring report to East Stanislaus IRWMP website, and submit groundwater level data to SWAMP
Groundwater recharge	Water meter on discharge pipe to percolation pond	Daily	Use meter data to monitor daily discharges to percolation ponds	Store data on City of Modesto existing DMS, upload quarterly reports to East Stanislaus IRWMP website
	Water levels (staff gauge) in percolation pond	Daily	Use gauge data to estimate weekly volume of percolated water	Store data on City of Modesto existing DMS, upload quarterly reports to East Stanislaus IRWMP website

Project-specific monitoring plans may be prepared at different stages of project development, but all will be prepared prior to the start of construction and will be submitted to the ESRWMP for review and consideration. Each monitoring plan will specify monitoring protocols and methodologies to ensure consistency and accountability by the project proponent collecting the data and performing monitoring activities. The ESRWMP will act as the overseeing entity, making sure each project proponent prepares its project-specific monitoring plan and implements the plan accordingly, and ensuring that the required reporting and data uploads occur. The monitoring plans will include monitoring schedules, dictating an estimated timeline of monitoring activities which the ESRWMP will use as a guideline to ensure a monitoring schedule is maintained. Prior to project implementation, the project proponent must be able to ensure that adequate funding will be available to complete the necessary project monitoring. Data collected and analyses performed as part of the performance monitoring plans will be reported to the ESRWMP on a semi-annual basis, at a minimum, providing required documentation and proof of project performance. Data and information collected as part of the project-specific monitoring plan will be summarized in a project-specific monitoring report, in table format, and submitted to the ESRWMP for review. Necessary backup information will be attached to the report. An example of the monitoring report table is provided in Table 8-3. This will help ensure the projects meet the goals and objectives as originally conceived for the projects and the East Stanislaus IRWMP.

Where possible, ongoing data collection efforts will be relied upon, at a minimum, to provide necessary baselines to measure project and Plan success. In some cases, monitoring and data collection currently underway will be adequate for project performance monitoring. For example, with respect to surface water rights, an entity diverting surface water must submit data to SWRCB. The data is housed on eWRIMS – the Electronic Water Rights Information Management System. This data, which is already collected for certain water bodies, could help gauge effectiveness of a project meant to increase or decrease flows in a portion of a river. Similar to eWRIMS, SWRCB

administers Groundwater Ambient Monitoring Assessment (GAMA) program. Groundwater production wells are monitored by the well owners and volumes pumped are reported to CDPH, who puts that information on GAMA. Additionally, GAMA has data from DWR, USGS and the Department of Pesticide Regulation. The data that exists on GAMA could be used to develop baseline conditions of a groundwater basin and could potentially be relied upon to track conditions and measure project effectiveness.

Table 8-3: Example Project-Specific Monitoring Report

Project Name:	Insert name
Project Description:	Briefly describe the project
Identified Project Goals and Objectives:	Insert goals and objectives as identified in project specific monitoring plan
Project Targets:	List specific, measurable targets, as described in the project specific monitoring plan
Data Collected:	Describe the data collected (including collection location) and how often it was collected
Measurement tools and methods:	Describe the tools and methods used to collect data, as described in the project specific monitoring plan, and how that data is being managed and/or uploaded to existing databases
Goals and Objectives Results Summary:	Describe how the project is meeting its identified goals and objectives
Project Targets Results Summary:	Describe if the project is on track to meet its identified targets based on the data collected, including schedule and fiscal targets
Recommended Modifications or Adjustments	Describe any remedy or recommended actions that should be implemented (if any) to counter problems identified through implementation of the monitoring plan

As described in Section 6.2.2, project proponents will be responsible for collecting, storing, and maintaining project-specific data on the individual entity's existing DMS and are tasked with uploading necessary data to applicable statewide databases. Any required monitoring after project implementation will be collected consistent with applicable standards and reported to the State. Each entity that uploads data to its DMS, the East Stanislaus IRWMP website, and/or applicable statewide databases will perform quality assurance and quality control (QA/QC) measures to validate the data. While each entity is responsible for QA/QC and maintenance of data, the ESRWMP will oversee any data compilation for the region's website. By making data available online through the various websites and online DMSs, data transfer and sharing among the ESRWMP, participating entities, and interested parties including local, State and federal agencies is made possible.

The information and data collected as part of the project-specific monitoring plans will be fed back to the individual project's management structure to adapt the project to better meet its overall objectives. Only by consistent monitoring and analysis of project performance feedback data can projects successfully achieve the objectives set for the project. Monitoring will also provide a clear reporting mechanism for the public, decision makers, and regional planners to determine the planned versus actual value of the project. Results from project-specific monitoring will also be used to improve the ESRWMP's ability to identify and implement future projects in the East Stanislaus IRWMP and identify revisions to the IRWMP itself. As previously mentioned, the project proponents will submit project-specific monitoring reports to the ESRWMP on a semi-annual basis. Annually, the ESRWMP will evaluate how the projects implemented as part of the East Stanislaus IRWMP are not only addressing the identified project-specific goals and objectives, but how overall

Plan implementation is contributing the identified regional goals and objectives included in the most recent adopted IRWMP. If adequate progress is not being made in addressing the Plan objectives, the region may choose to implement other projects in the future or re-evaluate the projects currently in the Plan. This will help the region as it updates its project list, the IRWMP, and applies for grant funding.

8.4 Plan Updates

The East Stanislaus IRWMP is meant to be a living document and will therefore periodically be updated to reflect changing conditions such as population growth and climate change, as well as project implementation in the Region. The Region's needs will undoubtedly change in the future, and as they do, regional objectives must be re-evaluated and new, applicable regional solutions identified. On an annual basis, the Plan implementation will be assessed as to its performance in achieving the identified regional objectives and a memorandum prepared summarizing that assessment. Further, the ESRWMP will update the East Stanislaus IRWMP when deemed appropriate; this could be when one or more of the following criteria are met:

- Five years since the last Plan adoption.
- DWR updates its IRWM Plan Guidelines and associated Plan Standards.
- DWR releases a Proposal Solicitation Package (PSP) for IRWM implementation grants.
- Project and plan monitoring have occurred leading to the identification of needed revisions to the East Stanislaus IRWMP or projects included in the Plan.

The prioritized project list, contained in the appendices of the IRWMP, will be revised, at a minimum, on an annual basis, for the first 5 years. After 5 years, the project list will be updated on a bi-annual (every 2 years) basis. The revised project list will be vetted by the ESRWMP among regional stakeholders following updating, and upon receiving consensus, will substitute the updated project list for the one currently contained herein. No formal plan adoption or re-adoption will be required for project list updating. Similarly, should administrative revisions be made to the IRWMP (e.g. based on DWR recommendations during completeness review), the Plan may not require re-adoption. Table 8-4 summarizes the long-term maintenance activities to be conducted for the East Stanislaus IRWMP; the frequencies identified for each activity are minimum frequencies.

Table 8-4: Summary of Long-Term East Stanislaus IRWMP Maintenance Activities

Activity	Frequency
ESRWMP Meetings (financing, regional water resources issues, other)	Quarterly
Project Solicitation, Review, Integration and Prioritization	Annually
Plan and Project Monitoring and Performance	Annually
IRWM Plan Review and Update	Every 5 years
Outreach	Quarterly