

E X E C U T I V E S U M M A R Y

Sacramento Valley Integrated Regional Water Management Plan

Prepared by



CH2MHILL



December 2006

Contents

Introduction and Setting

Sacramento Valley Integrated Regional Water Management Plan

- Background
- Regional Vision
- Participating Entities
- Regional Plan Highlights
- IRWMP Objectives and Strategies
- Water Resources Management Objectives

Plan Implementation

- Plan Prioritization
- Plan Implementation Benefits

Recommendations

- Next Steps

We want to thank the Department of Water Resources staff in the Sacramento and Red Bluff offices for their help in developing this Integrated Regional Water Management Plan.

Development of this document was funded in part by the Department of Water Resources through a Proposition 50 Planning Grant.

Sacramento Valley Integrated Regional Water Management Plan

The Sacramento Valley Integrated Regional Water Management Plan (IRWMP) is a framework to guide the management of water resources in the Sacramento Valley, which is experiencing increasing and changing water needs resulting from urbanization, evolving cropping patterns, and additional water demands for instream flows and wetlands. The Sacramento Valley IRWMP region consists primarily of the Sacramento Valley floor and foothills area bounded by the Sierra Nevada on the east and the Coast Range on the west; and extends down from Redding to the Sacramento metropolitan area in the south. Geographically, the region overlies the Sacramento and Redding Groundwater Basins, and encompasses parts of Sacramento, Yolo, Placer, Sutter, Colusa, Yuba, Glenn, Butte, Tehama, and Shasta Counties.



Introduction and Setting



The Sacramento Valley is a rich mosaic of farmlands, cities and rural communities, refuges and managed wetlands for waterfowl and shorebird habitat, and meandering rivers and streams that support numerous fisheries and wildlife, including Chinook salmon and steelhead trout. The natural and working landscape between the foothills of the Sierra Nevada and the Coast Range is dependent upon the fertile lands of the Sacramento Valley floor, water supplies from rivers, streams, and the underlying groundwater basins to support and sustain a healthy and vibrant local economy and environment.



The Sacramento Valley features:

- Approximately two million acres of family farms that provide the economic engine for the region, provide a working landscape and pastoral setting, and serve as valuable habitat for migratory birds along the Pacific Flyway
- Habitat for half of the listed threatened and endangered species in California, including winter-run and spring-run Chinook salmon, steelhead trout, and many other fish species
- Five national wildlife refuges and more than 50 state wildlife areas and other privately managed wetlands that support the annual migration of waterfowl in the Pacific Flyway
- Small towns and rural communities that form the backbone of the region, as well as the state capital
- Forests and meadows in the lower watersheds of the Sierra Nevada and Coast Range
- The Sacramento River and its tributaries, the largest river system in California and a critical source of water for the State
- Key Central Valley Project and State Water Project facilities that serve water throughout California

Sacramento Valley water users have initiated a number of projects and programs to develop and enhance the Sacramento Valley resources mentioned. These efforts include fish passage improvements, fish screens, and streamflow enhancements that have contributed to the increasing numbers of spawning salmon in the Sacramento River, including the largest return in over 35 years (2005). In addition, the development of additional refuge water supplies and winter waterfowl habitat by landowners and water users in the Sacramento Valley has supported a steady increase of waterfowl numbers in the region when many other areas are experiencing declines.

To provide reliable water supplies and improve water quality – now and in the future – water entities in the Sacramento Valley have made a concerted effort since the 1990s to develop an integrated and regional approach for the management of water resources. This integrated approach includes planning and implementation of numerous projects to support the Sacramento Valley’s rich mosaic by improving ecosystem and fishery resources, water quality, and water supply reliability throughout the region.

To provide reliable water supplies and improve water quality – now and in the future – water entities in the Sacramento Valley have made a concerted effort since the 1990s to develop an integrated and regional approach for the management of water resources.



Sacramento Valley Integrated Regional

BACKGROUND

Regional water management planning in the Sacramento Valley began in 1991 when water leaders formed the Northern California Water Association (NCWA). Since that time, NCWA and its members have pursued a series of initiatives to develop a regional and integrated approach to water management, including development of basin-wide water management plans, regional water use efficiency, and water quality programs. In December 2000, the NCWA Board of Directors formalized a policy to pursue "An Integrated Water Supply Management and Water Development Program for the Sacramento Valley." More recently, in 2005, the Sacramento Valley's water leaders initiated a planning process to prepare a comprehensive regional and integrated water management plan, known as the Sacramento Valley IRWMP. The IRWMP will serve as a roadmap for present and future generations to improve water supply reliability for all beneficial uses in

the Valley, including water for farms, cities and rural communities, birds, fish, and recreation. Most importantly, the IRWMP protects Northern California surface and groundwater rights and supplies through the formulation and implementation of specific water management strategies that increase the local water supply reliability, while helping to improve water quality in streams, rivers, and the Sacramento-San Joaquin Rivers Delta (Delta). The IRWMP provides the framework for the continued development of water resources policies, programs, and projects in the Sacramento Valley to address water management challenges arising from various regulatory requirements and land use changes.



- | | | | |
|---|-------------------|---|------------------------------------|
|  | Core Participants |  | Core IRWMP Region |
|  | Coordinated Areas |  | Sacramento River Hydrologic Region |

Nested within the IRWMP are subregional and local integrated planning efforts organized to optimize the use and conservation of water resources.



Water Management Plan



The IRWMP is built upon a “nested” planning approach. Nested within the IRWMP are sub-regional integrated planning efforts that are underway to manage water resources in the Sacramento Valley. These subregional efforts are led by local agencies, including water districts, cities and counties, resource conservation districts, reclamation districts, and others. The subregional plans incorporate local plan elements of groundwater management, urban water management, flood management, agricultural water management, drainage plans, and communities’ master plans. These subregional and local efforts have independent utility; yet the ultimate value of the IRWMP is derived from the combined benefits, which are larger than the sum of its parts. In addition, proper coordination with local government agencies is essential to a plan that incorporates land use decisions and addresses water management issues related to future growth within the Sacramento Valley. As subregional plans are integrated with the Sacramento Valley IRWMP, the planning process ensures that individual water management objectives and strategies are consistent with each other, and that implementation of projects and programs are in harmony across the region.





REGIONAL VISION

The IRWMP follows more than a decade of cooperative, integrated efforts by local agencies, resource management agencies, and other federal and statewide cooperators.

The broad, long-term vision for the region consists of the following:

Integration of Water Resources Management and Planning Processes in which water agencies and other water interests in the Sacramento Valley continue concerted coordinated approaches to the planning of multi-beneficiary projects that will achieve common objectives.

Institutional Integration through which institutional and political alliances of water suppliers and government entities formulate, develop, finance, and implement integrated programs for the common benefit of landowners and citizens. In addition, building new political alliances and continuing existing ones will strengthen long-term working relationships and foster long-term, viable water management solutions.

Operational Integration provides for the coordinated management and operation of facilities and resources to generate the greatest possible benefit from the available resources.



The long-term vision is a goal that will require years of cooperative efforts between local water resources managers, local governments, and state and federal agencies. Step-by-step cooperative efforts and implementation programs will be needed to reach this goal. The participating agencies recognize and support the concept that regional integration will further their ability to manage their operations and collective resources, will increase their water supply reliability, and will provide a framework to improve water management and water quality across the region. More importantly, all participating entities are assured that they will not lose opportunities to control their own futures, nor will they lose their autonomy by participating in an integrated regional water management plan. Participating entities will work together in addressing common water management issues on a much larger scale.

This vision of integration and regionalization will result in the following:

- Opportunities to formulate broad water management objectives at the regional and statewide level
- Regional and local responsibility for the management of the region's resources
- The pooling of regional resources, political wills, and local agencies' talents and expertise to develop creative solutions
- A powerful voice to protect and enhance regional interests
- Collaboration and cooperation for regional and subbasin-level initiatives
- Greater benefits than would be achieved by agencies acting independently

The long-term vision is a goal that will require years of cooperative efforts between local water resources managers, local governments, and state and federal agencies. Step-by-step cooperative efforts and implementation programs will be needed to reach this goal.



PARTICIPATING ENTITIES

The IRWMP was formally adopted under Water Code §10541 on December 12, 2006, after an extensive public process. The IRWMP has been adopted with formal resolutions by more than 40 public water entities in the Sacramento Valley and is formally supported by counties, conservation organizations and landowner organizations in the region (see enclosed support list). The IRWMP has been developed with broad involvement and input from water agencies, landowners, local governments, conservation organizations and others throughout the region. Numerous public meetings were conducted during the preparation of the plan.

The Regional Water Management Group responsible for developing and implementing the IRWMP under Water Code §10537 is the Northern California Joint Exercise of Power (JEP). NCWA is the administrator of the JEP and coordinates planning and implementation activities of the plan.

NCWA has also worked closely with local, state, and federal entities, including conservation partners, local government, and state and federal agencies in the planning process.



The IRWMP has been formally adopted and/or supported by:

- Over 40 public water entities
- Conservation organizations
- Counties
- Joint Exercise of Powers

Participating Entities:

REGIONAL PARTICIPANTS

- Public water entities
- Counties
- Cities and towns
- Conservation partners

REGIONAL COORDINATION

- Foothills
- Sacramento metropolitan area

STATEWIDE PARTNERS

- State and federal agencies
- Statewide water suppliers

OTHER INTERESTED PARTIES



The IRWMP has been developed with broad involvement and input from water agencies, landowners, local governments, conservation organizations and others throughout the region.

REGIONAL PLAN HIGHLIGHTS

The IRWMP is the first regional water plan for the Sacramento Valley that has been developed by a broad group of local interests.

The IRWMP articulates:

- Regional water management objectives to guide future actions across the region
- Water management strategies that have been formulated to meet regional needs
- Coordinated groundwater management across the region to protect groundwater resources and assure long-term reliable groundwater supplies
- A broad conservation strategy that describes significant efforts to improve habitat for fish, waterfowl, shorebirds, and terrestrial species in the Sacramento Valley, and the ongoing efforts that will be undertaken to continue the positive trends for fish and wildlife enhancement
- The water quality improvement programs being implemented by the California Rice Commission and Sacramento Valley Water Quality Coalition
- The coordination of water supply and land use planning throughout the region to assure current water demands are met for the broad array of needs in the Sacramento Valley

IRWMP OBJECTIVES AND STRATEGIES

The IRWMP objectives were developed through identification of mutual interests among local and regional water resources managers and stakeholders. Extensive coordination and cooperation among subregional planning partners was required to ensure consistency with subregional objectives. Given the broad range of interests across the Sacramento Valley, developing common objectives was an important step in building cooperation, and will be critical to the IRWMP implementation. The five objectives described herein were identified as the foundation of this IRWMP to guide its implementation.

Next, a wide range of water management strategies were developed to meet the objectives identified during the planning process. The strategies are formulated to meet local water management needs and address the region's water management issues. The water management needs were identified through extensive discussions between water interests in the Sacramento Valley. Specific projects and programs were also identified in response to the water management strategies. The result is a collection of projects that are considered technically, economically, and environmentally feasible, while ensuring each project is consistent with and supports the IRWMP objectives and priorities agreed upon for the region.

During the planning process, 20 different water management strategies were evaluated. Applicable water management strategies were identified and organized in a way that best meet local needs. The IRWMP presents this mix of water management strategies to address regional and statewide water issues. Water management strategies have been formulated to serve multiple objectives. This approach emphasizes integration among projects presented in the plan, attainment of statewide and regional benefits, and water management and land use planning.





An evaluation and review of the regional water management strategies and identification of applicable strategies is presented in Section 4 of the IRWMP. The projects and strategies identified are designed to meet the objectives of improving the regional economy, water supply reliability, water quality, ecosystem enhancement, and flood management across the region. An essential consideration in linking the strategies is to provide assurances to all parties that implementation of the IRWMP will promote regional economic health and viability. This approach has identified projects that will complement each other in attaining regional water management objectives.

The IRWMP objectives were developed through identification of mutual interests among local and regional water managers and stakeholders. Extensive coordination and cooperation among subregional planning partners was required to ensure consistency with subregional objectives.





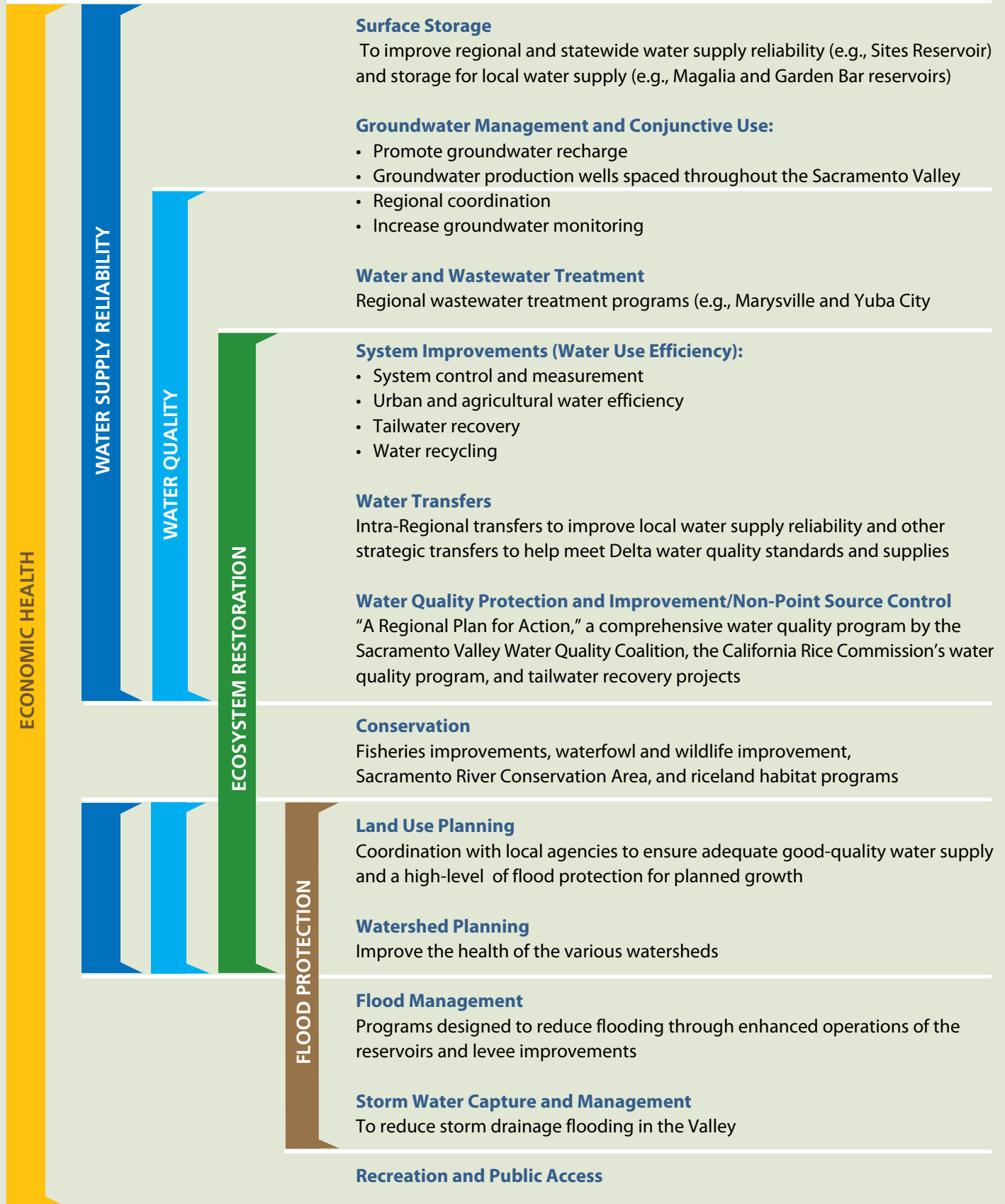
WATER RESOURCES MANAGEMENT OBJECTIVES

- 1 Improve the economic health of the region**
Improve the economic and environmental health of the region to sustain the regional agricultural and urban economy while enhancing other economic opportunities throughout the region.
- 2 Improve regional water supply reliability for local water users, the region, and California**
Water demands of the region will be met and shortages minimized by identifying regional and local supplies that contribute to regional water supply reliability.
- 3 Improve and enhance water quality**
Increase the understanding of water quality cause/effect relationships at a local and regional level and take actions to improve water quality to support and enhance beneficial uses.
- 4 Protect and enhance the ecosystem**
Wise stewardship of land and water throughout the Sacramento Valley, including the protection and enhancement of habitat for fish, waterfowl, and other terrestrial species in the region.
- 5 Improve flood protection and floodplain management**
Ensure flood protection for the health and safety of the region's population while minimizing flood damage losses and seeking a balanced water management solution with respect to urban development in floodplains.



OBJECTIVES

STRATEGIES



Plan Implementation

PLAN PRIORITIZATION

Implementation of the IRWMP will build upon the ongoing success of planning and implementation efforts across the Sacramento Valley. The implementation plan presented in Section 7 of the IRWMP was crafted to take advantage of the different roles and responsibilities of local, regional, state, and federal agencies.

NCWA, as the administrator of the JEP, is responsible for providing continued coordination between the participating local entities, and state and federal agencies. NCWA will provide a regional focus for the implementation of the IRWMP; however, local entities are responsible for developing and implementing the projects. The implementation of certain parts of the IRWMP may be contingent upon securing funding from state and federal sources to supplement local cost-share contributions.



Prioritizing projects as part of implementing the IRWMP will be based on the following criteria:

- Meeting the Sacramento Valley IRWMP objectives and contribution of the proposed projects to the integration vision formulated for the region
- Consistency with regional priorities and water management strategies developed for the IRWMP
- Readiness of the projects and programs for implementation
- Availability of funding for the proposed projects

Regional priorities identified for the IRWMP include improving water supply reliability, protection of water rights, and flood protection. Priorities are given to the strategies and projects that provide multiple benefits and meet multiple objectives established for the region.



PLAN IMPLEMENTATION BENEFITS

Implementation of the IRWMP will result in numerous benefits associated with the objectives identified in the IRWMP.

Key public benefits include the following:

- Significant improvement in water supply reliability for local use, the region, and the state, particularly during drought conditions
- Water supplies to help meet water quality standards both within the region and in the Delta
- Increased understanding of the region's water resources, including the region's groundwater resources and focused regional monitoring to ensure groundwater is used in a sustainable manner
- Improved water quality through the continued efforts of the California Rice Commission and the Sacramento Valley Water Quality Coalition
- Implementation of system improvement strategies and updated efficiency programs across the region
- Enhancement of water-dependent environmental assets, including fisheries and terrestrial habitat in the Valley and improved land management
- Improved groundwater management
- Improved flood management both locally and regionally
- Improved coordination across water districts, counties, and the region through sharing of data, ideas, and mutually beneficial management opportunities
- Coordinated implementation of water management strategies and associated projects



Recommendations

It is recommended that local entities throughout the region advance their water management programs and projects in a manner that encourages integration and contributes to water management objectives developed for the IRWMP, including the following:



- Implementation of the IRWMP should directly support the achievement of the objectives outlined in the plan. As additional projects and programs are developed in the future through the refinement of the IRWMP, they should address one or more of these objectives.
- The water management strategies developed for this plan provide a framework for implementation of the IRWMP. These strategies should be further refined and implemented to achieve the IRWMP objectives.
- Participants in the IRWMP should take actions to improve coordination of the groundwater monitoring and assessment and identification and protection of the recharge areas. This coordination should occur across jurisdictional boundaries and should include exchange of data and information, as well as coordination of monitoring and groundwater production elements of the IRWMP.
- The IRWMP encourages the development and refinement of basin management objectives (BMOs) for groundwater basins, using good science and local considerations, as well as the coordination of BMOs across the region.
- Water leaders in the region should foster implementation of projects and programs supporting the conservation strategies described in the IRWMP.
- Participants in the IRWMP should assist in developing and implementing the recommendations formulated by the counties and subregional IRWMPs, that are contained in the Sacramento Valley IRWMP, in Section 6.

NEXT STEPS

The IRWMP is a roadmap for the future of the Sacramento Valley. It is designed to improve water supply reliability, preserve water quality, and protect the groundwater resources for water users throughout the Sacramento Valley. As water management in the Sacramento Valley continues to evolve, the IRWMP will be periodically updated to reflect the development of new strategies, planning processes, uses and needs.





The Sacramento Valley Integrated Regional Water Management Plan
is available online by visiting NCWA's web page:

www.norcalwater.org





455 Capitol Mall, Suite 335 • Sacramento, CA 95814
(916) 442-8333 • www.norcalwater.org