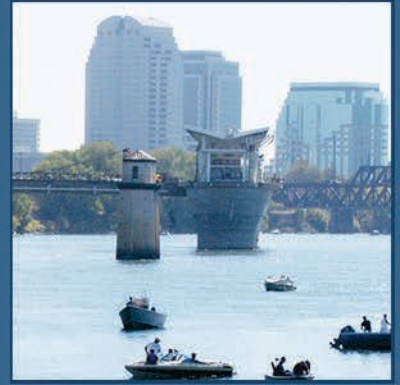


INTEGRATED REGIONAL WATER MANAGEMENT

A Plan for the
American River Basin

2013 UPDATE



Sacramento River
Hydrologic Region

Sacramento

ARB Region

San Joaquin
Hydrologic

What is Integrated Regional Water Management?

Integrated Regional Water Management (IRWM) is an effective way to address complex water resources challenges. IRWM is driven by stakeholders that identify major water and related resource management issues and their proposed solutions. It maximizes economic and societal benefits in an equitable manner, while maintaining the ecosystem critical to water resource sustainability.

IRWM provides the following benefits:

- Establishes a common vision and goals and a stronger regional understanding of water resources issues and potential solutions.
- Creates opportunities to identify projects that align with the vision and goals.
- Creates opportunities to develop multi-partner projects with better economies of scale and more potential funding sources.
- Establishes a framework to monitor and evaluate the region's progress toward meeting its goals.
- Establishes an adaptive process to address tomorrow's water resources challenges.

History of Regional Planning in the Greater Sacramento Area

The greater Sacramento area has been involved in integrated water planning and implementation for two decades. In 1993, a diverse group of stakeholders began a 7-year facilitated effort to develop regional solutions to meet municipal, agricultural, and environmental water needs. More than 40 signatories signed the Water Forum Agreement (WFA) in 2000, which includes the co-equal objectives of: (1) providing water reliability for planned development to the year 2030, and (2) protecting and preserving the lower American River. The WFA remains the foundation of regional integrated planning to this day.

In 2001, water suppliers in the Sacramento area formed the Regional Water Authority (RWA) as a joint powers authority to help implement elements of the WFA. RWA developed the first American River Basin (ARB) Integrated Regional Water Management Plan (IRWMP) in 2006. RWA was approved by the California Department of Water Resources as the Regional Water Management Group (RWMG) in 2009 and is responsible for developing and maintaining an IRWMP on behalf of the region.

History Leading to the 2013 ARB IRWMP Update

LEGEND

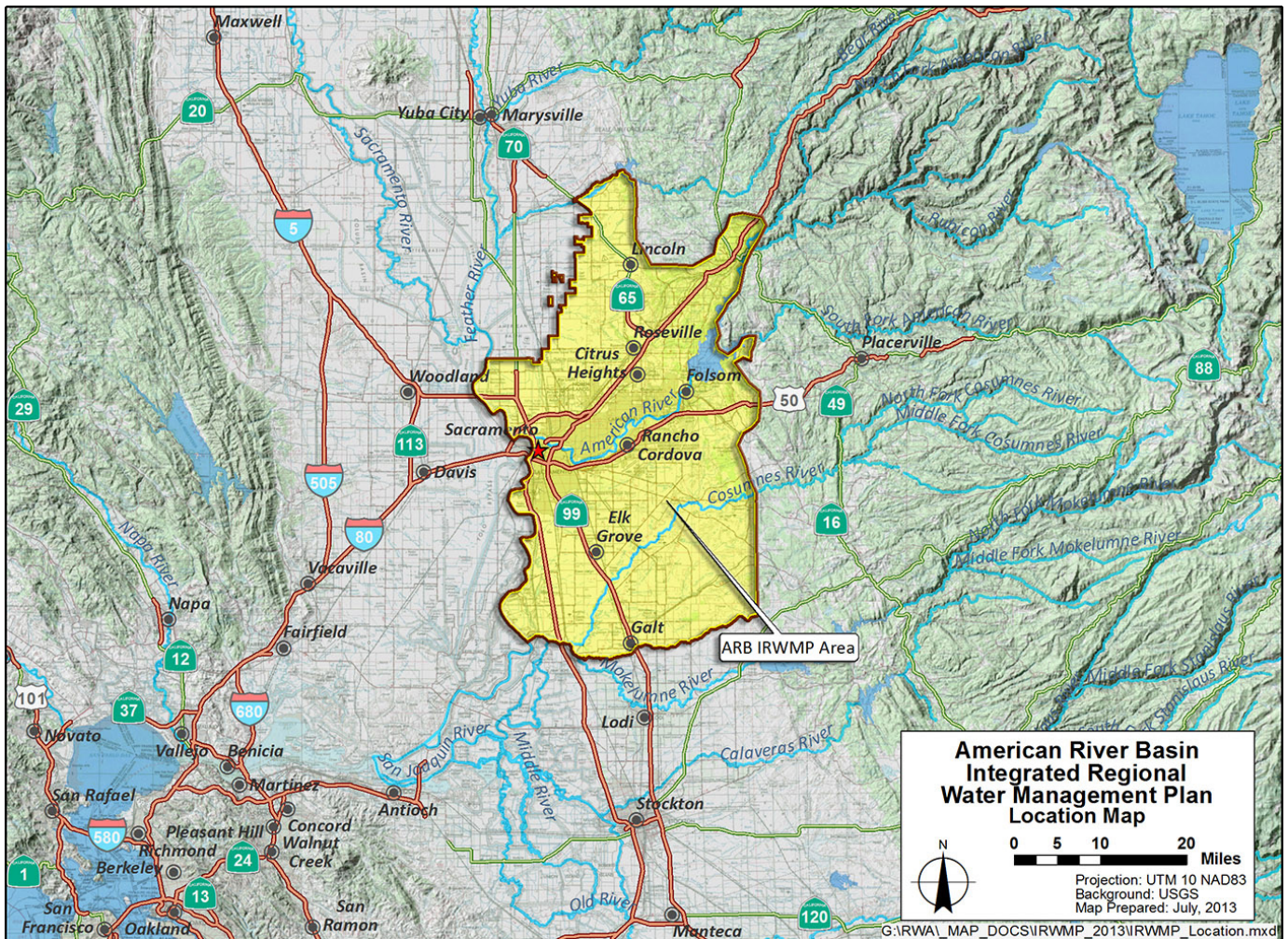
ARB	American River Basin
ARBCA	American River Basin Cooperating Agencies
DWR	California Department of Water Resources
FRWA	Freeport Regional Water Authority
IRWMP	Integrated Regional Water Management Plan
RWA	Regional Water Authority
RWMG	Regional Water Management Group
RWMP	Regional Water Master Plan
WFA	Water Forum Agreement

1993	1993 – Water Forum process begins to resolve conflict over growth in region and impacts to the lower American River.
1994	
1995	
1996	
1997	
1998	1998 – ARBCA begins with 15 agencies to develop RWMP to identify projects and operations in support of Water Forum.
1999	
2000	2000 – WFA is completed with 40 signatories. WFA serves as foundation of integrated regional planning effort.
2001	2001 – RWA formed to assist local agencies in implementing components of WFA.
2002	2002 – RWA receives \$21 million Prop 13 grant award on behalf of local agencies to construct 12 projects in support of WFA.
2003	2003 – ARBCA completes RWMP. Recommends RWA take over coordination of future regional water management planning.
2004	2004 – RWA works with 18 agencies to begin developing IRWMP.
2005	2005 – RWA partners with FRWA to broaden area covered by IRWMP.
2006	2006 – RWA and FRWA adopt initial ARB IRWMP.
2007	
2008	
2009	2009 – RWA approved by DWR as RWMG for purpose of developing and implementing the ARB IRWMP.
2010	2010 – RWA holds initial stakeholder meetings to begin a comprehensive ARB IRWMP Update.
2011	2011 – RWA receives \$16 million Prop 84 grant award on behalf of local agencies and organizations to implement 17 priority integrated projects.
2012	
2013	2013 – RWA adopts 2013 ARB IRWMP Update following 20 stakeholder and work group meetings held over more than 3 years. More than 60 distinct local, state, and federal agencies and other organizations participated in IRWMP development.

Implementation of 2013 ARB IRWMP and continued regional coordination

The ARB Region

The ARB Region encompasses the greater Sacramento area. It includes most of Sacramento County and the western portions of Placer and El Dorado counties. The region's boundaries are shown below.



Water Resource Management Challenges in the ARB Region

The ARB Region is located at the confluence of the Sacramento and American rivers and includes Folsom Lake, one of the largest reservoirs in the state. The region also overlies a substantial groundwater basin. Despite this seemingly ideal water resources setting, there are many challenges to maintaining a sustainable water resources system that supports a healthy community, economy, and environment. These challenges include: increased future demand to support growth amid an uncertain climate future; decreased reliability due to failures of an aging water supply infrastructure; increased political and regulatory pressures that could reduce local water supply; decreased availability of clean water supply due to existing and emerging contaminants; reduced and degraded ecosystems to support healthy habitat, species, and our overall quality of life; and high risk of catastrophic flooding putting the people, property, and environmental resources of the region in harm's way.

ARB IRWM Governance

While RWA has the ultimate responsibility for developing and maintaining the ARB IRWMP, it was developed largely by the ARB stakeholders. It took nearly 4 years to collaboratively develop the IRWMP elements, which are referred to as the “Framework.” Stakeholders convened in 20 workgroup meetings and workshops that had about 60 distinct organizations participating and over 120 individual participants.

These participants represented:

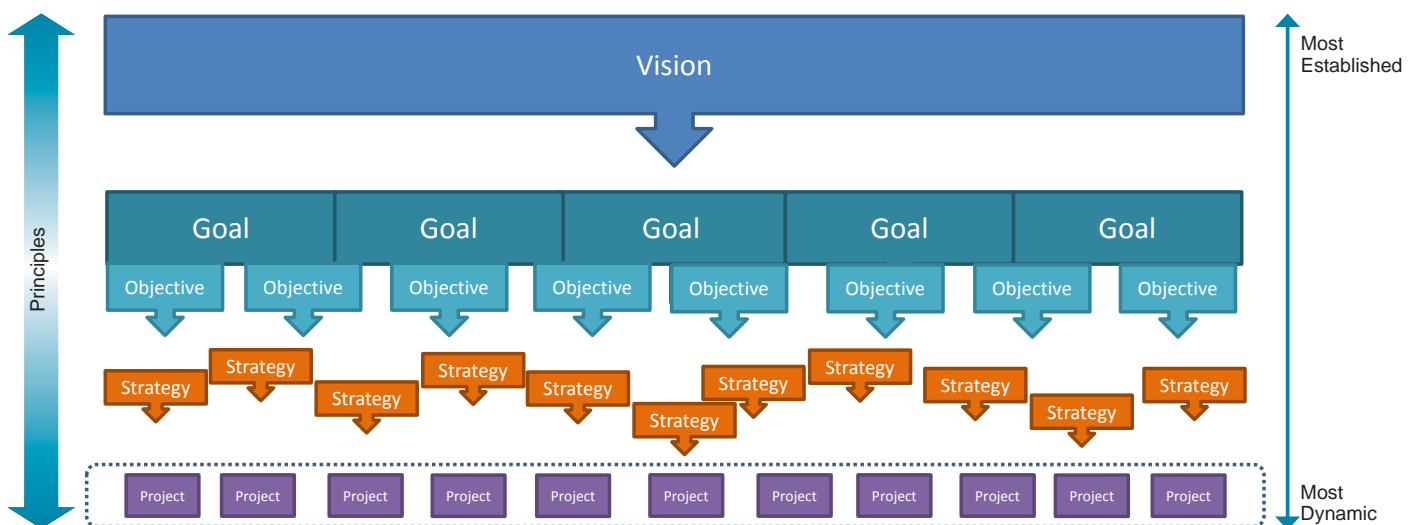
- City and County Governments
- Water Supply Agencies
- Flood Management Agencies
- Environmental Stewardship Organizations
- Community Organizations
- Industries and Businesses
- State and Federal Agencies



Collectively, this group of stakeholders serves as what is referred to as the Planning Forum. The Planning Forum will continue to convene during IRWMP implementation to discuss water-related issues and propose solutions. Also within the governance structure is an Advisory Committee (AC) composed of five representatives with broad knowledge of regional issues. The AC’s oversight serves to ensure that stakeholders have an opportunity to participate in the IRWMP. The AC also makes recommendations related to IRWMP development and implementation for consideration by the RWMG. Finally, the RWMG, represented by the RWA Board of Directors, is responsible for developing, maintaining, implementing, and updating the IRWMP. Individual stakeholders are responsible for implementing specific projects in the IRWMP.

The ARB IRWM Framework

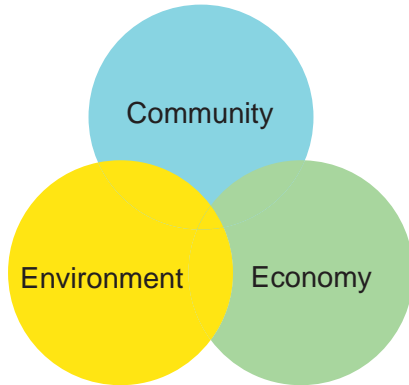
The ARB stakeholders and RWA together developed the ARB IRWM Framework shown below. The Framework serves as the heart of the ARB IRWMP. It lays out a vision for the desired end result of the IRWM effort, guiding principles, goals, and objectives. It also establishes a process for adding and modifying strategies and projects to help meet the goals and objectives of the IRWMP.



The higher level Framework elements (vision, goals, objectives) are broadly supported and foundational. These elements are not expected to change frequently. In contrast, the lower level Framework elements (strategies and projects) are more specific and dynamic. These may address a specific problem and will be adjusted as needs of the region change. The Framework provides for a living and adaptive IRWM process.

Vision

The American River Basin Region will responsibly manage water resources to provide for the lasting health of our community, economy, and environment.



Goals

To help realize the vision, the ARB stakeholders developed a series of regional goals.

1. Provide reliable and sustainable water resources, sufficient to meet the existing and future needs of the region.
2. Protect and enhance the quality of surface water and groundwater.
3. Protect and enhance the environmental resources of the watersheds within the region.
4. Protect the people, property, and environmental resources of the region from damaging flooding.
5. Promote community stewardship of our region's water resources.

Objectives

Meeting our ARB IRWMP goals will depend on addressing 17 primary objectives developed with extensive stakeholder input.

GOAL AREA	OBJECTIVE
Water Resources	<ul style="list-style-type: none"> ▪ Meet current and future water resources needs. ▪ Increase water use efficiency. ▪ Improve ability to reliably meet water demands during dry or emergency conditions. ▪ Increase the use of recycled water for appropriate uses.
Water Quality	<ul style="list-style-type: none"> ▪ Remediate contaminated groundwater and reuse it to the extent feasible. ▪ Improve protection of beneficial uses of surface water and groundwater. ▪ Recharge and reuse stormwater and urban runoff to the extent practicable.
Environmental Resources	<ul style="list-style-type: none"> ▪ Maintain and improve the ecosystem function of area streams and watersheds. ▪ Maintain and improve habitat of area watersheds. ▪ Conserve natural riparian buffers in undeveloped portions of local watersheds and restore buffers in developed areas when possible.
Flood Management	<ul style="list-style-type: none"> ▪ Increase the capacity of the flood management system to meet applicable standards for designated areas and land uses. ▪ Maintain and improve levees and other flood-related infrastructure to reduce flood risk. ▪ Maintain and restore/reconnect floodplains to provide flood storage and other benefits. ▪ Improve management of residual flood risks.
Community Stewardship	<ul style="list-style-type: none"> ▪ Increase awareness of the need for, benefits of, and practices for maintaining sustainable water resources. ▪ Improve integration of water resources planning with land-use planning. ▪ Increase sharing of information, studies, and reports to further advance integrated regional water management.

Principles

Our principles are statements that articulate our shared values. They guide how stakeholders should view planning and implementation in the ARB Region.

■ Planning for sustainability of our water resources considers all aspects of our watershed. This includes:

- Strive for balance in environmental, economic, and social impacts and benefits in decision making and actions.
- Recognize and promote the value of healthy watersheds, ecosystems, and underlying groundwater basins to provide sustainable water resources.
- Promote solutions that seek to minimize impacts to the environment.
- Promote policies and practices that enhance natural watershed functions.
- Develop projects and programs that allow for the fair treatment of people of all races, cultures, and incomes.



■ Further integration to achieve multiple benefits is employed throughout our water resources planning. This includes:

- Value the entirety of the water cycle and consider all forms of water as a potential resource.
- Prioritize solutions that are integrated, addressing as many objectives, and providing as many benefits as possible.
- Promote improved integration of land-use planning and management with water resources management.
- Collaborate to take advantage of the benefits and synergies of water resources planning at the regional level.
- Collaborate with other IRWM regions.

■ Adaptive management techniques and active monitoring are employed in managing our water resources. This includes:

- As needed, adapt planning processes and use the best available information, data, and tools as feasible, to address changes in a dynamic system and reflect evolving science, changing regulations, and/or program evaluation results.
- Regularly monitor and evaluate to determine if objectives and targets are met.
- Incorporate mitigation and adaptation measures in all aspects of planning and implementation in preparation for projected future changing climate conditions.



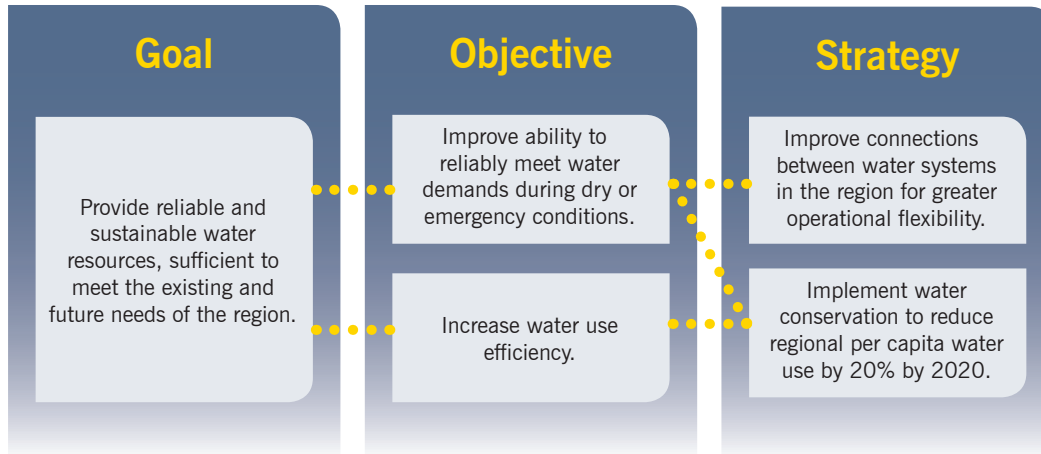
■ A broader community is engaged as stewards of our water resources. This includes:

- Promote transparency and open communication.
- Build community awareness and encourage participation in stewardship of water resources.
- Promote and educate on the value of pollution prevention and source reduction.

Strategies

Strategies are specific approaches or methods for achieving our objectives and resolving specific issues. Strategies trigger action.

In contrast to vision, goals, principles, and objectives, strategies are dynamic. Strategies state a distinct target, quantifiable if possible, and a deadline to meet that target, if possible. Multiple strategies may help achieve an objective; likewise, a single strategy may help make progress toward multiple objectives and goals. An example of these interrelationships among goals-objectives-strategies is shown below. Stakeholders may propose a new strategy at any time, and new strategies can be reviewed, vetted, and added to the IRWMP on a quarterly basis.



Projects

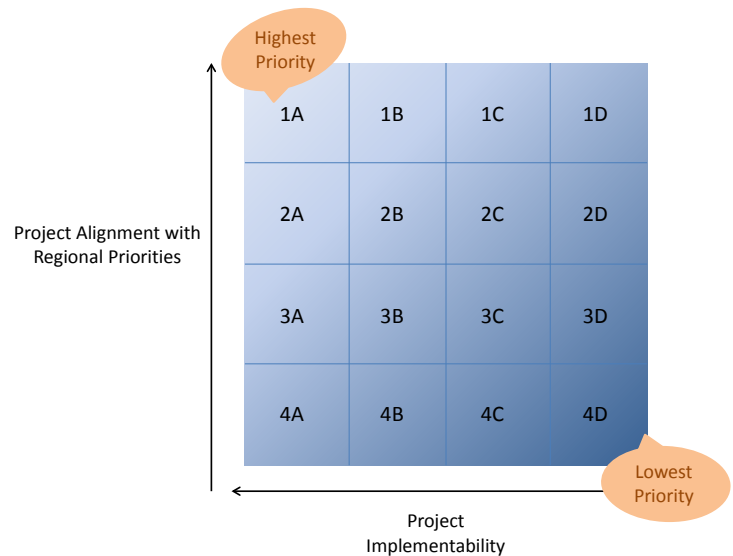
One of RWA's roles is to help prioritize and promote projects that help implement the ARB IRWMP. This requires a project review process to help determine which projects are in the regional interest to promote and implement. The project review process was developed with stakeholder input. Projects are given scores in two primary areas:

- **Project Alignment with Regional Priorities Score (rated 1 to 4)**

This score considers how a project provides benefits to the region, as defined by (1) ARB goals and objectives, and (2) level of integration with other regional projects.

- **Project Implementability Score (A to D)**

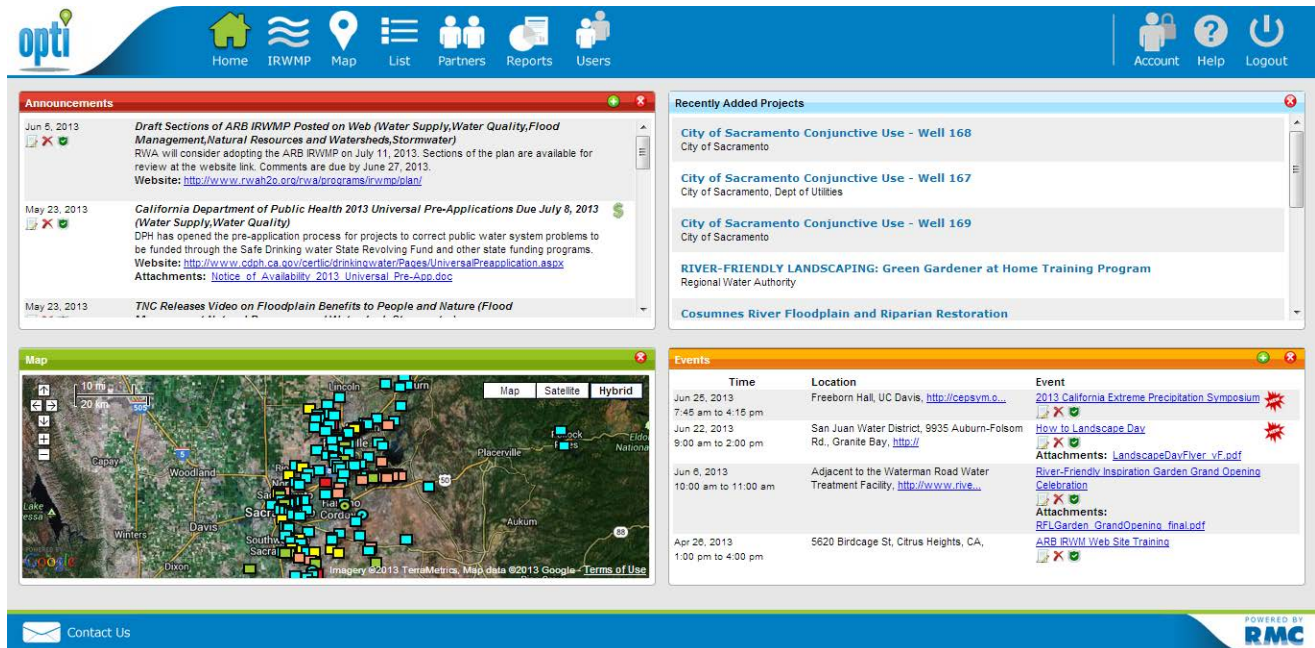
This score considers the readiness for a project to proceed and its overall feasibility.



Based on scoring, projects are placed into one of 16 alphanumeric tiers. Projects in Tier 1A are considered the most aligned with regional priorities and most ready to proceed. Projects in Tier 4D would be least aligned to regional priorities and least ready to proceed. However, these rankings are not absolute with respect to a project's priority in the region. For example, a groundwater well construction project may rank in Tier 3 on its merits, but may be regionally important as part of a conjunctive use strategy. Likewise, a low score may simply indicate that a project is not yet well developed. Project proponents may improve projects or update project information at any time to improve their ranking. Stakeholders also have an option to add a project without receiving a ranking. This encourages entering projects that might be in early development, which could expand opportunities for collaboration nearer the onset of project planning.

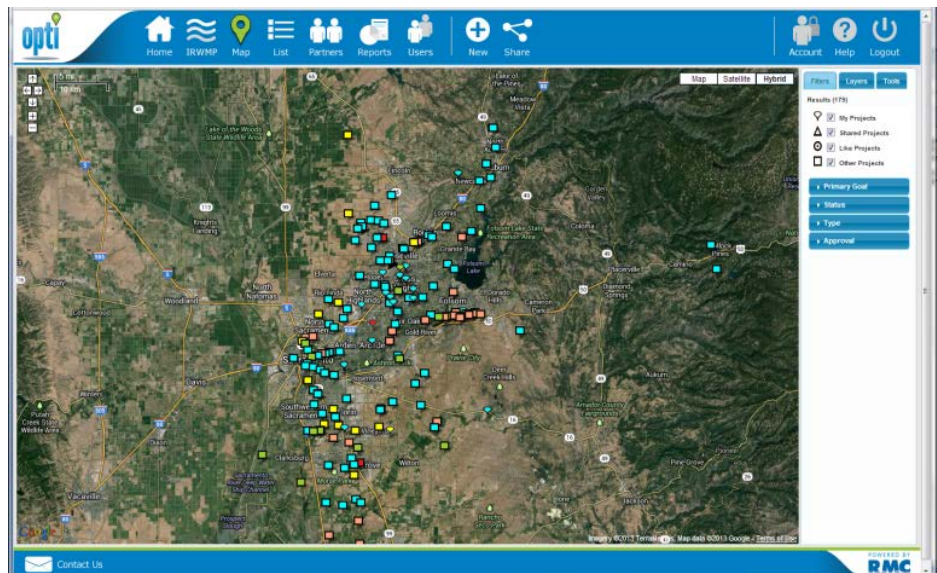
The ARB IRWM Online Community

To help ensure an engaged stakeholder community during development and implementation of the ARB IRWMP, RWA developed Opti. Opti is an online planning community where stakeholders can stay connected with issues related to IRWM. Community members can enter and share announcements, events, and information about IRWMP projects.



Opti promotes IRWM in the following ways:

- Opti provides a central location for sharing information (e.g., currently proposed ARB projects, upcoming meetings, water-related events, progress on IRWM).
- Using Opti fosters collaboration and builds a community.
- Opti efficiently collects and displays details of ARB project information in real time.
- Opti's map interface adds an element for stakeholders to identify "where" potential partners are in the region.
- Opti is a project database that can be easily maintained and updated, ensuring a living IRWM process.
- Opti creates an opportunity for communication among project proponents for potential resource and cost sharing.



Opti is available at: <http://irwm.rmcwater.com/rwa/login.php>

Implementation of the ARB IRWMP

As the RWMG, RWA assumes responsibility for developing, adopting, maintaining and monitoring the ARB IRWMP. Individual stakeholders can voluntarily adopt the ARB IRWMP as well, and adoption will be required if a stakeholder desires to participate in a regional effort to pursue funding for proposed projects. Adoption may also be required for stakeholders pursuing other funding opportunities on their own, but this will be up to specific criteria for any given program.

The IRWMP Framework largely identifies the elements needed to implement the ARB IRWMP. The Framework is designed to be adaptable into the future. It establishes the IRWMP elements that should remain relatively fixed and those that should be dynamic. Changes to the Framework vision, goals, objectives, and principles are not expected to occur frequently, and they would require RWMG approval. In contrast, strategies and projects are meant to be dynamic and changes would be proposed by and vetted with stakeholders. Modifications to strategies and projects do not require any formal action by the RWMG.

Other potential future changes to the ARB IRWMP that would require RWMG approval include:

- Proposed changes to the IRWMP boundary.
- Proposed changes to the IRWMP Governance Structure.
- Proposed changes to the project review process.
- Updates to comply with revised IRWMP Guidelines.
- Updates to respond to newly available information or other policy changes that could affect the ARB Region.
- Authorizing new studies that could benefit planning in the ARB Region.



Successful implementation of the ARB IRWMP will help achieve the region's water resources vision of providing for the lasting health of our community, economy, and environment. The strong foundation created by the ARB IRWMP will continue to guide water resources management efforts to our present and our future benefit.



Want to learn about
and stay up to date on
regional water
management efforts?

Have
projects
to share?

Join the **ARB IRWM community!**

Log in at <http://irwm.rmcwater.com/rwa/login.php>

More information and the complete ARB IRWMP is also available at
<http://www.rwah2o.org/rwa/programs/irwmp/plan/>.

A M E R I C A N R I V E R B A S I N

Integrated Regional Water Management Plan

2013 UPDATE

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