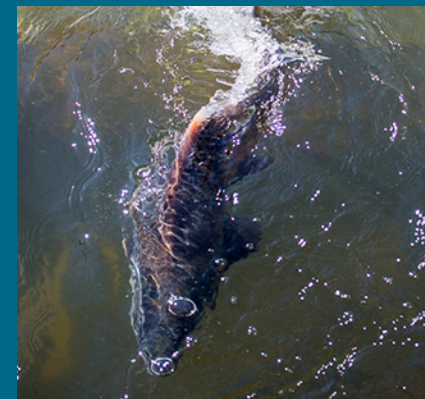


OVERVIEW OF THE

American River Basin Integrated Regional Water Management Plan

2018 UPDATE



Sacramento River
Biologic Region

Sacramento

ARB Region



Introduction

The 2018 **American River Basin (ARB) Integrated Regional Water Management Plan (IRWMP)** Update was prepared by the Regional Water Authority (RWA) with significant input from stakeholders in the ARB Region (Region). This overview document summarizes the content of the 2018 ARB IRWMP Update and highlights significant changes from the 2013 Update.

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 both our present and our future benefit.

History of Regional Planning in the Greater Sacramento Area

The greater Sacramento area has been active in integrated water planning and implementation for over two decades. In 1993, a diverse group of stakeholders began a seven 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 coequal 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 RWA as a joint powers authority in part to help implement elements of the WFA. RWA developed the first ARB IRWMP in 2006 and completed the first ARB IRWMP update in 2013.

2018 ARB IRWMP Update

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.

The 2018 ARB IRWMP is a comprehensive update of the 2013 IRWMP. It builds upon the IRWMP "Framework" and tools developed as part of the 2006 and 2013 IRWMPs, as well as local and regional planning efforts. This includes the North American Basin Regional Drought Contingency Plan, Regional Water Reliability Plan, Sacramento and San Joaquin Rivers Basin Study, and local climate action and sustainability plans. The 2018 ARB IRWMP Update also addresses the 2016 IRWMP Standards, highlights regional accomplishments in IRWM planning, and identifies actions to adapt to and mitigate the impacts of climate change. Significant events and regional accomplishment from the 2013 to the 2018 ARB IRWMP Update are summarized on the following page.

History of Events from the 2013 to 2018 ARB IRWMP Updates



2014

2014 Drought State of Emergency declared.

- Sustainable Groundwater Management Act passes.
- Prop 1 Water Bond (AB 1471) passes, authorizing \$7.55 billion in funds for supply and watershed protection projects, with \$510 million dedicated for integrated regional water management planning.
- Senate Bill 985 passes, requiring agencies to develop stormwater resource plans to receive Prop 1 funds.
- RWA receives \$9.8 million Prop 84 grant award on behalf of local agencies and organization to implement 17 projects addressing drought resiliency/adaptation.

2015

- Water right curtailments throughout California.
- Mandatory 25% statewide reduction in water use are enacted.
- PCWA receives \$200,000 Reclamation WaterSMART grant on behalf of local agencies to develop North American Basin RDCP.
- RWA receives \$1.7 million Prop 84 grant award on behalf of local agencies and organizations to implement four priority projects in 2013 ARB IRWMP Update.
- Water levels in Folsom Reservoir reach a record low of 135,000 acre-feet, threatening water supplies and ecosystems of the American River Basin and system-wide.

2016

- Sacramento and San Joaquin Rivers Basin Study is completed by Reclamation with partners.
- Governor issues Executive Order B-37-16, directing the establishment of long-term conservation standards.
- North American Basin Drought Planning Task Force is formed through RWA.
- Region receives \$650,000 WaterSMART grant award to develop American River Basin Study as local follow-up to the Sacramento and San Joaquin Rivers Basin Study.

2017 Drought State of Emergency lifted.

- Sacramento River Funding Area receives \$3.7 million Prop 1 grant award to ensure DAC involvement in IRWM planning efforts.
- RWA receives \$250,000 Prop 1 planning grant award on behalf of local agencies and organizations to update 2013 ARB IRWMP.
- RWA holds initial stakeholder meetings to commence comprehensive ARB 2018 IRWMP Update.
- GSAs are formed.
- El Dorado County Water Agency receives \$400,000 Reclamation WaterSMART grant award on behalf of local agencies and organization to develop ARB Water Marketing Strategy.
- North American Basin RDCP is completed.

2018

- Local flooding in parts of the Region. Sacramento Weir opened for first time in over a decade.
- Local groundwater management authorities receive \$3 million in funding for development of groundwater sustainability plans for the North American, South American, and Cosumnes Subbasins.
- Prop 68 passes, authorizing \$1.19 billion in funding for water infrastructure and flooding projects.
- Regional Water Reliability Plan completed by RWA.
- ARB SWRP and West Slope SWRP are finalized and adopted.
- 2018 ARB IRWMP Update is finalized and adopted following four stakeholder workshops over two years.

LEGEND

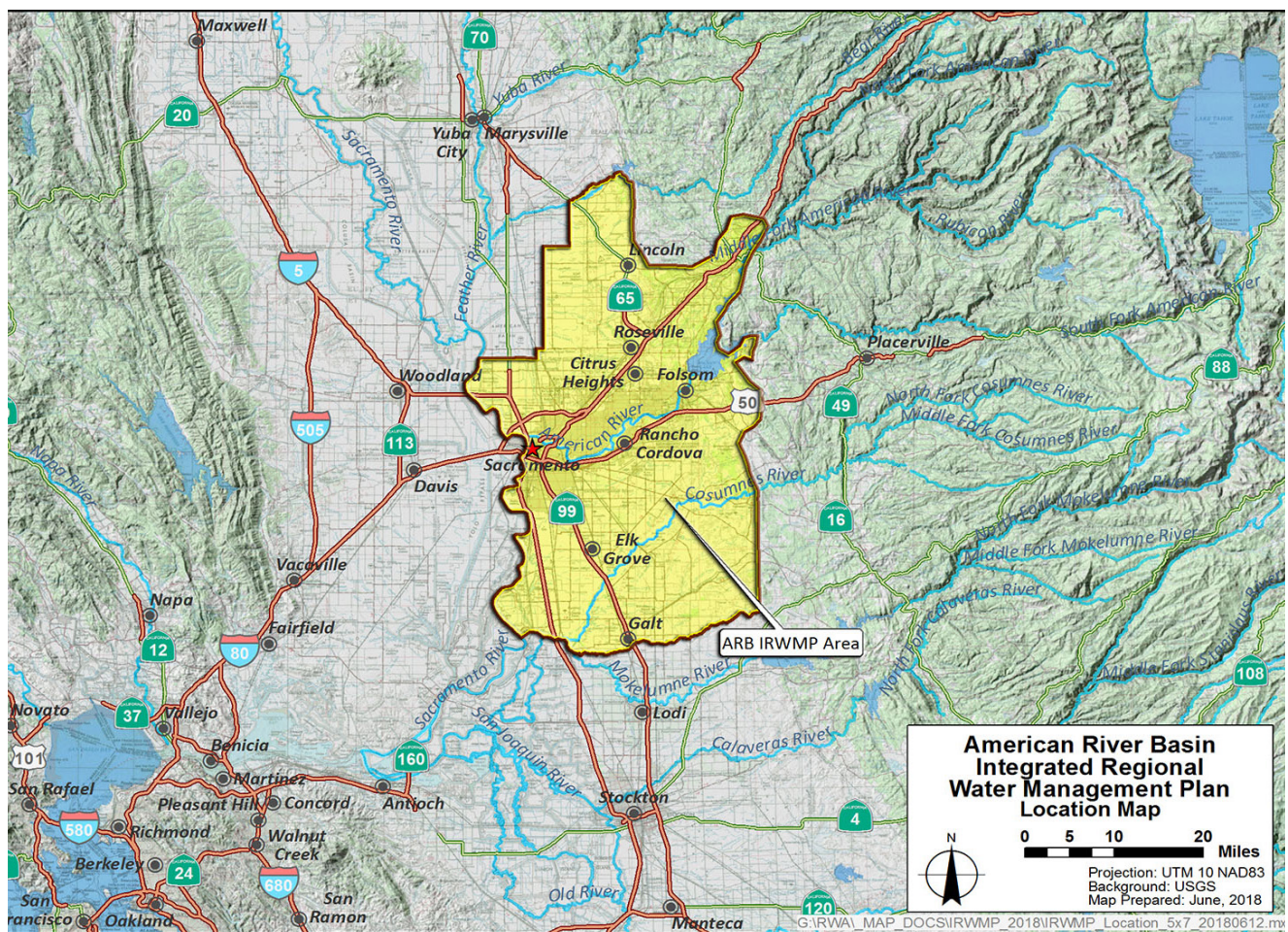
AB	Assembly Bill	Prop	Proposition
ARB	American River Basin	RDCP	Regional Drought Contingency Plan
DAC	disadvantaged community	Reclamation	U.S. Department of the Interior, Bureau of Reclamation
GSA	Groundwater Sustainability Agency	RWA	Regional Water Authority
GSP	Groundwater Sustainability Plan	SAFCA	Sacramento Area Flood Control Agency
IRWMP	Integrated Regional Water Management Plan	SWRP	Storm Water Resource Plan



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.

Changes from 2013 ARB IRWMP:

- Updated ARB Region boundaries to include portions of western Placer County that were previously excluded.



A photograph of a large, rusted metal pipe lying on the ground in a grassy field. Water is leaking from a hole in the pipe, creating a small pool. In the background, there are green fields and some distant buildings under a clear sky.

Water Resource Management Challenges

The Region faces 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 and changes in precipitation; increased constraints on water supply due to environmental and other regulations; and degraded ecosystems.

Changes from 2013 ARB IRWMP:

- Updated description of climate change vulnerabilities and resiliency and adaptation strategies.
- Added discussion on the drought's impacts to the Region.
- Added descriptions of regional planning efforts, including groundwater sustainability plans, Storm Water Resource Plans, North American Basin Regional Drought Contingency Plan, and Regional Water Reliability Plan.

A wide-angle photograph of a large concrete dam with multiple spillways. The dam is situated in a valley with green hills in the background. The foreground shows a rocky riverbed and some vegetation.

ARB IRWM Governance



Participants at 2018 ARB IRWMP Update Workshop.

While RWA has the ultimate responsibility for developing and maintaining the ARB IRWMP as the Regional Water Management Group (RWMG), the **2018 ARB IRWMP Update was developed with significant input from the ARB stakeholders**. The 2018 ARB IRWMP Update was developed over a series of four public workshops and numerous communications with stakeholders. These workshops included participation from over 30 agencies representing a broad range of interests in the Region.

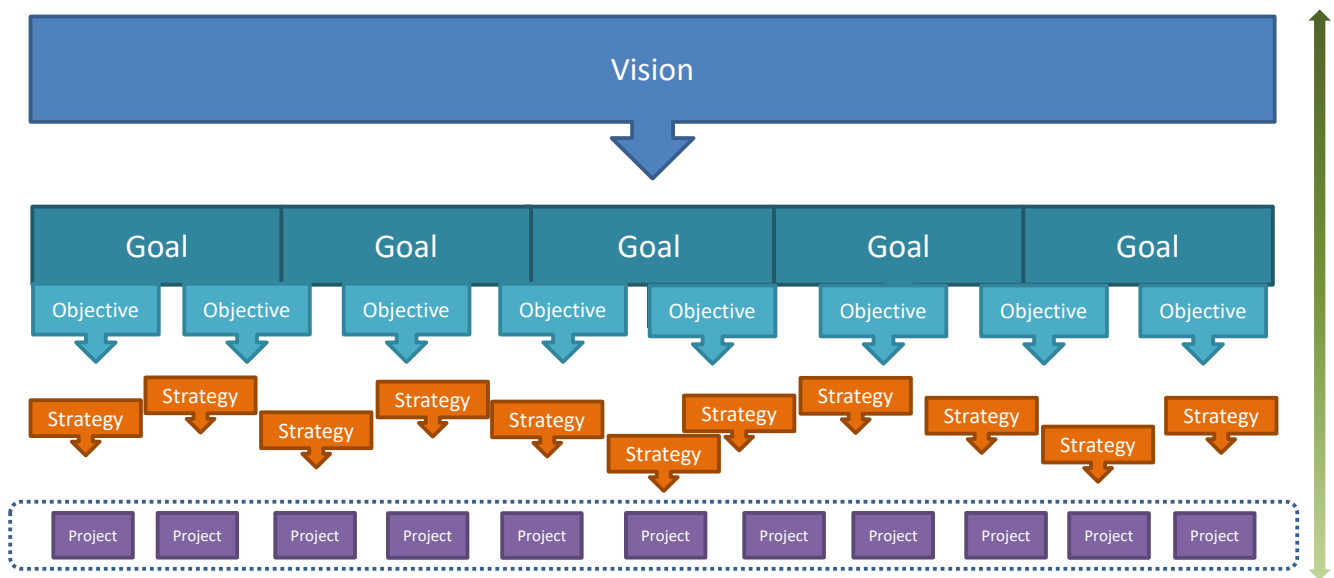
Collectively, this group of stakeholders serves as what is referred to as the Planning Forum. The Planning Forum will continue to convene during IRWMP implementation to discuss water-related issues and propose solutions. Also within the governance structure is an Advisory Committee. The Advisory Committee serves to ensure that stakeholders have an opportunity to participate in the IRWMP and makes recommendations related to the project vetting and scoring process. Individual stakeholders are responsible for implementing specific projects in the IRWMP.

Changes from 2013 ARB IRWMP:

- Updated role of Advisory Committee.



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 Framework provides for a living and adaptive IRWM process. ARB stakeholders and the RWA developed the Framework in 2013 (depicted below) and revised the goals, objectives, principles, and strategies in 2018 to reflect both accomplishments and changed conditions.



Changes from 2013 ARB IRWMP:

- Updated goals, objectives, principles, and strategies.
- Added a new principle to address the impacts of climate change and other uncertainties to the Region.
- Added a new objective to address the sustainable management of Region's groundwater resources.
- Added new strategies to address sustainable groundwater management, stormwater quality, conjunctive use, and engagement of agricultural stakeholders.
- Updated list of 'Parking Lot' strategies. Incorporated or elevated Parking Lot strategies, where feasible.
- Added a discussion describing how the IRWMP strategies address the impacts of climate change and other regional vulnerabilities.

Vision

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

Goals

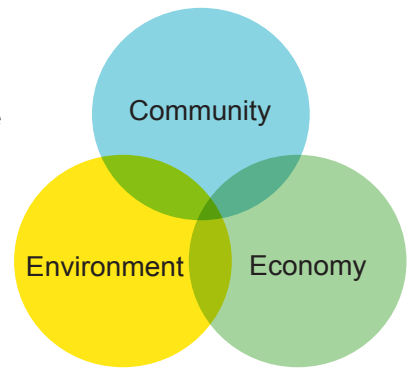
To help realize the vision, the ARB stakeholders developed a series of regional goals.

1. Provide reliable and sustainable surface water and groundwater 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 the impacts of flood damage.
5. Promote community stewardship of our Region's water resources.

Principles

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

- Planning for sustainability of our water resources considers all aspects of our watershed.
- Achieving multiple benefits through further integration throughout our water resources planning.
- Employing adaptive management techniques and active monitoring to manage our water resources.
- Engaging a broader community as stewards of our water resources.
- Planning for hydrologic variability and uncertainty.



Objectives

Meeting our ARB IRWMP goals will depend on addressing 18 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 needs during dry or emergency conditions. ▪ Increase the use of recycled water for appropriate uses. ▪ Manage the Region's groundwater basins sustainably.
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 to reduce flood risk and increase groundwater recharge. ▪ 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.

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. 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 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:

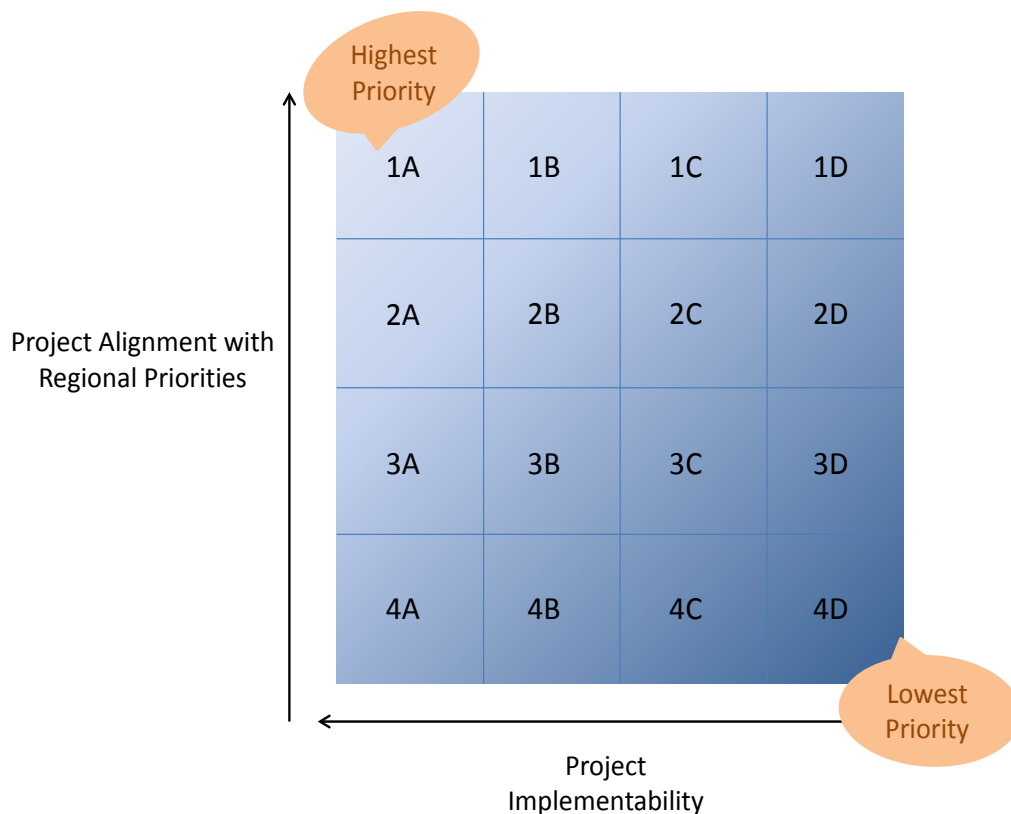
■ Project Alignment with Regional Priorities Score (rated 1 to 4)

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. 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.



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 site 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 a spatial 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>

Changes from 2013 ARB IRWMP:

- Updated Opti to collect information for Storm Water Resource Plan projects.
- Updated the Opti site.



Recent drought, floods, and wildfires have shown that climatic change will continue impact regional water supplies, water demands, water quality, and ecosystems. A climate change assessment was conducted for the Region as part of the 2013 ARB IRWMP Update and updated in 2018. The 2018 ARB IRWMP Update describes recent climate change effects, regional vulnerabilities to climate change, and climate change mitigation and adaptation actions. These regional vulnerabilities and actions will be refined as new tools are developed and new information is provided. Mitigation and adaptation actions will continue to be incorporated into IRWM projects and other water management efforts.

Changes from 2013 ARB IRWMP:

- Refined ARB climate change assessment.
- Updated description of climate change resiliency and adaptation measures.
- Incorporated information from regional and local climate change planning efforts.
- Added language describing how the IRWMP will be adaptively managed to address the impacts of climate change and other uncertainties.



As the RWMG, RWA assumes responsibility for developing, adopting, maintaining and monitoring the ARB IRWMP. Individual stakeholders may voluntarily adopt the ARB IRWMP. Adoption is required if a stakeholder desires to participate in a regional effort to pursue IRWM-related funding for a proposed project. Adoption may also be required for stakeholders pursuing other funding opportunities on their own, but this is dependent on the specific criteria of each funding program.

The IRWMP Framework is designed to be adaptable into the future. 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.

Changes from 2013 ARB IRWMP:

- Added language describing how the IRWMP will be adaptively managed to address the impacts of climate change and other uncertainties.
- Updated description of funding opportunities and regional successes securing plan and project financing.



**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
<https://rwah2o.org/programs/integrated-regional-water-management/american-river-basin-irwmp-2018-update/>



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