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Water Forum Agreement 2050

EXECUTIVE SUMMARY

2050

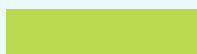
*A stronger, modernized
Water Forum Agreement to
face today's water management
challenges and ensure
continued success and relevance
in the evolving landscape.*



WATER FORUM COEQUAL OBJECTIVES

Provide a reliable and safe water supply for the region's economic health and planned development through to the year 2050; and

Preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.



The WF2050 agreement is a voluntary agreement between signatories that functions through mutual commitments made to support the coequal objectives, implement the guiding principles, and uphold the specific commitments as relevant.



WATER FORUM AGREEMENT

2050

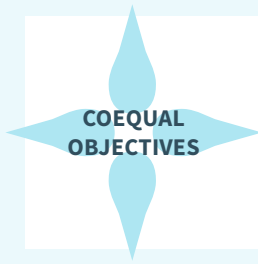
EXECUTIVE SUMMARY

The lower American River is an essential part of life in the Sacramento region. It provides drinking water to nearly 2 million people, is home to 43 species of fish, helps protect Sacramento-area communities from floods, and offers invaluable recreational and aesthetic value.

The original Water Forum Agreement was a bold experiment. People with vastly different views on the best uses of water agreed to work together toward mutual goals. Water agencies, environmental organizations, business groups, and other interested parties negotiated a 30-year plan for how the American River basin's water would be managed and protected. The aim was to reduce the persistent conflicts over water resources that had historically plagued the region. In 2000, 40 agencies, organizations, citizen groups, and businesses came together to sign the landmark Water Forum Agreement, a visionary long-term plan created to balance the long-term reliability of the region's water supplies, the health of the American River, and the economic vitality for the region.

Now, after 25 years of successful cooperation, the region is advancing the next generation of water management: **Water Forum 2050 (WF2050)**.

The renewed and updated WF2050 maintains the foundational coequal objectives from the original Agreement:



Provide a reliable and safe water supply for the region’s economic health and planned development through to the year 2050; and
Preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

WF2050 is designed to balance these priority goals while addressing new challenges such as climate change and economic pressures. It remains grounded in collaboration among a diverse group of businesses, citizen groups, environmentalists, water managers, and local governments in Sacramento, Placer, and El Dorado counties.

The Challenge of Climate Change

Water Forum members recognize that **climate change** presents the most significant threat to achieving the coequal objectives. Key risks include:

- Accelerated decline of salmonids, recreation, and water quality due to decreased flows and increased river temperatures in the lower American River.
- Decreased reliability of the region’s urban water supply due to changes in hydrology, and increased strain on statewide water project operations.
- Increased threat of external claims for American River water due to water-shortage pressure elsewhere in the state.
- Increased drying of soils and plants due to higher temperatures.
- Increased need for overall regional water resilience due to evolving regulatory requirements.

WF2050 provides a collaborative path forward in the face of these challenges—one that supports and drives investments in projects and programs to build regional resiliency and addresses current and emerging water management challenges, while safeguarding the region’s environmental and economic health for future generations.

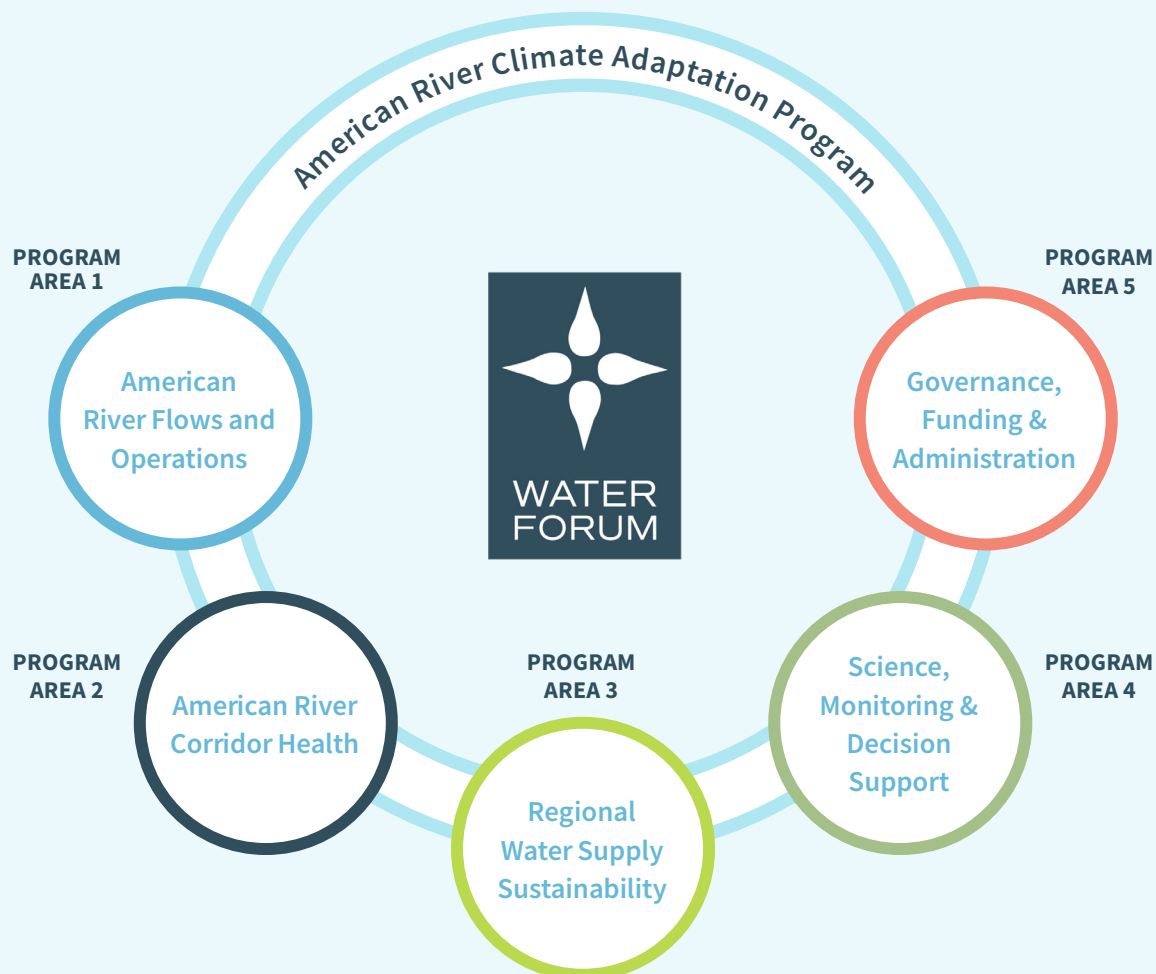
Program Areas and Strategic Framework

WF2050 is presented in five key **Program Areas**: (1) American River Flows and Operations, (2) American River Corridor Health, (3) Regional Water Supply Sustainability, (4) Science, Monitoring, and Decision Support, and (5) Governance, Funding, and Administration.

These Program Areas are designed to support the **coequal objectives** and incorporate many elements from the expiring agreement while adapting to meet the region’s evolving needs over the next 25 years. Each Program Area outlines specific guiding principles, commitments, and activities directed to its corresponding Program Area.

Additionally, WF2050 introduces the **American River Climate Adaptation Program** (ARCAP), an ambitious cross-cutting program intended to make additional volumes of water—referred to as ARCAP Water—available to support both environmental and supply objectives. ARCAP enhances the five Program Areas by voluntarily linking agencies, infrastructure, and policies so that water is managed by agencies to be available when and where it’s needed which helps preserve cold water in the American River for fish and protects future supply.

Following are brief summaries of ARCAP and each of the five Program Areas.



American River Climate Adaptation Program

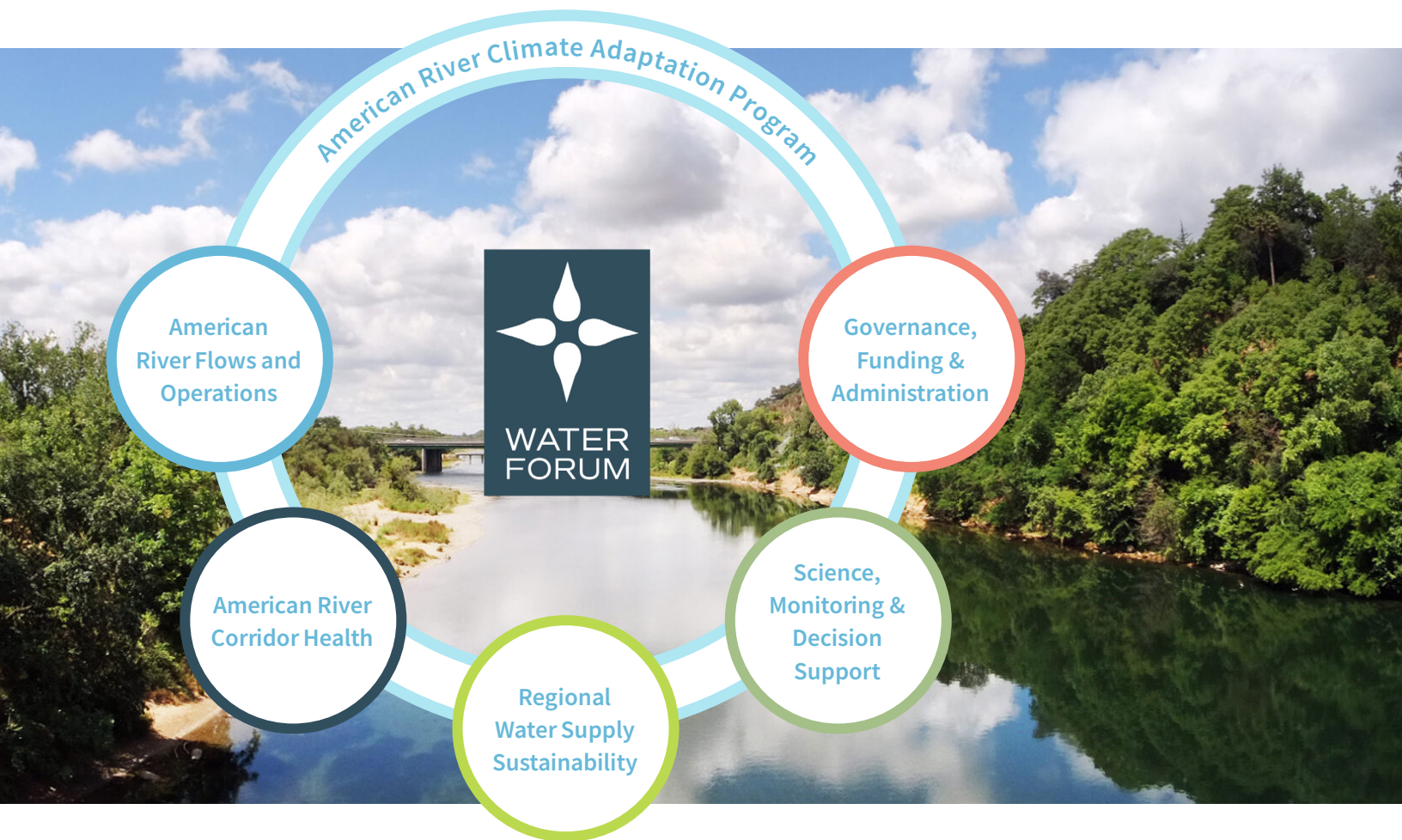
The **American River Climate Adaptation Program (ARCAP)** is a cornerstone of WF2050, designed to create a dedicated, measurable supply of water—referred to as *ARCAP Water*—that can be deployed strategically to protect both water supply reliability and river health under increasingly variable climate conditions.

This cross-cutting program expands the region’s ability to adapt by coordinating and aligning new and existing efforts such as groundwater recharge, source shifting, conservation, and flexible reservoir operations. Together, these strategies aim to store more water in wet years and make it available when it’s needed most—during droughts, critically dry conditions, or times when fish and wildlife require cooler flows in the lower American River.

Several important issues need to be addressed before ARCAP is operational. To implement ARCAP, the Water Forum commits to the actions and activities below:

- **Technical, Operational, Regulatory, and Legal Issues:** Several issues must be resolved before the ARCAP can come to fruition. ARCAP will develop a process for identifying and analyzing issues required for implementation.
- **External Engagement Strategy:** The ARCAP will require partners beyond the signatories to WF2050 to be successful. ARCAP includes sustained efforts to communicate with potential partners to maximize the probability of success.
- **Coordination, Management, and Implementation of ARCAP Water:** The implementation and management of *ARCAP Water* will be coordinated with regional and external partners.
- **Program Review and Refinement:** It will be necessary to periodically evaluate and refine the ARCAP given its scope and complexity. A work group will be established to oversee and guide

the ongoing work for ARCAP. A workplan, including a budget and scope of work, will be reviewed and updated annually.



ARCAP aims to better manage water in the face of climate by voluntarily linking agencies, infrastructure, and policies—creating a truly regional water system where water is available when and where it's needed, and cold water is preserved in the American River for fish and future supply.

Developing and implementing the ARCAP will be a long-term endeavor, but it will progress incrementally to build confidence and support with early implementation resulting in collective successes.

Program Area 1

American River Flows and Operations

The first Program Area focuses on managing **American River Flows and Operations (ARFO)**. Temperature models project that river temperatures under climate change will routinely exceed suitable ranges for resident salmonids for nearly half of the year, creating unhealthy, or even lethal, conditions for fish. In addition, changes in hydrology, with more extremes in dry and wet conditions, are expected to challenge water storage at Folsom Reservoir. Targeted and creative solutions will be needed to maintain the lower American River's health while providing regional water supply sustainability.

Key strategies include:

- **Flow Management Standard (FMS):** A foundational element of WF2050, the FMS provides guidelines for operations of Folsom Dam and on the lower American River that help protect river health and preserve water supply reliability, particularly during drought when water supplies are reduced and there are competing demands. FMS contents include minimum reservoir releases based on regional hydrology, storage targets at key times in the year, and temperature management protocols tailored to conditions within any given year.
- **Flood Operations:** Supports enhanced operational flexibility within the American River watershed through improvements in infrastructure and procedures that mitigate impacts of climate change on regional water supply and river temperatures while increasing flood protection for the Sacramento region.
- **Temperature and Other Water Management Infrastructure:** Advocates for projects that contribute to more effective water temperature management, and other important water quality attributes, to protect the river's health.

The flows and river temperatures on the lower American River are directly related to the operations of Folsom Dam, which is operated by the U.S. Bureau of Reclamation (Reclamation). Active relationships with Reclamation and other federal, state, and regional partners will be necessary for the Water Forum to continue promoting its coequal objectives via **American River Flows and Operations**.



Reclamation is the principal implementing agency for operating Folsom Dam releases, storage, and temperature management; state and federal resource agencies also have critical roles in the oversight and regulation of Folsom operations. Active relationships with these external partners are necessary to advocate for changes in operations and infrastructure that support the coequal objectives.

Program Area 2

American River Corridor Health

In the second Program Area, Water Forum partners commit to sustaining an **American River Corridor Health (ARCH) Program** to further improve, recover, enhance, and maintain the lower American River’s natural resources. Building on the success of the habitat program established with the original Water Forum Agreement, the ARCH Program expands to take a multi-faceted approach to lead habitat and science efforts for the lower American River, as well as collaborate with partners to support a thriving river corridor and region.

The ARCH Program includes the following strategies:

- **Project Implementation and Funding Leverage:** Habitat projects support the Water Forum’s coequal objectives, address a vital need on the lower American River, and leverage Water Forum funding, when appropriate, to maximize available local, state, and federal grant funding.
- **Advocacy and Partnerships:** Sustained engagement with partners is a primary tool for the ARCH Program. This applies to both the Water Forum signatories and partners with shared goals supporting Water Forum efforts on the lower American River, as well as advocacy at the local, state, and federal levels to support the coequal objectives.
- **Adaptive Management:** Active and focused planning and adaptive management allows flexibility to address emerging issues and nimbly respond to changing conditions as additional scientific information and funding become available. As such, the **ARCH Program Planning Matrix** is a “living” list of ongoing and potential projects and broader program areas that may address emerging issues, allowing the Water Forum and its partners to seize funding and coordination opportunities as they arise.
- **Urban River Considerations:** The ARCH Program works in a manner that **acknowledges changes in the nature and magnitude of human and societal effects** on the natural resources of the lower American

River. Understanding that the Water Forum does not work in a vacuum, the ARCH Program recognizes the practical realities of working on an urban river corridor that is also designated as a federal and state Wild and Scenic River. The Water Forum is aware of and will continue to work to understand the challenges members and partners face given the tension that exists between the river's ecological importance as a habitat for corridor species, and human usage of the American River Parkway as a recreational amenity and for other purposes.

Although many projects directly implemented under the **ARCH Program** may be focused on habitat, education, science, and decision-support activities, actions that support a robust and healthy river corridor also contribute to water supply reliability and the region's economic vitality.



The ARCH Program is designed to implement native salmonid habitat and multi-benefit natural resource projects within the LAR corridor. Program activities focus on the study and implementation of actions that improve flow and temperature conditions, and habitat quantity and quality for native species along the LAR corridor and broader region.

Program Area 3

Regional Water Supply Sustainability

Balancing the coequal objectives to provide a reliable regional water supply and protect the health of the lower American River requires thoughtfully planned, proactive water management that is focused on **Regional Water Supply Sustainability (WSS)**. Since the original Water Forum Agreement was signed, the region has successfully practiced conjunctive use (alternating the use of surface and groundwater supplies based on their availability), and WF2050 aims to support and emphasize these practices to protect the region's groundwater supplies and the health of the lower American River.

Key elements of WF2050's Regional Water Supply Sustainability strategy are:

- **Surface Water Management:** Considerable diversity exists among the regional water purveyors in terms of supply portfolios, locations of diversions, types of entitlements, and amount of growth projected. This presents a variety of opportunities and challenges for supporting the coequal objectives through surface water management. WF2050 establishes principles for surface water management that prioritize alternative supplies to the American River in dry conditions and prioritize surface water in wet conditions. A key feature for implementing these principles is the Purveyor Specific Agreements (PSAs).
- **Groundwater Management and Conjunctive Use:** Groundwater is an essential part of the region's water supply, especially in dry years. Water providers and groundwater management agencies have made significant investments in protecting the quality and quantity of groundwater and to comply with the Sustainable Groundwater Management Act. WF2050 establishes principles to leverage and enhance the collective resources of its signatories to support groundwater sustainability by providing additional opportunities for regional collaboration and information sharing while avoiding

duplicative efforts. A cornerstone of this effort is conjunctive use—the coordinated management of surface and groundwater supplies to improve overall reliability and flexibility. This includes in-lieu recharge during wet years and increased groundwater pumping during dry years to leave more surface water in the river when it is most needed for fish. WF2050 supports principles to enhance conjunctive use practices across the region.

- **Demand Management:** Demand management (actions to manage the consumptive use of water) can contribute to improved water supply reliability while making more water available to support the health of the river. WF2050 establishes principles for demand management and outlines activities to improve regional awareness and understanding of water use trends and implications for the coequal objectives.
- **Dry Times Actions:** During dry conditions, balancing the need to provide a reliable regional water supply and protect the health of the lower American River can be particularly challenging. Careful planning for and diligent coordination and strategy during dry times will be required to ensure that both coequal objectives are supported. WF2050 includes “Dry-Time Actions,” such as prioritizing alternative supplies and consistent messaging, that address signatory commitments specific to dry times. Dry Time Actions also include a process for Water Forum members to conference during times of shortage to confer and work together to identify solutions during such challenging periods.
- **Land Use Decisions:** Water Forum signatories recognize the benefit of coordination between water resources planning and land use decision-making and acknowledge the extensive requirements linking the two through state law. The Water Forum will synthesize and communicate data and information related to water supply and demand to provide a regional overview of trends and projections.



Uncertainty in surface water availability due to climate change, and the associated changes in hydrology, must be carefully weighed when planning to support Water Forum’s coequal objectives under future conditions.

Program Area 4

Science, Monitoring, and Decision Support

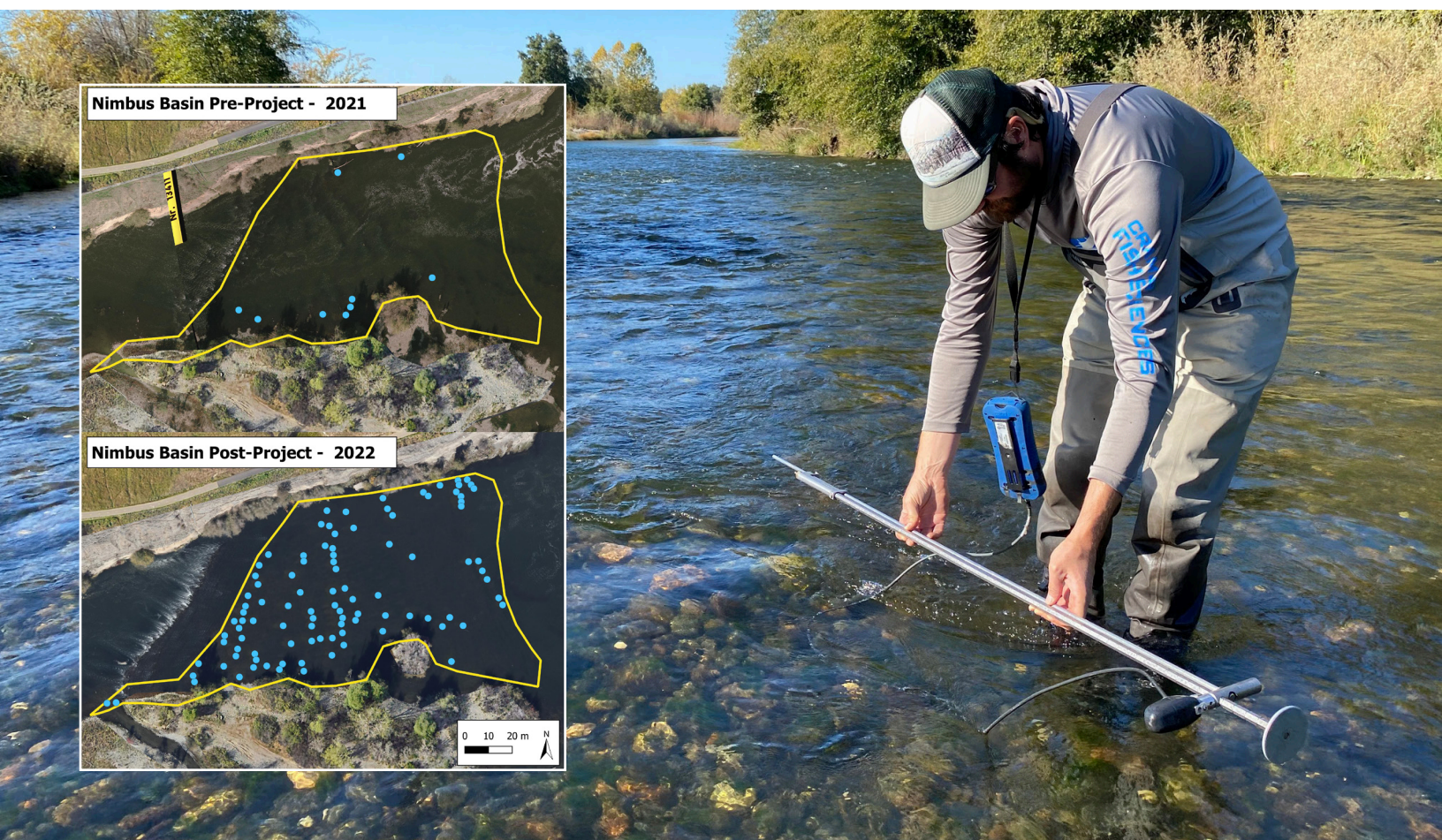
This Program Area provides the technical foundation for the Water Forum's adaptive management approach and long-term success in meeting its coequal objectives. The Water Forum commits to developing and sustaining a robust **Science, Monitoring, and Decision Support** program to further study, monitor, adaptively manage, co-produce, report, and share relevant data, advocate for scientific rigor, and provide timely and defensible decision support for the effective management of resources along the lower American River corridor in support of the coequal objectives.

Key elements include:

- **Support of Effective River Corridor and Watershed Adaptive Management:** Continue to co-produce and contribute information regarding corridor health and watershed conditions to inform flow and operational discussions, project planning, and support decision-making on the lower American River and region.
- **Maintain Appropriate Scientific Standards:** Standardized, peer-reviewed information and protocols incorporating best available science and methods will be utilized and incorporated where applicable. ARFO and ARCH work on the river and within the watershed will continue to be monitored and documented with the aim of collecting actionable data to be used for adaptive management, reporting, and decision support.
- **Communication and Data Access:** Provide easily accessible and interactive information associated with the work of the Water Forum for the members, public, and agency partners.
- **Metrics and Reporting:** Identifies metrics to be utilized to track and provide transparency in reporting progress toward both coequal objectives and the agreement's guiding principles. Outlines regular tracking and reporting to share information about the value of the Water Forum's presence, the organization's role in the region, and the status of the coequal objectives. Reporting of consistent metrics overtime will

inform adaptive management and decision-making, and will enhance the general understanding of water supply sustainability and river health which fosters trust with interested parties.

- **Partnerships and Collaboration:** The Water Forum will continue to build and maintain data-sharing channels and supportive relationships with partners to support and advance understanding of the Water Forum’s work and status of the coequal objectives and support regional and statewide planning and science efforts, as appropriate.



Sharing well-organized information through open data initiatives and clearinghouses, the Water Forum website, conferences, and special events will support the Water Forum’s reputation for producing reliable, credible, and rigorous technical information to share publicly.

Program Area 5

Governance, Funding, and Administration

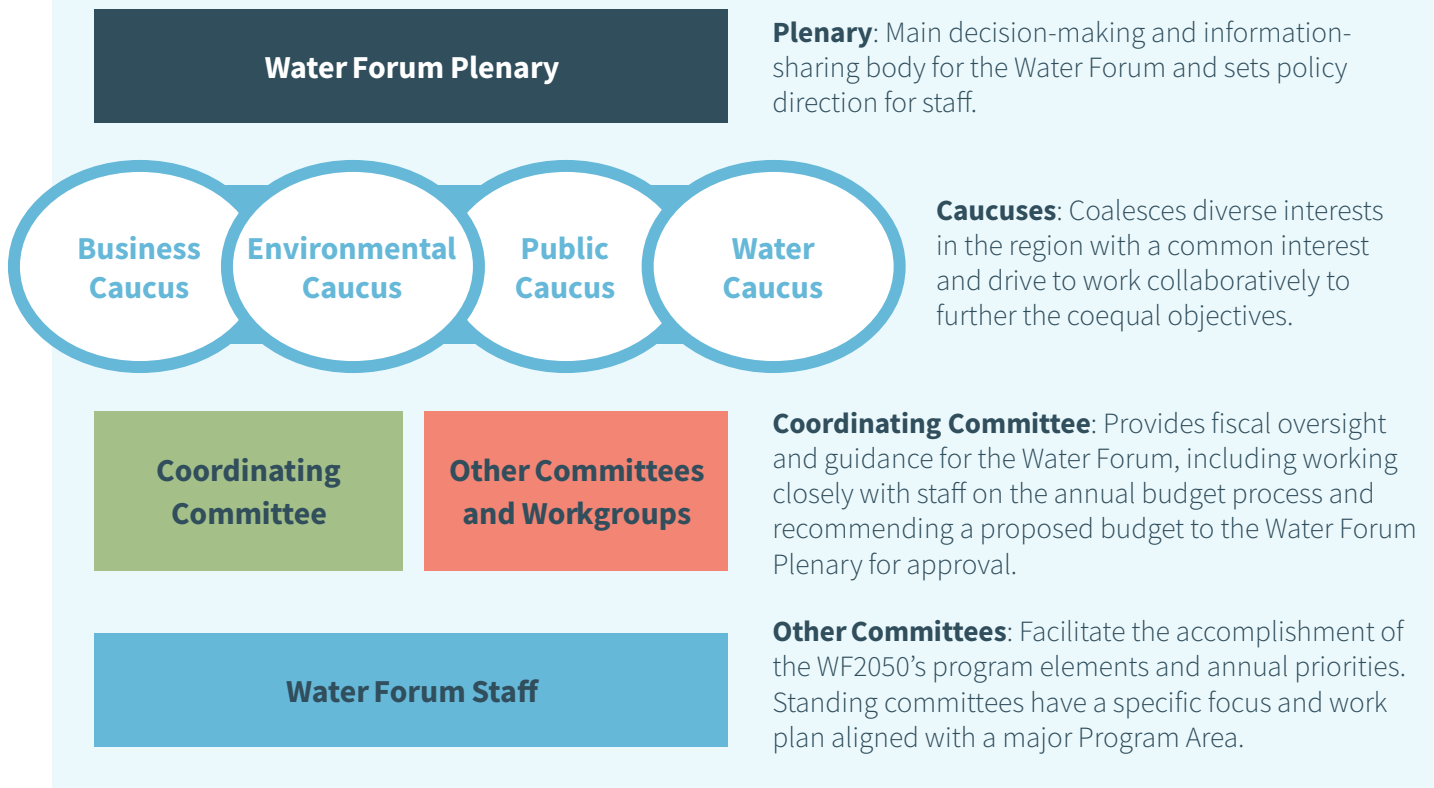
The final Program Area addresses **Governance, Funding, and Administration (GFA)**, the structure and mechanisms necessary to implement and sustain WF2050 over its 25-year term.

Core aspects include:

- **Governance:** The Water Forum’s governance structure is intended to support programs through the 25-year life of WF2050. The Governance description provides guiding principles to maintain the long-term integrity and efficacy of the Water Forum as an interest-based organization and documents its governance structure, decision-making process, external representation, implementation partners, and the importance of community outreach and engagement.
- **Funding:** Addressing the Water Forum’s coequal objectives requires a significant investment of time and financial resources by its partners. The Funding description provides guiding principles for budgeting and funding activities and documents the budget process, sources and cost-allocation methodologies, and five-year progress reviews.
- **Administration:** The Water Forum is administered under the auspices of the City of Sacramento. The Administration description addresses the administrative structure, reporting and monitoring, changed conditions and amendments to WF2050, legal considerations, and land use decisions.



Water Forum Governance Structure



Companion Documents

WF2050 concludes with a description of overarching Caveats and Assurances, Purveyor Specific Agreements, and the following Appendices:

- **Appendix 1:** Advancing the Seven Elements of the First Water Forum Agreement
- **Appendix 2:** American River Climate Adaptation Program (ARCAP) Two-Year Workplan
- **Appendix 3:** Engagement with the U.S. Bureau of Reclamation
- **Appendix 4:** List of Temperature Management Projects and Programs
- **Appendix 5:** American River Corridor Health (ARCH) Program Planning Matrix
- **Appendix 6:** Declaration of Full Appropriation Context
- **Appendix 7:** Sacramento Groundwater Authority Bridge Document
- **Appendix 8:** Water Supply Sustainability (WSS) Demand Management Actions
- **Appendix 9:** Metrics and Reporting Table
- **Appendix 10:** Water Forum and Department of Utilities Memorandum of Understanding
- **Appendix 11:** Five- and One-Year Budget for Water Forum
- **Appendix 12:** Cost Allocation Method Description
- **Appendix 13:** Interagency Agreement for Water Forum Administration

Acknowledgments

Thank you to the organizations and their representatives who devoted countless hours to participating in Water Forum 2050 negotiations. The Water Forum would not be possible without the dedication of its members.

Business Caucus

AKT Development*
Associated General Contractors*
North State Building Industry Association*
Sacramento Association of Realtors*
Sacramento Metropolitan Chamber of Commerce*
Sacramento Regional Builders Exchange
Green Acres Nursery & Supply

Environmental Caucus

Environmental Council of Sacramento*
Friends of the River*
Save the American River Association*
Sierra Club Mother Lode Chapter*

Public Caucus

American River Flood Control District
American River Parkway Foundation
City of Rancho Cordova
City of Sacramento Planning Department*
League of Women Voters, Sacramento County *
Placer County
Sacramento Area Council of Governments
Sacramento Area Flood Control Agency
Sacramento County*
Sacramento Regional Parks
Sacramento Valley Conservancy
Sacramento Municipal Utilities District *

Water Caucus

California American Water*
Carmichael Water District*
Citrus Heights Water District*
City of Folsom*
City of Roseville*
City of Sacramento*
Del Paso Manor Water District*
East Bay Municipal Utility District
El Dorado Irrigation District*
El Dorado Water Agency*
Fair Oaks Water District*
Golden State Water Company/Arden-Cordova Water District*
Orange Vale Water Company*
Placer County Water Agency*
Regional Water Authority*
Sacramento Suburban Water District*
Sacramento County Water Agency*
San Juan Water District*

* Denotes an organization that was a Signatory to the 2000 agreement.



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