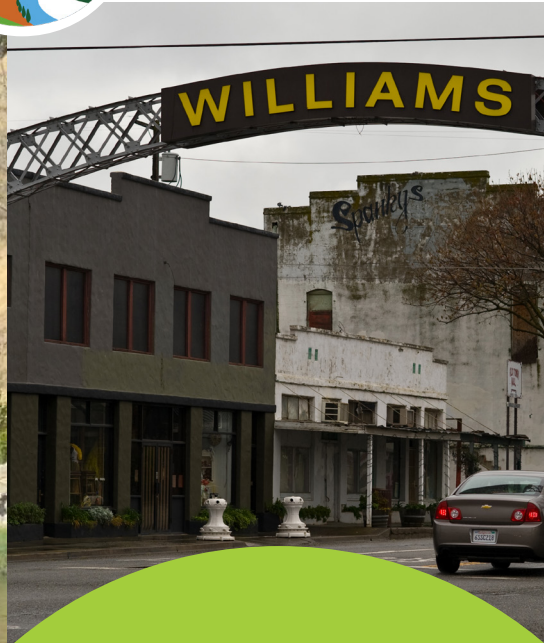





NCWA
Northern California Water Association



**Vitalizing
Healthy Rivers,
Landscapes,
and our
Communities**

Five-Year Strategic Priorities

January 2025



The Northern California Water Association (NCWA) and water leaders in the region continue to adapt to our climate reality by vitalizing our healthy rivers, landscapes, and communities in the Sacramento River Basin* from ridgetop to river mouth. We continue to work hard with our many collaborators (see page 25) to advance multi-benefit water management to cultivate a shared vision in the region for a vibrant way of life. In this spirit, we offer a new riverscape vision for the Sacramento River Basin that blends the wisdom of leading scientists and local knowledge to better understand and take various actions to integrate our wonderful rivers and creeks with our landscapes and communities in a way that will bring the entire region to life through our precious water resources. We appreciate our many collaborators and we hope many others will be inspired by this approach and will join our effort to work hard, scale-up and harmonize our priorities with state, federal, and other regions' priorities to advance our collective goal in California to ensure greater water and climate resilience throughout California for our people, communities, the economy, and the environment.

Adopted by the Board of Directors, January 17, 2025



#SourcingOurSustainableFuture:

The Sacramento Valley is sourcing our sustainable future through responsible management of the essential resource that millions of birds, hundreds of thousands of fish, thousands of farms, and millions of people all rely on—water.

* For purposes of this document, the Sacramento River Basin is the northern part of the Great Central Valley, which includes the watershed that drains into the Sacramento River upstream of the Delta. The terms Sacramento River Basin, Sacramento Valley and Sacramento River Hydrologic Region are all used interchangeably and include the Valley floor, foothills, and headwaters. See the [Water District and Company Map](#).

This document provides our organizing ideas and roadmap for the next five years. We have benefitted from and call upon the breadth of experience we have in the Sacramento River Basin among our leaders and communities in the region to advance these priorities. We live, work, and play in a dynamic region with a community that continues to evolve and integrate fresh new ideas for water management into these priorities. We welcome new ideas and embrace additional partnerships to further explore and modernize our water system as we implement these actions for water and climate resilience. The guiding principles and pillars (see end of document) for sustainable water management developed by the leaders in this region provide a strong foundation and support for advancing water management in the region.

The Sacramento River Basin, as elevated by the artistic vantage of Miles Hermann in the painting below, is an amazing riverscape—a mosaic of rivers, creeks, and sloughs, supporting our communities and interwoven into a vast and productive landscape that supports our rivers, farms and ranches, wildlife refuges, fish and wildlife management areas, and duck clubs and other private wetlands.



II.

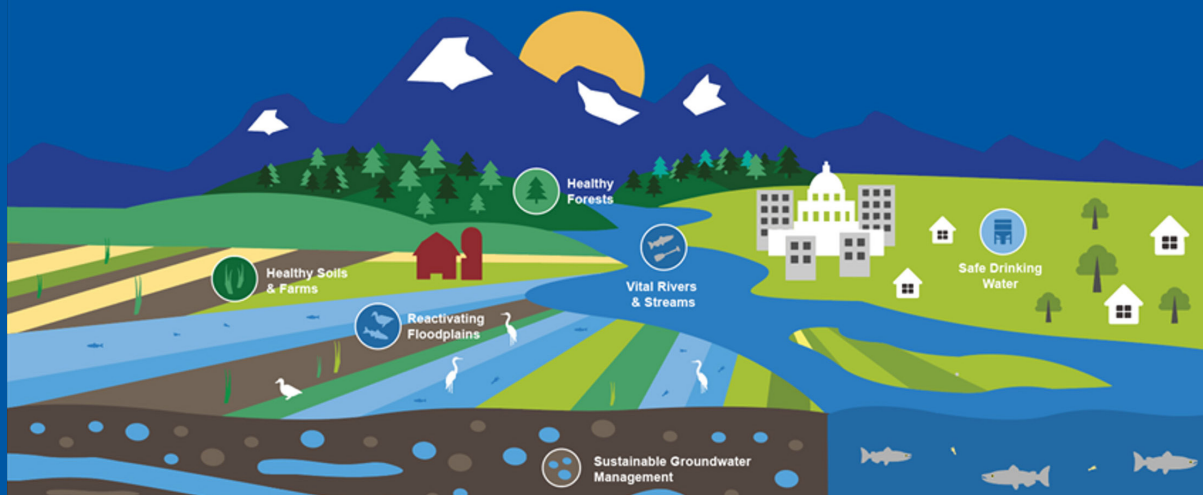
Policy Priorities

A Roadmap for Climate Resilience and Healthy Rivers, Landscapes and Communities

We offer the following priority areas from our vantage in the Sacramento River Basin. In arriving at these priorities, we focus on areas that show great promise for California’s future and can immediately add value and modernize California’s current water system in a manner consistent with our mission and our shared vision in the region for a vibrant way of life. For the past several years there has been a focus on advancing healthy rivers and landscapes in the Sacramento River Basin—from ridgetop to river mouth. As we have been working with our various partners in these efforts, it has become clear that we need to continue and scale-up these efforts for healthy rivers, landscapes, and communities; yet, our vision for success relies upon an increased pace and scale that will require working closely with state and federal agencies to *align* and modernize three elements:

- The ongoing efforts to activate and vitalize our rivers, landscapes, and communities;
- Improved infrastructure (both nature-based solutions and backbone); and
- The regulatory processes surrounding these actions.

Vitalizing Healthy Rivers, Landscapes & Communities in the Sacramento Valley



To align these efforts will require concerted action and will be described in more detail as follows.

Vitalizing Healthy Rivers, Landscapes and Communities: Ridgetop to River Mouth Water Management

There are unique opportunities in the Sacramento River Basin to advance ridgetop to river mouth water management, which can best be envisioned by looking holistically at the region and activating the landscape in a concerted way to support our communities, our economy, and the environment. The following are strategies to best serve water to these important purposes.

SUMMARY

Vitalizing Healthy Rivers, Landscapes and Communities: Ridgetop to River Mouth Water Management

- Ensuring Communities Have Access to Safe Drinking Water: The North State Drinking Water Solutions Network
- Energizing our Rivers and Creeks
- Scaling Up the Reactivation of our Landscapes
 - Reactivating our Floodplains
 - Forests and Foothills—Our Headwaters and Forest Health
 - Healthy Soils and Farms
 - Aquifers and Sustainable Groundwater Management
 - Protecting and Enhancing Water Quality for Communities, Ecosystems, and All Beneficial Uses

1

Ensuring Communities Have Access to Safe Drinking Water: The North State Drinking Water Solutions Network

All Californians have a right to safe, clean, affordable, and accessible water under the “human right to water” established in state law in 2012. While significant progress has been made toward realizing this right in recent years, there is both an urgent need and an important opportunity to take additional long-term actions to ensure that all communities in the Sacramento River Basin have access to water that meets the health-based standards of the state and federal Safe Drinking Water Acts. This includes water supply reliability dependent upon exercising various water rights, contracts, and water transfers; sustainable groundwater management; the necessary infrastructure to deliver and treat water; ensuring suitable water quality; and making sure there is appropriate capability to deliver and treat this water.



Sacramento River Basin leaders are committed to advancing a comprehensive approach to expand and ensure access to clean, safe, and affordable drinking water for all communities, including many [disadvantaged communities](#) in the region. This approach is described in detail in the North State Drinking Water Solutions Network: [Ensuring Access to Safe Drinking Water for All California Communities](#). NCWA convenes the North State Drinking Water Solutions Network as a forum to share information and coordinate efforts aimed at ensuring that all communities in the Sacramento River Basin have access to safe drinking water. Successful implementation of sustainable drinking water solutions will require utilization of both the policy tools and financial resources available to state and federal agencies, as well as the knowledge and expertise of local communities and water managers. By emphasizing partnerships with local agencies and administrators, the state will be best positioned to identify and help implement sustainable, locally-appropriate solutions that addresses the various challenges (i.e., technical, managerial, and financial issues) that result in a lack of safe and reliable drinking water for communities in the Sacramento River Basin. This will be an ongoing effort and we will not be satisfied unless every community in the region has access to clean and safe drinking water.

The Sacramento River Basin at a Glance: A Mosaic Where Water Serves Multiple Benefits

- Three million people, including the Sacramento metropolitan area, numerous rural communities, including numerous disadvantaged communities.
- Two million acres of productive farms and ranches that serve as the economic engine for the region and an increasingly important working landscape for fish and wildlife and recreation.
- Wildlife refuges, ricelands and other farmland, and managed wetlands that support the Pacific Flyway and our rivers and creeks with an amazing biodiversity of fish and wildlife (i.e., 225 species in ricelands).
- Millions of acres of forests and rangeland that serves as the headwaters for much of California.
- Four runs of Chinook salmon that include two listed species (the winter-run as a NOAA Fisheries species in the spotlight and spring-run), and the commercial and sport fishery (fall-run).
- Hydropower that provides clean energy during critical times of need throughout California.
- Endless recreation in all seasons on lakes, rivers and creeks, refuges, and duck clubs, and both public and private lands.

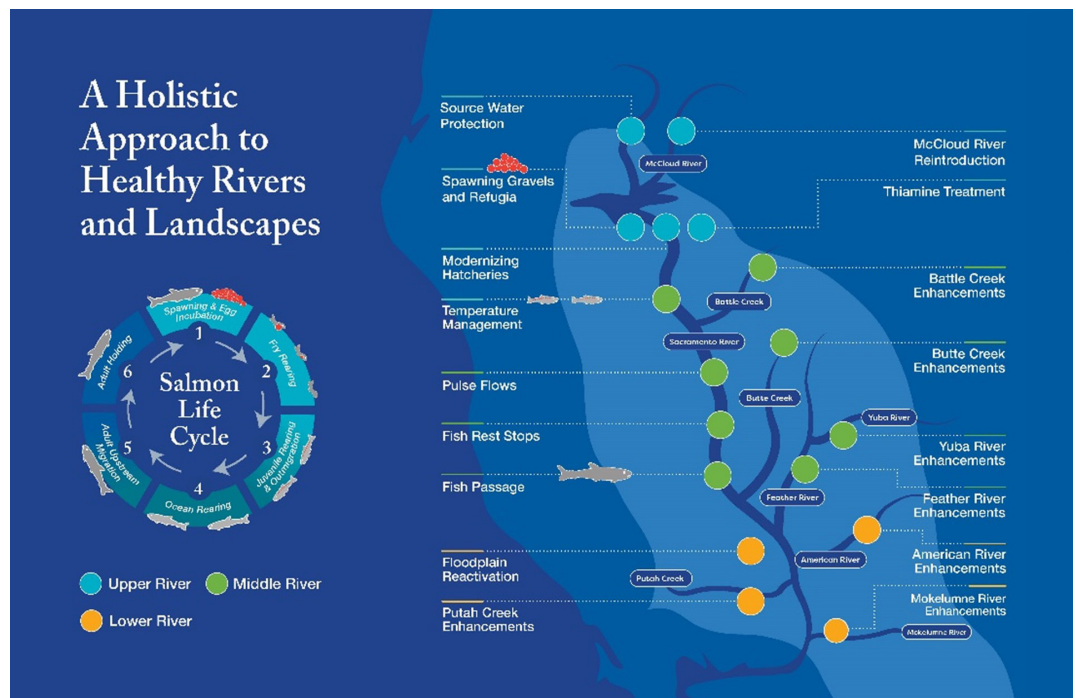


2 Energizing our Rivers and Creeks

Our healthy rivers and creeks depend upon on a sufficient volume of water interacting with a healthy landscape at the right time and place to deliver water for multiple benefits and approximate the habitat patterns to which the native flora and fauna are adapted. Our approach includes a portfolio of actions in every river reach designed to provide flows with function—the sufficient water necessary to reactivate the landscape-scale patterns of biophysical habitat conditions that robust, resilient populations of salmon (and other native fish, bird, and wildlife populations) depend upon. Our goal is to provide salmon with a riverscape they recognize.

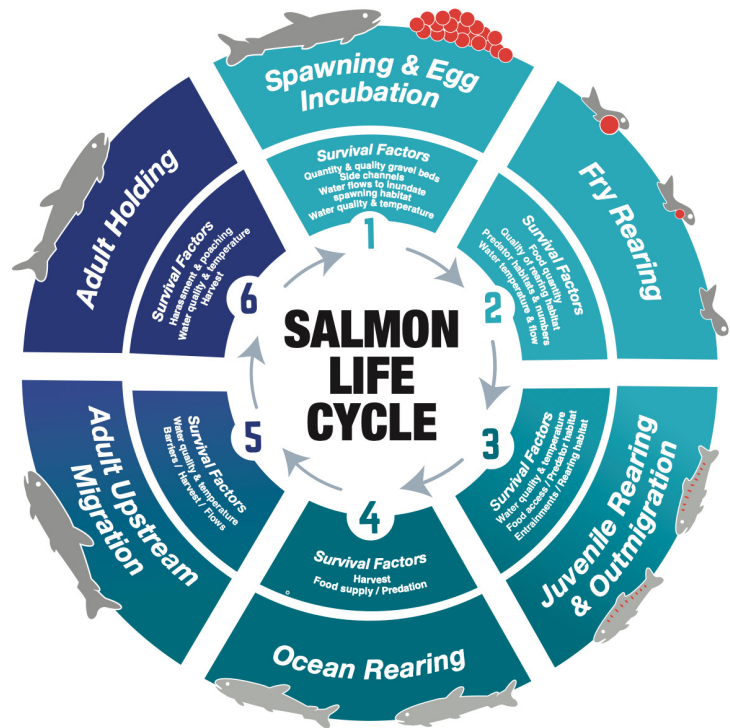
For the past several decades there has been a regulatory focus on one species or even one-life-stage for salmon, without the desired improvement in fisheries or aquatic health. Scientists are pointing the way forward for ridgetop to river mouth water management that is essential for the recovery of the four runs of salmon in the Sacramento River Basin. The Sacramento Valley Salmon Recovery Program will continue to be used to coordinate and prioritize salmon recovery actions with a focus on collaborative actions to advance the NOAA [“Species in the Spotlight”](#) and Fisheries Recovery Plan, the [California Salmon Strategy for a Hotter, Drier Future](#), the California Natural Resources Agency’s Sacramento Valley Salmon Resiliency Strategy and Salmon Action Plan. Every water management action from ridgetop to river mouth is necessary to improve conditions for every freshwater life-stage of salmon as they migrate up and down the river systems, and to avoid a weak link in the salmon life-cycle. The holistic approach shown below, with collaborative actions on each of these elements and river segments, is the best opportunity for salmon recovery in the Sacramento River Basin.

The leaders living and working in the Sacramento River Basin are embarking on a once-in-a-generation opportunity to advance a holistic and comprehensive approach for fisheries by aligning the current leadership, science, available funding, and a devotion to “give salmon a chance” by improving freshwater conditions for salmon throughout the Sacramento River Basin. Our goal the



next several years is to broaden the focus on salmon to include all life stages, rather than focus entirely on temperature management issues on the upper Sacramento River. This will focus on working with the agencies to further unconfine the Sacramento River System and activate the landscape as the best solution for fish and wildlife, including floodplain reactivation, improving access and habitat on Butte Creek and Battle Creek, reintroduction opportunities above Shasta Dam, and improved hatcheries. These actions are part of a concerted effort to improve all freshwater life-stages for salmon: spawning gravel, temperature management for incubation, rearing habitat, migratory corridors, floodplain reactivation and nourishment, as well as decreasing predation impacts.

This [holistic approach described in detail here](#) offers a macro-view of the Sacramento River Basin, showing the comprehensive efforts underway—from ridgetop to river mouth—to improve freshwater conditions for each life-stage of all four runs of Chinook salmon. This approach and the actions throughout the region are all designed to restore ecosystem function of the landscapes and riverscapes, while concurrently helping secure water supplies for communities, farms, other fish and wildlife, recreation, and hydropower. We look forward to implementing an action plan with NMFS, USFWS and CDFW to implement these actions, as well as helping better define our objectives for salmon.



3 Scaling Up the Reactivation of our Landscapes

Science is increasingly pointing us towards landscape health as the essential and perhaps missing ingredient for our vital rivers and streams. As shown in the diagram on the next page, a healthy landscape includes forests and rangeland, farmland and soils, wildlife refuges and flood bypasses, groundwater aquifers, rivers and streams, and our cities and rural communities. A healthy landscape is enriched with adequate water at the right time and place, thus the important role of water resources managers, who will continue to implement water management actions that support landowners and learn from the expertise of scientists, conservation organizations, and our other partners. The goal through these collaborative processes is to scale up these actions to reactivate the landscape for the benefit of fish, birds and other wildlife, our flood system and groundwater aquifers. These opportunities prepare our landscapes for periodic drought and flood cycles, which in turn emulates historic conditions and helps adapt to our climate variability.

3a. Reactivating our Floodplains

The Sacramento River Basin is fertile ground for developing a new path to reactivate our floodplains as a new way forward. We strongly support the Floodplain Forward Coalition approach to protect public safety and integrate best available science about how river ecosystems function with the practical know-how of farm, flood, water, and wildlife refuge managers.

The Floodplain Forward Coalition is an innovative collaboration between 30 organizations based in conservation, biology, water management, farming, and local government. We have come together to create a more sustainable path forward to support our fish, wildlife, cities, farms, and rural communities. By working together to find the best possible solutions, we can create vibrant landscapes and healthy California river systems for generations to come. To see more information, click on [Floodplain Forward](#).

Implementing these dynamic conservation strategies will build resiliency in California’s ecosystems and water systems by sustaining the abundant return of migratory birds along the Pacific Flyway, revitalizing river food webs and supporting the recovery of salmon and other fish populations, recharging groundwater aquifers, and improving flood protection in an era of increasing storm severity and climate variability. This approach also supports the objectives contained in the 2022 Central Valley Flood Protection Plan Update. To further advance these efforts, we have a working group of diverse partners pursuing efforts to reactivate the floodplain in the Sacramento River Basin on both the wet and dry sides of the levees with a [Portfolio for Fish and Wildlife](#).

The Floodplain Forward leaders are working together to advance a ‘landscape scale’ vision with a portfolio of projects that will improve habitat conditions for fish, birds and other wildlife and advance actions to aid with their recovery. The scientific monitoring program that will accompany these projects will inform future decision-making and adaptive management responses essential to successful fish and wildlife recovery. This portfolio is a collection of projects that are being advanced in the Sacramento River Basin and can be envisioned in five categories:



- River Connections Projects that reconnect rivers to their historical floodplains.
- In-River Function Projects that enhance, restore, and create in-river function & habitat.
- Floodplain Flow Corridors Projects that improve/create flow conveyance infrastructure needed to reactivate floodplains and improve fish passage.
- Floodplain Reactivation & Fish Food Projects that reactivate floodplains, provide fish rearing habitat, and/or generate fish food.
- Science, Data Acquisition, and Innovation Efforts that improve the knowledge base through research, experimentation, data collection and advanced analytics.

These opportunities are summarized in the [Portfolio](#) with one-page information sheets for each project. To see award-winning films explore how reconnecting our landscape with our vital rivers can have a profound impact on recovery of endangered fish and wildlife, click on [Floodplains Reconnected](#).

3b. Forests and Foothills—Our Headwaters and Forest Health

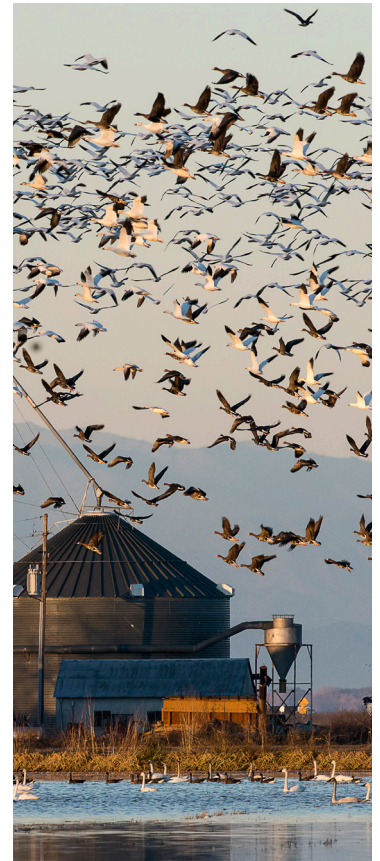
From 2014 to 2021 California experienced a statewide wildfire emergency of unprecedented scale, with the Sacramento River Basin surrounded by devastating fires. In total, more than 4.3 million acres—over 6,800 square miles covering four percent of the state’s surface area—burned in a single year. Combined with the dramatic impacts and tragic loss of life from recent fires, these events have left Californians with a new awareness of wildfire risks and underscore the need for additional efforts to mitigate and manage the risks of wildfire and protect California’s headwaters. Cannabis production has also created impacts on watershed health that need to be addressed.



Responsible and active forest management is a foundational component of efforts to promote healthy headwaters. As California shifts its focus from immediate emergency response needs to longer-term efforts to enhance and expand the active management our forested headwaters, the actions taken by Sacramento River Basin water managers and their partners provide scalable models for improving the health of our headwaters and reducing wildfire risk. Examples of these management activities include the Placer County Water Agency’s [French Meadows Forest Restoration Program](#) in the American River watershed and the Yuba Water Agency’s pioneering efforts in [forest protection and watershed restoration](#), including financing these activities through Forest Resilience Bonds. These programs are leading examples of innovative, collaborative, and replicable models for improving forest health that will continue in future years.

3c. Healthy Soils and Farms

The soils in the Sacramento River Basin provides amazing benefits for food production, climate resilience and biodiversity. From a water management perspective, healthy soils are an important element of ridgetop to river mouth water management, as healthy soil practices improve soil water holding capacity, infiltration, and water availability and quality while reducing soil erosion, runoff, and dust. We have learned that if we feed our soils, they will feed us and the amazing biodiversity dependent on soil health. The Sacramento River Basin has an amazing and diverse landscape where the soils support farming as the regional economy and for biodiversity—more than [225 species](#) on ricelands, including numerous birds on the world-renowned Pacific Flyway, many of the state and federally listed species including the Giant Garter Snake (GGS), and habitat such as oak woodlands. Landowners and conservationists in the Sacramento River Basin are continuing to work together to manage farms, ranches, refuges, and wetlands to promote healthy soils that benefit agronomic and environmental efforts. Soil health and cover cropping increase the utilization of our working landscapes, which provide essential benefits for our economy, health, and quality of life, including clean water, nutritious food, and outdoor recreation, while contributing to the state’s climate goals.



3d. Aquifers and Sustainable Groundwater Management

Aquifers are both an unseen and yet critical part of the landscape that deserve additional attention as we envision groundwater sustainability in the region.

The NCWA Groundwater Management Task Force, in coordination with Groundwater Sustainability Agencies (GSAs) and their consultants throughout the region and the Department of Water Resources, have developed a [Pathway for the Future: Sustainable Groundwater Management in the Sacramento Valley](#), with a focus on aquifer health throughout the region. The objective is to support GSAs (counties, cities, water agencies and other special districts) and landowners throughout the region to help them create stronger local institutional capacity for GSAs while implementing the foundational Groundwater Sustainability Plans (GSPs) for the Sacramento Valley, including coordinating efforts across the Valley floor, providing education, and fostering mutual respect among agencies. Active management by GSAs through the GSPs across the entire Sacramento Valley floor will be essential for our aquifers and regional sustainability by 2042.

The Groundwater Task Force has explored opportunities to integrate ridgetop to river mouth actions to provide multiple benefits for our communities, economy, and ecosystems for long-term resilience in the face of a changing climate. These sessions have helped prioritize short-term implementation building upon the newly submitted GSPs. As part of this process, there was a commitment to help strengthen and

build the institutional capacity for GSAs, and six regional priorities emerged from the discussion focused on the landscape and natural infrastructure of the Sacramento Valley—including our groundwater aquifer systems—to conjunctively manage our resources and deploy nature-based solutions to achieve sustainability.

The six priorities include:

- ensure safe drinking water for communities;
- advance [groundwater recharge](#) opportunities;
- prevent [subsidence](#);
- better understand and manage surface water and groundwater interaction (include a coordinated monitoring program for both surface water through the revitalized stream gage network envisioned by SB 19 and groundwater resources);
- help coordinate effective well permitting programs across the region; and
- align state and federal priorities with local and regional needs.



3e. Protecting and Enhancing Water Quality for Communities, Ecosystems, and All Beneficial Uses

NCWA is committed to a comprehensive set of actions to protect and enhance water quality for the landscape and rivers in the Sacramento River Basin, including work to ensure access to safe drinking water for all communities (see above) and protecting source water for the various beneficial uses of water. As part of this effort, NCWA will coordinate the Sacramento Valley Water Quality Coalition (Coalition) actions and assist its members and subwatershed groups in comprehensive efforts to protect and enhance water quality. We coordinate closely with the California Rice Commission that administers the coalition for ricelands and the California Central Valley Clean Water Association, which represents municipal dischargers.

The goal is to protect and ensure the availability of high-quality water in the Sacramento River Basin for drinking water, aquatic species, farming, and nature-based solutions, now and into the future. This is described in [Ensuring High Quality Water in the Sacramento River Basin for Communities, Ecosystems and Farms](#) and the [related video](#). This work is focused on continued implementation of the elements of the Irrigated Lands Regulatory Program (ILRP) Waste Discharge Requirements (WDR) for both surface water and groundwater quality and the Basin Plan Amendment for CV-SALTS, as well as groundwater quality issues arising under SGMA.

After 20 years of coordinating a [Regional Plan of Action \(2003\)](#), the Coalition leadership hired a neutral third-party to conduct a Stakeholder Assessment (Assessment) to assess current conditions and perspectives from the parties historically engaged in the Coalition and the related programs. This Assessment was very instructive to the NCWA and Coalition leadership and will inform the priorities for the Coalition for the next five years, which include:

Engage with the State Water Board and Regional Board

- Board Member and Staff Discussions and Tours;
- Line up our priorities with the Regional Board Strategic Plan;
- Foster a better understanding of the Sacramento River Basin to help reflect the unique nature of the region; and
- Discuss cost-containment measures.

Advance Coalition Effectiveness

The Assessment provides helpful guidance to work with the subwatershed leadership to both define and refine the Coalition structure. This includes:

- Review the MOU with the Coalition leadership to determine if any changes are necessary;
- Refine subwatersheds as needed to fit the current regulatory program;
- Pursue deeper engagement with local organizations, including Agricultural Commissioners, Farm Bureaus, Resource Conservation Districts (RCDs), and commodity organizations;
- Educate and inspire a new generation of leadership in the region;
- Create an Executive Committee that meets regularly;
- Explore cost-containment opportunities (i.e., streamlined Groundwater Quality Trend Monitoring); and
- Identify and pursue off-ramps to regulatory compliance.

Ensure Safe Drinking Water

Sacramento River Basin leaders are committed to advancing a comprehensive approach to expand and ensure access to clean, safe, and affordable drinking water for all communities, including many disadvantaged communities in the region. This approach is described in detail in the [North State Drinking Water Solutions Network: Ensuring Access to Safe Drinking Water for all California Communities](#). NCWA convenes the North State Drinking Water Solutions Network as a forum to share information and coordinate efforts aimed at ensuring that all communities in the Sacramento River Basin have access to safe drinking water. This includes:

- Address and assist communities identified in the State Water Board Needs Assessment; and
- Help implement the Nitrate Control Program in Yolo County.



Groundwater Sustainability

The Coalition will continue to implement various programs for groundwater quality, including the Groundwater Quality Protection Formula, Values and Targets and Nitrate Control Program. With the evolution of the ILRP from surface water to groundwater, the Coalition will increase focus on:

- Pursue cost efficient revisions to the Coalition’s Five-Year groundwater quality trending monitoring analysis for nitrate, salinity, boron, magnesium, potassium, sodium, and chloride;
- Utilize on-farm drinking water well sampling for nitrates and nitrites as an additional line of evidence to focus the scope of the ILRP and generate off-ramps to regulatory requirements;
- The revision of the Groundwater Quality Assessment Report (GAR);
- Identify opportunities to update risk of impairment in groundwater basins through the State Water Board’s Domestic Well Needs Assessment and Aquifer Risk Assessment;
- The Regional Board’s Conditional Approval of Groundwater Quality Protection (GWP) Targets have identified where the focus needs to be placed on fixing leaching of nitrate to groundwater; and
- Coordinating with the local Groundwater Sustainability Agencies (GSAs) on water quality data, monitoring, and actions to provide consistency and cost-efficiencies.

Communications

- Showcase the NSDWSN and the efforts for safe drinking water;
- Unify Coalition communication through Sacramento Valley branded newsletter, video and other media;
- Hold educational webinars on groundwater quality elements of the ILRP; and
- Partner with Agricultural Commissioners and commodity groups to communicate with Regional Board and other decision makers.

These opportunities to vitalize our rivers, landscapes, and communities all benefit from a ridgetop to river mouth approach and are central to the State’s Water Resilience Portfolio, the Water Supply Strategy and embody Governor Newsom’s Executive Order for nature-based solutions that “advance multi-benefit, voluntary and cooperative approaches that protect and restore biodiversity while stewarding natural and working lands, building climate resilience, and supporting economic sustainability.”

Modernizing our Water Infrastructure to Support Healthy Rivers, Landscapes and Communities

In response to unprecedented dry conditions statewide for the past decade, Governor Newsom in August 2022 released California’s Water Supply Strategy (Strategy), which calls for the modernization of our water management system, including both 21st century water storage and delivery infrastructure that will support this improved water management as California adapts to our new climate reality and increasing scarcity.

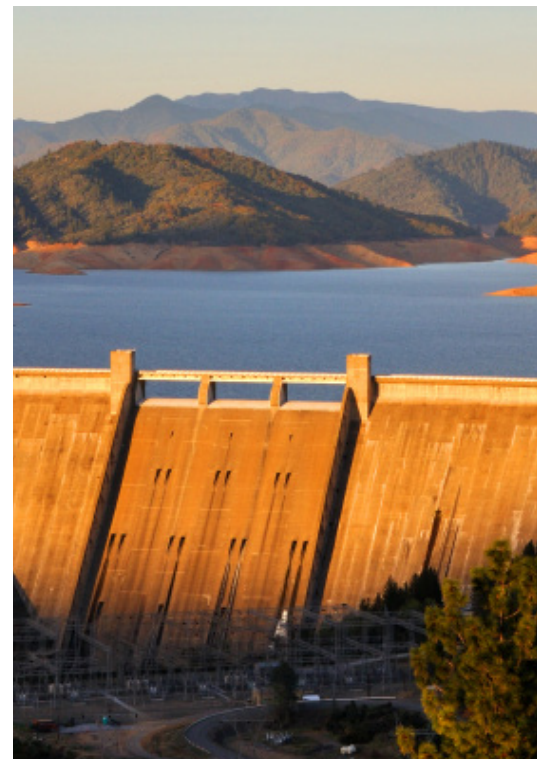
SUMMARY

Modernizing our Water Infrastructure to Support Healthy Rivers, Landscapes and Communities

- Nature-Based Solutions, Natural Backbone Infrastructure
- Maximize Water Use from Our Built Backbone Infrastructure
- Additional Built Backbone Infrastructure—Offstream Storage (Sites)
- Recharging our Aquifer Systems
- Delta Conveyance

In the Sacramento River Basin, we fully support and will continue to work hard to modernize our water infrastructure and improve the water rights system to support 21st century water management. This ongoing effort will benefit from the expertise of our water resources managers and their consultants, partnering with state and federal agencies and conservation partners, to serve and steward water resources for multiple benefits, including cities and rural communities, farms, fish, wildlife, recreation, and hydropower. Working together, we can modernize our water system and improve the administration of the water rights priority system as its legal and operational foundation with improved data, efficiency, and transparency.

Central to modernizing our water management system are the ongoing efforts to create a functional and healthy riverscape and landscape where water and the landscape interact at the right time and place. To maximize this timing for flood protection and to bring the region to life requires 21st century infrastructure that includes:



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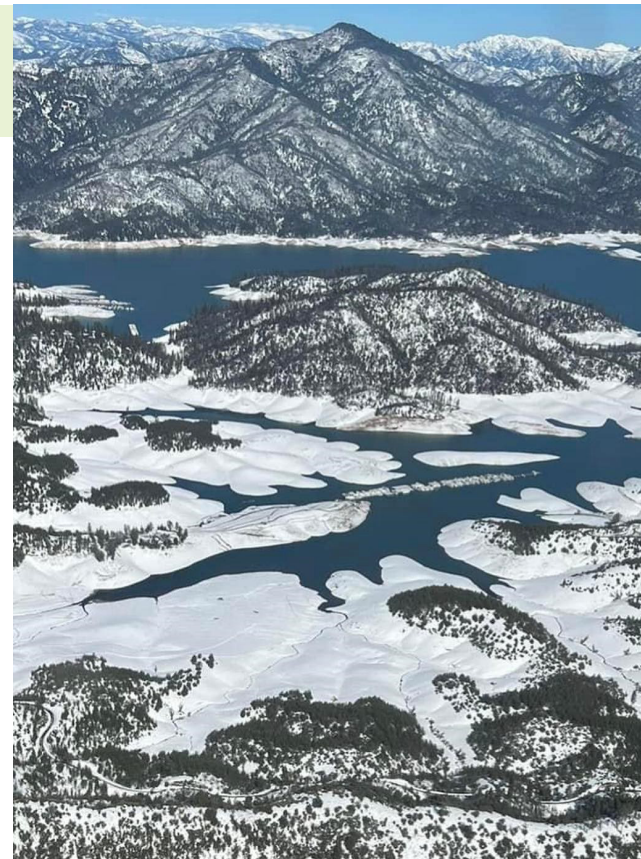
Nature-Based Solutions, Natural Backbone Infrastructure

Nature based solutions, sometimes referred to as green or natural infrastructure or natural backbone infrastructure, are essential in the Sacramento River Basin for a well-functioning landscape. The Legislature has defined “natural infrastructure” as “using natural ecological systems or processes to reduce vulnerability to climate change related hazards, or other related climate change effects, while increasing the long-term adaptive capacity of coastal and inland areas by perpetuating or restoring ecosystem services. (Public Resources Code §71154 (c)(3).) The Department of Water Resources has defined natural backbone infrastructure in the California Water Plan as “watershed lands, aquifers, and processes that provide, collect, clean, store, and convey water within and among watersheds or hydrologic regions.” Nature-based solutions will help protect and restore our biodiversity through forest management, floodplain reactivation, sustainable groundwater management, and healthy soils management. These nature-based solutions will enhance the region’s economy and food production by allowing working lands to provide food for human consumption, and provide food and habitat for the region’s terrestrial and fish species. These approaches will also build climate resilience, and promote species recovery. See [Nature-Based Solutions: Enlisting Natural and Working Lands in the Sacramento River Basin in the Fight against Climate Change](#).

2

Maximize Water Use from Our Built Backbone Infrastructure

The Department of Water Resources in its California Water Plan update has discussed the importance of built backbone infrastructure, which it defines as “human-constructed infrastructure that provides water management benefits to communities, ecosystems, and economies across regional and watershed boundaries.” This includes the various reservoirs built for both flood protection and to help manage water for dry years. The recent dry years have shown the importance of our reservoirs as the only water available in many of these years was the water that was held in storage for use at a later time. With this stored water at a premium, there is increased focus on this stored water and how it is used in California. This includes new carryover requirements at certain reservoirs with an additional 1 million-acre feet of water that may now be unusable because of these requirements. We encourage policy makers to better understand these new requirements and the implications to water supplies throughout California.



3 Additional Built Backbone Infrastructure— Offstream Storage

As Sacramento River Basin water resources managers look to serve multiple benefits in the future, the importance and need for Sites Reservoir becomes clear. Sites Reservoir is an innovative 21st century water project: an off-stream regulating reservoir on the west-side of the Sacramento Valley that can store water for the future by capturing it during high runoff periods, and then releasing it for various beneficial uses at a later time.

With its location upstream of the Delta and near the Sacramento River, water in Sites Reservoir would serve multiple benefits in the Sacramento River Basin, as well as the Delta and the rest of the state. Recent dry years have shown the value that these off-stream reservoirs provide California communities and regional water management during these critical times.



Sites Reservoir would be a dramatic enhancement to California’s water system and the first storage project in California with a dedicated supply for the environment. This facility would provide multiple benefits to improve aquatic habitat conditions and withstand dry year conditions. This reservoir would be operated to accommodate and address the uncertainties created by a changing climate and improve environmental and water supply system resilience. Sites Reservoir can provide an environmental water budget that would help provide flexibility and make water available during drier years—which would help ensure water availability for the ecosystem. Most importantly, Sites Reservoir would significantly improve the state’s water management system in drier periods and restore much needed flexibility and reliability that have been lost in the system.

Recent climate studies have shown that California’s winter runoff is likely to remain similar in volume but come in fewer months of the year, concentrating runoff, and increasing flood risks. Adapting to this challenge requires infrastructure that can store surplus water when it is available and deploy it for ecosystem and human uses when water is not available. Sites is one of the best opportunities to re-imagine our water system in the 21st century, prepare for future climate variability, and add value to our current water system by providing high-quality water to enhance our rivers, landscapes, and communities.

Take a virtual tour and dive into the location, operations, and benefits of [Sites Reservoir](#), which will provide a more resilient and reliable water supply for California’s communities, farms, and environment.

4 Recharging our Aquifer Systems

The Legislature in 2023 expressly recognized aquifers as natural infrastructure (Public Resources Code §71154 (c)(3).) To better use this infrastructure, there is a concerted effort to recharge the aquifer systems in various parts of the Sacramento River Basin and to increase this pace and scale. See [Accelerating Recharge](#). This includes aquifer and storage recovery in Roseville and Woodland; conjunctive management throughout the region and concerted new efforts to actively recharge the aquifer systems. In the Sacramento metropolitan area, there is a concerted effort to advance the [Sacramento Regional Water Bank](#).

5 Delta Conveyance

Although improved and modern Delta conveyance is not a priority action for Sacramento River Basin water resources managers, we believe it could be important for California and thus Sacramento River Basin water resources managers appreciate the opportunity to work with the state and federal agencies and project proponents on modern Delta conveyance that does not redirect impacts (including water supply, environmental and financial impacts) to the Sacramento River Basin. This work is important to avoid impacts to the region's mosaic of farms, cities and rural communities, fish, birds, and recreation. Through agreements, the Central Valley Project and State Water Project can be operated to support modern Delta conveyance, the co-equal goals, and protecting the Delta as a place—while continuing to serve multiple beneficial uses in the Sacramento River Basin and promote regional water sustainability for all these beneficial purposes. These efforts are a large step forward in a comprehensive water package and to break down the old north versus south binaries.



Functional Rivers, Landscapes and Communities Depends upon a Modern Regulatory Framework

California has an important regulatory framework that can be modernized to help advance this approach for serving multiple benefits and vitalizing healthy rivers, landscapes and communities in a way never seen before. For a functional Sacramento River Basin, these regulatory structures need to be realigned with the values being advanced as part of vitalizing healthy rivers, landscapes, and our communities. Perhaps most importantly, the regulatory processes should encourage and even facilitate collaboration that will be necessary for success, with a strong regulatory backdrop. As we envision a Sacramento River Basin with healthy rivers, landscapes, and communities, the following are processes that exemplify how new approaches within the existing regulatory framework can better serve these important purposes.

SUMMARY

Functional Rivers, Landscapes and Communities Depends upon a Modern Regulatory Framework

- Agreements to Support Healthy Rivers and Landscapes
- Biological Opinions and Long-Term Operations.
- Accelerating Restoration
- Improving Regional Water Quality - the Irrigated Lands Program and CV-Salts
- A Pathway for Sustainable Groundwater Management
- Effectively Implement the Water Rights Priority System
- Conservation as a Way of Life
- Complete New Backbone Infrastructure in a Timely Manner
- Federal Energy Regulatory Commission (FERC) Relicensing
- Streamline Water Transfers



1

Agreements to Support Healthy Rivers and Landscapes

California water suppliers from throughout the state have worked with state and federal agencies to advance a program, [Agreements Supporting Healthy Rivers and Landscapes](#) (previously known as Voluntary Agreements), to update the State Water Board’s Bay-Delta Plan in a new and transformational manner. This robust program is underway to implement projects that integrate flows with the landscape for the benefit of fish, wildlife, farms, and cities. The implementation of the Agreements to Support Healthy Rivers and Landscapes is central to California’s Water Resilience Portfolio and is the cornerstone for local and regional agencies to continue ridgetop to river mouth water investment and management and to resolve conflict by bringing the state and federal agencies together to solve California’s water challenges.



The *Agreements to Support Healthy Rivers and Landscape* are the culmination of more than five years of collaboration and hard work among the California Natural Resources Agency, the California Environmental Protection Agency, public water agencies from Redding to the Mexican border, and other stakeholders and reflects direct input from dozens of experienced and well-respected aquatic ecosystem and species experts, which resulted in a modern approach to protecting all beneficial uses of water in the Bay-Delta watershed. This approach is also a path to harmonize multiple regulatory processes, the authority over which is held by different agencies—provide for alignment of, among other laws, federal regulation under the federal Endangered Species Act, Clean Water Act and state regulation under the State Endangered Species Act, Porter-Cologne Water Quality Control Act, and California water rights. The Agreements are a new way forward and can serve as a mechanism to help harmonize these regulatory processes in a coordinated way that ensures adequate measures for fish and wildlife, while providing the regulatory stability necessary to advance ridgetop to river mouth water management.

Sacramento River Basin leaders are committed to fixing problems rather than fighting over them. In this spirit, we support the Governor’s vision to create a collective effort “to cross the finish line on real agreements to save the Sacramento-San Joaquin Bay-Delta. We must get this done for the resilience of our mighty rivers, for the stability of our agricultural sector, and for the millions and millions of people that depend on this water every day.”

2 Biological Opinions and Long-Term Operations

The new Biological Opinion (BO) and Long-Term Operations (LTO) for Central Valley Project and State Water Project operations provides an opportunity to better prepare for dry years and broaden focus and look beyond temperature management below Lake Shasta for one life-stage of one-species, and instead pursue a [Holistic Approach to Healthy Rivers and Landscapes](#) that will focus on the Winter-Run Salmon Action Plan that addresses all life-stages and offers an opportunity to give winter-run Chinook and the other salmon runs a chance as described above. For the Sacramento River, see [Building on Success: An Action Plan for Modern Water Stewardship in the Sacramento River Watershed for the Next Decade and Drought Protection Program](#).

3 Accelerating Restoration

The Natural Resources Agency has advanced a [cutting-green tape initiative](#) designed to help accelerate permitting for restoration projects. Sustainable Conservation has also advanced a program on [Accelerated Permitting](#) working with various state and federal agencies. To build on these programs, Sustainable Conservation has pursued a Permitting Roadmap for Floodplain Forward to help guide and accelerate the various actions on the landscape and in rivers for restoration. See [Permitting Roadmap](#) and [Accelerating Restoration](#).

4 Improving Regional Water Quality—The Irrigated Lands Program and CV-Salts

The Irrigated Lands Program administered by the Central Valley Regional Water Quality Control Board just passed its 20-year milestone in place. This program in the Sacramento River Basin, although very expensive for landowners, has been effective to ensure high quality source water as described above. This includes a focus on protecting beneficial uses for drinking water, aquatic species, and agriculture. For more details, see [Ensuring High Quality Water in the Sacramento River Basin for Communities, Ecosystems and Farms](#) and the [related video](#). As we look to the future, this program, in combination with the CV-Salts Program, should further evolve to better reflect regional hydrology, geography and agronomic practices protective of water quality. As part of this evolution, the Regional Board has made some important strides to tailor the program for the Sacramento River Basin, such as the programs for irrigated pasture in the upper watershed (i.e., Goose Lake and Upper Feather River) that have demonstrated that their management practices protect surface water quality from limited pesticide and nitrogen applications. More progress is needed for a tailored program for this region that better reflects the rivers and landscape, including a program as part of the CV-Salts that better reflects the unique nature of salinity in the Sacramento River Basin. See [An Accelerated Regional Salinity Management Approach to Protect Beneficial Uses in the Sacramento River Basin](#).

5 A Pathway for Sustainable Groundwater Management

As described above, the region has advanced a pathway for sustainable groundwater management in the Sacramento River Basin that will benefit from regulatory streamlining:

- [Accelerating groundwater recharge](#);
- A sound approach for surface-groundwater interaction (UR 6).

6 Effectively Implement the Water Rights Priority System

The State Water Board has made tremendous progress in administering the water rights priority system in the Sacramento River Basin over the past decade, including several challenging dry years with various curtailments. We have articulated our thoughts for this process looking forward, including significant funding for the State Water Board to modernize the water rights system under UPWARD process. See [A Modernizing Water Management System in California](#). We will focus this year on expediting the processes to better spread water on the landscape throughout the region, including fall and winter water for floodplain reactivation, groundwater recharge, forest health, and conserving water for drier periods.

7 Conservation as a Way of Life

Continual improvement in comprehensive water management planning by local water agencies in the Sacramento River Basin is our essence and has set our region on a path toward resiliency. To be sure, conservation is a way of life in the Sacramento River Basin and comprehensive efforts continue for sagacious and efficient water management that will serve as a solid foundation for water resources managers to integrate these ideas and the modern priorities into local and regional water management efforts. For urban suppliers, a one-size-fits-all approach does not work across California and the State Water Board should further refine and tailor the application of its regulations to allow for regional management reflecting the local area. This is supported by the Legislative Analyst's Office report [Assessing Early Implementation of Urban Water Use Efficiency Requirements](#), the Public Policy Institute of California's [A Better Way to Promote Urban Conservation](#) and many others in California.

8 Complete New Backbone Infrastructure in a Timely Manner

The Legislature and Congress, working with local water suppliers, have made important investments in new backbone infrastructure, such as Sites Reservoir previously described. To help accelerate these types of backbone infrastructure needed in California, the Governor and the Legislature passed SB 149 in 2023 to expedite the approval process to help ensure the responsible expenditure of public resources. Sites Reservoir was the first project certified for this process and has withstood legal challenges. Sites Reservoir should be advanced as quickly as possible.

9 FERC Relicensing

There are various projects undergoing FERC relicensing in the Sacramento River Basin that would benefit from an expedited and cost-conscious process. As an example, FERC relicensing of the Oroville Dam project is necessary to initiate implementation of salmon recovery actions in the Feather River that are conditions tied to the license renewal and critical to salmon recovery on the river and participation in the *Agreements to Support Healthy Rivers and Landscapes* and other actions.

10 Streamline Water Transfers

Water transfers are an important tool that provide California's water system with water management flexibility and resilience, and can optimize our existing and planned water infrastructure. Water transfers—both intra- and inter-basin—are a basic and yet important element of a water portfolio aimed at meeting the needs of California's communities, economy, and environment through the 21st century. The transfers allow water resources managers to work collaboratively to respond to regional shortages and address water needs on a regional and/or statewide basis, especially during dry periods. The State's Water Resilience Portfolio provides the state will "ease movement of water across the state by simplifying water transfers [and] substantially reducing approval time for transfers while providing protections for the environment and communities." (§21). We will continue to work with the Department of Water Resources, Bureau of Reclamation, and the State Water Board to expedite their water transfer processes for all these beneficial purposes. We will focus on ensuring water for public health and allowing cover crops on lands idled to provide healthy soils and important habitat for birds and other species.



Partnerships and Collaboration

The leaders in the Sacramento River Basin—as part of an inclusive “fix it” culture—work with diverse partners in every component of water management and we welcome additional partners who are willing to roll up their sleeves to help advance solutions. Some of the partnerships we participate include:

- Floodplain Forward Coalition.
- MOU with CalTrout, Ducks Unlimited and California Rice Commission to promote functioning ecosystems and sustainable water supplies in California’s Sacramento Valley.
- Agreements to Support Healthy Rivers and Landscapes.
- Pacific Flyway, including the California Rice Commission, Ducks Unlimited, California Audubon, California Waterfowl, Nature Conservancy, Point Blue, and refuge managers.
- Salmon partnerships, including American Rivers, California Trout, Ducks Unlimited, EDF, The Nature Conservancy, and Trout Unlimited.
- The Bridge Group, bringing water suppliers and fishing organizations together in efforts to improve conditions for salmon.
- Tribal leaders with an interest in the Sacramento River Basin.
- The Regional Water Authority, Mountain Counties Water Association, together as the North State Water Alliance, including other water, business, and local government partners in Northern California.
- Battle Creek Salmon Recovery Group
- Butte Creek/Sutter Bypass Coordinated Operations Group
- Headwaters and Forest Management Partners
- Water suppliers, including project exporters (including the State Water Contractors and federal Central Valley Project contractors), the San Joaquin Tributary Association, EBMUD and the North Delta Water Agency.
- The North State Drinking Water Solutions Network
- Statewide influencers, including the Water Education Foundation, California Water Foundation; and the Public Policy Institute of California (PPIC).



The NCWA Board of Directors has both a Conservation and an Agricultural Task Force to help advance these partnerships. We also embrace a new culture of partnerships building on the model for success that has emerged over the past decade, with state and federal agencies encouraging, facilitating, and supporting regional and local agencies with the capability, expertise and local knowledge to design and implement the essential elements of a water portfolio. Every policy priority described here would benefit from an approach where state and federal agencies actively support local agencies or joint powers authorities.

IV.

Funding to Pursue the Portfolio

We believe the water portfolio approach provides a solid foundation for the state and federal agencies to support these priorities, including funding through general fund opportunities, federal appropriations and grants, and the next generation of state general obligation climate/water bond that will unify parties and provide a catalyst for local, regional, and state agencies to implement the actions necessary to support the portfolio approach. We particularly support state and federal funding and investment in landscape-scale initiatives, such as expanding the use of natural infrastructure through reactivated floodplains, forest health initiatives, and groundwater recharge. Helping local agencies navigate and secure funding under Propositions 218 and 26 to advance these measures would also be helpful.



V.

Congress, California Legislature

We look forward to actively working with Congress and the California Legislature to help implement, support, and fund the policy priorities for the Sacramento River Basin.



The Pillars

for Sustainable Water Management in the Sacramento River Basin

The following pillars embrace our culture and ethos in the Sacramento River Basin and are anchored to the strong foundation in the region to support our priorities and actions:



Foster a regional approach among the water suppliers and local governments in the region. The NCWA leadership will work with water suppliers, local governments, landowners, and conservationists to implement these priorities aggressively and strategically and the NCWA vision to advance the economic, social, and environmental sustainability of the Sacramento River Basin by safeguarding its high-quality water supplies for the rich mosaic of farmlands, cities and rural communities (including housing), refuges and managed wetlands, and meandering rivers that support fisheries, wildlife, and recreation. This regional approach helps advance sustainable water management for all beneficial uses and users of water in the Sacramento River Basin for today and future generations.



Focus on population health and wellness and the importance of enhancing our world so people can live healthier and more fulfilling lives. This moment in time provides an opportunity for introspection, a time to think about our families and friends, what is essential in our lives, and how we can contribute to population health and wellness. In the Sacramento River Basin, our team is working hard to envision the role that water suppliers and local governments can serve to help people live healthier and more fulfilling lives. We have learned and increasingly believe that population health is inextricably tied to climate resiliency and ecological health: our rivers, soils, air, trees, watersheds, and floodplains—and the way they function together.



Sacramento River Basin leaders are committed to fixing problems rather than fighting over them. In this spirit, we believe a collaborative approach is central to water resources management in the region and is highly preferred to acrimony and litigation. As an example, an adversarial, regulatory approach to updating the Bay-Delta Water Quality Control Plan will only delay and misdirect valuable resources away from the collaborative and innovative water management described in this roadmap. Instead, we are advancing the Healthy Rivers and Landscapes program as a catalyst for all the creative and innovative actions described in this document, including priority habitat and flow actions that will advance species recovery and continue the momentum and collaboration necessary to successfully implement a resilience portfolio.



Advance multi-benefit water management approaches that meet multiple needs at once, which include cities, farms, fish, birds, other wildlife, recreation, and hydropower. Multi-benefit water management is the hallmark of the Sacramento River Basin. See [Managing Water in the Sacramento Valley for Multiple Benefits](#) and the [related video](#).



Support nature-based solutions that use our natural and working lands to sustain our economy, support our unique biodiversity and contribute to the global food supply. These working landscapes, which provide essential benefits for our economy, health, and quality of life—including clean water, nutritious food, outdoor recreation—and contribute to the state’s climate goals and protecting our communities from wildfire, floods, droughts, and extreme heat. These programs will “advance multi-benefit, voluntary and cooperative approaches that protect and restore biodiversity while stewarding natural and working lands, building climate resilience, and supporting economic sustainability” as called for by the Governor.



Prepare for dry years. Every element of this portfolio is designed to provide improved resilience during dry years. NCWA has convened a Dry Year Task Force to improve communication, help implement the water rights priority system and ensure water for all beneficial uses. The Task Force works with state and federal agencies and conservation partners to work together and better prepare for these drier years.



Prepare for a changing climate. Recent studies have shown that California’s winters are likely to be warmer and the hydrology is likely to be more concentrated in fewer months of runoff. Slowing water down as it moves through the Sacramento River Basin, more effectively utilizing floodplains, groundwater and surface storage reservoirs will help adapt working landscapes and ecosystems to climate variability.



A new culture of partnerships building on the model for success that has emerged over the past decade, with state and federal agencies encouraging, facilitating, and supporting regional and local agencies with the capability, expertise and local knowledge to design and implement the essential elements of a water portfolio. Every policy priority described here would benefit from an approach where state and federal agencies support local agencies or joint powers authorities.



Build trust and credibility across the different communities engaged in water through honest discourse and mutual respect, while working with various technical experts to develop and make decisions based on credible information and data.



We are an inclusive organization that values the perspectives, contributions, and experiences of all Californians. These values are reflected in our work. We have an active water leaders’ program where we seek diverse participation from leaders with a both a passion and interest in Northern California water issues and making the Sacramento River Basin a better place. We will continue to find solutions to ensure safe, reliable, and affordable water for all communities through our Drinking Water Solutions Network. As we move forward, we will continue to listen to, engage with, and learn from our fellow Californians.



Our strategic goal is to inspire thoughtful public discourse and collaboration that points positive and brings people together—working towards a re-imagined water system that will assure reliable, affordable, and high-quality water supplies will be available to serve multiple benefits in the Sacramento River Basin now and for future generations.



Although our priorities are set in the Sacramento River Basin where we devote our time and energy, these ideas hold promise to help address statewide needs and we will integrate our priorities with other regions as part of statewide solutions for one California.



We appreciate the efforts of both the state and federal governments to advance water management approaches that create resilience and will help us meet the needs of California's communities, economy, and environment through the 21st century. We look forward to working with the Administrations, the Legislature and Congress, and our various partners to advance these efforts.

Conclusion

Californians have built an amazing and highly managed water system. But the recent decade, with many dry years and the risk of flooding in the region, has revealed the need to modernize our water system and the associated landscape to advance healthy rivers, landscapes, and communities. We continue to learn from our past actions and as our values in California water continue to evolve and we face increasing recurrence of droughts, floods, and fires.

California's current population of 40 million will likely grow to 50 million by 2050. We live in a state with the most productive agricultural bounty in the world, we are graced with a stunning natural and working landscape and related natural infrastructure, we are the 4th largest economy in the world, and people pursue endless recreational opportunities in every part of the state.

We are blessed and should not take any of this for granted! Water is essential for all these special features that define California. A balanced and contemplative approach that embraces and then enhances California's unique values in water is needed for this great state to continue to protect and enhance our communities, economy, and environment.





NCWA
Northern California Water Association

Copies of this plan are available at www.norcalwater.org.
We would welcome any additional ideas or thoughts by email at info@norcalwater.org.

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