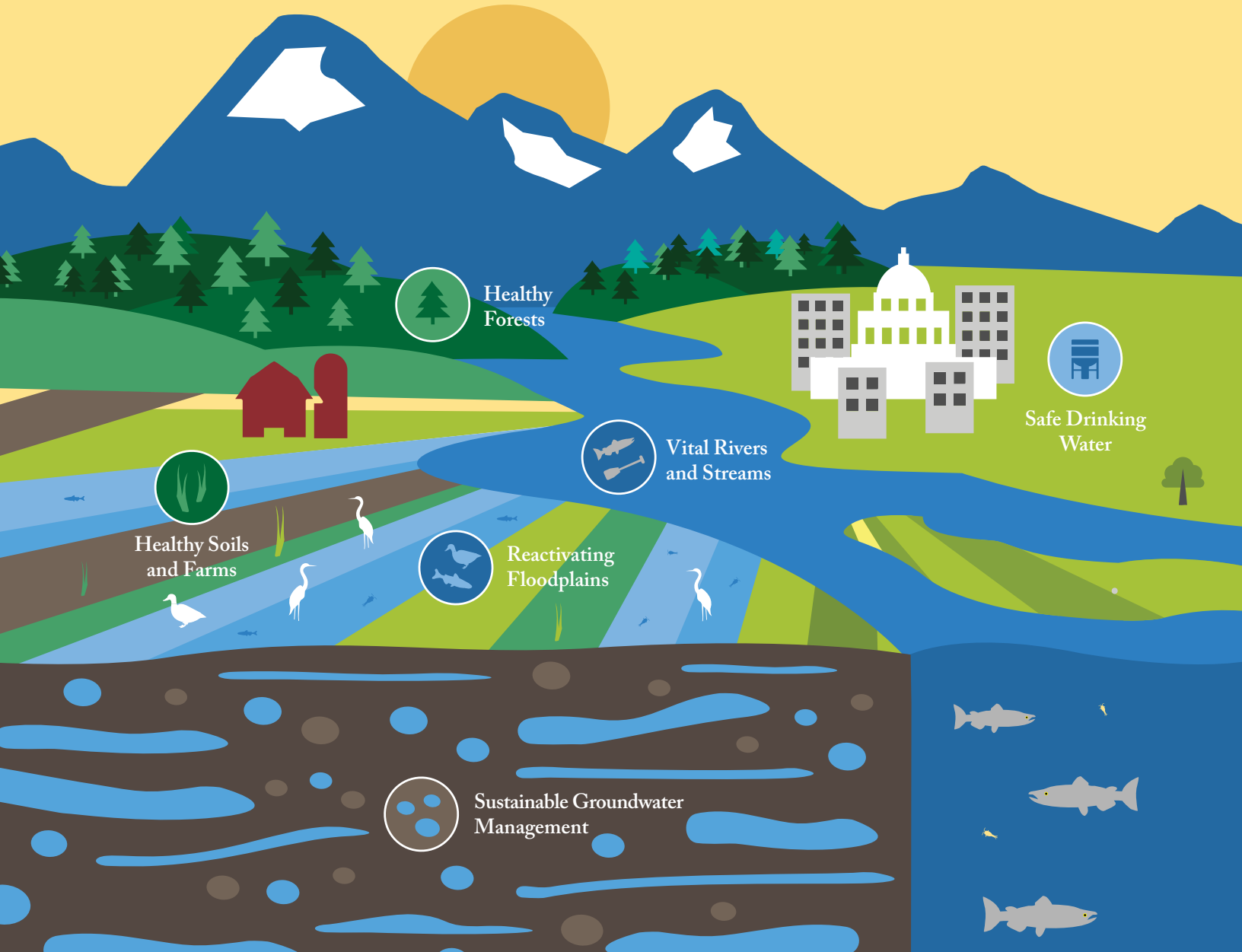
Ridgetop to River Mouth

In California, we have the most abundant agricultural bounty in the world, we are graced with a stunning landscape and related natural infrastructure, we have a vast and diverse fish and wildlife population, the 5th largest economy in the world, and people come from near and far to pursue our seemingly endless recreational opportunities.

To preserve our special way of life in the North State, water resource managers in the Sacramento River Basin are working together to help manage the regions' water and land resources. By using a nature based approach from the ridgetop to the river mouth, we provide nourishment and sustenance from the fields, habitats for fish and wildlife, high-quality drinking water, recreation and a special quality of life.



Why a Holistic Approach Best Serves the Needs of People and Wildlife

Our holistic method protects and restores our biodiversity while increasing water supply reliability for cities, farms, fish, wildlife, hydropower production, and recreation. Through healthy forest management, reactivation of our floodplains, healthy soil management, sustainable groundwater management, ensuring safe drinking water and the support of vital streams and rivers we can build up our climate resilience and promote species recovery.

Successful implementation requires continued collaboration among landowners, conservation organizations, water managers, local governments, and support from state and federal water and resource management entities. The Sacramento River Basin 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. In the efforts below, we reveal a path forward that promotes long-term security and viability of water supplies to support all life in California.

Creating Healthy Forests

Promoting Healthy Soils & Farming

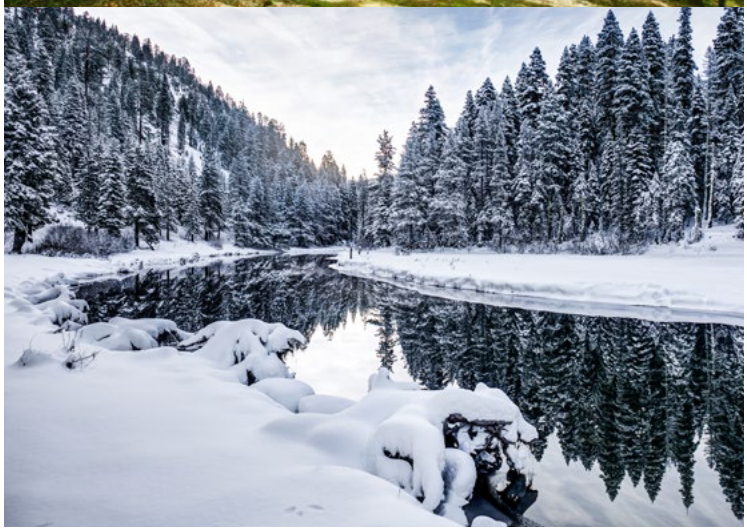
Reactivating Our Floodplains

Access to Safe Drinking Water

Sustainable Groundwater Management

Restoring & Maintaining Vital Streams & Rivers

Creating Healthy Forests



The forests and meadows of the Sierra Nevada, Coast Range, and Cascade Mountains are the source waters for much of the Sacramento River Basin and the State of California. Healthy headwaters ensure increased water supply reliability and reduced flooding risks, improved water quality, reduced impacts from catastrophic wildfires, increased renewable energy supplies, enhanced habitat, and improved response to climate change and extreme weather.

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.

Reactivating Our Floodplains

The Sacramento River Basin is fertile ground for developing a new path forward for water management practices that incorporate best available science and practical know-how of farm, flood and wildlife refuge managers to reactivate the floodplain in a way that provides flood protection for communities, benefits to fish and wildlife, sustains farming, and assists in groundwater recharge.

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 a changing climate.

Floodplain reactivation occurs on both the wet-side of the levees (within the current flood protection system, including the river channels and bypasses) and the dry-side (in farm fields – primarily winter-flooded, post-harvest rice fields – located outside the current flood protection system, but within the historic floodplain). To further advance these efforts, the Floodplain Forward Coalition has developed a Portfolio for Fish and Wildlife to reactivate the floodplain in the Sacramento River Basin.

Promoting Healthy Soils and Farming

Landowners and conservationists in the Sacramento River Basin are working together to manage farms, ranches, refuges and wetlands to promote healthy soils that benefit agronomic and environmental efforts.

The California Department of Food and Agriculture's Healthy Soils Initiative promotes the development of innovative farm and land management practices that contribute to building adequate soil organic matter that can increase carbon sequestration and reduce overall greenhouse gas emissions. There are also various cover crop programs in the Sacramento River Basin that will reduce runoff through improved infiltration (movement of water through the soil surface) and percolation (movement of water through the soil profile). Cover crops also increase soil organic matter, leading to improvements in soil structure, stability, and increased moisture and nutrient holding capacity for plant growth.

The California Rice Commission has developed the "Upland Habitat Nesting Initiative" program to promote cover crops on fallowed rice ground to provide habitat for nesting waterfowl. California State University at Chico, with support from the federal Natural Resources Conservation Service, has a program to help orchard, vineyard, rangeland, dairy, and row crop producers implement Soil Health Management Systems to improve soil function, water infiltration, and availability and protect biodiverse habitats in Northern California's agro-ecosystems.

Implementing Sustainable Groundwater Management

Active groundwater management and aquifer recharge utilizing the region's natural infrastructure will be important in many parts of the Sacramento River Basin to maintain and help achieve groundwater sustainability.

The Sacramento River Basin is generally in balance with respect to its surface and groundwater resources as a result of a concerted, long-term effort by local agencies working with landowners and state and federal agencies to promote sustainable water management in the region. There are, however, pockets in the region that need additional monitoring, scrutiny, and management to ensure that local entities can keep our groundwater resources sustainable. The experience in 2014-2015 with dry years and lack of surface water supplies brought this into focus, with additional wells, increased water demands, and water quality issues throughout the Valley.

Ongoing conjunctive management of surface water and groundwater has long played an important role in the balanced use of these resources and will continue to play an increasingly important role as groundwater use expands and intensifies in certain parts of the Sacramento River Basin. This dynamic is described in Fact Sheet: The State of Sacramento Valley Groundwater.

Groundwater provides nearly **30%** of the region's water supplies, with this percentage greatly increasing during dry years and during sustained droughts when less surface water is available.

Ensuring Access to Safe Drinking Water

There is both an urgent need and an important opportunity to take 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.

Successful implementation of sustainable drinking water solutions will require utilization of both the policy tools and financial resources available to state 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.

Sacramento River Basin leaders remain committed to advancing a comprehensive approach to expand and ensure access to clean, safe and affordable drinking water for all communities. This approach is described in detail in Ensuring Access to Safe Drinking Water for All California Communities and Ensuring High Quality Water in the Sacramento River Basin for Communities, Ecosystems, and Farms.

California's Human Right To Water:

"Every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."

Restoring and Maintaining Vital Streams And Rivers

Our rivers and creeks are the lifeblood of Northern California —serving as drinking water for our communities, vitalizing our economy and ecosystems, and providing opportunities for recreation and play. Holistic, science-based solutions across our landscape, paired with appropriate funding will help to continue restoration and maintenance of these waterways for long term health and vibrancy.

Sacramento River Basin water suppliers provide functional and targeted flows that are designed and tailored to restore natural flow functions and the benefits of the interaction between water, sun and the landscape, while balancing the benefits of our flood control and water supply system. This includes existing instream flow arrangements for salmon, as well as spreading water out and slowing it down over the Sacramento River Basin landscape for both economic purposes and for returning fish and birds to habitats that more closely match their natural history. The features of the Sacramento River Basin landscape present exciting possibilities to re-establish the magical connection between water and landscape through functional flows and evolving flow arrangements.

Continued investment by state and federal agencies can help to ensure cities and towns not only continue to prosper, but that native fish and wildlife will also thrive in their natural environment. Sacramento River Basin farmers, ranchers, conservationists and governmental agencies are demonstrating how collaborative projects (i.e., Rock Wad Salmon Structures – South Cypress Side Channel) can restore rivers and streams in Northern California, and showcase how continued efforts will strengthen key sections of our watershed.