



CALIFORNIA WATER PLAN 2023

UPDATE

EXECUTIVE SUMMARY

Welcome to California Water Plan Update 2023!

In the spirit of previous Water Plan updates, Update 2023 continues to broaden the community of interest that has fulfilled an integral role in developing and evolving the plan over decades. Reaching the hearts and minds of as many Californians as possible is key to the success of the Water Plan's vision and its recommendations; only by working together to meet current and future challenges will we achieve the sustainability and resilience vital for our water systems, natural and human-made. Further, Update 2023 considers diversity in California's economy, ecosystems, cultures, and ideas not only a strength but essential to collaboratively meeting those challenges. Update 2023 is written in clear, concise, and straightforward terms, with awareness of and respect for the histories of the state's diverse residents, including the many Indigenous peoples who call California lands and waters home. As we continue to learn and act collaboratively, the equitable sharing of our knowledge, effort, and resources will ensure a prosperous future for all Californians.

This executive summary has been excerpted from the full *California Water Plan Update 2023* to provide an overview of the plan and its most salient points. The full plan can be accessed from the [California Department of Water Resources](https://water.ca.gov/Programs/California-Water-Plan/Update-2023) website or by using the address below.

<https://water.ca.gov/Programs/California-Water-Plan/Update-2023>

CALIFORNIA WATER PLAN

UPDATE 2023

December 2023

GAVIN NEWSOM

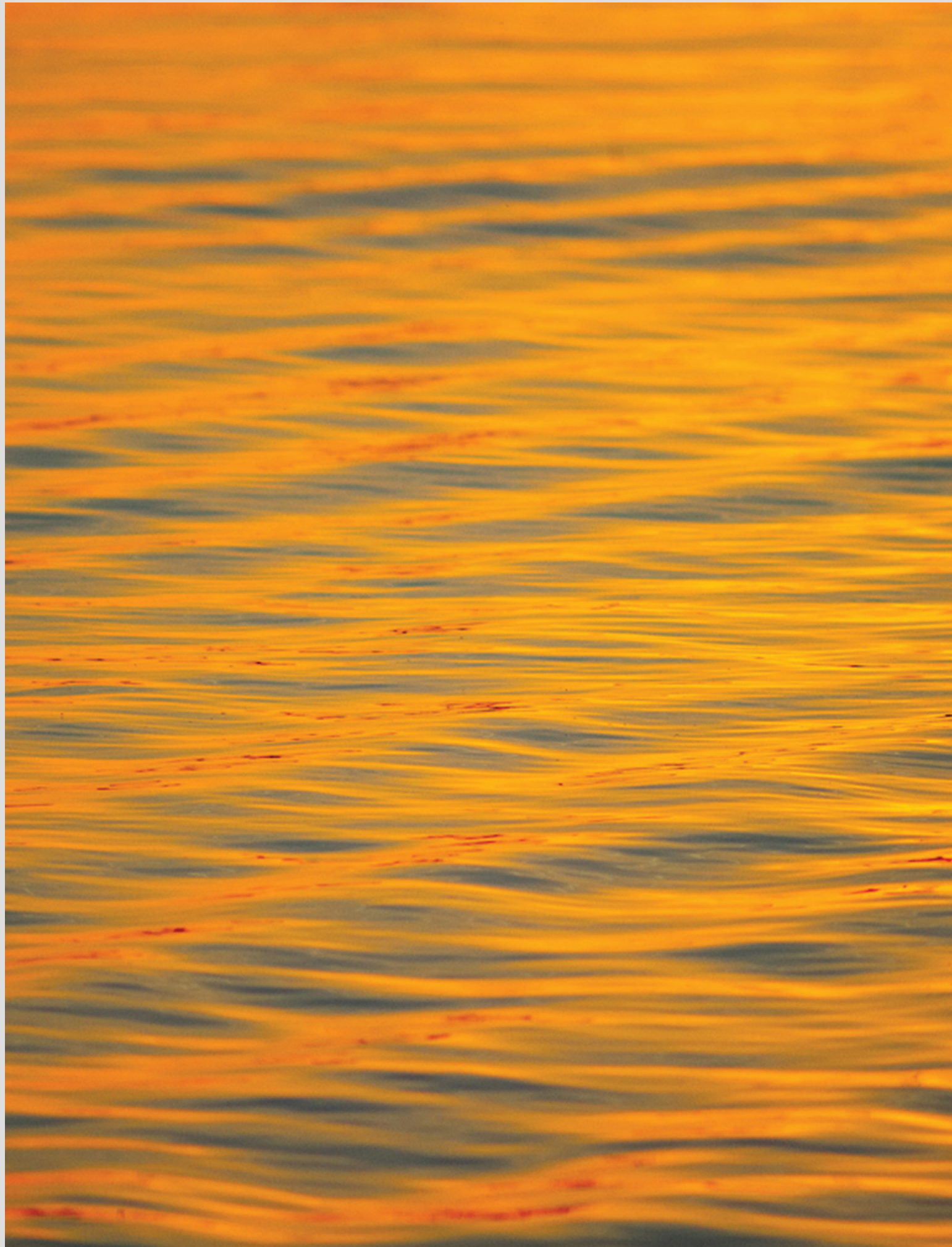
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In the five-year period since the publication of *California Water Plan Update 2018 (Update 2018)*, climate change has put unprecedented stress on natural and human systems. During that time, Californians experienced increased wildfires, rising sea levels, and highly variable precipitation and runoff patterns that manifested as historic droughts and floods – all of which increased socio-economic uncertainty. Although climate change certainly is not the only water-related challenge disrupting natural and human systems, all water sectors are vulnerable to its interrelated impacts. Moreover, California’s frontline communities, those most vulnerable to climate-driven impacts, are anticipated to face them earlier and more severely.

Frontline communities are those that experience the “first and worst” of environmental consequences. In other words, frontline communities are already living with the negative impacts of inequities in water management and thus are most susceptible to future negative changes. Residents are more exposed to existing water sector vulnerabilities (e.g., water shortages, water quality issues, or affordability challenges) and future ones, such as the impacts of climate change.

Update 2023 Builds on Administrative and Legislative Water Initiatives

The California Water Plan (Water Plan), in tackling issues of concern such as climate change, naturally reflect the priorities of the administration and Legislature current when a given update is developed. *California Water Plan Update 2023 (Update 2023)* is no exception. It builds on existing water policies, laws and regulations, and initiatives and investments of the Newsom administration’s *Water Resilience Portfolio (Portfolio)*, *Water Supply Strategy (Strategy)*, and recent legislation. These State initiatives establish cornerstone policies and investments, targets and actions, at a time when significant systemic and institutional challenges are increasing risks to public safety, frontline communities, ecosystems, and the state’s economy. Update 2023 folds the Portfolio’s and the Strategy’s themes and actions

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Update 2023 Vision: *All Californians benefit from water resources that are sustainable, resilient to climate change, and managed to achieve shared values and connections to our communities and the environment.*

into a durable, legislatively mandated planning and policy roadmap that spans legislative and executive political cycles.

Updated every five years, the Water Plan is the State's strategic plan for sustainably and equitably managing, developing, and stewarding water resources. Required by Water Code Section 10005, the plan presents the status and trends of California's water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios.

Figure ES-1 illustrates the evolution of the plan over time, from the first "State Water Plan," published in 1931 and outlining utilization of water resources on a statewide basis, to the present. The first modern Water Plan, published in 1957, emphasized the need for developing and conveying water supply, thereby promoting what became the State Water Project. By the turn of the century, the plan's focus had evolved toward environmental protection; integrated watershed management; and the importance of inclusion, transparency, and sustainable resource management.

Now with climate change an urgent threat, Update 2023 is focusing on the innovation and investments in California's watersheds, water systems, and communities needed for a resilient and equitable future.

Update 2023's three intersecting and interdependent themes – Addressing Climate Urgency, Strengthening Watershed Resilience, and Achieving Equity – builds upon State administrative and legislative policies, priorities, and oversight necessary to create more equitable and climate-resilient water systems to benefit all Californians (see Chapter 1).

Figure ES-1 The California Water Plan Has Evolved to Meet California's Needs and Challenges



Addressing Climate Urgency: Update 2023 focuses on understanding the challenges and bolstering the adaptive capacity of California's water systems. Although California alone cannot stop the cascading consequences of global climate change, transitioning the state to net-zero carbon emissions will help stabilize rising temperatures globally and safeguard California residents and water resources. Water resource planning that expands on lessons learned and past successes is necessary to safeguard water supply and quality and food security; protect vulnerable populations from drought, flooding, and extreme heat; prepare for sea level rise; and protect and enhance critical natural and built infrastructure for water storage, treatment, distribution, reuse, and stormwater capture within and among regions and watersheds.

Strengthening Watershed Resilience: Watersheds throughout the state, including their associated aquifers and groundwater basins, provide water supply, flood management, ecosystem, hydropower, recreation, and other benefits to those within and connected to them. They allow California's communities, economies, and ecosystems to thrive. These same watersheds are also at the forefront of the impacts of climate change, each experiencing effects of climate change unique to its geography, hydrology, socioeconomics, land use patterns, and built infrastructure. Because effective climate adaptation strategies will vary between watersheds, Update 2023 underscores the importance of incentivizing and

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supporting robust watershed-specific climate vulnerability analyses and adaptation plans, followed by investments in multi-sector collaborations and solutions at the watershed and regional scale. Complementing ongoing regulatory frameworks and programs, this expanded watershed-scale focus is intended to empower communities with the data, technical expertise, and financial resources to build water solutions resilient to climate change and other uncertainties that lie ahead.

Achieving Equity: The recent spotlight on social justice has accelerated overdue equity assessments in many public spheres of activity, including the water community. In 2012, California became the first state in the nation to recognize that every human being has the right to safe, clean, affordable, and accessible water (Human Right to Water, Assembly Bill 685). Then, with the passage of the Safe and Affordable Drinking Water Fund (Senate Bill 200, 2019), California deepened its commitment to resolving a crisis that affects more than 1 million people across the state. Since Update 2018, there have been many new State actions, including executive orders, legislation, and financial and technical assistance, designed to mitigate the impacts of droughts, floods, wildfires, and legacy impacts on frontline communities. (See Chapter 6 for equity-related challenges, including affordability, outreach and engagement, and representation and participation). Despite these remarkable efforts, climate change continues to exacerbate long-standing inequities in California water management.

Resilience: *The capacity of a resource, natural system, or constructed system to adapt to and recover from changed conditions after a disturbance.*

Watershed: *A watershed is the land area from which water drains into a stream, river, or reservoir. A watershed includes all natural and artificial (human-made) features, including its surface and subsurface features, climate and weather patterns, geologic and topographic history, soils and vegetation characteristics, and land use.*

Built backbone infrastructure: *Human-constructed infrastructure that provides water management benefits to communities, ecosystems, and economies across regional and watershed boundaries. The California Aqueduct, Oroville Dam, and Los Angeles Aqueduct are examples of built backbone infrastructure.*

Natural backbone infrastructure: *Watershed lands, aquifers, and processes that provide, collect, clean, store, and convey water within and among watersheds or hydrologic regions. The Feather River watershed above Lake Oroville, the Sacramento–San Joaquin Delta, the Colorado River basin, and the state’s 515 groundwater basins are examples of natural backbone infrastructure.*

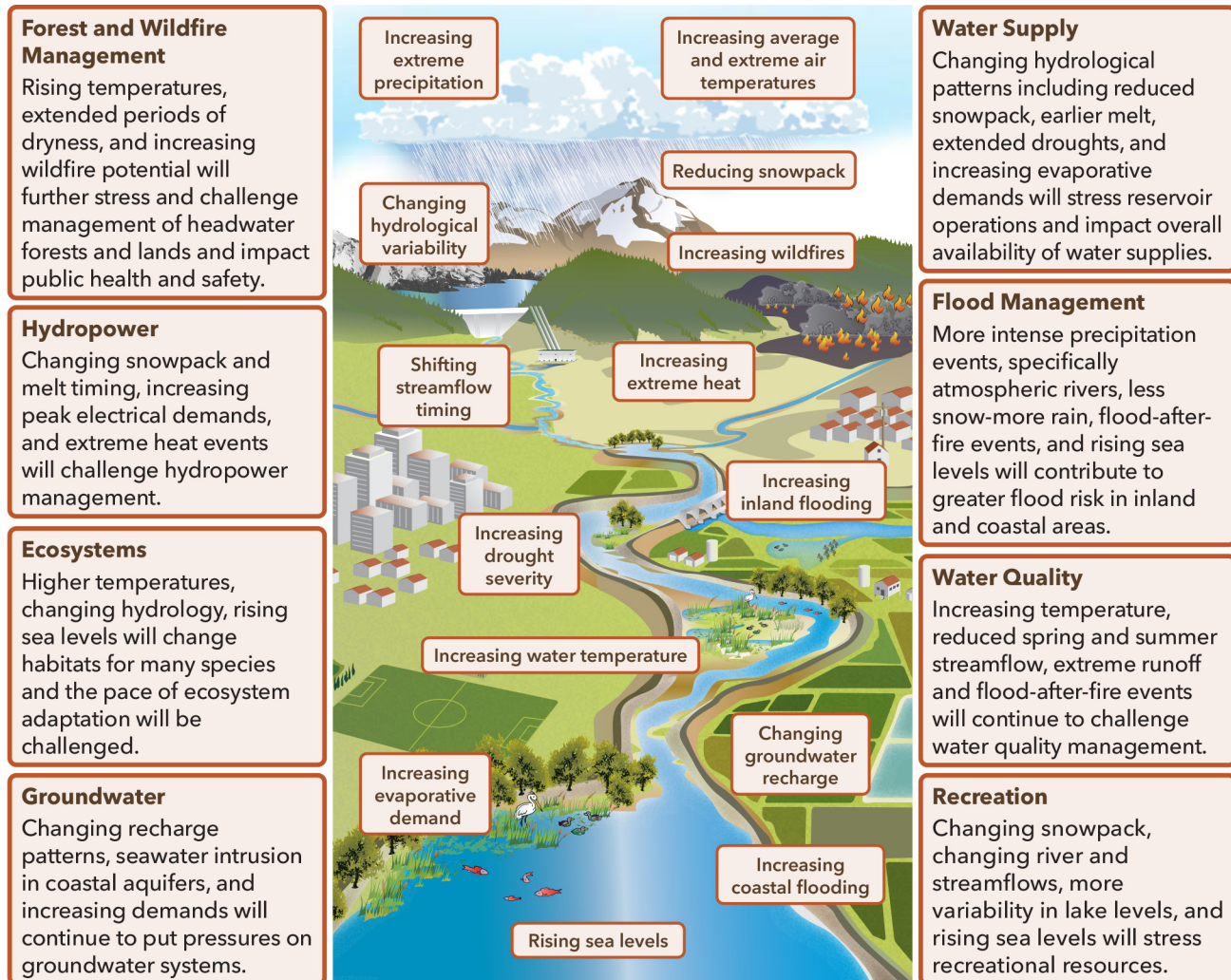
California's Water Systems and Sectors are More Vulnerable Because of Climate Change

In recent years, drought conditions in California have been increasing in intensity and duration, punctuated by more intense atmospheric river-driven storms and higher flood flows (weather whiplash). Given recent and future anticipated variability and intensity in precipitation and temperature with climate change, it is expected that California's existing flood, water, and wastewater management and treatment systems will be unable to deliver adequate, much less the same level of, quality and service as in the past (see Chapter 2).

California's ability to adapt is not keeping pace with climate change impacts. As depicted in Figure ES-2, higher average and extreme temperatures, more frequent and intense precipitation events, and changing runoff patterns are causing cascading impacts.

- California's 20th century water-infrastructure design and operations are not adequate for managing climate change impacts.
- Water-related sectors often operate in siloes, resulting in unintended or secondary consequences, inefficiencies, and unrealized opportunities.
- Many regional and local agencies currently lack the funding, data, tools, or institutional capacity to understand climate change vulnerabilities and adaptation opportunities unique to their watershed.
- Insufficient alignment among State agency mandates, policies, plans, programs, regulatory frameworks, funding opportunities, and datasets impede the State's ability to provide coordinated, agile, and flexible guidance, assistance, and oversight to regions and watersheds.
- Climate change impacts are disproportionately affecting frontline communities in California because they have fewer resources and less institutional capacity to adapt to impacts resulting from physical (built and natural), social, political, and economic factor(s).
- Tribal resources are significantly threatened by climate change impacts.
- Legacy forecasting data and models are unable to accurately predict future conditions.

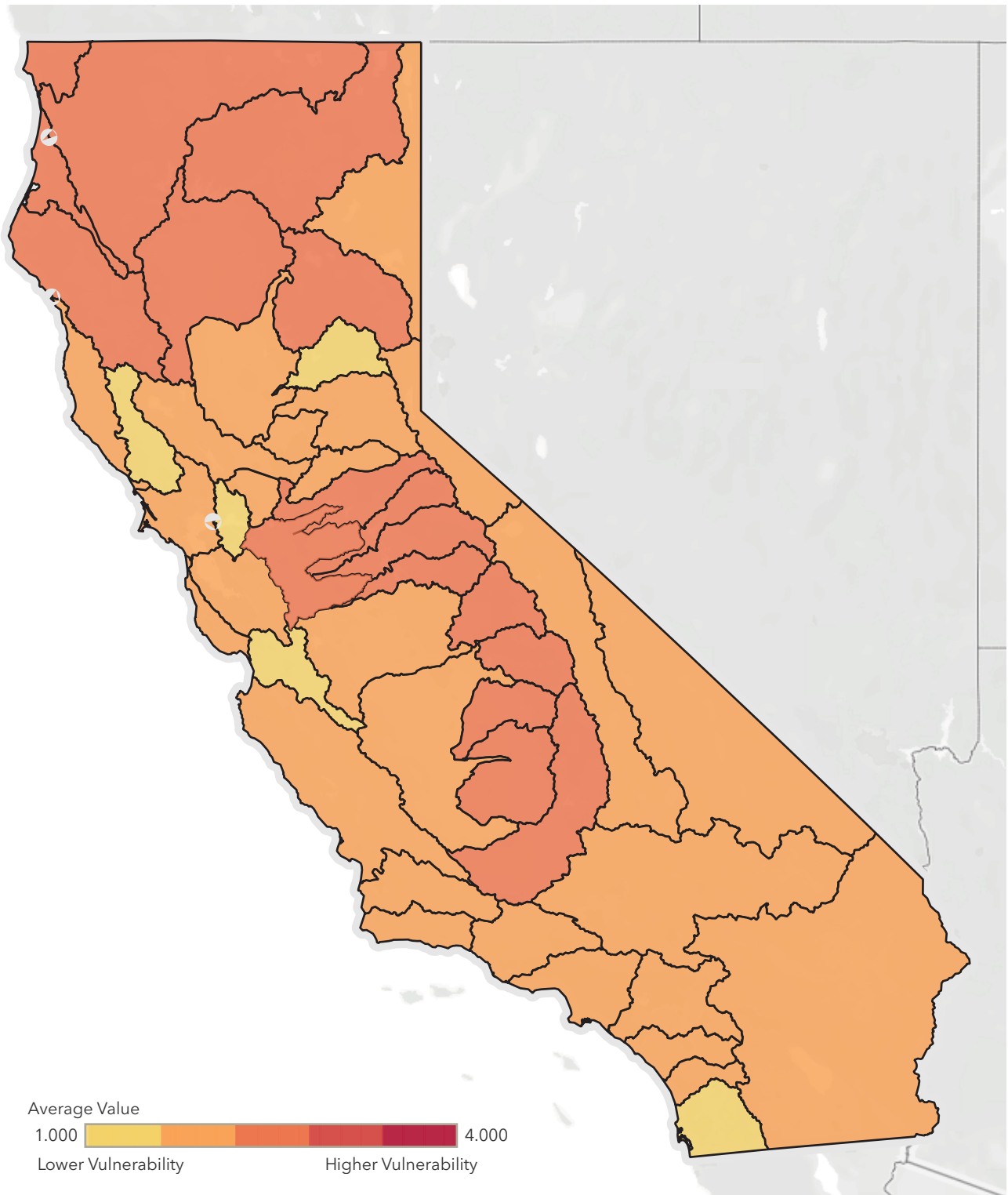
Figure ES-2 Climate Impacts are Affecting All Water Sectors across California



Climate vulnerabilities exist in all regions of the state, yet they vary considerably from watershed to watershed. Larger storms, more severe droughts, hotter temperatures, and earlier snowmelt runoff are changing the operating conditions for water infrastructure. Much of California's built "backbone" infrastructure was designed for historical climate conditions and must be modernized and adapted to provide necessary levels of service.

Figure ES-3 shows the results of a high-level assessment of future climate vulnerabilities by watershed, with a consistent, combined set of metrics related to water supply, flood management, water quality, ecosystems, hydropower, and recreation. This statewide perspective of relative vulnerability by watershed and region can inform where additional analysis, investments, and technical support are needed.

Figure ES-3 Projected Climate Vulnerabilities Vary across California



California's Watersheds Depend on the Natural and Built Backbone Infrastructure that Supports and Connects Them

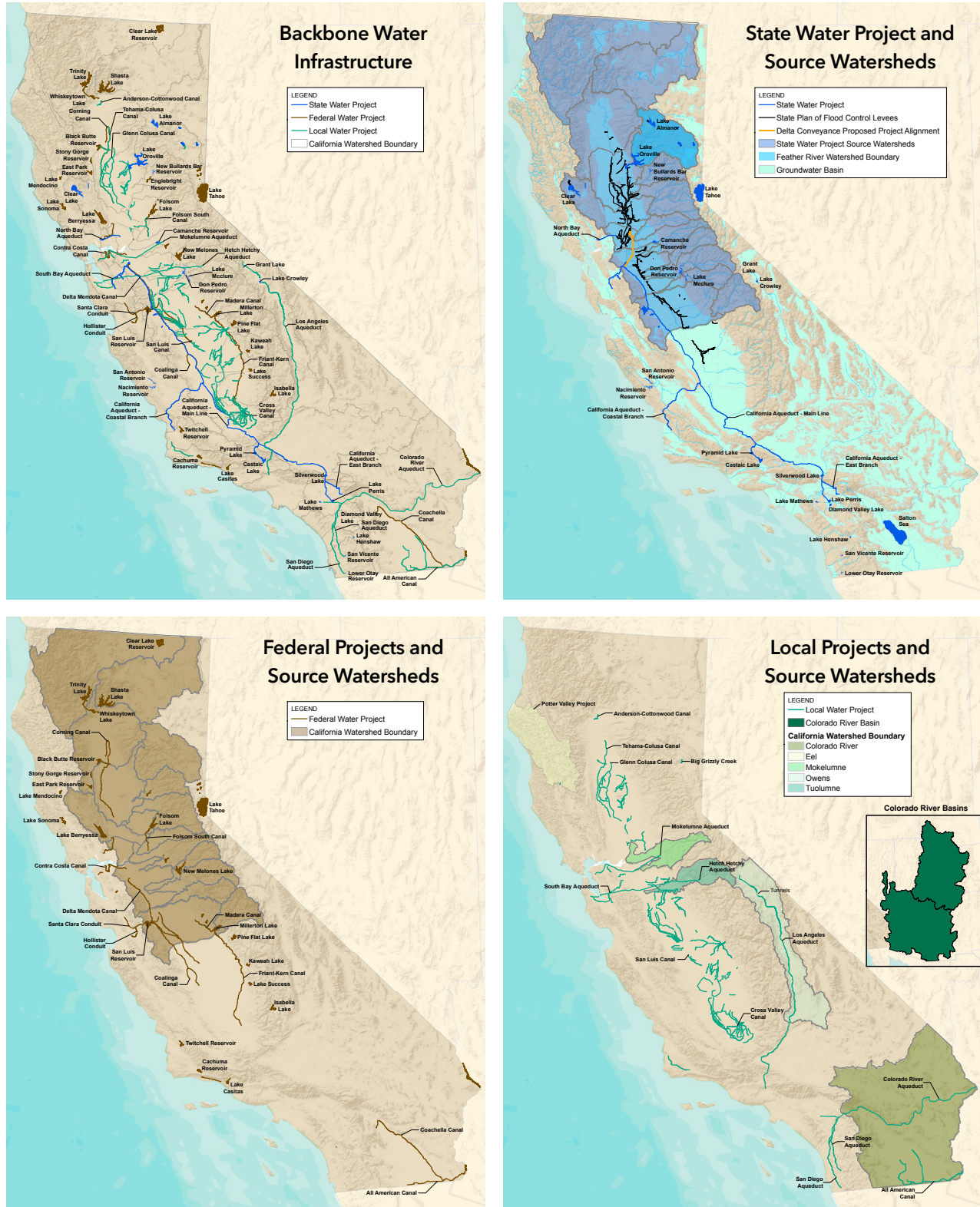
Connecting watersheds and regions throughout the state, California's backbone water infrastructure includes major built systems and natural systems within and among watersheds. Built infrastructure refers to major State, federal, regional, and local water projects. More than two-thirds of Californians receive water from backbone systems, which consist of major dams and reservoirs with more than 40 million acre-feet of storage, more than 1,000 miles of canals and aqueducts, and hundreds of pump stations to deliver water from the source watersheds to areas of need (see Chapter 3).

Natural infrastructure is an equally important part of backbone water systems. Source watersheds and their associated groundwater basins provide natural storage, high-quality supply, regulation of water supply across seasons and years, attenuation of peak flood flows, and thermal regulation. Rivers and floodplains help convey water from source to diversion, deliver flood benefits, and support ecosystems. They also provide for healthy riverine and delta ecosystems, while aquifers help regulate and retain infiltrated water for annual and drought-year supply. The resiliency of built water-infrastructure systems is intrinsically linked to the resilience of the natural systems. Chapter 8, "Roadmap to Resilience," affirms the interdependent relationship between the built and natural aspects of the state's complex water system and recommends actions that result in investments and stewardship for both.

Figure ES-4 illustrates four examples of backbone infrastructure. The upper left corner panel shows built backbone infrastructure throughout the state, including the State Water Project, federal water projects, and local water projects. The following three panels show the connection between backbone infrastructure and source watersheds. (Although thousands of production groundwater wells throughout the state are considered built backbone infrastructure, they are not depicted in Figure ES-4.)

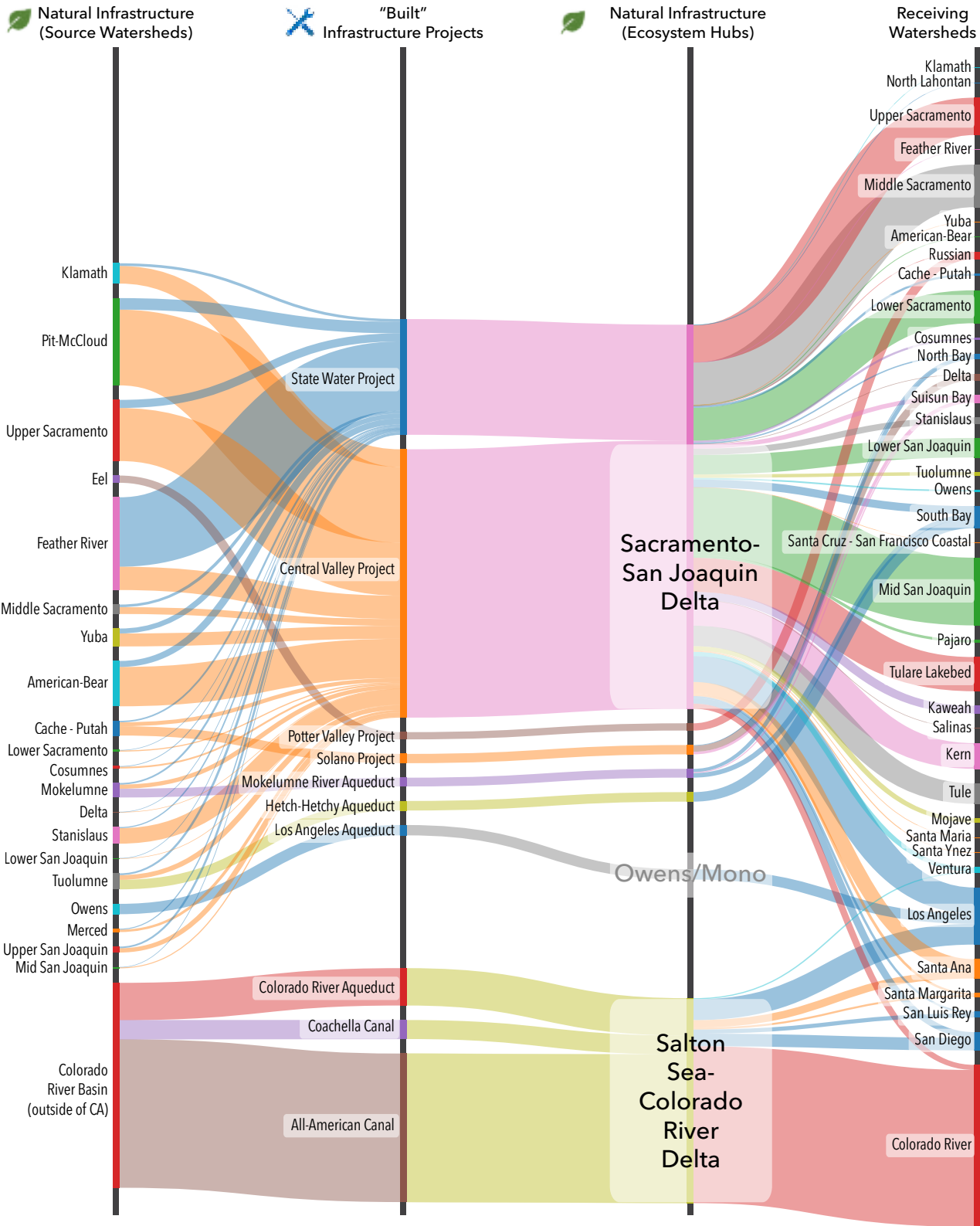
Figure ES-5 illustrates the movement of water across watersheds in the state, starting with each of the source watersheds on the left, through major built infrastructure projects and to the receiving watersheds. The width of the lines is proportional to the quantity of water moving through these systems. The figure also identifies major natural infrastructure system hubs, such as the Bay-Delta, Owens and Mono lakes, the Salton Sea, and Colorado River Delta. The resilience of each of these natural system hubs is integral to the resilience of the built infrastructure systems. To achieve statewide water resilience, the interdependence of these systems calls for investments in the resilience of built and natural systems.

Figure ES-4 California's Resilience Depends on Natural and Built Backbone Infrastructure



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Figure ES-5 California’s Water Management System is Inherently Integrated



A Regional Perspective Reveals Varied Conditions Across the State

The diversity of bioregions and hydrologic systems in California gives rise to diverse challenges that underscore the importance of taking a regional approach to water resilience. California's 10 hydrologic regions have their own water management tools, water-related assets, and challenges. The same is true of two overlay areas, the western slope of the Sierra Nevada and the Sacramento-San Joaquin Delta. Because climate change impacts vary among watersheds, unique characteristics of hydrology, topography, land use, and groundwater are factors when characterizing a region's climate vulnerabilities and adaptation opportunities.

In Chapter 3, regional summaries describe existing and future climate vulnerabilities and water management challenges, and activities currently underway to reduce risks. The vulnerability of each hydrologic region was assessed for 15 different factors, including water supply risk, flood risk, drinking water threats, and affordability challenges. This information was derived from a statewide climate-change risk and preparedness assessment conducted by the California Department of Water Resources (DWR); the Portfolio; and, for the Central Valley regions, the Water Plan's future scenarios analysis.

State Agencies and Partners are Responding to Climate Change to Shape a Resilient and Equitable Future

The scale of climate-related challenges demands a timely, thorough, and coordinated response from all levels of California government. Visionary policies, immediate actions, long-term resilience planning, and substantial ongoing investments are essential. To be effective, these actions must be coordinated closely among State agencies; federal, Tribal, regional, and local partners; and regulated parties.

State government serves an important role in water resources management, coordinating regulatory development and oversight; setting policies and rules; providing technical, data, and financial support; overseeing critical statewide interjurisdictional backbone infrastructure; and facilitating resolutions to long-standing environmental conflicts. The Newsom administration and Legislature have adopted policies to guide State and local responses to the increasing intensity of climate change, including the Portfolio and the Strategy. Alongside these policies, State agencies, departments, boards, and commissions are planning and implementing actions funded by billions of dollars of State investment in climate resilience-related strategies and programs.

The State also plays an essential leadership role in the research, development, and sharing of climate science and related data to advance understanding of how the climate emergency is affecting all environmental and economic resource sectors. In support of science and technology, DWR and other State agencies are leading collaborative open data initiatives, technical studies, and planning efforts with local, regional, Tribal, and federal partners. The shared goals are:

- Improve water data monitoring, reporting, and access.
- Modernize observation and forecasting techniques.

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- Develop water accounting system, models, and decision-support tools.
- Strengthen alignment of open data and analytical tools used by DWR, State agencies, and regional water programs.
- Improve understanding of climate vulnerabilities and risks across the state.
- Identify appropriate adaptation strategies.

As shown in Figure ES-6, multiple State agencies, departments, commissions, councils, and boards are acting on efforts focused on achieving resilience in the water sector. These planning, regulatory, and incentive-based actions include developing new water supplies, improving water use efficiency, protecting water quality, improving soil health for food security, improving biodiversity and ecosystems, conserving landscapes, treating source watersheds to reduce fire risk, protecting coastal areas from sea level rise, decarbonizing the energy sector, and other actions (see Chapter 4).

Federal partners actively working alongside State agencies to improve overall water resources resilience include the Environmental Protection Agency, U.S. Army Corps of Engineers, U.S. Department of Agriculture Forest Service, U.S. Geological Survey, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and National Oceanic and Atmospheric Administration Fisheries.

Many efforts are in response to policy directives in the Portfolio, the Strategy, and related executive orders. Others are ongoing, legislatively mandated activities central to each agency's mission. All reflect the administration's and Legislature's commitment to respond to climate change with mitigation actions and adaptation strategies to secure a more resilient and equitable water future.

Figure ES-6 State Initiatives for a Resilient and Equitable Water Future



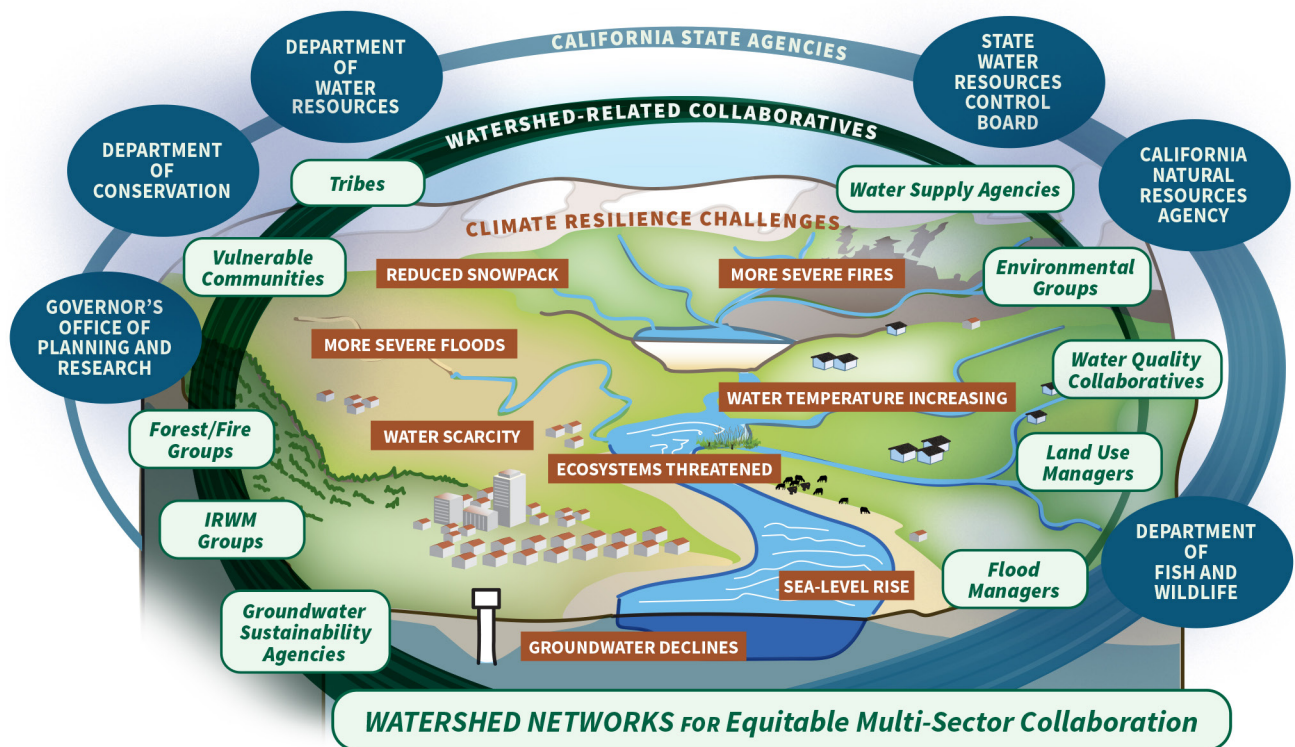
A Focus on Watershed Resilience Complements Existing State Initiatives

Water management in California occurs at many different scales, from individual residences and communities (e.g., water use efficiency standards and drinking water regulations) to interregional infrastructure, such as the State Water Project and the Los Angeles Aqueduct. While there are critically important, ongoing efforts and new opportunities to address these challenges at each scale – as shown through various regulatory, planning, and local assistance actions (see Chapter 4) – the watershed continues to emerge as a vital, holistic scale for water resilience planning.

As previously enumerated, watersheds provide many essential benefits to those within and connected to them. Past Water Plan updates, as well as the Portfolio and the Strategy, acknowledge this diversity, highlighting the importance of State incentives for local, collaborative water resources management at regional and watershed scales. Update 2023 emphasizes the importance of robust watershed-specific climate vulnerability analyses and adaptation plans, followed by investments in multi-sector collaborations and solutions at the regional and watershed scale. The goal is to empower communities with the data, technical expertise, and financial resources to build water solutions resilient to climate change and other uncertainties that lie ahead.

Accordingly, Update 2023 recommends an expanded role for regional and watershed-scale initiatives, especially those that incentivize the establishment of networks of local agencies, Tribal governments, community leaders, and non-profit organizations. These networks (Figure ES-7) would represent an inclusive cross-section of local voices and perspectives contributing to water plans and projects that would be naturally integrated across such sectors as stormwater, sanitation, recycling, and groundwater management. For example, Tribal government representation on decision-making bodies would facilitate incorporation of Indigenous knowledge and practices of holistic watershed management.

Figure ES-7 Networks Promote Equitable Multi-Sector Collaboration



Chapters 4 and 5 highlight several examples of existing State programs that explicitly require or otherwise incentivize regional or watershed-scale collaborative actions.

- Integrated Regional Water Management Program (DWR).
- Regional Resilience Planning and Implementation Grant Program (Governor's Office of Planning and Research).
- Community Resilience Centers Program (California Strategic Growth Council).
- Sustainable Groundwater Management Program (DWR and State Water Resources Control Board).
- Multi-benefit Land Repurposing Program (California Department of Conservation).
- Regional Forest and Fire Capacity (California Department of Conservation).

State agencies administering regional- or watershed-scale programs should incorporate the Update 2023 watershed resilience principles to help guide consistent and equitable approaches to climate vulnerability and adaptation planning and project implementation.

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These principles will:

- Facilitate more equitable water management outcomes by requiring inclusive regional governance and decision-making.
- Promote scientifically driven climate vulnerability analyses by standardizing requirements for best available science and analytical approaches.
- Incentivize regional planning with watershed hydrology as a key factor in determining planning-area scale, scope, and measurable outcomes.
- Incorporate a robust and consistent approach for tracking outcomes by using metrics and indicators of resilience at the watershed scale.

California Requires Continued and Amplified Efforts for Equity in Water Management

In 2022, Governor Newsom committed to creating a “California for all” by signing Executive Order N-16-22, directing State agencies to take critical actions and address equity in all strategic plans and updates. This deepening commitment to equity is an acknowledgment that current institutional systems and programs are not serving all Californians. Additionally, insufficient community engagement, representation, and financial and technical capacity impede collective solutions and progress. With the deeper understanding that inclusive collaboration brings to the process of developing recommendations and thus solutions, equitable outcomes become increasingly possible.

In the context of existing systemic and institutional challenges and inequities, Update 2023 advances a roadmap with recommendations to accelerate, strengthen, and broaden an essential and important collective dialogue within the water community to address pivotal findings (see Chapter 6).

- Many Californians do not have access to safe, clean, and affordable drinking water.
- Frontline communities are vulnerable in the face of floods, drought, and other climate risks.
- Economic, social, and environmental barriers exist that prevent equitable outcomes within water systems.

California’s water is managed through a complex governance system, with overlapping and interdependent jurisdictions at the local, regional, State, federal, and Tribal levels. Considerable variation in how each local authority allocates water, assesses rates, and mitigates risks makes navigating governance systems difficult for frontline communities and curtails their ability to participate in the decision-making process.

Building authentic and meaningful relationships with communities is critical to advancing water management planning and actions. Yet, communities and non-governmental organizations report that often many State outreach strategies are not accessible to diverse populations.

A major vulnerability of frontline communities has resulted from their drinking water needs not being made a priority. This is largely because frontline communities have not been incorporated in decision-making processes or other forms of participation based on land tenure, well permitting, property size, race, language, economic status, and other factors. Nearly 1.5 million Californians rely on domestic wells – even as one-third of community water systems rely on only a single well – for drinking water and other potable uses. As climate change impacts continue to accelerate, these Californians may experience greater frequency or intensity of water shortages and water quality degradation, along with more limited options for alternative water sources.

What's more, future climate conditions are anticipated to directly increase the cost of living for frontline communities. In 2022, the State Water Resources Control Board conducted a drinking water affordability assessment, concluding that 39 percent of disadvantaged or severely disadvantaged community water systems exceed affordability thresholds. Other recent estimates report that 1 in 10 California households are falling into arrears on their water payments. These affordability challenges are exacerbated by periods of extended drought, during which domestic water supply costs can rise because of unexpected infrastructure costs (e.g., well drilling) and alternative supply importation costs.

Implementing climate adaptation strategies provides new opportunities and approaches to modernizing aging infrastructure and ensuring that water systems work better for all Californians, especially those most vulnerable to the effects of climate. Investing in natural infrastructure also offers opportunities to further uplift frontline communities by improving environmental health, a key indicator of a thriving and resilient community.

Understanding existing inequities and systemic challenges within and beyond the water management sector supports and informs ongoing and future efforts to advance equity throughout the state. For frontline communities, addressing these challenges and barriers is essential for ensuring sufficient adaptation and community resilience.

California Tribes Describe How Tribal Knowledge and Practices Enhance Water Resilience

Colonization, relocation, and termination have perpetuated a practice of leaving Tribes out of the discussion involved in developing State legislation and have made it more difficult for Tribes to practice their cultural, spiritual, and sustainability practices. California's water planning processes also have historically not included California Tribes. California Tribes reside throughout the state and have deep spiritual connections to water and water-related resources. Past State policies and practices have limited the ability of Tribes to control and access water and constrained their cultural, spiritual, and sustainability practices.

As California promotes understanding of Tribal perspectives and lessons learned from the historical treatment of Tribes, it paves the way for decisions and policies to support Tribal sovereignty, culture, practices, and socio-economic stability.

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To understand and report viewpoints of California Tribes, the California Water Plan team worked with members of the Update 2023 Tribal Advisory Committee to collaboratively promote Tribal water concerns, needs, and opportunities. Tribal members and their representatives contributed their time and expertise to describe water management challenges they face within their watersheds and ancestral homelands. This was done with a clear understanding that, although Tribal communities may have common concerns, interests, and priorities, each Tribe has unique needs that must be taken into consideration. Understanding these unique differences will help create effective partnerships with the State of California.

Chapter 7, “Strengths and Resources of California Tribes,” a first for the California Water Plan, amplifies California Native American Tribal voices and perspectives. A primary purpose of the chapter is to increase the quality of Tribal participation in the preparation of this and future Water Plan updates. The chapter highlights water management challenges faced by Tribal governments and Tribal communities, and it provides strategies and recommendations to begin addressing these challenges. Tribal voices convey the experience and priorities of Tribes and an overview of Tribal history, as well as a Tribal vision for California water management; Tribal sovereignty; Tribal water rights; and Tribal efforts to improve watershed health, adapt to climate change, strengthen equity, and increase available funding.

Update 2023 Recommendations Chart a Roadmap to Resilience

In Chapter 8, the State’s recommendations are organized around seven objectives that provide a roadmap to resilience. California has the capacity and resolve to meet its water and climate challenges, create economic opportunity, and improve public and environmental health and safety. These goals can be reached through the strong alignment of State, federal, Tribal, and local leadership; public-private-partnerships; collaborative, multi-sector actions and co-management; research and technology; and community engagement.

Carrying out the Water Plan’s recommendations will require time, effort, and funding. The pace of implementation will depend on the availability and feasibility of acquiring needed resources and balancing this effort with competing priorities.

Objective 1. Support Watershed Resilience Planning and Implementation.

California’s watersheds are currently experiencing major climate change challenges that will be magnified in the future. Improving and accelerating climate resilience planning and implementation at the watershed scale will improve water resilience where impacts are most acutely experienced. Recommendations under this objective seek to support and accelerate watershed resilience through priority State actions.

Objective 2. Improve Resiliency of “Backbone” State, Federal, and Regional Built Water Infrastructure.

Recognizing that most watersheds in California are interconnected and dependent on State, federal, and regional built water infrastructure, statewide water resilience can only be achieved with improvements to the resiliency of these backbone systems. The recommendations under this objective seek to improve existing built backbone infrastructure systems, adapt operations for climate change, increase integration of these systems, and improve information sharing.

Objective 3. Improve Resiliency of Natural “Backbone” Infrastructure.

The resilience of built infrastructure is intrinsically linked to the resilience of natural infrastructure. Recognizing this interdependence, the recommendations under this objective seek to improve the resilience of natural infrastructure through accelerated ecosystem restoration and identifying critically important ecosystem hubs and groundwater basins.

Objective 4. Advance Equitable Outcomes in Water Management.

Recognizing that current inequities exist in California’s institutional systems and that resilience for California must include resilience for all, the recommendations under this objective emphasize improving community outreach and engagement, local capacity building efforts, and access to State assistance programs.

Objective 5. Support and Learn from Tribal Water and Resource Management Practices.

California Tribes have a long history of sustainable water and resource management practices. But Tribal communities also face a growing number of water management challenges related to water rights, infrastructure development, engagement, and funding. The recommendations under this objective seek to support strategies to address these challenges and support and learn from Tribal water management practices.

Objective 6. Support and Increase Flexibility of Regulatory Systems.

Update 2023 details how climate change is driving a need for planning and projects capable of addressing future uncertainties. It also discusses the need to fully support regulatory programs and to ensure that they are flexible and adaptive enough to meet the challenges of a changing hydrology. The recommendations under this objective seek to support that and other related outcomes.

Objective 7: Provide Guidance and Support Continued Resources for Implementation of Actions toward Water Resilience.

Sustainable resources are essential for creating more resilient water-resource management systems, which are foundational to adapting to an increasingly variable hydroclimatic regime of swings between drought and flood. Developing statewide and watershed resilience requires local, State, and federal investments and unique approaches to sustainable funding. The recommendations under this objective seek to align resources with the needs of California water management.

A decorative graphic at the top of the page featuring a dynamic splash of blue water with numerous bubbles and droplets, creating a sense of movement and freshness.

California Water Plan Update 2023 envisions a future where all Californians benefit from water resources that are sustainable, resilient to climate change, and managed to achieve shared values and connections to our communities and the environment.

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