



PLANNING FOR THE FUTURE: Understanding Climate Change Impacts on Water Reliability and Resources

From wildfires to droughts, the consequences of climate change are being felt by our communities. California Water Service (Cal Water) is committed to protecting the reliability and resilience of our limited water resources, maximizing the efficiency of our operations, helping our customers conserve water, and minimizing our carbon footprint. Mitigating and adapting to climate change is a business and societal imperative.

To understand the impact of climate change on our supply reliability, operations, and assets, Cal Water collaborated with ICF to develop a comprehensive Climate Change Risk Assessment & Adaptation Framework.

THE REPORT:

- Identifies and prioritizes climate-driven risks to Cal Water facilities, operations, and water supply portfolio
- Projects and assesses changes to the water supply and demand for Cal Water resources

THIS ANALYSIS ALLOWS CAL WATER TO MORE EFFECTIVELY:

- Develop adaptation strategies that reduce the impact of climate change on our operations
- Prioritize infrastructure investments that increase resiliency
- Monitor and address risks to disadvantaged and vulnerable communities



WHAT WE LEARNED:

Without action, Cal Water districts are vulnerable to climate change risks to varying degrees. Examples include:



Longer, more severe and more frequent droughts could lead to increased demand and reduced surface water supply availability



More intense weather patterns - whether high temperatures, low rainfall, or periods of intense rainfall - pose a significant risk to water quality



Increased wildfire risk could endanger worker health and safety, threaten assets, and pose risks to water quality



Natural snowpack storage may decrease due to temperature increases



More frequent and severe river and urban flooding could cause service disruption and infrastructure damage



Ongoing sea level rise may pose a threat to wells and treatment facilities, and assets located along low-lying coastal shorelines



Naturally occurring groundwater recharge via rainfall is expected to decrease, potentially threatening supply

WHAT'S NEXT?

Cal Water has already begun the work of addressing the risks identified in this report through continued infrastructure investments. This includes:

- **Wildfire preparation** - Infrastructure projects and upgrades to increase reliability in the event of a wildfire and prevent the loss of power at key facilities, along with protections for worker safety
- **Treatment plant analysis** - Systematic review of climate change-driven risks driven by wildfires, droughts, intense rainstorms, or excessive agricultural nutrient load
- **Long-term demand model update** - Improvements in modeling for more effective management of water resources, including the addition of evapotranspiration, and updating climate projection inputs

Critically, this report provides a foundational framework for Cal Water to prioritize risks, and take steps to address them. This framework will ensure our immediate term and future infrastructure investments will be applied in a most impactful way, delivering on our ultimate goal of building science-based climate resilience into all of Cal Water's operations.



In addition to the framework, Cal Water will re-evaluate climate vulnerability and risk on an ongoing basis, and will consider ways to further integrate district-specific climate projections into supply reliability. With robust science-based climate projections, an understanding of risks and opportunities, and a thoughtful set of adaptation next steps, Cal Water is well positioned to ensure that we are able to deliver a reliable water supply well into the future.

