



SHARING THE COST: Accelerating Water Resilience through Infrastructure Finance in California

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Background

California's water infrastructure system has not kept pace with water supply changes and needs significant investments to capture, increase, and distribute water supply. In 2021, California reported its driest year in a century. As the state's aging and underdeveloped water infrastructure struggled to manage the impacts of climate change and prolonged periods of water uncertainty, 95 percent of Californians lived in extreme drought.¹ Nowhere were these challenges more pronounced than in the Central Valley.

Investment in California's water infrastructure system is vital not only to provide greater conveyance and storage capacity for water users in more arid parts of the state but also for the beneficiaries of California's \$50 billion agriculture economy. Low surface-water allocations from the State Water Project (SWP) and Central Valley Project (CVP), new restrictions on groundwater pumping, and more frequent and severe hydrologic extremes have put California's most vital resource at severe risk.

Immediate political action is needed to establish a collaborative policy, governance, and investment framework to enhance water resiliency. This report identifies gaps in funding as well as critical federal, state, and local policy barriers that increase risk, uncertainty, cost, and delays for water-infrastructure projects. The report proposes three solutions for improving critical water infrastructure investments in California.

Federal, State, and Local Policy Barriers

Federal Policy Barriers

1. Inconsistent Funding and Financing Indicate Water Infrastructure Development Is Not a Priority on Capitol Hill
2. Cost Burden Falls on Direct Users to Pay for Central Valley Project Infrastructure Improvements as the Public Benefit Is Not Clearly Defined and Most Federal Funding Must Be Reimbursed
3. Eligibility and Creditworthy Requirements Inhibit Access to Federal Funds

State Policy Barriers

1. California Lacks a Predictable and Long-Term Source of Water-System Funding
2. State Policy Can Further Delay Projects, Which Makes Investments Risky and Uncertain
3. Lack of Prioritization for Storage and Conveyance Projects
4. Lack of Coordination and State and Regional Silos Inhibit Water Infrastructure Development

Local Policy Barriers

1. Local Agencies Maintain Infrastructure without Long-Term Resources and Must Navigate Burdensome State Policy
2. Rural Communities Lack Resources and Access to Develop Alternative Water Supplies
3. Water Supply Uncertainty Disincentivizes Investments

Solutions

Following are proposals for federal, state, and local policy leaders to improve critical water infrastructure investments:

1. **Establish a Centralized Agricultural Water Infrastructure Center for Excellence.** Convene local, state, and federal entities to identify which projects need to be prioritized. Once projects are prioritized, the council would work on identifying and providing detailed action plans to facilitate access to grants and funding and ensure that the state and federal shares of projects are covered so that the financial burden is shared appropriately.
2. **Create New Credit-Enhancement Tools and Adjust or Expand Existing Programs to Increase Project Funding.** To attract more private capital, the state and federal governments should expand credit-enhancement tools and prioritize eligible projects. Direct grant funding is not the only way state or governmental entities may be able to support projects; zero-interest loans or credit-enhancement tools can also increase project affordability and bankability, especially for smaller projects. The state should consider a state general obligation bond to fund a Regional Agriculture State Revolving Fund that could support ongoing water infrastructure projects for the state's leading global agriculture production centers.

3. **Cultivate a Development Project Delivery Ecosystem More Welcoming to Public-Private Partnerships Opportunities.** Once significant financial barriers and risks are mitigated, more opportunities will emerge to engage the private sector in providing capital for water infrastructure projects, such as through public-private partnerships (P3s). A P3 is a collaboration between a government agency and a private entity to finance, build, and maintain large projects. The most popular benefits of P3s are transferring risk, fostering innovation, reducing deferred maintenance, and accessing new capital sources to accelerate project delivery.

Next Steps

The nation's most populous and largest agricultural state needs resilient water infrastructure that can withstand inevitable impacts from climate change and sustain its economic prosperity not only for its 40 million (and counting) residents but for the rest of the nation that depends on California's agricultural output.

Beyond the intensifying drought and widening infrastructure inefficiencies, there are billions of dollars' worth of unmet operation and maintenance costs and system improvements currently to be found in the SWP and CVP and throughout California. Accelerating water resilience throughout the state will require the state to gather better data regarding gaps in local water infrastructure project funding, operations and maintenance, and delivery systems. Additionally, the state will need to work in capacity-building coordination with regions to harness innovative financing mechanisms that make meaningful investments in the state's infrastructure and improve the quality of life for all the communities.



1. Laura Anaya-Morga, "California Records Driest Year in a Century," *Los Angeles Times*, October 18, 2021, <https://www.latimes.com/california/story/2021-10-18/california-records-driest-year-in-a-century>; "US Drought Monitor," National Drought Mitigation Center, University of Nebraska-Lincoln, accessed September 20, 2022, <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?CA>.