

COVID-19 and Water Infrastructure in the Sacramento Region IMPACTS AND OPPORTUNITIES

Federal investments in local water infrastructure will leverage agencies' strained local financial resources, help protect public health, create jobs, expand opportunities for displaced workers, and accelerate critical modernization/rehabilitation projects

Summary

The ability of water systems to deliver safe, clean and reliable water for washing hands and other personal, institutional and medical hygiene practices is critical for treatment and prevention of COVID-19. While most community water systems are currently able to meet this challenge, the economic fallout from the COVID-19 pandemic will continue to grow in severity, presenting a clear and present danger to their ability to continue to do so going forward.

A major federal appropriation to support rehabilitation and modernization of local water systems is essential to quickly kick-start construction-ready infrastructure projects that otherwise will be put on hold until significantly weakened agency balance sheets can support them.

The Sacramento region has an enviable track-record of success in effectively deploying federal funds on local and regional water projects, and remains well positioned to do so on already identified construction-ready infrastructure investments.

COVID-19 Impacts on Local Water Systems

The need for safe, clean and reliable water deliveries has never been more critical. COVID-19 is a forbidding threat to that reliability.

More than four million Californians have lost their jobs. With the loss of income comes an inability for many to stay current on water bills, with resulting negative impacts to water agencies' balance sheets. According to the American Water Works Association (AWWA), the combined impacts of increased costs and decreased revenues on water utilities due to COVID-19 range from \$13 to \$15 billion.¹

The Cost of Delaying Urgently Needed Infrastructure Projects

According to the AWWA, loss of revenue will cause water utilities to delay or defer up to \$5 billion in annual capital expenditures. Factoring in the economic multiplier effect, this deferred spending by utilities will reduce economic activity in affected communities by as much as \$32.7 billion, resulting in the loss of 75,000 to 90,000 private sector jobs.²

This impending delay in capital investments exacerbates threats to already vulnerable water systems. Much of the nation's water infrastructure was constructed in the early and middle of the last century; much of it is overdue for replacement. Deteriorating water infrastructure is prone to catastrophic failure requiring immediate, expensive repair. Preventive maintenance is exponentially less expensive and less disruptive.³

¹ *Fiscal Impact of the COVID-19 Crisis on U.S. Drinking Water Utilities*, American Water Works Association

² *Fiscal Impact of the COVID-19 Crisis on U.S. Drinking Water Utilities*, American Water Works Association

³ *The Economics of Water Main Failures*: <https://waterfm.com/the-economics-of-water-main-failures/>

At the same time, the Sierra snowpack, which supplies about 40% of the state's water, is estimated to decline by 50% to 80% by the end of the century. Increased hydrologic variability – more intense flood events, more severe droughts – requires new investments in more resilient water infrastructure.

The U.S. Environmental Protection Agency estimates the 20-year capital facilities needs of community drinking water systems nationwide at \$472.6 billion, with California alone accounting for more than \$50 billion.⁴ Other projections of water infrastructure needs are as high as \$720 billion for both water and wastewater systems, with estimates indicating as much as two-thirds of these needs are currently unfunded.⁵

Federal Funding Would Deliver Benefits for Individuals and Communities

According to the Congressional Budget Office, “the federal role in water infrastructure has declined over the past few decades,” largely replaced by state and local funding. In 2017, the federal government spent \$8 billion for water infrastructure, compared to \$33 billion in spending by state and local governments.⁶ However, COVID-19 will dramatically reduce the availability of that state and local funding. Without significantly increased federal funding and stimulus investments, critical water infrastructure projects will come to a grinding halt.

Such an increase would return significant economic benefits to individuals, communities and the nation. It is estimated that for each dollar invested in water supply and sewer systems there is a \$2.62 increase in private industry revenue that year and a \$6.35 increase in private sector output over the long-term. Every \$1 million of capital spending on drinking water projects creates 15 to 18 jobs.⁷

Sacramento Region: How Federal Funds Could Be Deployed

The Regional Water Authority (RWA) has compiled 150 water, groundwater, recycled water and wastewater projects that are ready for construction over the next year. These projects range in cost from hundreds of thousands to hundreds of millions of dollars, totaling \$1.2 billion in vital public investment that would generate almost 13,000 jobs working to rehabilitate aging infrastructure, pilot projects to demonstrate alternative technologies, and new infrastructure to build resiliency and develop a reliable water future for the region.

The RWA knows how to undertake and manage projects for economic stimulus. After the 2013-2016 multi-year west-wide drought, the RWA received \$10 million in federal grants, and broke ground on 16 projects within just six months. That \$10 million leveraged two-and-a-half times that amount by underwriting \$26 million in projects that bolstered regional water supply reliability.

When it comes to federal funding, the RWA provides a high return on investment and remains poised to do so. The RWA maintains an Integrated Regional Water Management Plan to keep an up-to-date inventory of the near-term and long-term capital projects of its member agencies. A recently completed Regional Drought Contingency Plan and a more general Regional Reliability Plan, both identify projects to increase

A 2014 failure of a 93-year old water main in Los Angeles required emergency repairs costing \$481,000 per linear foot, compared to typical, non-emergency repair cost of \$500 to \$2,500 per linear foot. Notably, this cost does not include the public health, water loss, property damage and other impacts of the failure.

⁴ *Drinking Water Infrastructure Needs Survey and Assessment*, Sixth Report to Congress, U.S. EPA Office of Water, https://www.epa.gov/sites/production/files/2018-10/documents/corrected_sixth_drinking_water_infrastructure_needs_survey_and_assessment.pdf

⁵ *National Economic & Labor Impacts of the Water Utility Sector*, Water Research Foundation, September 2014

⁶ *Federal Investment, 1962 to 2018*, Congressional Budget Office, June 2019, https://www.cbo.gov/system/files/2019-06/55375-Federal_Investment.pdf

⁷ *Fiscal Impact of the COVID-19 Crisis on U.S. Drinking Water Utilities*, American Water Works Association

DRAFT
May 10, 2020

the reliability and resiliency of regional water supplies. By having projects already well developed in these plans, the RWA's identified water projects are ready for quick implementation.