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California's Water Supply Crisis is Much More Than This Drought

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After being repeatedly told to conserve, most Californians realize we have been in a drought for several years and that water supplies are running dangerously low as summer approaches.

What most Californians do not realize is that we are now in a full-fledged water supply crisis, and almost every aspect of daily lives, community health, and our state's economy will continue to be impacted by the inadequacy of California's water system, policies, and insufficient supply.

With worsening and changing hydrologic conditions, California's existing water system is failing to meet the needs of our state. The current water supply crisis is exacerbated by the changing climate, a doubling of the State's population, increased environmental and regulatory constraints, and reliance on the same basic water infrastructure that has been in place since 1968.

The responsibility to address the water crisis and invest in securing an adequate and reliable water supply for California starts with the Governor and Legislature. That responsibility begins by recognizing that we are in a generational water crisis. The State needs to develop a comprehensive plan to meet the current needs of 40 million Californians and allow water professionals to implement solutions for the challenges of today before it's too late tomorrow.

Consequences of Inaction

Economic impacts. If California were a country, we would be the 5th largest economy in the world. The Governor's emergency declaration and water restrictions will have long lasting economic impacts to the state. Areas of the state are already in mandatory water restrictions for outdoor irrigation and will likely be required to implement restrictions on commercial and industrial use. How many beverage bottlers, high-tech manufacturers, and food processing facilities are going to leave the State because of an uncertain water supply?

Food inadequacy. An [analysis](#) from Yale University calls California "America's garden," noting that the State produces two-thirds of all fruits and nuts grown in the U.S., and nearly all of the almonds, artichokes, avocados, broccoli, carrots, celery, kiwi, figs, garlic, grapes, raisins, raspberries, strawberries, honeydew melons, nectarines, olives, pistachios, plums, tangerines, mandarins, and walnuts grown in the nation. Because of the failure to secure adequate water for farming, cutbacks in food production are already occurring and will get progressively worse.

Energy goals jeopardized. California is a leader in the development of clean energy and zero-emission power, a significant part of achieving the state's ambitious energy goals depends on hydropower. In

2021, the Massachusetts Institute of Technology reported on the [consequence of the failed water system](#) on the state's hydropower: "Electricity generation from California hydropower plants was down 48% from the 10-year average, according to new data from the Energy Information Agency. And 2022 is looking even worse ... As a low-carbon source of power, it's essential in limiting emissions of carbon dioxide, especially because when a hydropower plant goes down, fossil fuels are usually used to make up the shortfall."

Increased threat from wildfires. The last decade has also shown that California communities face life-threatening risks from wildfire exposure in water-challenged regions. According to the [National Oceanic and Atmospheric Administration](#), "(F)uels for wildfire, such as grasses and trees, can dry out and become more flammable. Drought can also increase the probability of ignition and the rate at which fire spreads."

Affordable housing goals impacted. The failure of the existing water system could also negate recent progress to address housing shortages and homelessness. According to Richard Frank, director of the California Environmental Law & Policy Center at University of California, Davis, "The housing and water conflict piles one major policy crisis on top of another." By law, water agencies must approve water supply assessments for new housing as part of the development process. Water agencies must have a reliable and predictable future water supply to make these findings. The water crisis will affect the ability of builders to construct the housing that is vital to affordable housing challenges.

Rationing water. "Mini-rationing" has sadly already been instituted throughout California pursuant to Governor Newsom's most recent Executive Order, resulting in stringent limits on homeowners' summertime water use, including in some areas unprecedented prohibitions of outdoor watering. Is rationing the quality-of-life California wants for its future?

This crisis requires an all-hands-on deck approach, and we need big investments in tools for our toolbox - groundwater recharge, water recycling, floodplain restoration, storage, conveyance improvements, water efficiency, and atmospheric rivers research - to ensure both human and environmental water demands can be met as the climate continues to change. But the State also needs a new strategy to invest in adapting water systems to the new hydrologic realities and increase water supply capabilities. We need to expand California's infrastructure to store surplus water when it is available, while reducing increasing flood risks, and deploy it for human uses when drought conditions exist.

California policymakers cannot continue to treat the water crisis as a temporary situation that can be "managed" primarily by imposing water conservation restrictions. If our leaders do not implement large-scale, long-term solutions to improve our water systems, the water crisis will continue to impact all Californians now and threaten the very future of our State.

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