House Committee on Natural Resources
Subcommittee on Water, Wildlife, and Fisheries

*"Why We Need to Store More Water and What's Stopping Us"*
*March 28, 2023*
*2:00 pm*

Testimony of William Bourdeau, Vice Chair of San Luis & Delta-Mendota Water Authority

> *California's water infrastructure system has not kept pace with needed investments to capture, increase, and distribute water supply. This need for increased investment 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.*[1]

Chairman Bentz, Ranking Member Huffman, and members of the Subcommittee, thank you for allowing me to testify today. It is a great privilege.

My name is William Bourdeau, and I bring over 26 years of expertise in business, agriculture and water infrastructure policy to the Subcommittee. At the age of seventeen, I proudly joined the Marines, committing myself to serving our nation. Even after leaving the armed forces, I have continued my dedication to public service and the communities where I live and work.

I hold several key leadership positions, including Vice Chair of the San Luis & Delta-Mendota Water Authority, Chair of the California Water Alliance, and Chair of the Valley Future Foundation. Additionally, I serve on the board of directors for the Westlands Water District, American Pistachio Growers, Family Farm Alliance, and the Agriculture Foundation of California State University, Fresno. Today I am testifying as the Vice Chair of the San Luis & Delta-Mendota Water Authority ("Water Authority").

My grandparents were part of the Greatest Generation, a time when nearly every American made significant sacrifices for our nation. While it is difficult to compare ourselves to that generation, we have the chance to implement meaningful changes that will enhance the quality of life for generations to come. My hope is that today's crucial discussion on the future of the West and domestic food security will pave the way for such transformative steps.

[1] Dubetz & Horton, Sharing the Cost: Accelerating Water Resilience through Infrastructure Finance in California, Milken Institute (2022). Available at: milkeninstitute.org/report/water-resilience-california-finance-infrastructure.

INTRODUCTION TO WATER AUTHORITY

The Water Authority is a public agency with its principal office located in Los Banos, California. It was formed in 1992 to serve two important roles: 1) to operate and maintain certain south of Delta Central Valley Project ("CVP") facilities, including the Jones Pumping Plant, the Delta-Mendota Canal ("DMC") and the O'Neill Pumping Plant; and 2) to provide representation on common interests of the Water Authority's member agencies. Most of the Water Authority's member agencies depend upon the CVP as their principal source of water. The Water Authority's member agencies serve water to approximately 1.2 million acres of agricultural lands within the San Joaquin, Santa Clara, and San Benito Valleys, nearly 2 million people in the Silicon Valley, and millions of waterfowl that depend upon nearly 200,000 acres of managed wetlands and other critical habitat within the largest contiguous wetland in the western United States.

THE WATER AUTHORITY MEMBER AGENCIES HAVE INVESTED LOCALLY AND REGIONALLY; THE UNITED STATES, IN PARTNERSHIP WITH THE STATE OF CALIFORNIA AND LOCAL WATER AGENCIES, MUST DO MORE

Those served by the Water Authority's member agencies are leaders in water conservation. Farmers have taken numerous steps to improve water use efficiency, with over 90 percent using measures such as laser leveling, employing computer aided drip irrigation, and utilizing global positioning systems. Municipalities have created rebate and incentive programs for outdoor and indoor conservation, the installation of water saving devices, graywater systems, and rainwater capture, in addition to significant investments in recycled water programs to reuse the same molecules of water multiple times.

Conservation alone is not sufficient to address the needs of all regions of California. The United States, in partnership with the state of California and local water agencies, must break what appears to be a never-ending cycle of planning and get to building – build new surface water storage, develop the facilities to increase groundwater storage, and improve how water in California is conveyed from places where they cause immense damage to where they can instead create tremendous benefit. This call for action is similar to the call that led to the initiation and construction of the Central Valley Project and State Water Project, among other water projects, in California – one where humanity harnessed the incredible power of nature to spread benefits throughout California, rather than simply leaving some regions subject to its destructive wrath.

The lack of meaningful investment in fundamental infrastructure over the past few decades, particularly water storage and conveyance, has compromised the ability of multi-purpose water projects to serve their diverse interests. People, environment, and businesses are suffering. The communities where I live, where I work – those served by the Water Authority's member agencies – are vulnerable. This vulnerability is of acute concern to me because many of the communities most negatively impacted by the lack of meaningful investment are some of the most impoverished

regions of California. Simply put, adequate and reliable water supplies are essential to the public health, ecosystems, and regional economic viability of the San Joaquin, San Benito and Santa Clara Valleys. Prior generations recognized the importance of water development by constructing California's intricate water system, however, much of that infrastructure must be modernized, particularly in light of the hydrologic impacts of a changing climate.

The effects we see from the rapid change in hydrologic cycles – for example between the extreme dry conditions in 2021 and 2022, and the storms and flooding that California has been experiencing since last December – are stark illustrations that the State's water infrastructure is inadequate. This year, with new and improved infrastructure, California could have better controlled the water and held it for use during a time when water will be less plentiful; instead, much of that benefit has been lost and even worse, flooding has caused incomprehensible damage. Water infrastructure, and particularly storage, is a critical tool for resiliency in light of drought. Storage provides many benefits, including water supply for irrigated agriculture and drinking water for people. It provides flood protection, hydropower, and recreation. It also provides critically important resources for the environment, for example, by establishing cold water flows for fish and water for wildlife refuges. Given California's increasingly variable hydrologic cycle, the capacity to store water during times of high flows for beneficial use during dry periods may be the difference between economic and environmental viability and disaster. Farms, cities, industries, and the environment all benefit from the active management of water.

BREAK THE PLANNING "DO-LOOP"

Federal and state laws and regulations are important to ensure the environment is protected. However, we have seen that the important benefits they provide have been weaponized to delay the implementation of projects, with great financial, socioeconomic, and environmental cost. California must move forward to construct new storage and conveyance projects and must make improvements to existing infrastructure without the undue delays that have plagued many of California's water infrastructure efforts over the last 40 years or so. We need to ensure the economic backbone of California is strengthened. We need to focus on the activities that support a more resilient and sustainable economy and environment for all of California. By stating – or restating – its intent, Congress can provide important leadership and direction.

SURFACE AND GROUNDWATER STORAGE ARE NEEDED

Aquifer storage and recovery provides an important source of water for California. Indeed, many in California have been and will continue to utilize the plentiful water flowing through California's rivers and streams today to increase the quantity of water in groundwater basins and help them recover from significant pumping that occurred for the last few years. Those efforts, and even new ones, however, cannot reap the full benefits that Mother Nature can provided and has provided this year. Aquifer storage and recovery has its limits and thus surface water storage will continue to – must -- play an important role in California's water portfolio. The current conditions in California best demonstrate that.

With a climate that tends to alternate between flooding like that caused by the atmospheric rivers we have seen this year and the two droughts that persisted for six years in the last decade, additional infrastructure could have yielded significant benefits. According to data from the California Department of Water Resources and U.S. Bureau of Reclamation, on a single day in March (March 13, 2023), the Bureau of Reclamation was able to add more than 145,000 acre-feet of water to the storage in Shasta Reservoir. The amount of storage is impressive – enough to supply up to 300,000 households with water for one year – but with additional surface storage capabilities, more could have been achieved. On that same day, approximately 200,000 acre-feet of water flowed out of the San Francisco Bay to the Pacific Ocean. One would think that some of that outflow could have been captured with no or limited impact to the environment. This example should render beyond debate the conclusion that California must improve its water infrastructure to become climate resilient, and surface and groundwater storage are critical components of reaching a more sustainable and viable future.

THE INVESTMENT IS WARRENTED; CONGRESS CAN HELP

California's economy, including its agricultural productivity, plays an important role in the local and national economies. Studies performed by noted economist Dr. Michael Shires have found that agriculture from just one of the Water Authority's member districts, Westlands Water District, contributes about 5 billion dollars per year to the California economy through direct and indirect economic effects. This economic engine accounts for over tens of thousands of jobs. California agriculture produces well over half of total U.S. production of almost every category of fresh fruit and vegetables consumed in the United States. Domestic food production is important for national security and generally produces higher quality food, applying more stringent environmental and labor protections, than many other countries.

The past two drought cycles in California have been very difficult for California's people, farms and its environment. Fortunately, California has recently been blessed with record or near record amounts of snow and rain. Unfortunately, several of the Central Valley Project storage facilities reached or are approaching operational capacity (unable to store water due to flood control limits). And, many reservoirs are projected to have limited capacity to store water when the snowpack melts later in the spring. As a result, a significant amount of water from the atmospheric rivers and snow pack will flow through reservoirs, not be stored, and thus not be available for beneficial use in years when nature provides less natural precipitation and snowpack.

This lost opportunity is especially frustrating in a time where many Water Authority member agencies have received a 0 percent surface water allocation in the prior two years. Moreover, in the last decade, those Water Authority members received water allocations below 20 percent seven times, including four years with no allocation, and only received above 75 percent or more twice, which continues to reinforce that California's water system is no longer able to provide the reliability necessary to support the demands placed on it. Rainfall and snowpack patterns are changing, and California's water management strategies must be responsive to this new reality.

Storms that started in December, which delivered much needed relief from dry conditions and restored reservoir levels, also provided more water than our system can convey and store in such a short time period, resulting in over 4 million acre-feet of outflow, more than is necessary to maintain Delta water quality and to support important ecosystem functions.

In an era of increasing uncertainty, we must advance long-term and sustainable solutions – we must protect and restore our critical infrastructure that serves as the backbone of California, we must increase our ability to store water during limited, but more extreme hydrologic events like those in January 2023, and we must improve the operational flexibility of our system so that we can adapt to the challenges presented by each water year. Increased groundwater storage is important but that alone will not meet the needs of California. The time to invest is now – we cannot allow this moment to pass without meaningful action to build water resilience for our communities, farms, and ecosystems.

We have not built a federal surface storage project in California since the 1980s. To put that in perspective, since 1980 the population – one component of demand on water – has increased by 15 million people. The construction of the Central Valley Project was a monumental and historic undertaking in California, however we cannot assume that a system built decades ago can fully satisfy current demands of residents, the crops that feed the nation and world, businesses, and the environment. We need to make investments in our water infrastructure that look forward and build more flexibility into our water management system. We need to significantly increase the amount of water that is stored on the surface and in the ground. If we do not do that, we will continue on the pendulum of extremes of abundance and scarcity. These storage methods need to be pursued together to be most effective; unlike what some have proposed, we cannot simply replace surface storage with groundwater recharge projects. Long-term water supply reliability for all regions in California and for the environment cannot be stabilized without additional surface storage and conveyance capacity.

If Sites Reservoir and the Los Vaqueros expansion project were completed, California would have an additional 1.6 million acre-feet of storage capacity today. This increased storage capacity would serve multiple beneficial uses – including 1) up to 54,000 acre-feet per year of water for millions of waterfowl that travel the Pacific Flyway each year and depend upon the largest contiguous wetlands west of the Mississippi delta, and 2) up to 300,000 acre-feet of water to help manage river conditions for at risk fish species. An additional project – the B.F. Sisk Dam Raise and Reservoir Expansion Project – would leverage existing construction work that is being undertaken as part of the B.F. Sisk Dam Safety Modification Project and raise the dam an additional 10-feet, creating approximately 130,000 acre-feet of water storage in San Luis Reservoir. The additional storage capacity would increase operational flexibility and water supply reliability for Water Authority member agencies. Congress needs to take a hard look at improving the regulatory processes for infrastructure projects, to ensure decisions on whether to construct them swiftly, especially in light of the significant federal investments that have been made in the Infrastructure Improvement and Jobs Act and the Inflation Reduction Act.

Congress must also look at the uncertainty in our system right now. The beneficiary pays principal is predicated on the assumption that a project sponsor incurs cost outlays at the onset of a proposed project and recoups those costs only after the project is complete and the benefits are accruing. However, when water project operations are highly uncertain, in large part as a result of litigation and the regulatory environment, like those experienced in California today, the project sponsor does not have the benefit of stability when making long term projections on major investments. Think of this in terms of a business investor: would you invest in a business where there is little certainty if the business could operate at 100 percent, 50 percent, or even 0 percent of capacity from one year to the next? We can and must do better to create the space where important investments in water infrastructure can be made with less risk.

CONCLUSION

The past few years in California have proven very difficult for the Water Authority's member agencies. Although California has recently been blessed with record or near record precipitation, many people, many businesses, and much of the environment are still trying to recover from the impact of recent drought years. Unfortunately, for many, the precipitation that has fallen on California has been less of a savior and more of a disaster. Devastating floods and emergency evacuation orders are all too common. And, as history has shown, the next drought lies immediately head. That is why the hearing today is so important and topical: why are we unable to capture and store more of this water? There will always be extreme wet and dry periods in California. We need to avoid over-studying, undue delays, and build: build a system that can capture more water during wet periods so that we – the people, businesses, and the environment – have a sufficient water supply to avoid the devastating impacts of dry periods.

I again want to thank the Committee for allowing me to testify at today's important and timely hearing.