Re: Water Resilience Portfolio Recommendations

Dear Secretary Blumenfeld, Secretary Crowfoot, and Secretary Ross,

On behalf of the Bay Area Council, thank you for your invitation to submit recommended actions in response to the Governor’s call for a Water Resilience Portfolio. As you know, California’s recent drought was its most severe in 1,200 years\(^1\) and brought the Bay Area and other regions across the state perilously close (two years in some cases) to a water supply emergency. The current risk of a water supply emergency in California is intolerably high and growing: The Sierra Nevada snowpack, source of 60 percent of California’s freshwater, will decline up to 30 percent by 2100.\(^2\) Against this backdrop, California has allocated rights to more freshwater than is naturally replenished by nature—about five times the state’s mean annual runoff. This structural water deficit has led to declining ecosystems, groundwater overdraft, and legal conflict.

A resilient water system in California will involve creating a reliable, high quality water supply for California’s homes, businesses, and ecosystems. On April 29, 2019 Governor Gavin Newsom called on State Agencies to create a Water Resilience Portfolio to “develop a comprehensive strategy to build a climate-resilient water system” and encouraged individuals and organizations across California to suggest how that portfolio might be construed. The Bay Area Council is pleased to offer the attached recommendations, and we look forward to working together to implement these and other reforms needed to make its water system more resilient for future generations. Thank you for your leadership, and for considering our views.

Sincerely,

Jim Wunderman
President & CEO
Bay Area Council

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\(^2\) Reich, KD, N Berg, DB Walton, M Schwartz, F Sun, X Huang, and A Hall, 2018: “Climate Change in the Sierra Nevada: California’s Water Future.” UCLA Center for Climate Science.
Bay Area Council
Water Resilience Portfolio Recommendations
September 30, 2019

Summary:

1. Develop Climate Change Baselines for Storage and Water Supply Projects
2. Improve Water Data Systems
3. Accelerate Implementation of Water Reuse
4. Improve Watershed Resilience
5. Implement the Water Storage Investment Program (Proposition 1)
6. Improve Dam Safety
7. Modernize Water Transfers
8. New Strategy for Sacramento-San Joaquin Delta

1. Develop Climate Change Baselines for Storage and Water Supply Projects
   Water projects in California are evaluated for their feasibility and environmental impacts based off of historic data. However, climate change is undermining the ability of historic data to accurately predict future events. The decline of the Sierra snowpack, as well as other changes to California’s climate, will dramatically impact the feasibility of proposed water projects, including storage and advanced treatment. Investing in these adaptation projects now can help avoid future costs related to severe water conservation in urban centers, economic impacts of lost agricultural productivity, property losses and repairs due to extreme floods.

   A. Direct the Department of Water Resources and the Governor’s Office of Planning and Research to begin to develop climate change baselines for 2050 and 2100, assuming no adaptation work, for major water storage and supply facilities that take into account temperature changes, snowpack reduction, and changes in seasonal runoff. The intent is to enable analysis of future water supply projects to use a future baseline for “no action” that reflects the loss of water supply through climate change.

2. Improve Water Data Systems
   California can and must do a better job at utilizing real-time data to improve water management decisions by fully implementing AB 1755, the Open and Transparent Water Data Act (Dodd, 2016).

   A. Direct the Office of Digital Innovation to assess the barriers that prevent innovation and deployment of new technologies at the state in consultation with the AB 1755 Partner Agency Team and the California Water Data Consortium. Make recommendations by July 1, 2020 that will encourage public-private partnerships and uptake of new technologies and provide funding to support implementation of the recommendations.

   B. Fund the development of standards, protocols, guidance, and technical assistance to improve interoperability of water data and support implementation of the AB 1755, including recommendations to streamline data submitted to the state while improving the accessibility of information, in partnership with the California Water Data...
3. **Accelerate Implementation of Water Reuse**

Water reuse can be expanded in California, and a number of water agencies have indicated that they are planning both potable and non-potable reuse projects. Most agencies exploring potable reuse projects have indicated that regulatory certainty is needed so that they can plan, design and develop their potable reuse project knowing it will comply with what the State Water Resources Control Board (State Board) will require of more direct forms of potable reuse. The State Board had indicated that they need additional research completed before they are able to craft certain potable reuse regulations. At the same time, non-potable reuse has an important role in California. The regulations governing non-potable reuse have not been updated in 20 years. Updating these regulations can lead to greater reuse.

A. Remove regulatory and funding hurdles for both potable and non-potable reuse.

1) Update Title 22’s Water Recycling Criteria (CCR, Title 22, Division 4, Chapter 3), which has not been updated in nearly 20 years, to remove outdated and overly prescriptive requirements for non-potable recycled water that are not needed to protect public health or the environment.

2) Clarify requirements and establish review timelines for Section 1211 Wastewater Change Petition process which is necessary to redirect treated effluent currently being discharged into waterways for use in a potable or non-potable reuse project.

3) Develop potable reuse regulations for raw water augmentation and treated drinking water augmentation.

4) Fund and complete the research needed for the State Water Resources Control Board to develop regulations for raw water augmentation by 2023.

5) Fund and complete the research needed for the State Water Resources Control Board to develop regulations for treated drinking water augmentation by 2025.

B. Statewide financial assistance.

1) Provide additional grant funding and low-interest loans to accelerate water reuse projects.

2) Supplement the State Revolving Fund (SRF) and address backlog of SRF funding and accelerate the implementation of projects languishing in the planning phase.

4. **Improve Watershed Resilience**

The upper watersheds of the Sierra Nevada region are home to some of California’s most critically important water, energy, and natural infrastructure. More than 60 percent of California’s developed water supply originates in the upper watersheds of the Sierra Nevada Region, including 75 percent of the fresh water that flows into the Sacramento-San Joaquin Delta. Additionally, conveyance for Sierra water generates over 16,500 megawatts of carbon free electricity each year. Sierra forests are recognized by the California Air Resources Board as California’s largest carbon sink, while Sierra meadows both sequester carbon and slow runoff from stormwater and snowmelt. The Sierras also provide rich

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3 [https://sierranevada.ca.gov/ca-primary-watershed/](https://sierranevada.ca.gov/ca-primary-watershed/)

4 PG&E: 3,900 MW, SWP: 6,500 MW, CVP: 4,500 MW, SFPUC: 1,600 MW.
recreational and other public benefits and are a recognized biodiversity hotspot home to hundreds of endemic species of plants and animals.\textsuperscript{5}

However, California’s upper watersheds have been severely damaged by a century of fire suppression and overgrowth. Prior to Euro-American settlement, about half of Sierra Nevada forests experienced low-intensity fires every 12 years, and 75 percent would have burned every 20 years. Today, about 75 percent of the Sierra landscape has not had a wildfire or prescribed burn in over 100 years.\textsuperscript{6} As a result, the Sierras are dangerously overgrown with high-density stands of small-diameter trees competing for limited soil, light, and water. These dense stands reduce biodiversity and undermine California’s water and energy infrastructure through increased evapotranspiration.\textsuperscript{7} They’re also much less resilient to wildfire. Between 2001 and 2010, California forests emitted more carbon than they sequestered, and between 2010 and 2017, 200 million of these weakened trees in the Sierra Nevada were killed by wildfire, pests, and drought.\textsuperscript{8} California must dramatically improve land management in the upper watersheds of the Sierra Nevada Region.

A. The Governor should convene a task force of stakeholders in timber, energy, water, tribes, landowners, environment, business, and other communities to recommend ways to achieve reliable and sustainable funding for management and ecological restoration of source watersheds.

B. Establish a forum for local, state, and federal agencies to coordinate permitting for multi-benefit watershed management and ecological restoration projects similar to the Bay Regional Restoration Integration Team (BRRIT) model in the San Francisco Bay.

C. Despite the environmental advantages of utilizing woody biomass rather than burning it, companies struggle to find cost-efficient methods of transporting the biomass to processing plants. Use the basis of AB 343 to implement a program to provide transportation subsidies for woody materials from small diameter trees in high risk fire zones and agricultural byproducts for either biomass energy production or processed wood products. The most appropriate state level agency or agencies should be identified to develop and implement the transportation subsidy program, but could include any of the following:

1) California Climate Investments: Statewide initiative that uses funding from Cap-and-Trade to reduce greenhouse gas emissions. Investments are particularly made to projects that positively impact low-income communities.

2) SB 901: Delegates acceptable forestry management and fuel reduction standards. Allocates $200 million per year from the Greenhouse Gas Reduction Fund to support fuel reduction activities.

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\textsuperscript{5} Ingram, Kim and Susie Kocher. California Natural Series: Natural History of the Sierra Nevada. University of California, Agriculture and Natural Resources. 1 October 2015. Slide 6-8

\textsuperscript{6} Ingram, Kim and Susie Kocher. Slide 10


\textsuperscript{8} Sierra Nevada Forests: Climate Hero or Villain? Sierra Nevada Conservancy. 2019. https://sierranevada.ca.gov/forest-carbon/
3) California Air Resources Board: The State Board already monitors and regulates open burns, and some districts (Ex. Placer County) already pilot waste-to-energy programs.

5. **Implement the Water Storage Investment Program (Proposition 1)**
   California’s increasingly volatile climate requires creating additional storage. To achieve this objective, California voters approved $2.7 billion for water storage projects included in Proposition 1 (2014). Following a transparent and competitive public process, the California Water Commission in 2018 announced WSIP grants to increase storage across California, including three projects identified by the Bay Area Council as critical to regional water supply reliability: Pacheco Reservoir, Sites Reservoir, and the Los Vaqueros Reservoir Expansion Project. State agencies need to continue supporting the WSIP projects to ensure California is better prepared for future droughts.

6. **Improve Dam Safety**
   The destruction of the Oroville Dam spillway highlighted the risks posed by California’s aging storage infrastructure. Most dams in California were completed before the 1970s yet engineering standards and knowledge have increased in the intervening decades. Today, many dams require upgrades to comply with current standards and best practices. In 2017, the Division of Safety of Dams (DSOD) published a list of 97 dams with identified deficiencies owned by agencies across the state. Currently, it is not possible to receive grants or loans through the State Revolving Fund (SRF) for repair and rehabilitation of dams and reservoirs. These projects are deemed ineligible for SRF loans according to regulation 40 CFR 35.3520(e): “The following projects are ineligible for assistance from the Fund: (1) Dams or rehabilitation of dams.” A deviation from this regulation may however be requested for a project that is expected to resolve a public health issue associated with drinking water. Repair of existing dams and reservoirs is also not covered under California Proposition 1 funding. Therefore, dam and reservoir repairs must currently be covered by dam owners and their ratepayers. Yet ratepayers are already shouldering the burden for other significant capital improvements. Low-income ratepayers are disproportionately burdened and without relief due to bill subsidy restrictions.

   A. $2 billion low-interest loan program to repair existing dams and reservoirs, with a priority on the 97 dams with deficiencies already identified by DSOD.

7. **Modernize Water Transfers**
   Review, approval, and oversight of water transfers can be greatly improved. Water users face uncertain and lengthy processes that differ based on the approving agency (DWR, SWRCB, and Bureau of Reclamation). Others raise legitimate concerns that certain transfers of the State’s water resources are not publicly transparent, create third-party impacts, and lack sufficient environmental mitigation. In drought years transfers may be approved hastily. Long-term transfer plans are often controversial and are challenged in court. If properly undertaken, transfers can play a significant role in resilient water management. Transfers may also increasingly play a role in attempts to address SGMA requirements, increase groundwater recharge, meet instream flow standards, develop recycled water supplies, and provide public benefits from new storage projects in transferee areas. Without leadership, the existing mechanisms and processes for water transfers could impede successful water supply outcomes and create significant risks of unwanted impacts.

   A. The Governor should convene a Water Transfers Task Force comprised of agency representatives, water users, water marketing experts, communities, private sector representatives, and environmental interests to develop a plan for improving the water transfer process in California. The plan should focus on: (a) better data, process, and efficiency, (b) the potential for a standardized water transfer agreement,
and (c) the identification and treatment of environmental and economic effects in transferor areas

8. **New Strategy for Sacramento-San Joaquin Delta**
    Competing interests in the Sacramento-San Joaquin Delta have demonstrated for decades the ability to veto rival priorities, often based on zero-sum arguments over the flow impacts of a specific project. The administration should connect goals for new delta conveyance to broader goals for conservation, storage, Sierra restoration, environmental flows, species recovery, and the development of alternative urban supplies, with the goal of developing an operational water system that balances supply and demand over multi-year varying hydrologic cycles. Doing so will yield a broader coalition of Californians who will need to work together if such a system will ultimately be successful and sustainable for the generations of Californians who will depend upon it.

Thank you for your leadership, and for considering our views.

Sincerely,

Jim Wunderman  
President & CEO  
Bay Area Council