



March 29, 2022

The Honorable Rebecca Bauer-Kahan
Chair, Water, Parks and Wildlife Committee
P.O. Box 942849
Sacramento, CA 94249-0016

The Honorable Megan Dahle
Vice Chair, Water, Parks and Wildlife Committee
P.O. Box 942849
Sacramento, CA 94249-0001

Re: Assembly Bill 2078 - Support

Dear Chair Bauer-Kahan and Vice Chair Dahle,

Thank you for your continued leadership on strengthening California's drought resilience. We write in support of Assembly Bill 2078 (Flora). This bill would expand the Department of Water Resources Atmospheric Rivers: Research, Mitigation, and Climate Forecasting Program (AR Program) to include forecast-informed reservoir operations (FIRO) and integrate FIRO into Department of Water Resources (DWR) water supply operations and flood and hazard risk mitigation efforts. The bill would also advance DWR's atmospheric river forecast capabilities and include refined climate projections for various environmental conditions. Codifying these components of the AR Program is an important step to align investments in AR forecast development and FIRO implementation, which will enhance California's ability to leverage federal agency support and investments.

California's statewide annual precipitation is highly variable as up to 50 percent of California's total annual rainfall and 90 percent of flood impacts are caused by AR storms. Climate models indicate an additional increase in the variability and magnitude of these storm events. In 2015, Senate Bill 758 (Block) authorized the creation of the DWR AR Program to advance AR forecast capabilities and better understand their impact on California water supply and flood risk management. In 2015, FIRO was still in the concept phase and it was unclear if USACE would be willing to incorporate FIRO into USACE operations. That has changed and it is time to explicitly include FIRO in the DWR AR program's statutory language.

DWR's AR Program leverages on-going funding from several federal agencies. As California continues to be regularly impacted by chronic and severe drought followed by extreme rain events, providing California water managers better forecasting tools will improve water management. AB 2078 broadens DWR's AR program to include research, development, and implementation of new observations, prediction models, and novel forecasting methods to continue improving AR prediction capabilities.

Initial state program investments activated federal resources and agency support to demonstrate the viability of FIRO as a flood risk mitigation and water supply management tool at Lake Mendocino. During Water Year 2020, the third driest water year on record, Lake Mendocino's water supply increased by 20 percent due to FIRO. Due to state and federal investment in observations, data collection, and model development, skills in predicting ARs over one week in advance have been enhanced, including a 20 percent improvement in the five-day forecasts – an unprecedented forecast skill improvement that typically requires decades of development.

With improved precipitation and snow-level forecasting, full implementation of FIRO could allow the conservation of an additional 500,000 acre feet of water in some years throughout the state, significantly enhancing California's water supply reliability while also mitigating flood risk. These promising water supply benefits would enhance community drought preparedness and support natural ecosystem management. AB 2078 would require AR forecast integration with DWR operations, helping ensure the effective implementation of FIRO and improve California flood risk and water supply management.

We respectfully encourage your support for AB 2078 and appreciate your consideration.

Sincerely,



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