

## California's Fourth Climate Change Assessment – Technical Reports

### TITLE

#### **ADDRESSING INSTITUTIONAL VULNERABILITIES IN CALIFORNIA'S DROUGHT WATER ALLOCATION Part 2: Improving Water Rights Administration and Oversight for Future Droughts**

### CITATION

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### ABSTRACT

In California, droughts are likely to become more frequent, longer, and more intense in the future, posing increasing challenges for water management, and raising the stakes for effective drought response. This project aims to help state water governance and decision-making structures adapt to the changing climatic reality. In a companion report in this volume, we analyzed the strategies the State Water Resources Control Board (Board) used for water rights administration and oversight during the last four major statewide droughts. Our findings suggest that more proactive planning and preparation, enabling reduced reliance on in-drought improvisation, would improve the Board's future drought responses. This report builds on that retrospective analysis with specific recommendations.

Our vision is simple: During droughts, California's limited water supplies should be allocated among different human and environmental water uses transparently, efficiently, and predictably, in accordance with the priorities that flow from state and federal law.

We suggest a structured means of implementing this vision that emphasizes proactive drought preparations. At the core is a contingency-based framework designed to support more timely and effective drought decision making. A suite of complementary actions aims to reduce uncertainty and lay the groundwork for improved water rights administration and oversight in future droughts. These actions include making key policy decisions that affect drought response in advance, strategically improving decision-related information, maximizing learning from droughts, prioritizing water rights enforcement between droughts, and capitalizing on the many synergies that exist between the Board's drought and non-drought work to achieve better water management outcomes, greater clarity for water users, and more efficient use of state resources. We view these actions as crucial components of effective climate adaptation for California and encourage the Board to begin implementing them now, so that it is better prepared to face the challenges the next drought brings.

## HIGHLIGHTS

The State Water Resources Control Board (Board) can improve water rights administration and oversight for future droughts by taking proactive steps that reduce the need for in-drought improvisation. It can:

**1. Adopt a contingency-based framework to support drought decision making.**

The goal setting, scenario planning and forethought required to develop a useful decision-support framework, as well as the structure it would bring to the decisionmaking process, would make the Board more nimble, empowering more timely and effective responses during future droughts.

**2. Make key policy decisions in advance of droughts.** The Board would maximize the transparency, timeliness, and effectiveness of its drought decision making by including the following among its top priorities for drought preparation:

- o Setting and implementing instream flow requirements that adequately protect fish and wildlife in priority water bodies over the full range of hydrologic conditions;
- o Defining and implementing minimum human health and safety protections; and
- o Establishing clear procedures for implementing curtailments of diversions during times of water shortage.

**3. Strategically improve decision-related information, data integration, and interoperability.** This includes information about water supply, water diversion and use, pre-1914 and riparian water rights, and ecological considerations.

**4. Maximize learning from droughts.** Following a drought, the Board should evaluate how effective its drought response actions were and, if it adopts a contingency-based decision support framework, how well that framework performed. This will allow the Board to identify needed improvements and follow up by adjusting its drought decision support structures and reprioritizing its future drought preparatory work.

**5. Prioritize water rights enforcement between droughts.** Although droughts highlight and provide added incentive to address compliance problems, enforcement between droughts is also critical.

For each of these actions, the Board can capitalize on synergies between drought and non-drought work to achieve better water management outcomes, greater clarity for water users, and more efficient use of the Board's, and the state's, resources.

## ACCESS

For access to the full report, please email [Susan.wilhelm@energy.ca.gov](mailto:Susan.wilhelm@energy.ca.gov)

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