

Long-term Drought Framework

Introduction

California's Water Resilience (Portfolio) Action 26.3 directs the State to develop strategies to protect communities and fish and wildlife in the event of drought lasting at least six years. A December 14, 2021 [letter from the Secretaries for Agriculture, Environmental Protection, and Natural Resources](#) asked the Commission to use its public forum to investigate potential strategies for managing long-term drought while coordinating with state agencies to develop a framework to advance this work without disrupting immediate drought response efforts. In response to the secretaries' letter, the Commission developed a high level [workplan](#) outlining its engagement on this topic. The Commission has completed Step 1 of its workplan and produced this framework to outline its work going forward.

On August 11, 2022, the Newsom Administration released a [Water Supply Strategy](#) that outlines actions to increase water supply and adapt to more extreme weather patterns caused by climate change. The Water Supply Strategy describes investments in new water sources and transformational water management approaches needed to adapt to hotter and drier weather conditions that could reduce California's water supply by up to 10% by the year 2040. In addition to a general trend of hotter, drier weather, California will continue – as it has throughout history – to face distinct periods of drought, when water supply is even further constrained.

The Commission's work on long-term drought complements the Administration's Water Supply Strategy, which is focused on preparing for the sustained impacts of a hotter and drier California, by engaging interested parties and the public to better understand the periodic and disruptive challenges caused by drought, particularly long-term drought. Additionally, the Commission will focus on strategies for protecting fish and wildlife species, a topic that is not addressed in the Water Supply Strategy.

Ultimately, the Commission's work will yield a suite of potential drought-related strategies for the Secretaries' consideration and possible implementation. The Commission will produce a white paper with high-level suggestions for how the State can prepare for and respond to long-term drought, offering publicly vetted approaches for how best to protect vulnerable communities and species. At key points during the Commission's drought work, Commission staff will connect with State partners to understand current drought response efforts, ensuring that the Commission's efforts align with those of other agencies and incorporating information and emerging lessons learned into the Commission's drought work. The Commission will not produce a detailed action plan, but rather a first step document for other State departments and agencies to utilize when moving forward with drought planning and response.

Background Information

To date, Commission staff has held conversations with thought-leaders in California and the West and with water managers in other drought-prone countries, and it has reviewed relevant resources (see [Annotated Bibliography of Drought Resources](#)). This initial investigative work on long-term drought yielded two important guiding themes.

1. Drought crisis can and should be leveraged to take bold action to improve water management.
2. Being able to endure a severe drought is dependent upon making smart, proactive water management decisions during non-drought years.

The information gathered by Commission staff to date, described in the companion document to this framework (see [Long-term Drought in California: Overview and Global Context](#)), indicates that small,

rural communities and the environment are most vulnerable to the impacts of long-term drought. California is committed to the Human Right to Water¹ and has developed programs to predict communities' vulnerability to drought, to track where wells go dry, and to deliver water, funding, and services to those in need. During non-drought times, the State assists small water systems with efforts to make their water supplies more secure and reliable through consolidations and interties with other systems. Additionally, through its existing policies and programs – including those actions outlined in the Water Supply Strategy – California is advancing sustainable water management in the urban, suburban, and rural sectors, making them better able to weather severe drought. Planning efforts – such as Urban Water Management Plans and the Small Water Systems and Rural Communities Drought and Water Shortage Contingency Planning and Risk Assessment – promote drought preparedness at the local level. Implementation of the Sustainable Groundwater Management Act (SGMA) will lead to drought resilience in many rural communities. Through the California Drinking Water Needs Assessment and Safe and Affordable Funding for Equity and Resilience (SAFER) Program, the State is supporting the human right to water during drought and non-drought years.

California's species – particularly aquatic species that depend on the water that is in such high demand during drought – are not faring as well. During the current drought, salmon have faced extended periods of fatal water temperatures, leading to historically low egg-to-fry survival rates in 2021². The State has had to resort to extreme measures, such as trucking fish to cold water, to ensure their survival. Despite ongoing management efforts to protect threatened and endangered species, California's ecosystems and the species they support are at risk of complete collapse during times of severe drought. One of California's most pressing drought challenge is to maintain ecosystem function that ensures the survival of vulnerable fish and wildlife species. The State is in need of policies, planning, and investments that will sustain ecosystem function and species survival during its drought cycles. The Commission's drought work will focus on this need.

Framework for Moving Forward

The following section describes how the Commission will complete its work on long-term drought. Because capacity at partner agencies is limited during this time of drought emergency, the Commission's work will proceed thoughtfully and deliberately. The timeframes indicated below may shift.

Convene Tribal Small Groups (estimated timeframe: October-November 2022)

To better understand the impacts of long-term drought on California Tribes, Commission staff will convene two or three small-group meetings with Tribal representatives from around the state to assess drought impacts on Tribes and Tribal culture, how to protect Tribal interests in the event of long-term drought, and how to engage Tribes in the Commission's drought work going forward.

Convene Working Group (estimated timeframe: November 2022-February 2023)

Commission staff will assemble a working group comprised of interested parties and partner agencies. Using a structured process, the working groups will help develop a comprehensive understanding of the

¹ California Water Code section 106.3 states: It is hereby declared to be the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

² Shimabuku, M. and C. Kammeyer. 2022. "Left Out in Drought: California Fish, Impacts of the California Drought on Freshwater Ecosystems." Oakland, Calif. Pacific Institute. <https://pacinst.org/publication/left-out-in-drought-california-fish-2022/>.

ways in which fish and wildlife and communities are likely to be impacted by long-term drought; the tools available to federal, state, and local land and water managers during times of drought; a suite of potential strategies for the State to use to protect fish and wildlife and communities during drought events; and proposed next steps for the State. The working group will convene for two or three half-day meetings and will consist of invited representatives from a broad suite of interested parties: Tribes, community leaders, non-profit groups, water districts, local, State, and federal government, agricultural industry, and academia. Commissioners may also opt to participate. The Commission's ability to succeed will depend on the willingness of partners to participate fully in this process. In the following section, the Commission proposes topics for consideration at working group meetings.

Once complete, Commission staff will brief partner agencies on the results of the meetings and produce a synthesis of working group results and agency feedback to present at a Commission meeting.

Solicit Public Feedback on Working Group Synthesis (estimated timeframe: March-May 2023)

Commission staff will host two or three virtual public workshops to share the results of the working group meetings widely and solicit input and feedback on the potential strategies to protect fish and wildlife and communities in the event of long-term drought. In consultation with working group participants, Commission staff will identify the need for direct outreach to interested parties and will conduct outreach as needed.

Once complete, Commission staff will produce a synthesis of results and agency feedback to present at a Commission meeting.

Produce White Paper (estimated timeframe: May-July 2023)

Based on the efforts described above, Commission staff will draft a white paper with high-level suggestions for how the State can protect species and communities during long-term drought. The white paper will serve as a guidance document for State agency consideration when developing a set of investments and policies that implement Action 26.3. Commission staff will prepare a draft paper, brief partner agencies on the paper, present a draft to the Commission, and bring a final paper to the Commission for approval.

Topics to Explore with Working Group

General

- Creating a State-level drought plan – preparedness and emergency response
 - State and federal drought coordination
 - Alignment across sectors and with existing drought planning
 - Data and capacity needs
- Identifying state authority and legislative needs
- Drought mitigation efforts

Environmental

- Creating an environmental drought strategy – preparedness and emergency response
 - Reservoir management
 - Species relocation
 - Water purchases and allocations
 - Cultural water considerations

- Identifying and protecting biological strongholds and drought refugia
- Securing water supply via land retirement/repurposing, water efficiency & conservation
- Identifying monitoring, data, and capacity needs
- Developing an ecosystem water right
- Incorporating wildfire and forest management considerations

Communities

- Removing barriers to access to drought response resources
- Investing in social services during drought
- Building community resilience to drought during non-drought times
- Drought communication and public engagement