



State Water Project Briefing: Optimizing Operations in a Changing Climate
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Agenda Item at a Glance

- The [State Water Project](#), called “SWP,” is a system of canals, pipelines, reservoirs, and hydroelectric power facilities that stores and delivers water throughout California. It is managed and operated by the [Department of Water Resources](#), called “DWR.”
- This briefing will explain Forecast-Informed Reservoir Operations, called “FIRO,” a pilot program that uses the weather forecasting to help water managers plan for when to store water in reservoirs and when to release water from reservoirs. The briefing will also include a presentation on current rain, snow, and water movement in California and how this is impacting water management decisions.
- This is an informational item, important to anyone interested in how DWR is managing the SWP. Every year, the Commission receives presentations from DWR about the SWP, then reports its findings and recommendations to DWR and the California Legislature.
- At this meeting, the Commission will receive information from staff at DWR. Commissioners can ask questions of presenters and Commission staff. Tribes and the public will have an opportunity to make a comment to the Commission before the Commission discusses this agenda item.

Introduction

This State Water Project (SWP) briefing will focus on Forecast-Informed Reservoir Operations (FIRO), one of the ways the Department of Water Resources (DWR) is optimizing their operations to proactively respond to some of the greatest risks and opportunities posed by a changing climate and extreme weather. Staff from the Department of Water Resources (DWR) will provide an overview of the SWP’s commitment to using the best available science in their operations, including DWR’s partnership in the Yuba-Feather FIRO pilot program, which utilizes improved monitoring, weather, and runoff projections to build more flexibility and efficiency into reservoir operations. A representative from DWR’s partner, the Scripps Institution of Oceanography, University of California San Diego, has been leading the FIRO effort and will present on the Final FIRO Report, which includes advancements in research on atmospheric rivers, snowpack, and storm runoff forecasting, and how this relates to the future update of the Oroville Water Control Manual, the document that controls how State Water Project water is stored and released from Lake Oroville.

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DWR staff will also provide an update on current-year operations, including the current water year allocation, planning decisions made to date, current hydrology, and considerations for the rest of the year.

The content of this briefing nests under Goals Three and Five of the SWP's Five-Year Strategic Plan, "Elevate to '28". Goal Three is to "accelerate adaptation and strengthen resiliency for a changing climate," with an objective to improve long-term project planning to anticipate and adapt to climate change. Goal Five is to "optimize infrastructure, financial integrity, and operations," with an objective to innovate methods to proactively adapt to shifts in regulatory requirements and other external factors.

Background

The SWP, consisting of 36 water storage facilities and 700 miles of rivers, pipelines, and canals, supplies water to 27 million people and irrigates 750,000 acres of farmland. The system includes 21 pumping plants, powered by a system of power-generation and power-recovery plants. SWP also operates the world's tallest water lift – the Edmonston Pumping Plant – which pumps water more than 1,900 feet up and over the Tehachapi Mountains into Southern California.

Goal Five of the Commission's [Strategic Plan](#) directs the Commission to receive briefings on the State Water Project, and to produce a report, as specified by Water Code section 165, that includes findings and, as appropriate, recommendations for DWR and the California Legislature. These briefings and reports improve the public's understanding of decision making within the SWP, create accountability by using previous findings and recommendations to guide subsequent briefings, and inform the Commission of SWP activities in preparation for the Commission's 2025 annual review.

Meeting Overview

At the April meeting, Water Operations Executive Manager Molly White and Dr. F. Martin "Marty" Ralph, Director of the Center for Western Weather and Water Extremes (CW3E) at Scripps Institution of Oceanography, University of California San Diego will present on FIRO. SWP Water Operations Manager Tracy Hinojosa will provide an update on current-year operations, including the current water year allocation, planning decisions made to date, current hydrology, and considerations for the rest of the year.

This is an informational item.

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