

# **OROVILLE DAM CITIZENS ADVISORY COMMISSION**

**Meeting 22  
April 10, 2026**

**Hosted by the California Natural Resources Agency**



## **ITEM 5**

# **DOWNSTREAM PERSPECTIVE ON WATER CONTROL MANUAL**



Destructive floods have created social economic hardship on the communities

**WATER CONTROL MANUAL UPDATES  
A DOWNSTREAM PERSPECTIVE**  
Commissioners Bill Connelly and Robert Bateman  
April 10, 2026

**OROVILLE DAM CITIZENS ADVISORY COMMISSION  
WATER CONTROL MANUAL UPDATES  
DOWNSTREAM PERSPECTIVE  
APRIL 10<sup>TH</sup> 2026**

Report on Discussions with the USACE and the DWR  
Concerns, Conclusions, and Recommendations  
Commissioner Robert Bateman

Safety as a Priority  
Commissioner Bill Connelly

## **FEATHER RIVER RECOVERY ALLIANCE**

[\(Not Just a Spillway website\)](#)

Formed in Oroville by local business people after 2017 to help recovery

Submitted a petition to FERC to “hold the DWR accountable” signed by 6,500 citizens

Has continued to raise concerns with FERC

Aims to assist in building trust in the DWR

Has coordinated OCAC Commissioners and concerned citizens in discussions with the USACE and DWR aimed at understanding water control manual

Advocates local communities' interest in minimizing risk of inundations and evacuations

## **WHAT WE HAVE LEARNED RELEVANT TO THE WCM UPGRADES**

DWR and USACE personnel stressed that safety would be the top priority.

The science for forecasting atmospheric storms has radically improved.

The forecast informed reservoir operation study (FIRO) for Yuba-Oroville was completed last year. This outlines various alternatives for relating inflows to releases. The two using forecasts are ID3 and ID4 – see slide 3a. ID4 uses an iterative process to balance flood risk with water supply as inflows and inflow forecasts vary. Flood risk and water delivery are balanced simultaneously. ID3 preserves the current variable reservation space and requires specific early releases for specific inflows and leaves a lot to the DWR's discretion – see slide 3b – unlike ID4, ID3 does not make full use of science and offers less protection against extreme storms. Both plans will increase water storage in drought years and in the rare years of extreme storms, the lake will be full with ID4 since this includes the managed restoration of the reservoir after the storm peak.

Early releases in advance of storms are key to avoiding serious flooding.

If the Oroville Reservoir is lowered to the bottom of the gates (813 ft) before the peak of rare heavy storms, we would have the 1 in 500 year protection promised when the dam was built.

## Implementation Overview

An overview of the alternatives being evaluated in the FVA are detailed in Table A-12. An overview of all implementation steps and subsequent actions are detailed in Table A-13.

| ID | ORO At-Site   | NBB At-Site      | System Operation | Description   |
|----|---------------|------------------|------------------|---|
| 1  | Existing F-CO | Existing F-CO    | Existing F-CO    | Representation of the current forecast-coordinated operations program. The 120/180 rules will be removed and set for 180k at Yuba City and 180k at Marysville   |
| 3  | ID3           | FIRO Guide Curve | Existing F-CO    | Pairing of prescriptive alternatives at dams. The forecast ensemble is processed to a single inflow value (75 percent non-exceedance probability at dam) and is used to determine forecast-based top of conservation or guide curve and/or release magnitude based on pre-defined relationships. Considers forecast duration up to seven days.  |
| 4  | Hybrid EFO    | Hybrid EFO       | Existing F-CO    | Pairing of iterative alternatives at dams. A potential release from a dam is evaluated considering each forecast ensemble hydrograph. If the tolerable risk of a given outcome, such as exceeding a given reservoir elevation, is exceeded considering the full ensemble, a new release is evaluated. This process is repeated until the tolerable risk is not exceeded. Considers forecast duration up to 15 days. |

**Table A-12. FVA combined alternatives**

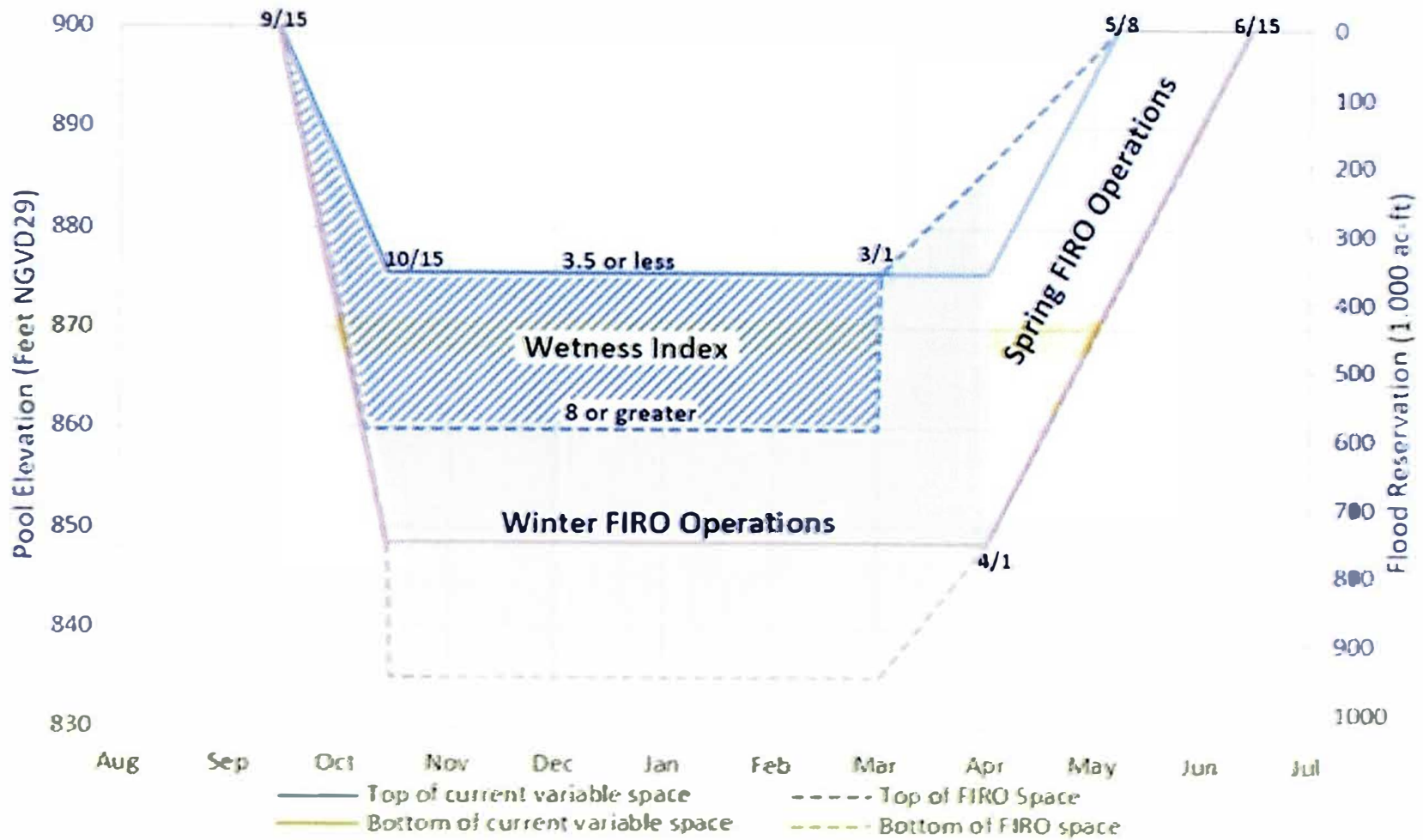


Figure 3-3. FIRO Space for ORO Reservoir.

## INFLUENCE OF DWR'S 'POLICY'

In specifying the parameters for the FIRO study, the DWR had a perverse influence

- Limiting the FIRO study to lowering the reservoir to 835 ft as opposed to the bottom of the gates which approximately doubled the theoretical risk of damaging floods
- Specifying that only an additional 200,000 acre feet of flood pool would be offered in the study during years of heavy precipitation but asked that the flood pool would be reduced in drought years by 400,000 acre feet. This is not consistent with the declared policy that safety would be the priority
- Not setting an “aspirational goal” for the amount of flood protection to be provided but did have a goal for the increase in the retention of water

A late January email from the deputy director of DWR stated that “**the DWR is looking to use FIRO to gain more flood management and water supply benefits from the existing flood reservation space.**” This eliminated FIRO plan ID4 which involves a variable flood pool. He added that with climate change the protection downstream communities can expect will decrease.

Thus, DWR “policy” has caused the FIRO studies to be flawed and removed the possibility of the WCM updates providing protection from the most severe storms that can be expected in the next 500 years while at the same time increasing water storage.

## **DESTRUCTIVE PAST FLOODS AND THEIR COSTS**

1964 flood caused \$49 million in damage

1986 flood caused \$263 million in damage

1997 caused \$567 million in damage

2017 spillway event had over \$1billion in repair costs from releases of 50,000 cfs

These costs are those that were paid in settlement of claims. The costs to downstream communities were much higher.

Evacuation of 180,000 people in 2017 is estimated to have cost \$50 - \$75 million, none of which was reimbursed. There were evaluations also in 1986 and 1997.

Over the last 60 years the protection less than for storms expected 1 year in 30

So, it is unacceptable to agree to a reduction in protection in future when there is science-based system which if applied will effectively eliminate serious floods from reservoir operations.

## **EXPLANATIONS AND INFORMATION NEEDED FROM THE DWR**

1. An explanation why the FIRO studies were limited to lowering the reservoir to 835 ft and not to the bottom of the spillway gates.
2. Explain why the DWR's SWP Division would place a limit of only 200,000 acre feet flood flexible flood space during rare heavy precipitation events, yet request a reduction of 400,000 acre feet to mitigate drought conditions.
3. Explain whether consideration has been given to replacing the hard bottom of the flood space with recovery of the conservation pool as an objective in selecting the reservoir release volume so as to produce a win/win outcome for flood protection and water storage.
4. Publish the study which shows that lowering the reservoir to 813ft would eliminate dangerous floods from excessive precipitation and snowmelt.
5. Explain whether and why the SWP Division favored FIRO plan ID3 as opposed to FIRO plan ID4.

## **WHO DECIDES DWR POLICY AND WHAT IS THE REASONING BEHIND IT?**

We have been told that “policy” is the reason for the seemingly illogical positions taken by the DWR. We have been told nothing about who makes the policy or given credible reasons for it. There is a profound lack of transparency.

Given that DWR “policy” generally favors the decisions which seem to be intended to favor the provision of water, it is not likely that the State Water Contractors (SWC) are the ultimate policy makers. The SWC’s rights were established 60 years ago and these rights will have to be relaxed, or renegotiated, if science is to be fully applied to minimizing the risks of the dam while maximizing water storage.

The SWC have influence and responsibility over the dam’s operation without accountability. The Oroville Dam may, because of its original financing, be the only major dam with this type of governance. The independent forensic team’s comprehensive report after the spillway incident concluded that the culture of the DWR was a reason for the errors made that caused and amplified the collapse of the spillway. Governance has a significant effect on culture.

## **CONCLUSIONS**

The positions taken by the DWR with respect to the WCM updates are not consistent with their constant assurances that safety will be the priority.

The variance appears to result from policies made outside the SWR probably under the influence of the SWC.

The commission should ask the DWR to explain the policies that mean FIRO plan ID4 cannot be adopted and who makes these policies.

If for some reason FIRO plan ID4 cannot be included formally in the WCM updates, the DWR could, with the agreement of all stakeholders, including the SWC, adopt FIRO plan ID4 voluntarily so that science is used to make safety the propriety while increasing water storage.

Finally, we now believe that our petition to FERC to “hold the DWR responsible” was misdirected because the DWR cannot be held accountable if key decisions on managing the reservoir (and perhaps other things such as the maintenance budget) are made by some other party.