# NEW BULLARDS BAR DAM -OROVILLE DAM WCM UPDATES

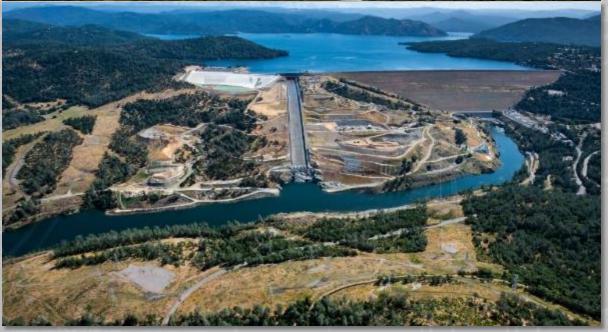
Jenny Fromm, P.E. Lead Water Manager Sacramento District

Date: 03 AUG 2022











## NBB/ORO FIRO-WCM ALIGNMENT SCHEDULE



## Yuba-Feather Water Control Manual Update/ FIRO Coordination Workshop December 4 and 14, 2020 and January 12, 2021

#### Objectives of the workshop:

- Familiarize attendees with the overall processes for the Water Control Manual update and the Forecast-Informed Reservoir Operations Viability Assessment.
- Give a high-level view of the goals, objectives, and timelines of both processes in paragraph form in the read-ahead material, and in the introductory sessions.
- Identify ways to align the parallel tasks and analyses in both projects.
- Create connections between the teams involved in both processes to facilitate collaboration going forward. Identify potential points in both processes where this communication needs to take place.
- Identify synergies and economies of scale to maximize efficiency of both processes and to minimize duplication of effort.
- The workshop will inform the FIRO Yuba-Feather Work Plan and the Water Control Manual HEMP.
- Explore concepts for FIRO implementation, now and in the future.



**EFFORTS** 

## NBB/ORO FIRO-WCM COMMON TASKS BETWEEN



1. Define flood operation objectives and performance metrics 2. Define alternative development strategy 3. Define existing condition to compare with alternatives 4. Prepare hydrology 5. Develop models and tools 6. Conduct basic performance evaluation 7. Develop system operations for promising alternatives 8. Conduct additional evaluation of promising alternatives

**NEXUS** -

Efforts can complement each other while progressing independently.



Not Started



9. Identify recommended/selected alternatives

In Progress



Done



#### **NBB/ORO FIRO-WCM ALIGNMENT SUBGROUPS**



#### FIRO-WCM Alignment Subgroups

Forecast Skill, HEMP, and Decision Support

#### Outreach and Communication

Integrate Corps WCM representatives into existing FIRO Communications group

WCM/FIRO Alignment Leadership

#### **PVA Work Teams**

Team Name	Section 10.1 Assignments
Communications*	cross-cutting
Forecast Verification**	1
Observation	2
Meteorology	3
Hydrology***	4
Water Resources Engineering**	5,6,8,10
WCM Alignment Leadership Team**	7,9
Economic Benefits***	11
Decision Support Tools**	cross-cutting

#### Table 10.1 Yuba-Feather FIRO PVA Work Teams

- \* Existing Yuba-Feather FIRO team. Picks up coordination from FIRO-WCM Alignment workshop.
- \*\* Active coordination with WCM Update project.
- \*\*\* Possible coordination with WCM Update project.















## NBB/ORO WCM UPDATES TASK ORDER ACTIVITIES





#### Original Task Order Contract – Awarded 06/17/2020

- PMP
- HEMP
- DMP
- Data and Tools Assessment
- NBB Hydrology Update Provisional





#### Task Order Modification – Awarded 09/08/2021

- Review and Develop Historical Hourly Patterns for Flood Events
- Existing Conditions Memorandum
- Review of Technical Products
- Research and Document Downstream and Upstream Reservoir Operation Constraints
- Environmental Modeling Plan
- Environmental Compliance Plan
- Cultural Resources
- Support Implementation of Data Management Plan
- Opt Task (awarded 01.21.2022) Regional Seasonal Frequency Analysis (procedure)



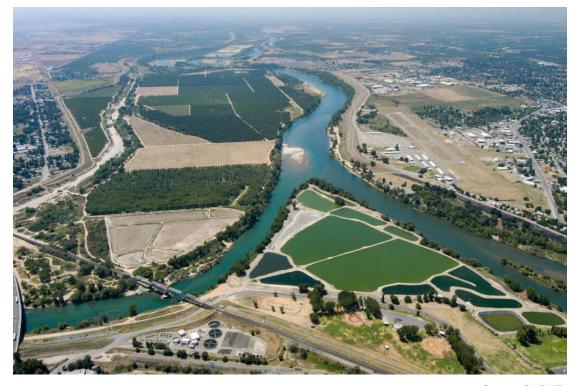
## NBB/ORO UPSTREAM/DOWNSTREAM STAKEHOLDER WORKSHOP OBJECTIVES



Gather technical input on system considerations to inform development of flood operation alternatives.

#### **Focus Points**

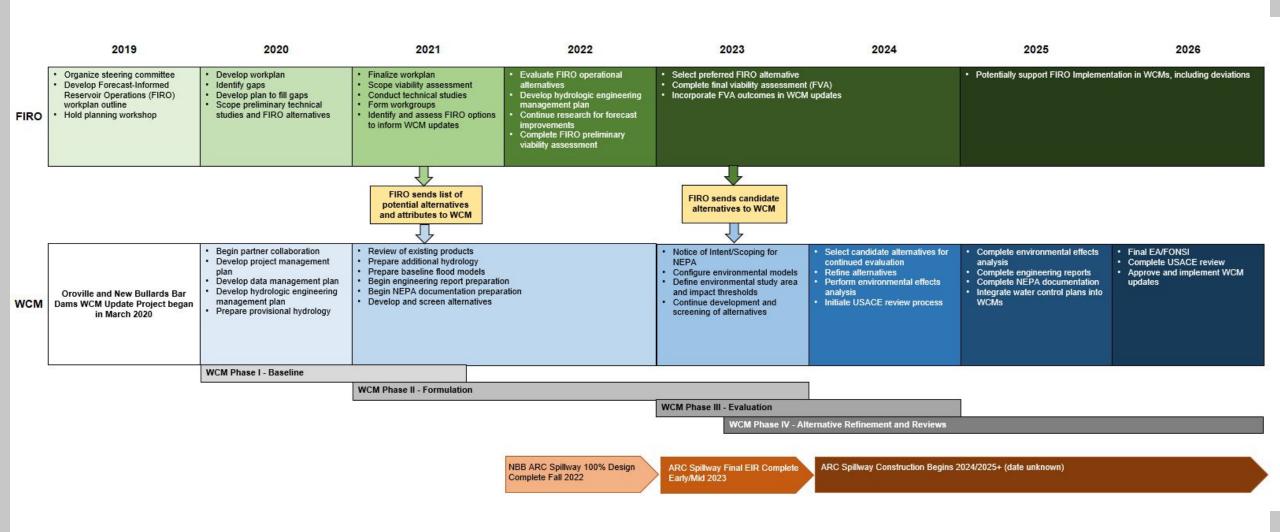
- What pool elevations would be of concern or beneficial?
- What channel flows or stages would be of concern or beneficial?
- Considering:
  - Magnitude
  - Duration
  - Velocity
  - Rates of change
  - Seasonal timing



Source: CA DWR

### **NBB/ORO FIRO-WCM ALIGNMENT SCHEDULE**









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