

OROVILLE DAM CITIZENS ADVISORY COMMISSION

Hosted by the California Natural Resource Agency



ITEM 1: WELCOME AND ROLL CALL

ITEM 2: ADOPT COMMISSION CHARTER

ITEM 3: WINTER OPERATIONS AND SAFETY DISCUSSION

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Overview of Feather River Flood Management

Oroville Dam Citizens Advisory Commission Meeting
November 20, 2019



Gary Lippner, Deputy Director

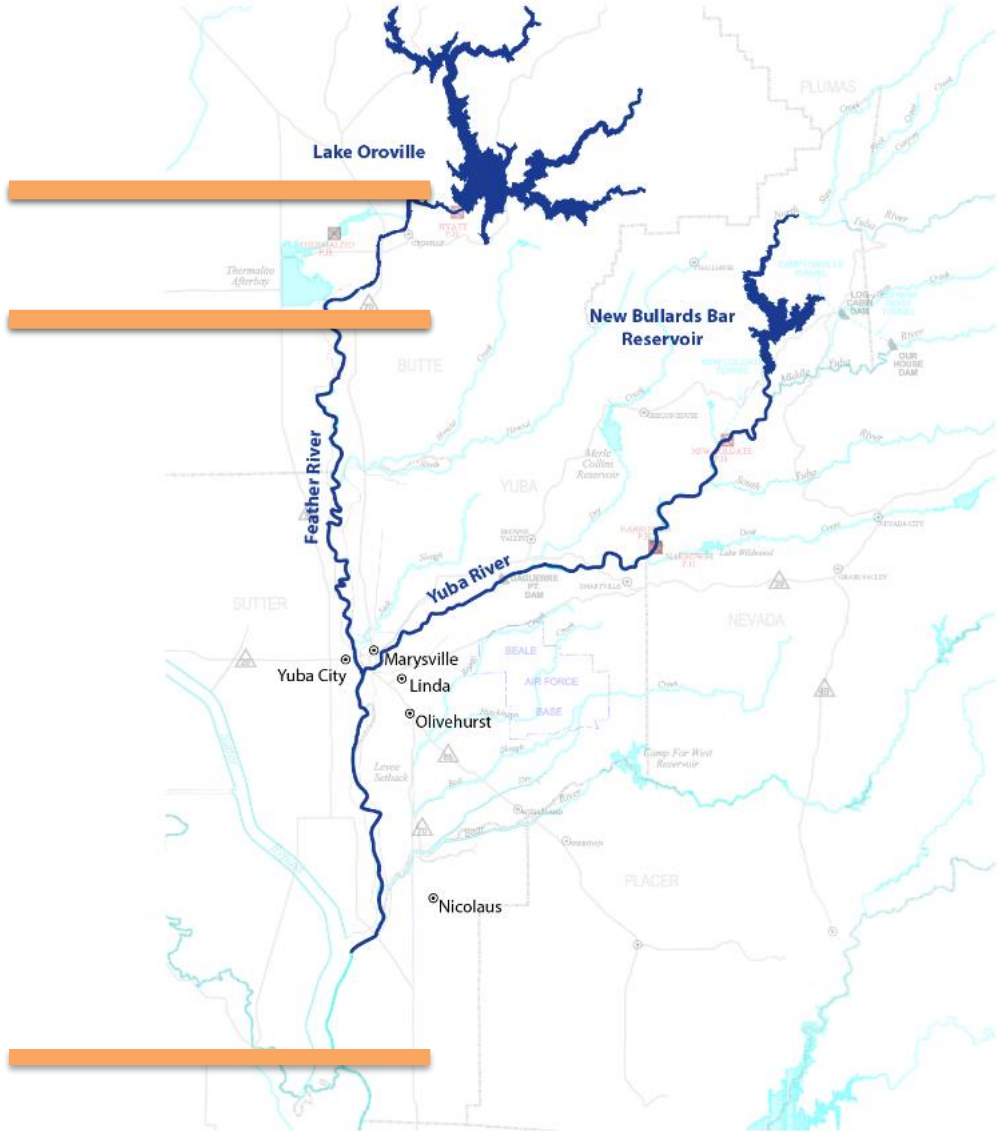
Today's Presentation

- Yuba-Feather Flood Management System
 - History, Roles & Responsibilities
- Recent Flood Risk Reduction Projects & Maintenance
- Flood Preparedness
- Looking to the Future

Flood Management Responsibilities

State Water Project

Local Maintaining Agencies
and
State Maintenance Areas



Evolution of Flood Risk Management

- Pre-Statehood: Recurring “Inland Sea”
- 1849-1910: Levee & Bypass Plan Developed
- 1910 to 1940s: Levee & Bypass System
- 1940s to 1960s: Multi-Purpose Reservoirs
- 1960s to Present: Changing Societal Values; System Deficiencies; Enhanced Forecasting
- Residual Risk Cannot be Eliminated

Yuba-Feather Flood Management Roles and Responsibilities

In California, flood management is a shared responsibility among Federal, State, and local agencies.

Federal

USACE

USBR

NWS

FEMA

State

DWR

Cal OES

CVFPB

Local Agencies

LD1

LD9

RD10

RD784

RD817

RD1001

RD2103

MLC

SBFCA

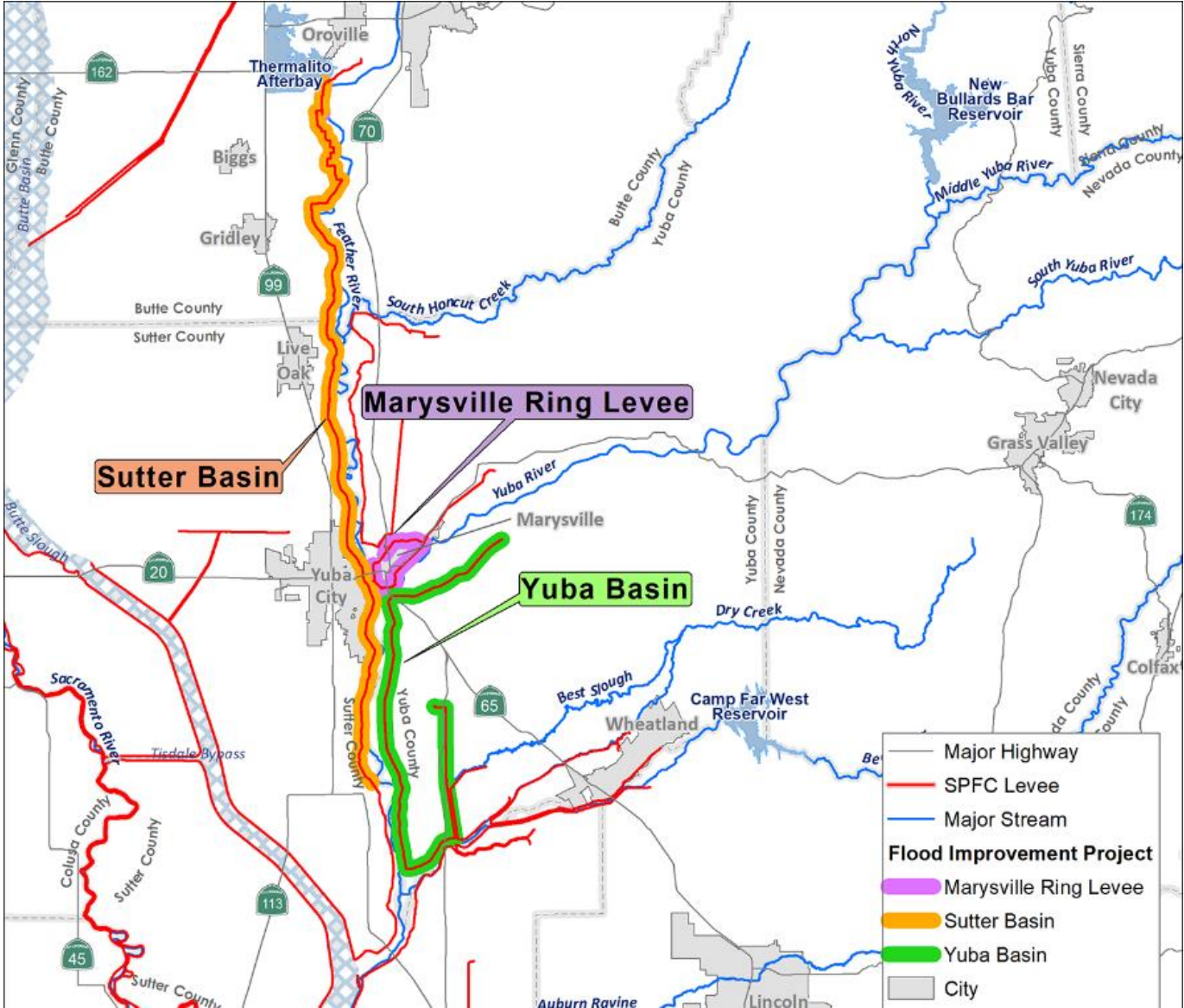
TRLIA

YCWA

Yuba-Feather Recent Flood Improvement Projects

Project	Project Implementer	Project Cost (millions)	Miles of Levee	Miles Repaired/Improved	Miles Remaining	People w/ Increased Protection	Assets w/ Increased Protection (millions)
Sutter Basin	Sutter-Butte Flood Control Agency	\$ 442	40	35	5	95,000	\$6,900
Yuba Basin	Three Rivers Levee Improvement Authority	\$ 316	29	25	4	40,000	\$1,400
Marysville Ring Levee Reconstruction	Marysville Levee Commission	\$ 158	5	1	4	12,000	\$100

Recent Flood Improvement Projects



Flood Maintenance Overview

- The Feather River has over 225 miles of levees – 160 miles of these are SPFC (remaining are local non-project levees)
- DWR maintains 10% & LMAs 90% of the levee system

Channel Work


- Debris Removal
- Mowing
- Leveling


Levee Work

- Mowing
- Dragging
- Encroachment Removal
- Restoration
- Vegetation Spraying
- Burning
- Rodent Control
- Grading
- Patrolling

Flood Preparedness

Flood Safety Plan



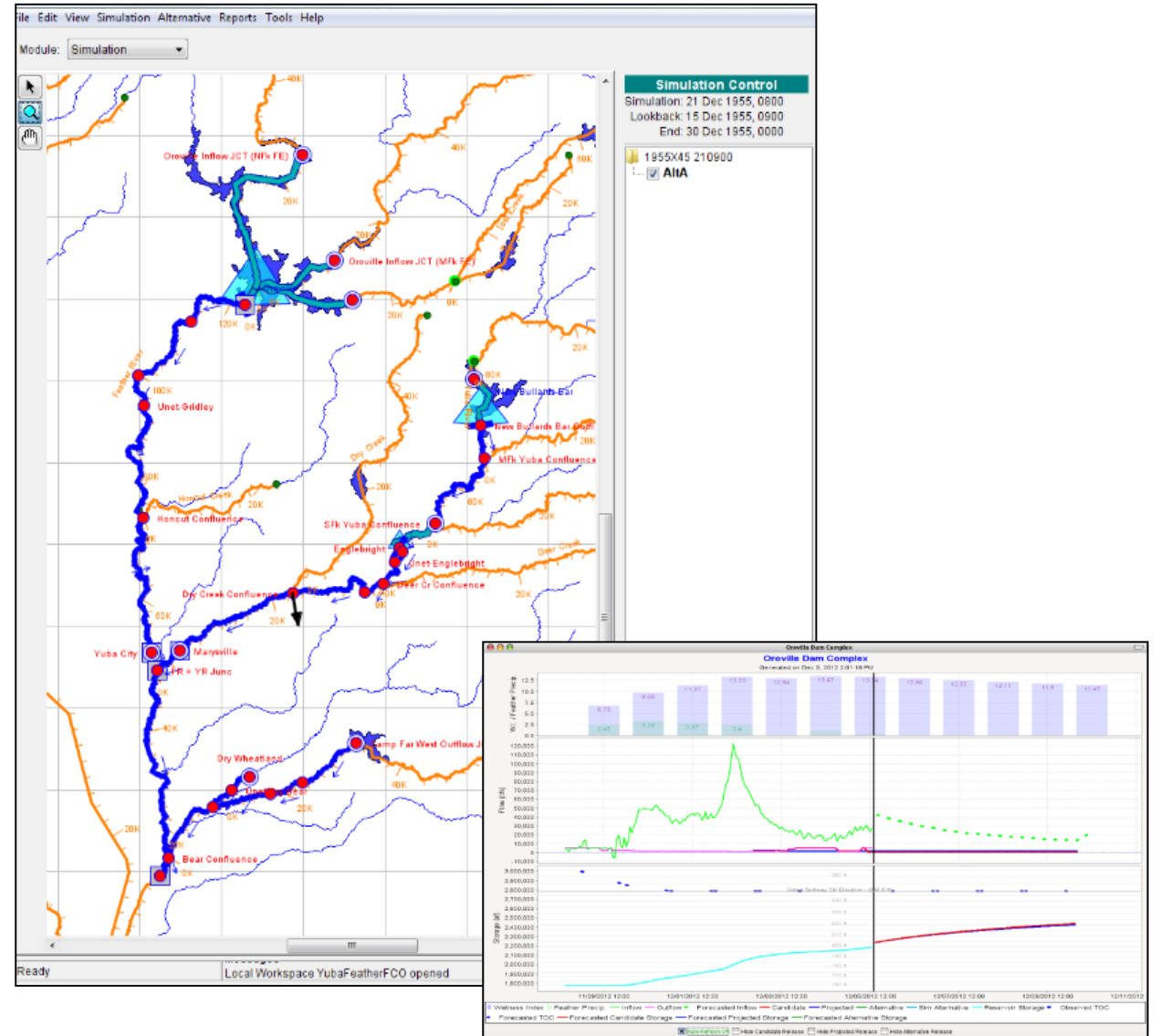
 Sutter Butte
Flood Control
Agency

Last updated April 2015



Forecast-Coordinated Operations

- Enhanced coordination
- Improved real-time data collection
- Improved runoff forecasting
- Decision Support System (DSS)
- Annual training and exercises



Looking to the Future

- DWR will continue its cooperation with partner agencies in
 - Sharing essential data
 - Securing funds for improvements & maintenance of the flood management system
 - Enhancing both natural & human environment
- DWR will continue to provide updates of Feather River flood management activities including site visits and briefings.

Final Thoughts

- The 1997 Flood was only a “100-year” flood. The risk of a larger flood will always exist and management of floods will continue to be a challenging task for all of us.
- Need to continue our partnership to improve and maintain the flood management system and its operations.
- Need to enhance our flood emergency preparedness and response to be better prepared; and continue to educate the public about the flood risk in the region.
- Need to have better land management policies and ensure existing people at risk are properly insured.

Follow us on social media



CADWR



CA_DWR



calwater



cadepartmentofwaterresources

Lake Oroville Flood Operations

Oroville Citizen's Advisory Commission Meeting

November 20, 2019

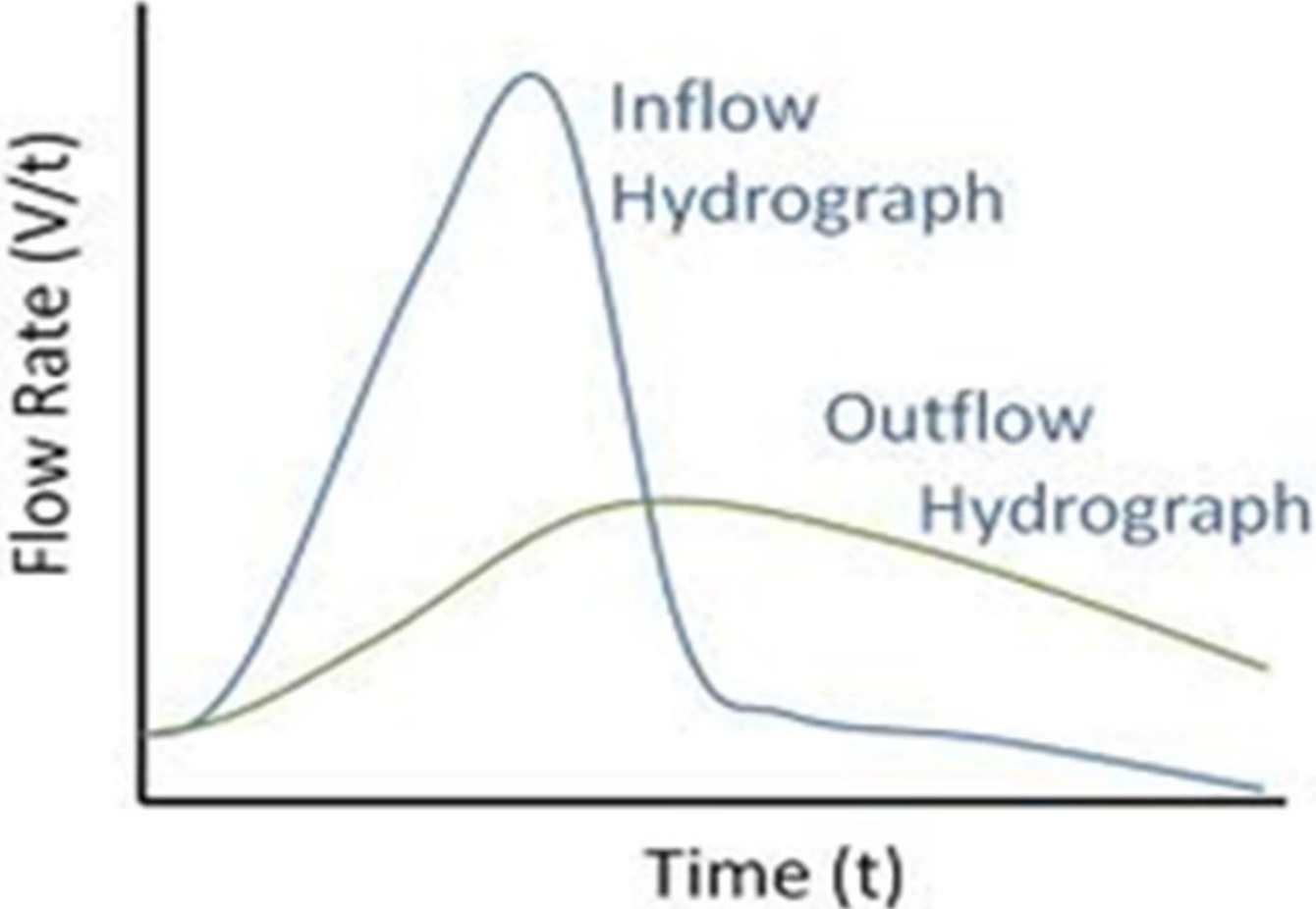


John Leahigh, SWP Water Operations Manager

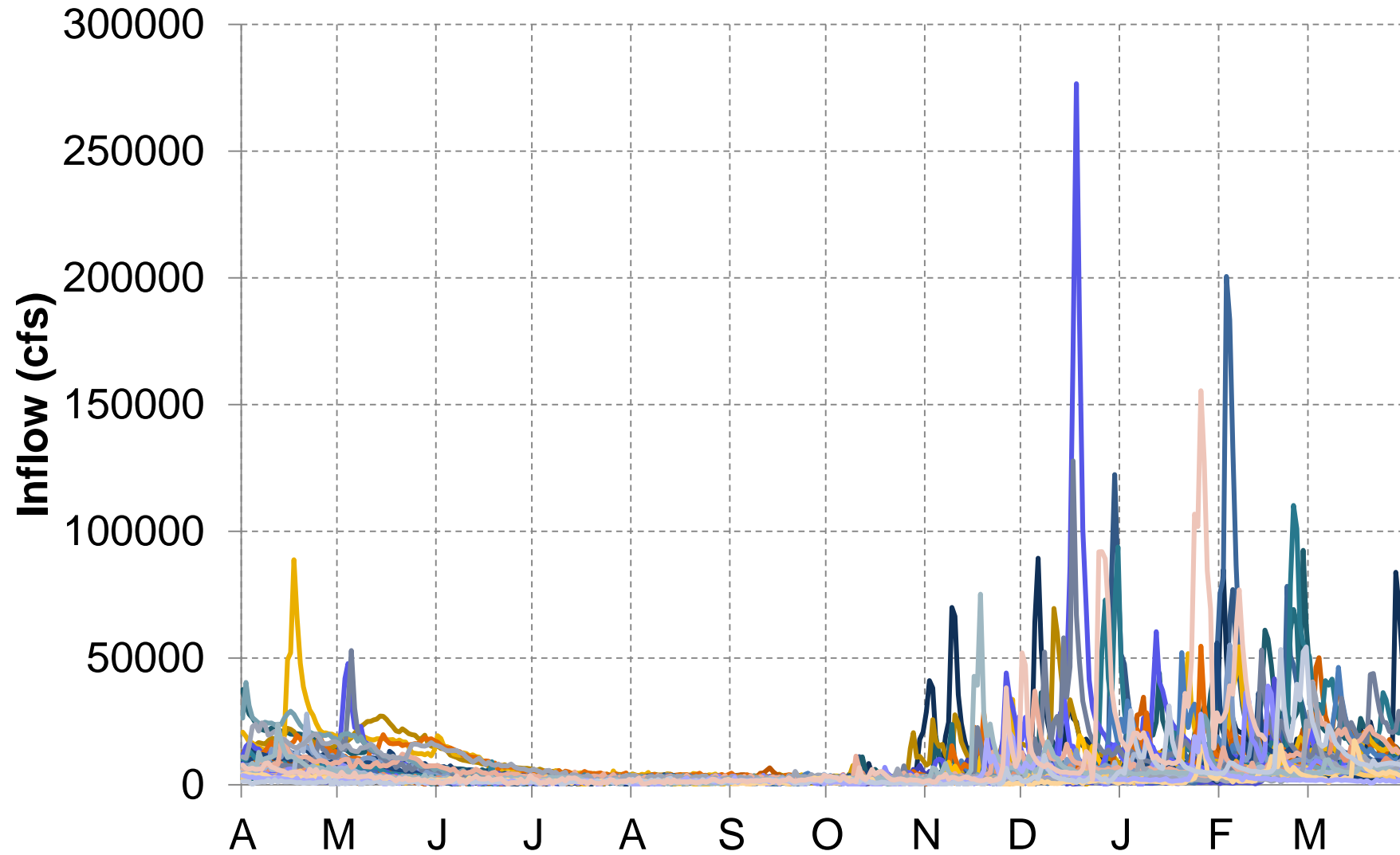
Overview

- Reservoir Flood Control Basics
 - USACE Flood Control Diagram
- Interim Flood Control Planning
 - Enhanced Flood Pool
- Forecast Informed Reservoir Operations
- Looking to the Future

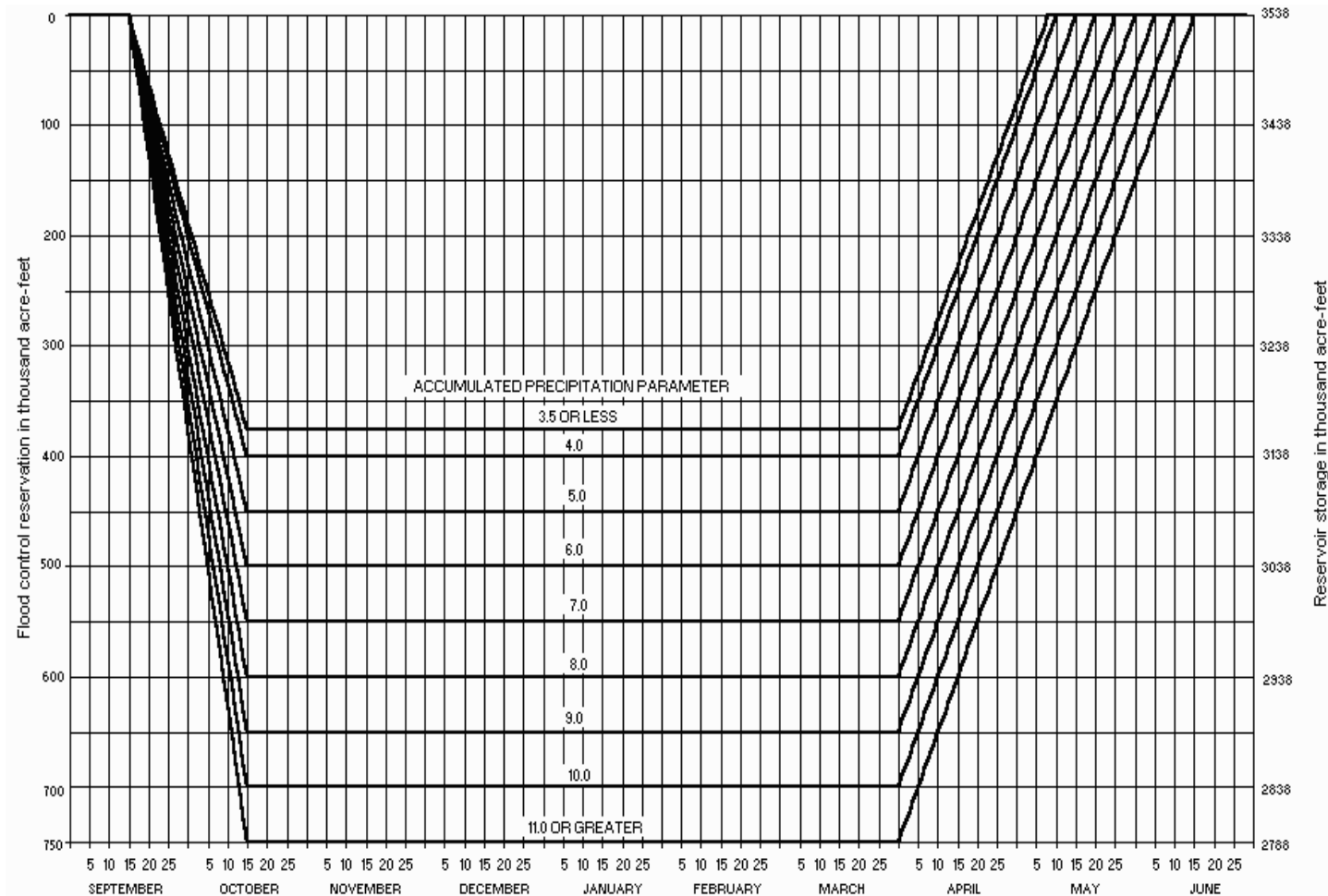
Flood Flow Reduction



Historical Oroville Inflows

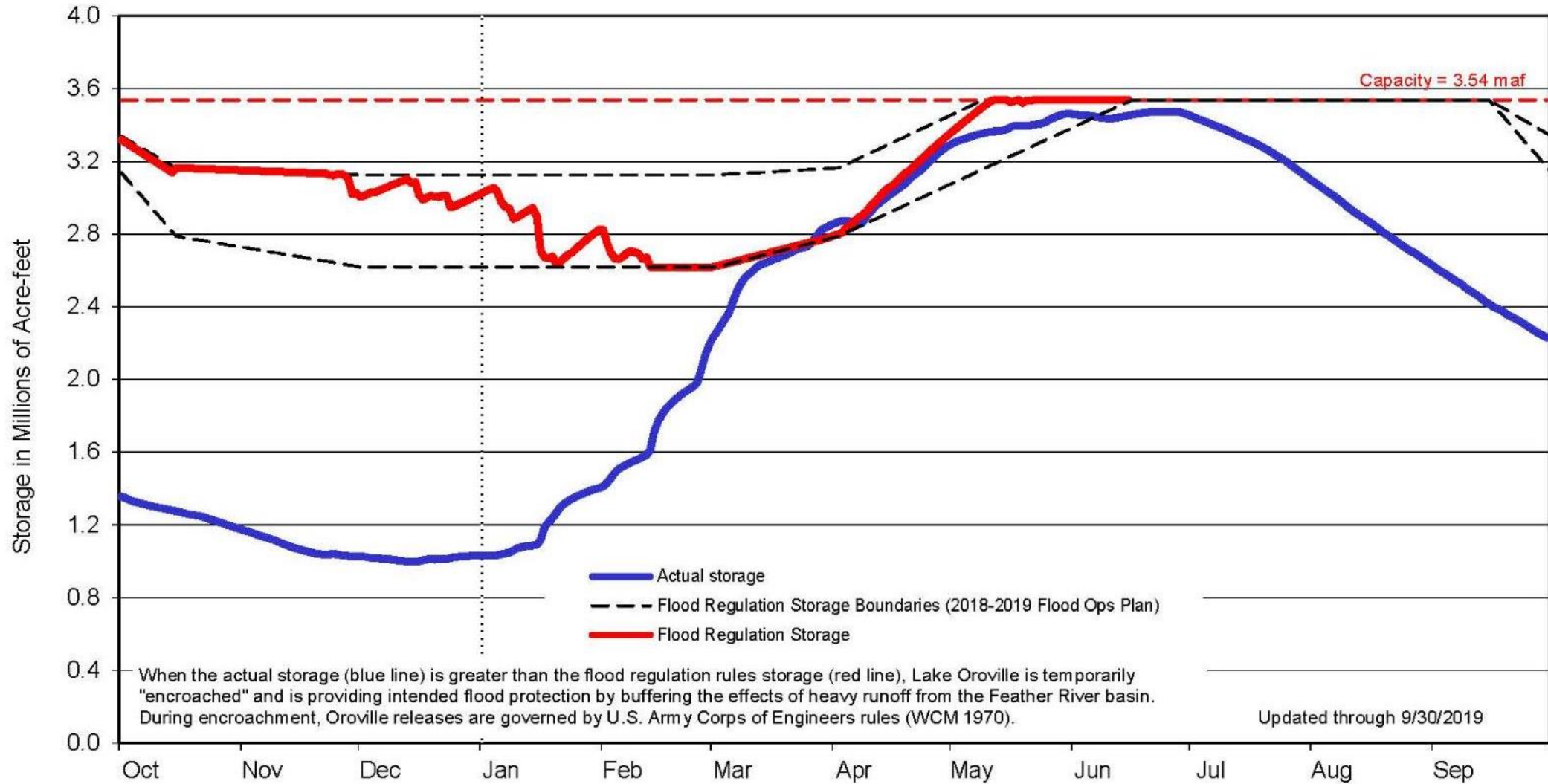


United States Army Corps of Engineers Flood Control Requirements

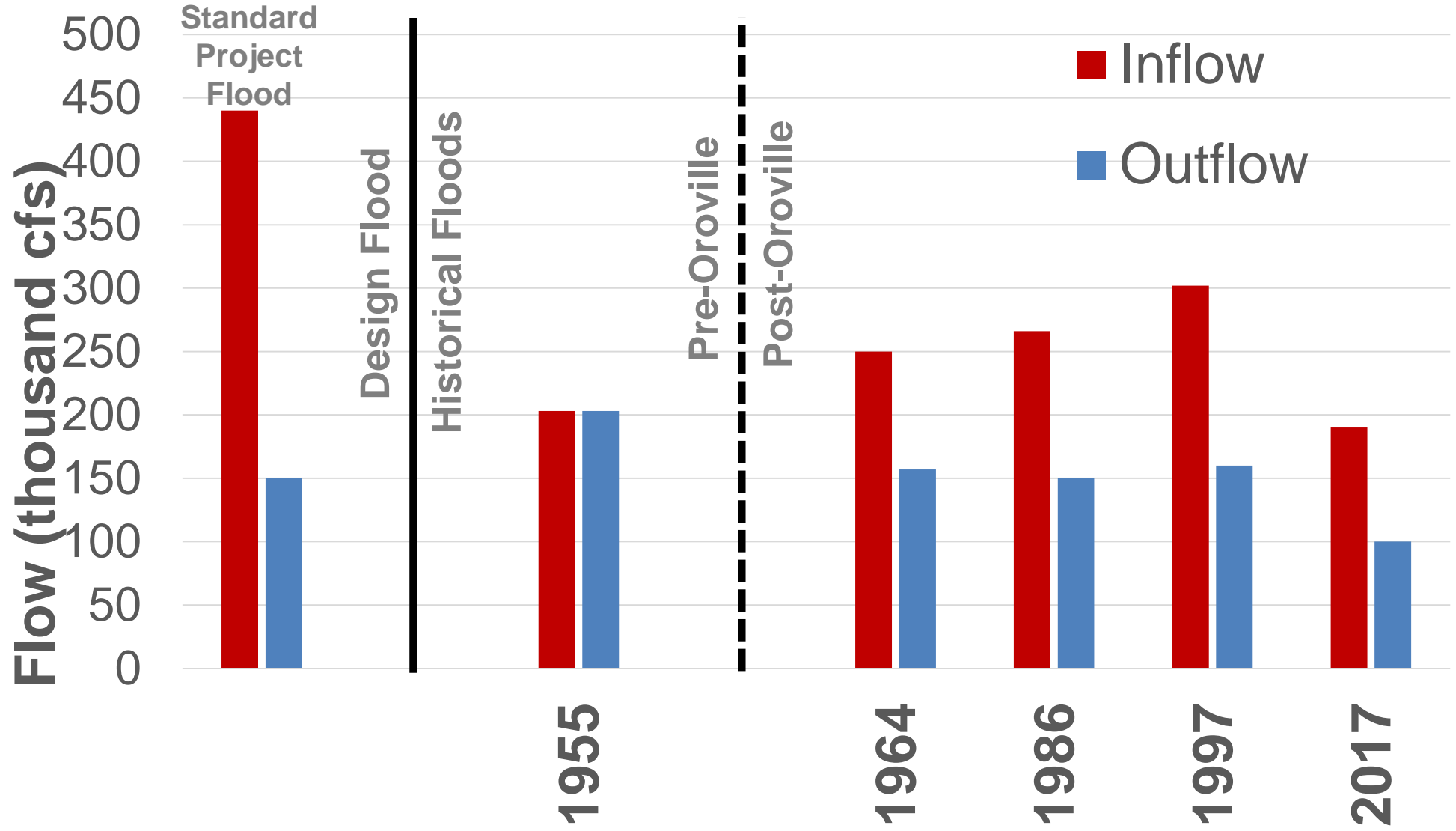


Lake Oroville Storage

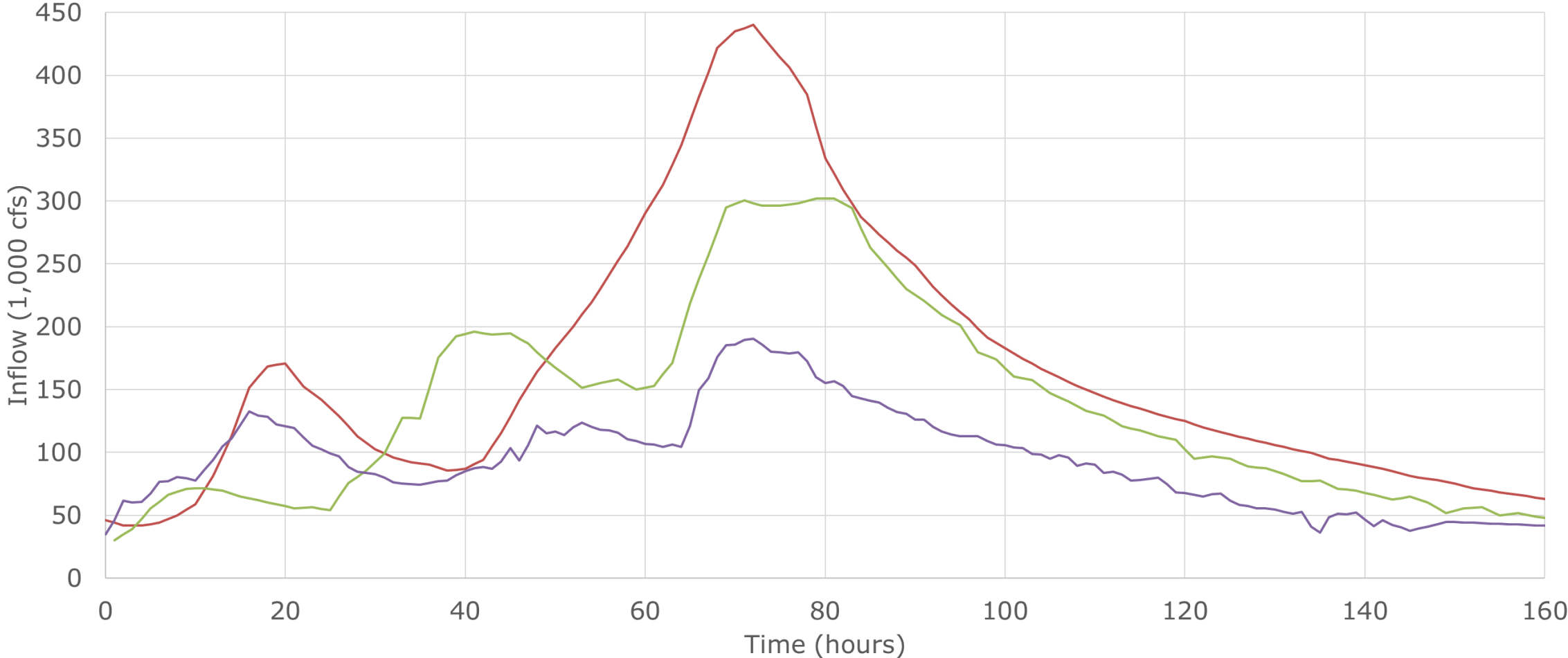
October 1, 2018 to September 30, 2019



Attenuated Floods

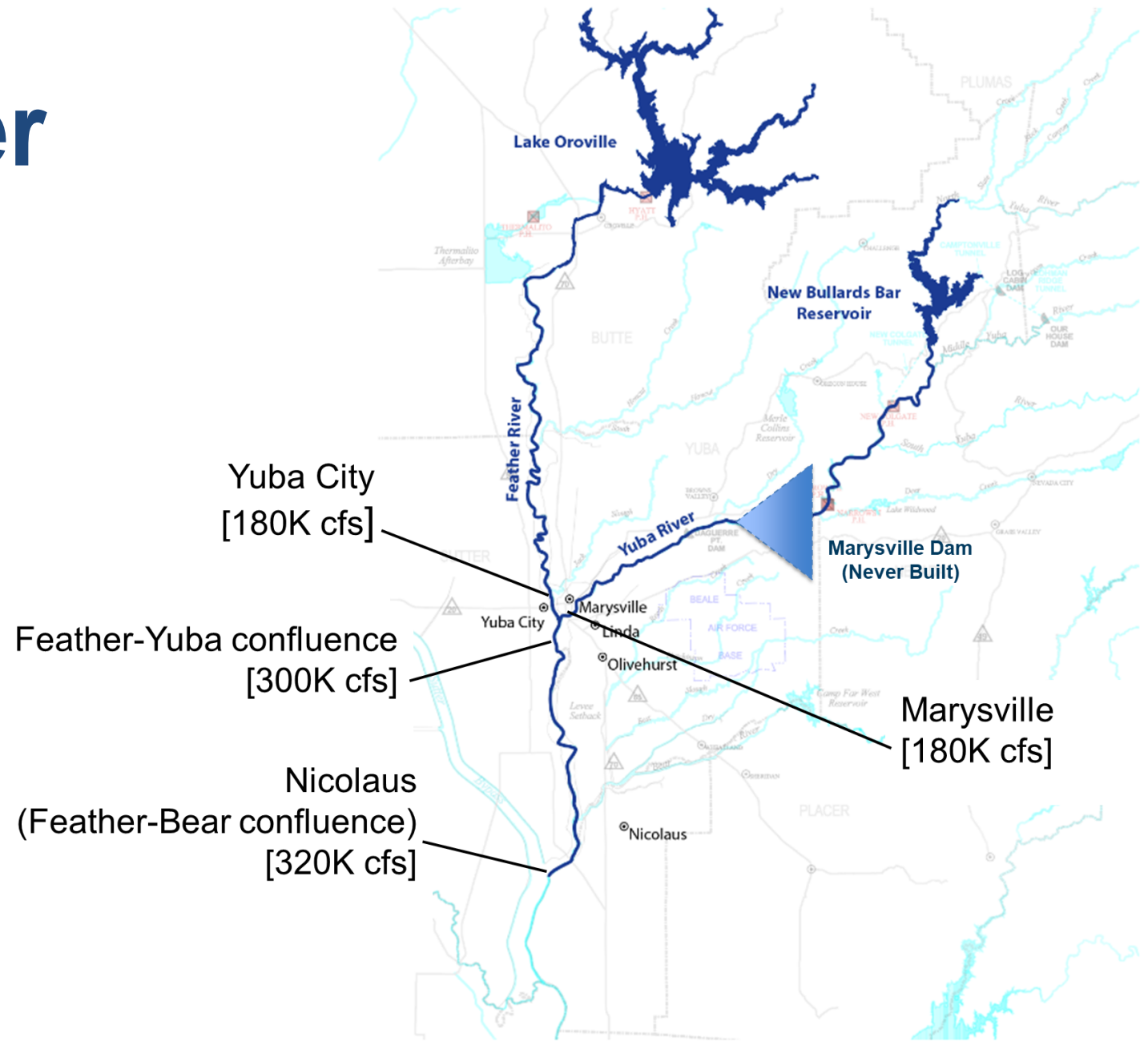


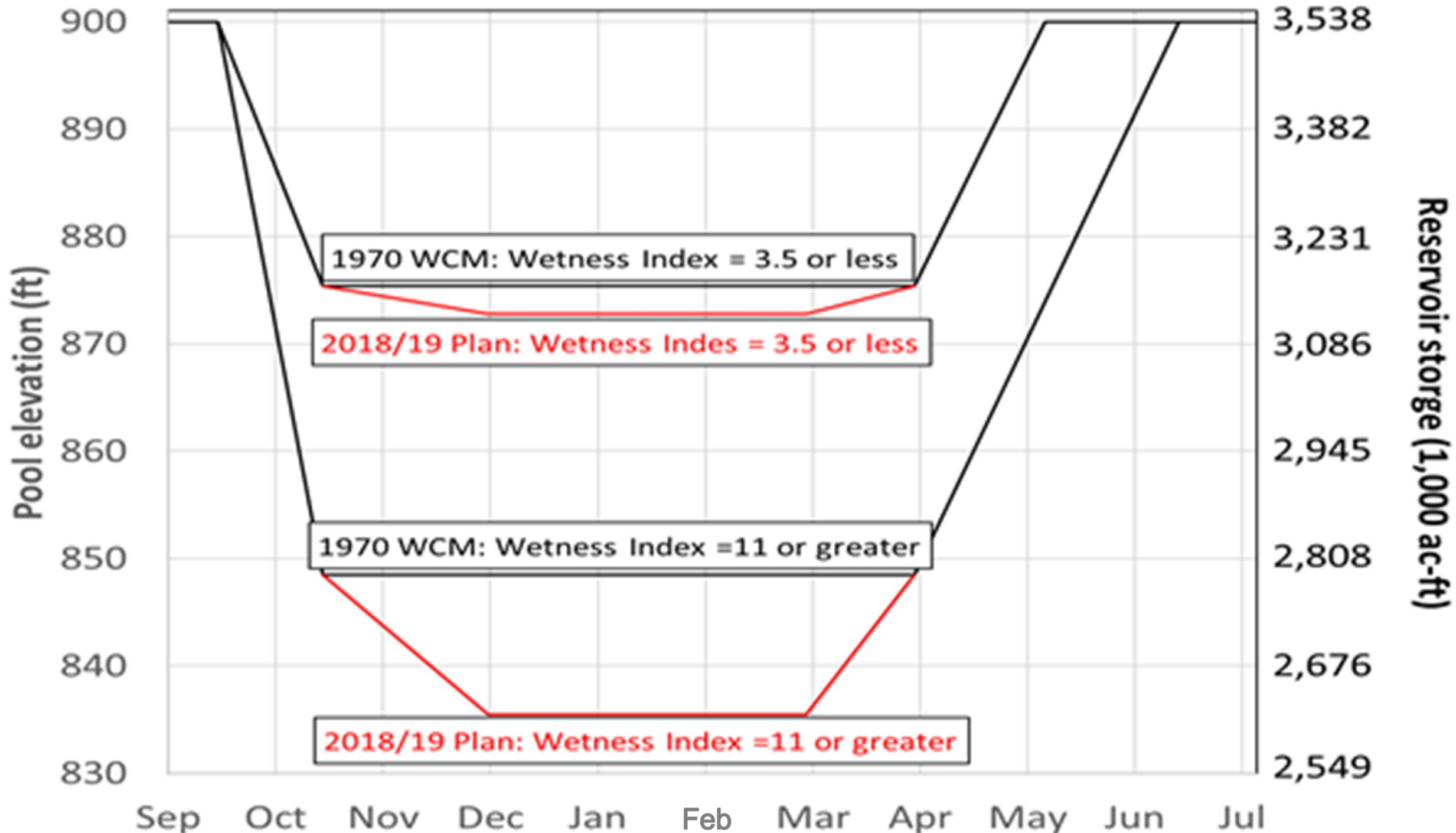
USACE Standard Project Flood



—SPF —1997 event —2017 event

Yuba-Feather System





Yuba-Feather Forecast-Informed Water Operations (Y-F FIRO)

- **Leads**

Department of Water Resources

Yuba Water Agency

UCSD / Scripps Institute /

Center for Western Weather and Water Extremes

- **Members**

State Climatologist

USACE / Engineering Research and Development

USACE / Water Operations

NOAA / National Weather Service

NOAA / National Marine Fishery Service

DWR State Water Project Operations

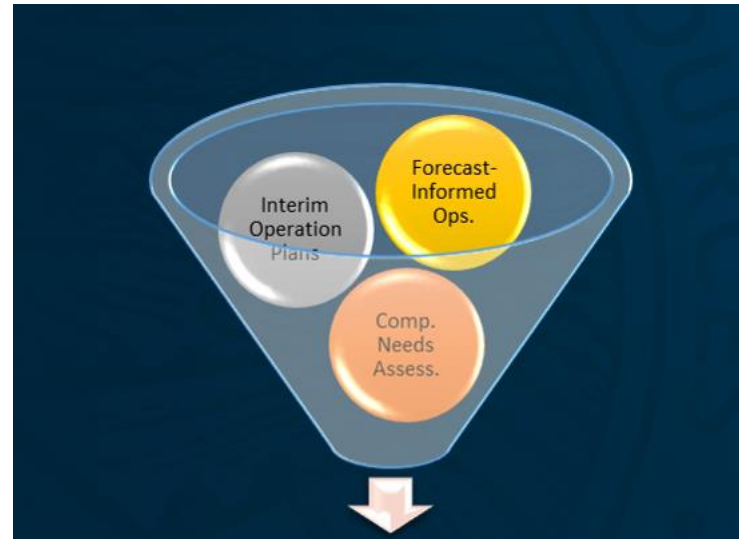
Sonoma Water Agency

Project Partners



Next Steps...

- Interim Flood Control Operations Planning
- Comprehensive Needs Assessment for Dam Safety
- Forecast Informed Reservoir Operations Initiative



Updated Water Control Manual

DWR Communications in Oroville

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Questions or comments?

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ITEM 4: REVIEW OF TOPICS FOR FUTURE MEETINGS

ITEM 5: PUBLIC COMMENT

**The Oroville Dam Citizens Advisory
Commission will now take public comment.**

We appreciate your input.

ITEM 6: ADJOURN

Thank you for attending.

