



Topic: **Reservoir Committee Agenda Item 1-4** **2017 Dec 21**

Subject: **California Water Commission Meeting – December 13, 2017**

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**Requested Action:**

Informational with possible direction to staff.

**Detailed Description/Background:**

At its December 13, 2017 meeting, the California Water Commission heard presentations from the 11 applicants for the Proposition 1 WISP program. The Sites Project Authority made a presentation.

The meeting agenda and a copy of the Sites Project presentation can viewed at the following link: [https://cwc.ca.gov/Pages/2017/12\\_December/Agenda.aspx](https://cwc.ca.gov/Pages/2017/12_December/Agenda.aspx)

A recording of the webcast of the meeting can be viewed at the following link: [Webcast with the 15-min Sites Project presentation starting at 2:52:20 followed by responses to Commissioner’s comments, public comments, and Authority’s closing remarks.](#)

On December 14, 2017, the California Water Commission continued the business portion of their monthly meeting, which included agenda items 13 (status) and 14 (Maximum Conditional Eligibility Determination) related to the WSIP.

**Prior Reservoir Committee Action:**

Recommendation to submit the application on or before the August 14, 2017 deadline.

**Fiscal Impact/Funding Source:**

None.

**Staff Contact:**

Jim Watson

**Attachments:**

Attachment A – Sites Presentation.

# Sites Project

California Water Commission

December 13, 2017



# PROPOSITION 1:

## A ONCE-IN-A-LIFETIME OPPORTUNITY

### Sites:

- ✓ A New water management tool
- ✓ 40% of reservoir's capacity dedicated to improve the ecological health of the Delta
- ✓ Prop 1 water controlled by State's Resource Managers
- ✓ Stores water to ameliorate drought conditions



# California Needs Sites Reservoir

**\$122**  
MILLION  
in annual  
public benefits

## The Sites Reservoir

Delivers about **441,000** acre-feet of water per year to California's water system for...



Drinking Water



Irrigation



Enhanced Water Quality



Flood Management



New Recreational Opportunities










Renewable Energy



Climate Change Resiliency



Ecosystem Improvements

Proposition 1 Eligible Benefit (in \$M)		Annual Benefits (\$M)
	<b>Ecosystem Improvement</b>	<b>\$ 111</b>
	Water Quality	~
	Recreation	\$7
	Flood Damage Reduction	\$4
	Emergency Response	~
Proposition 1 Non-Eligible Benefits (in \$M)		
	Water Supply	\$175
	Hydropower	\$19
<b>Total Monetized Benefit Annually</b>		<b>\$317</b>
<b>PUBLIC BENEFIT RATIO: 2.1 to 4.5</b>		

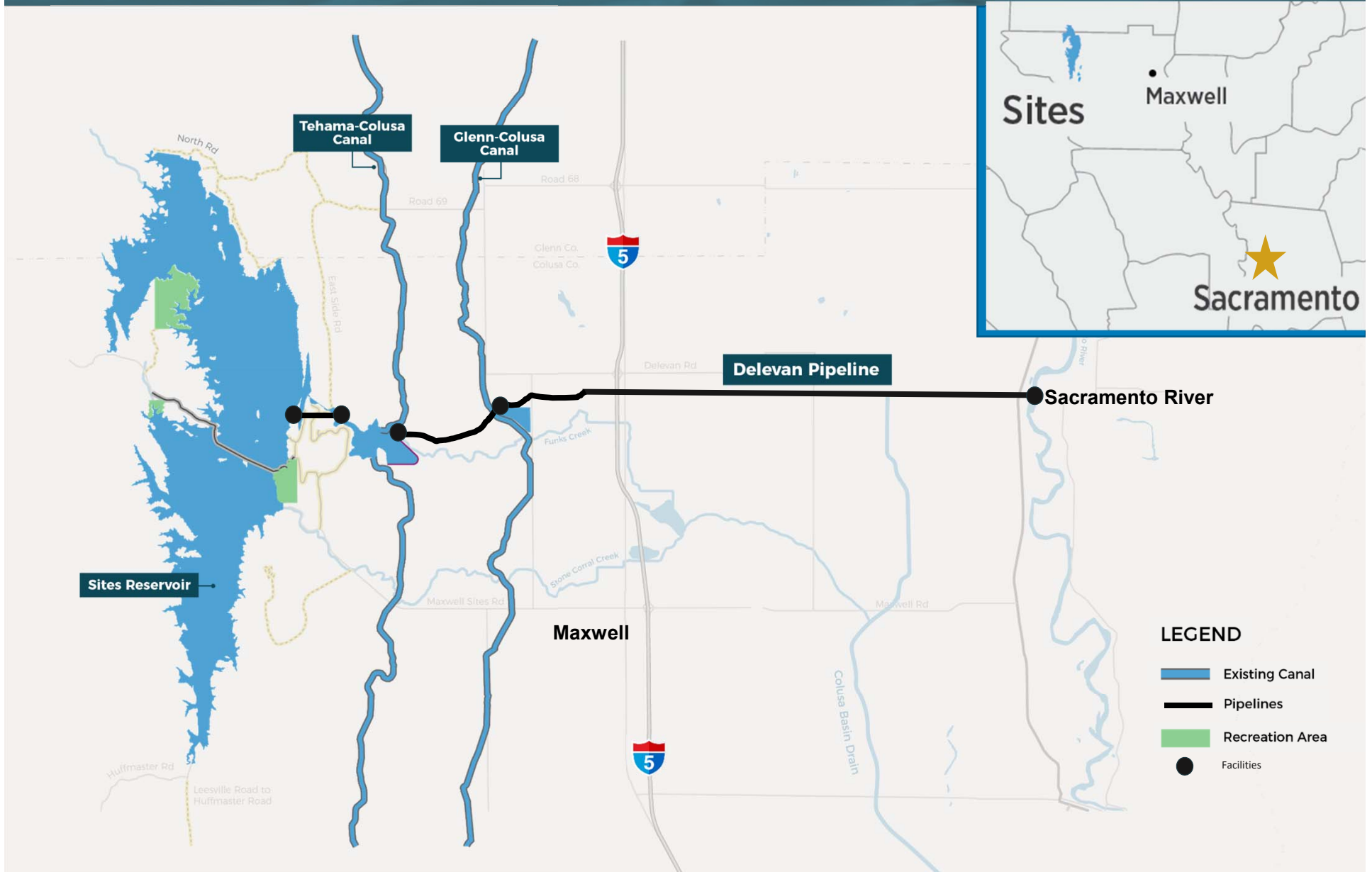


# Project Operator & Partners

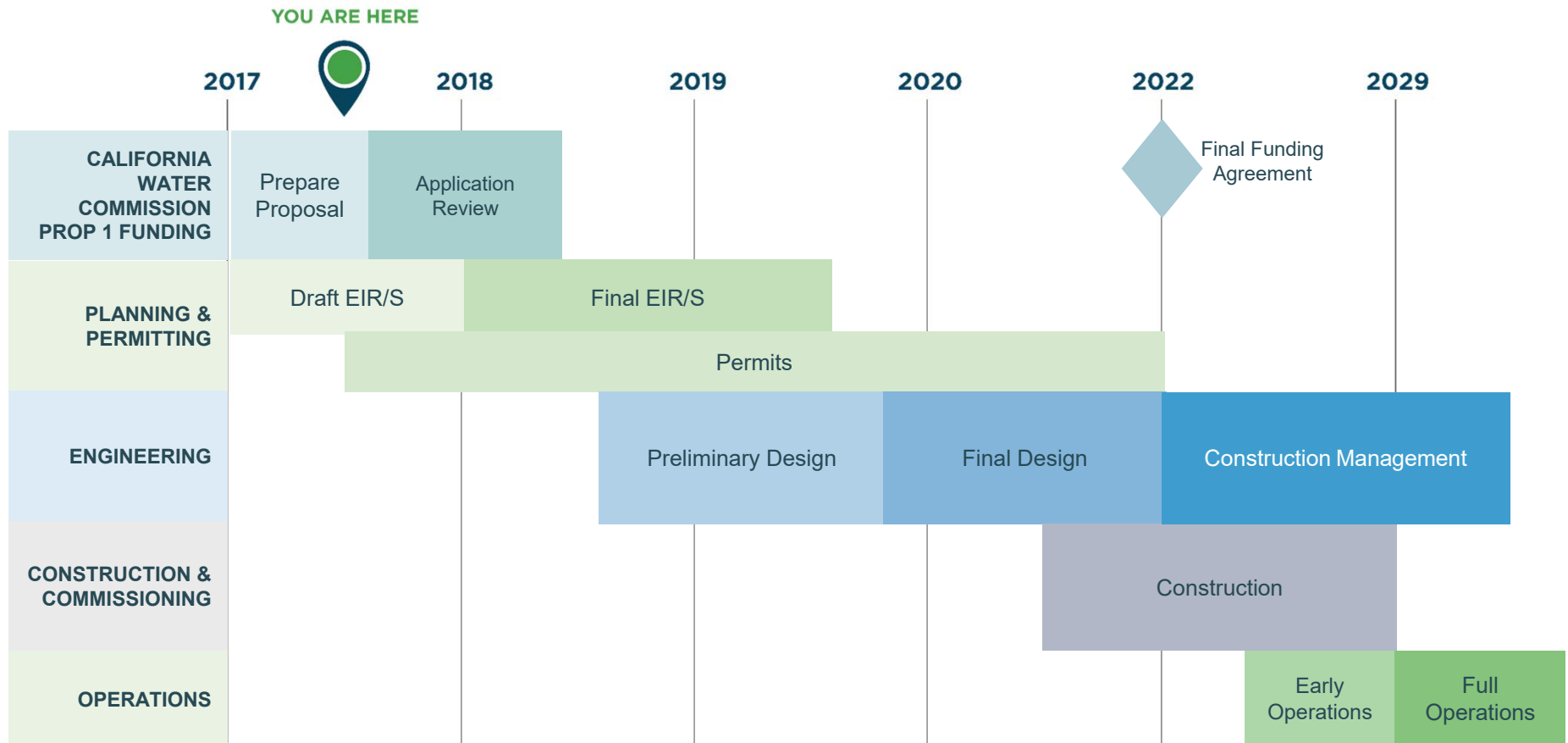
- ✓ Operated locally, by Sites Project Authority
- ✓ Diverse statewide participation
- ✓ A partnership with state and federal resource managers



# Project Location & Facilities

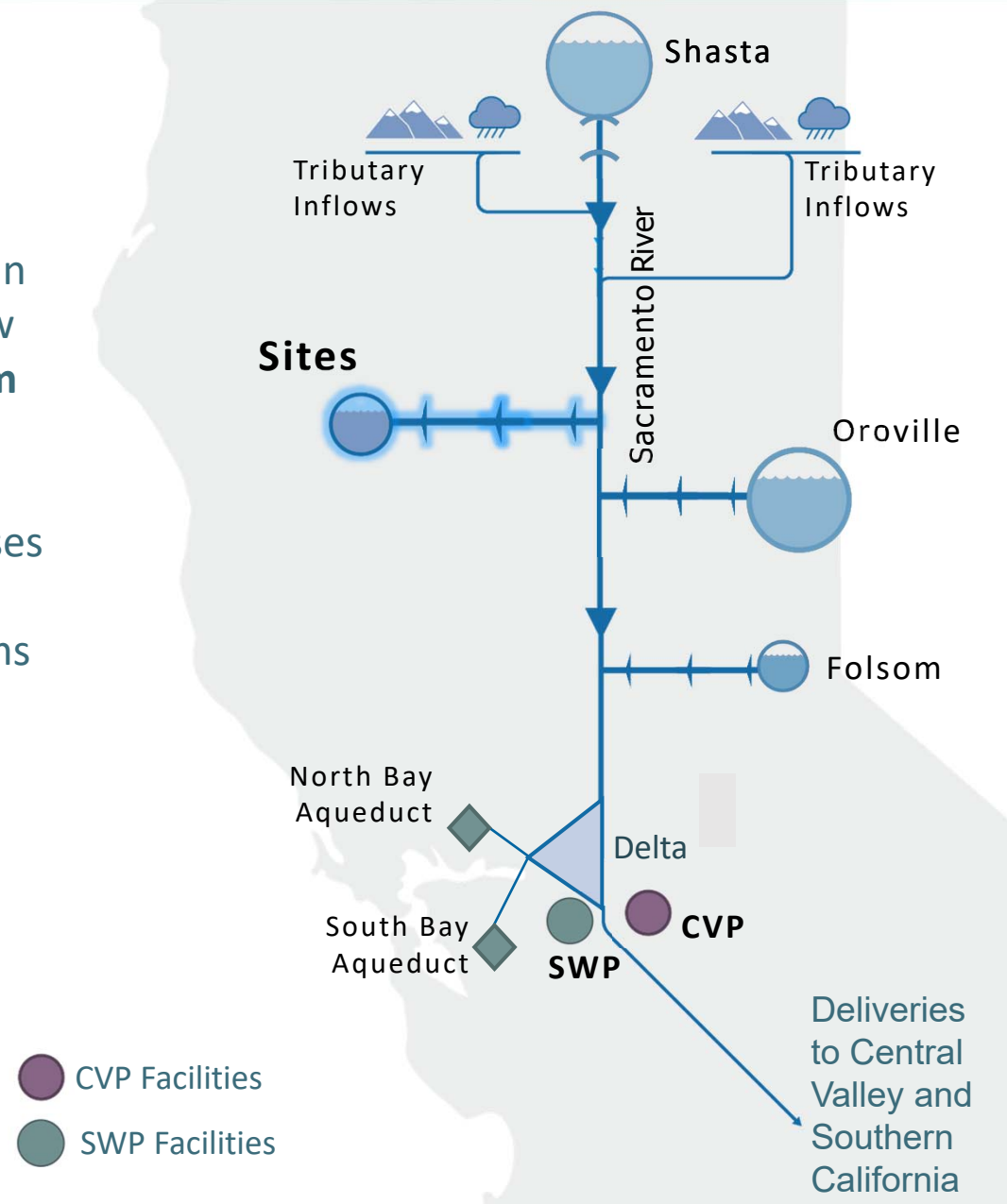


# Schedule



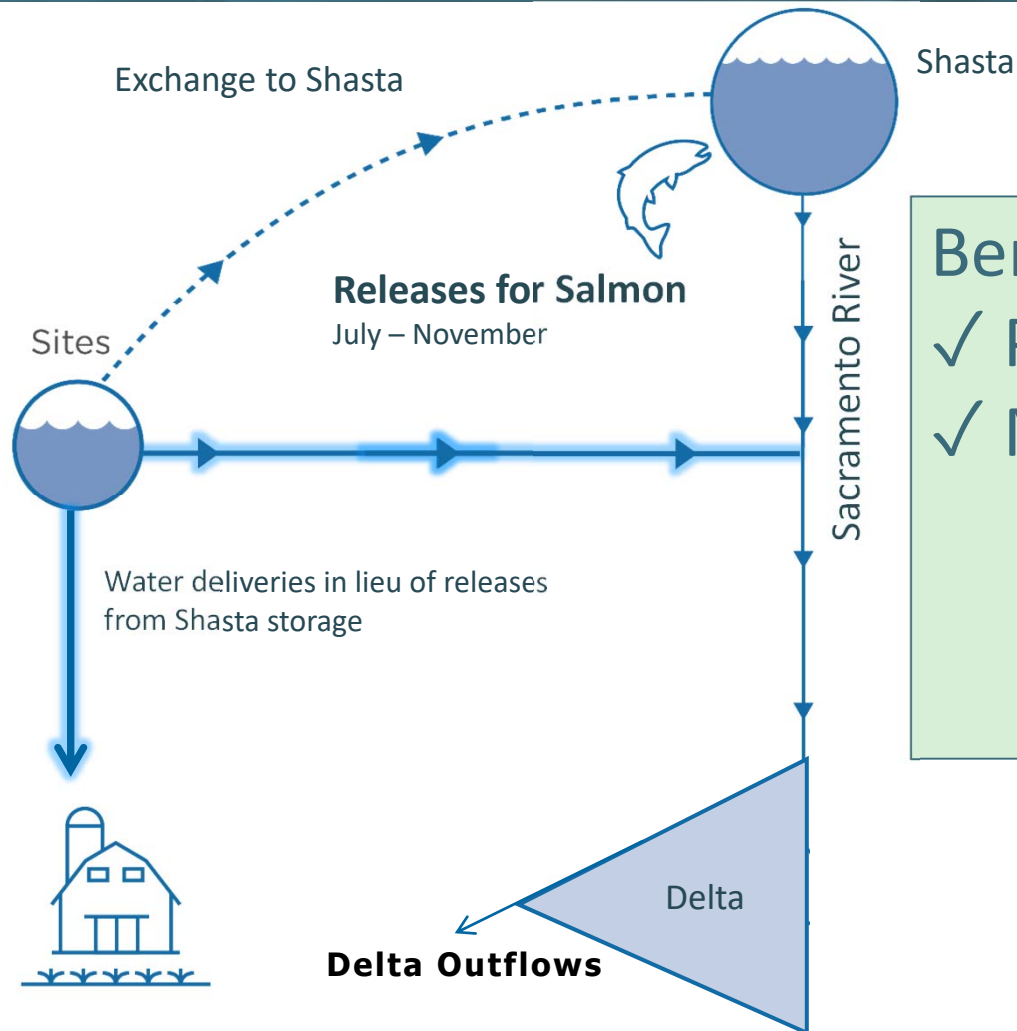
# Added Flexibility to California's Water System

- ✓ Benefits the **entire California water management system**
- ✓ Diverts Sacramento River water high in the watershed, from tributaries below Shasta, by capturing **flows from storm events**
- ✓ Integration with water system increases operational flexibility and improves water deliveries to communities, farms and the environment – **especially in drier water years**





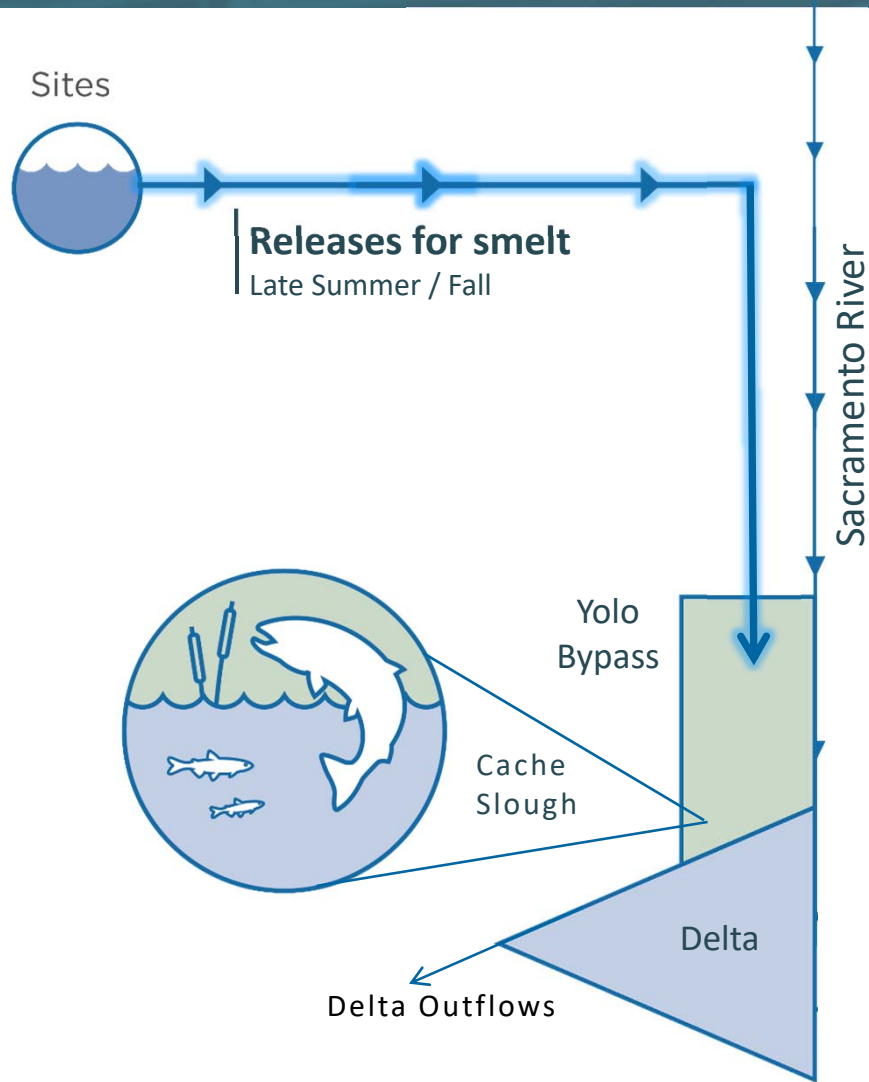
# Benefits of Cooperative Operations to Salmon



## Benefits:

- ✓ Preserves coldwater pool
- ✓ Maintains flows to support migrating salmonids

# Benefits of Cooperative Operations to Delta Smelt



Benefits: Provides flows to Yolo Bypass/Cache Slough to support Delta smelt

# State Investment in Public Benefits

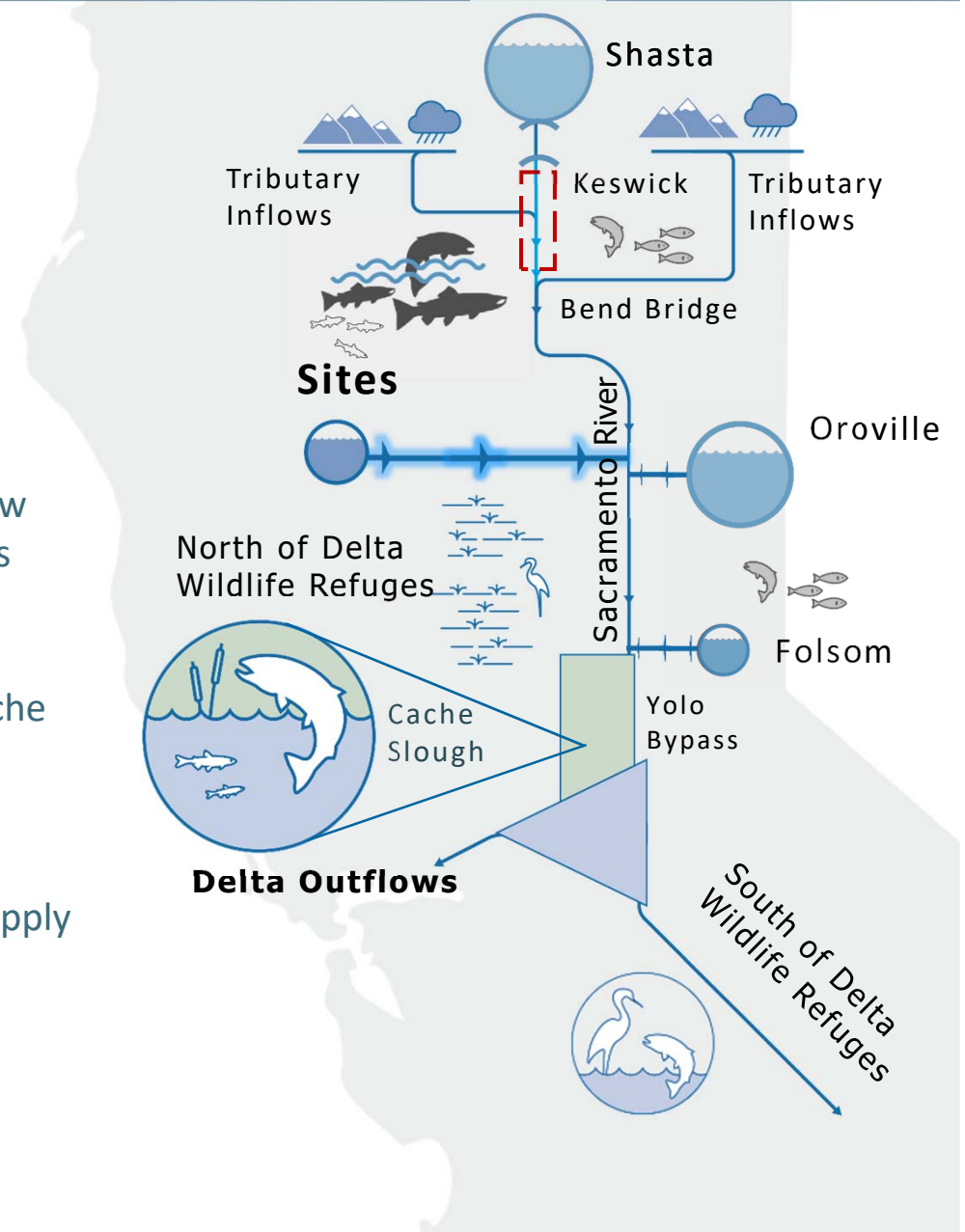
**Winter-run chinook:** increases cold water pool (especially in drier years) in Shasta and decreases summer/fall water temperature in the Sacramento River

**Spring-run chinook:** decreases summer/fall water temperature in the Sacramento and Feather rivers

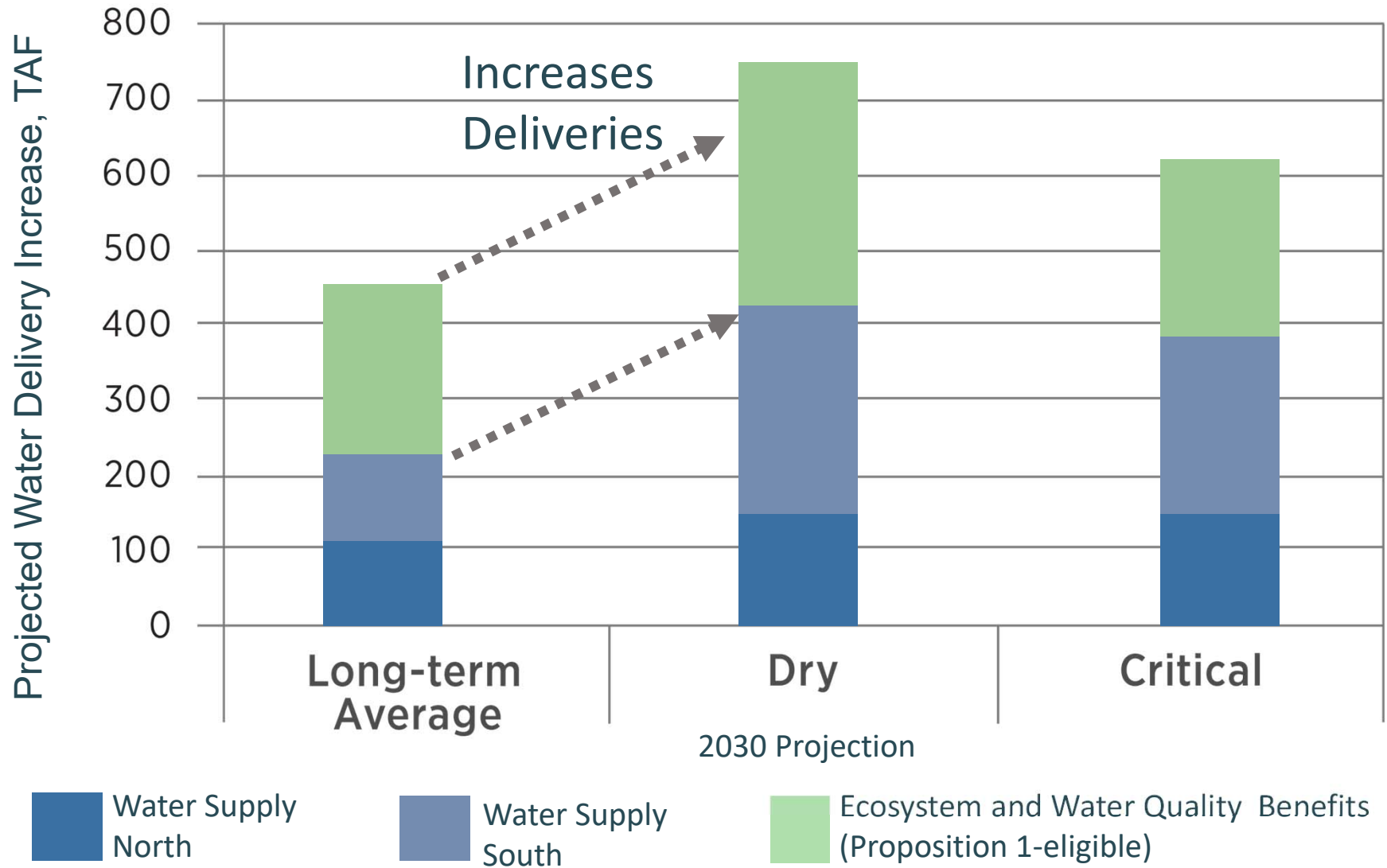
**Fall-run and Late Fall-run chinook:** improves fall flow stability in Sacramento, Feather and American rivers

**Delta smelt:** provides summer-fall pulse flow to Cache Slough for phytoplankton-zooplankton food

**Waterfowl:** augments incremental Level 4 water supply



# Reliability: Greater Deliveries in Dry Years



# SITES WORKS

- ✓ State management and control of **public benefit water**
- ✓ Up to 40% of usable storage capacity **dedicated to public benefits**
- ✓ Public benefits **increase in drier years**
- ✓ Provides **management tool** to flexibly adapt to uncertain future
- ✓ Delivers water for the **environment when it's needed most**



WATER FOR THE ENVIRONMENT, FAMILIES, FARMS AND BUSINESSES

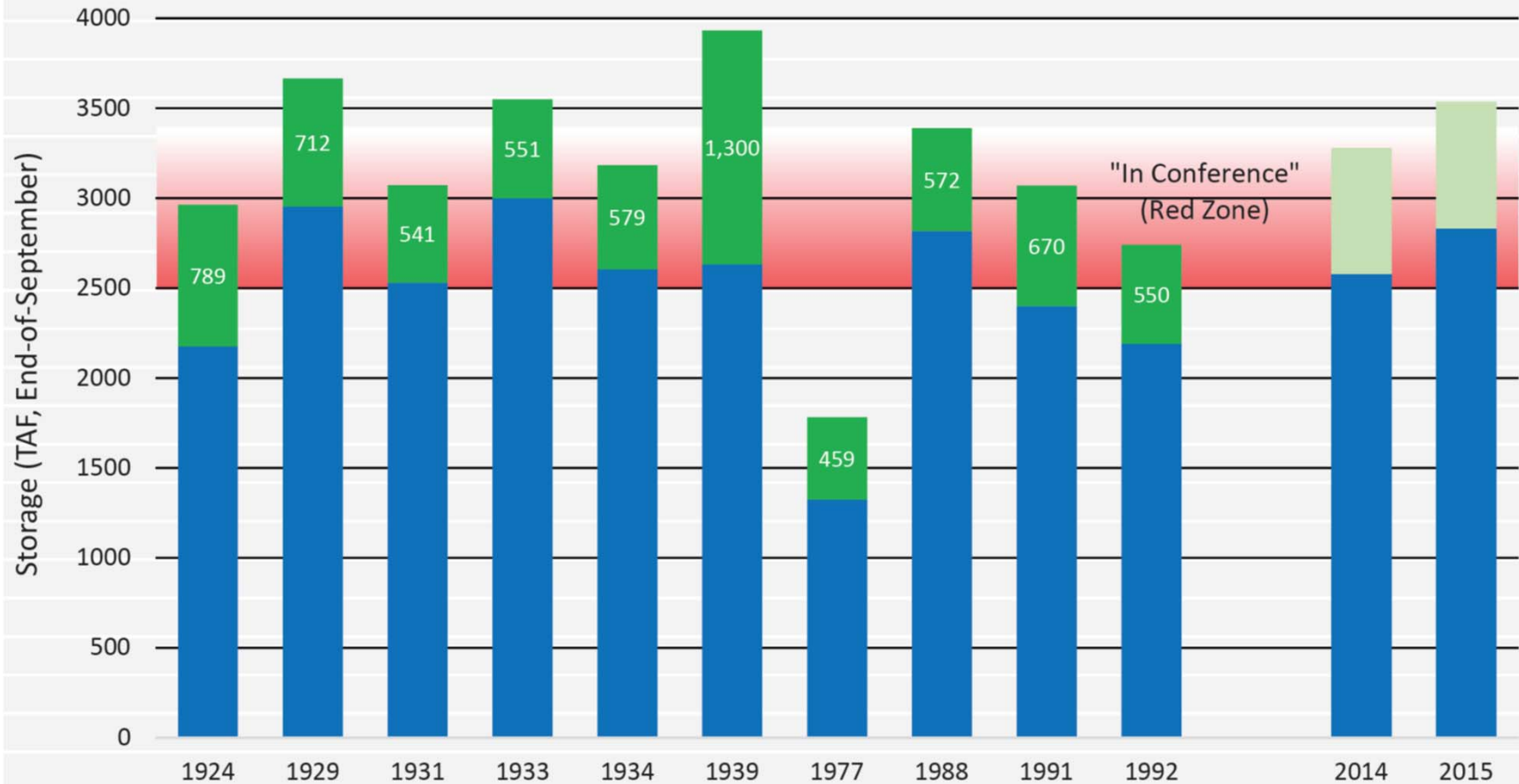


# References

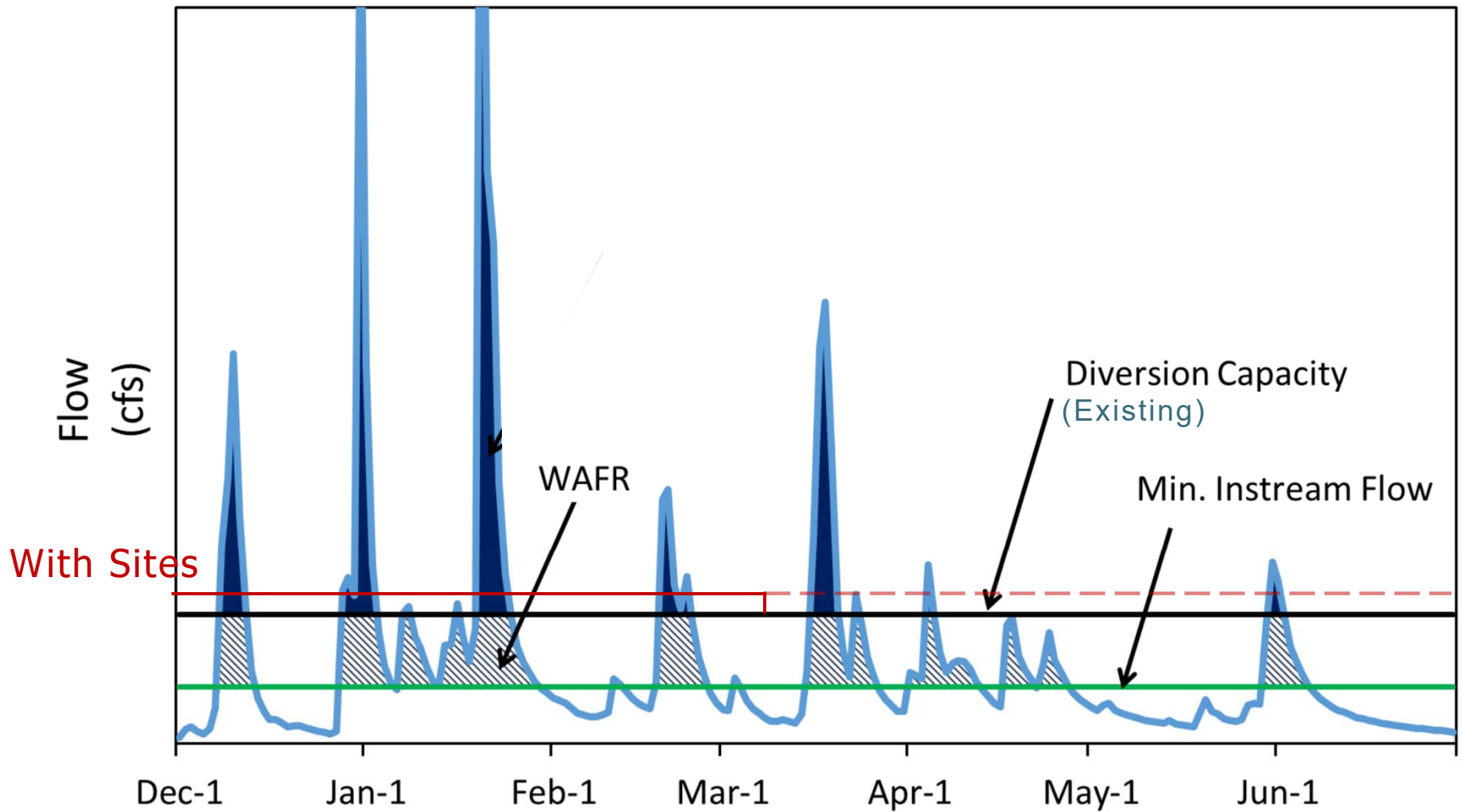
<u>Slide</u>	<u>Page No.</u>	<u>Document</u>	<u>Tab</u>
2	4	Executive Summary	Eligibility and General Project Information Tab
3	7	Executive Summary	Eligibility and General Project Information Tab
5	8-9	Executive Summary	Eligibility and General Project Information Tab
6	19	Executive Summary	Eligibility and General Project Information Tab
7	10, 11, 13	Executive Summary	Eligibility and General Project Information Tab
8	3, 4, 10-17	Executive Summary	Eligibility and General Project Information Tab
9	4, 5, 10, 12, 17	Executive Summary	Eligibility and General Project Information Tab
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11	11	Executive Summary	Eligibility and General Project Information Tab
12	14-15	Executive Summary	Eligibility and General Project Information Tab
13	4	Executive Summary	Eligibility and General Project Information Tab
14	11	Executive Summary	Eligibility and General Project Information Tab
15 - 17			Uncertainty Analysis & Hydrology

# Drought Resiliency

Sites Project Contribution to combined Shasta, Folsom and Oroville Storage  
in Extremely Dry Conditions



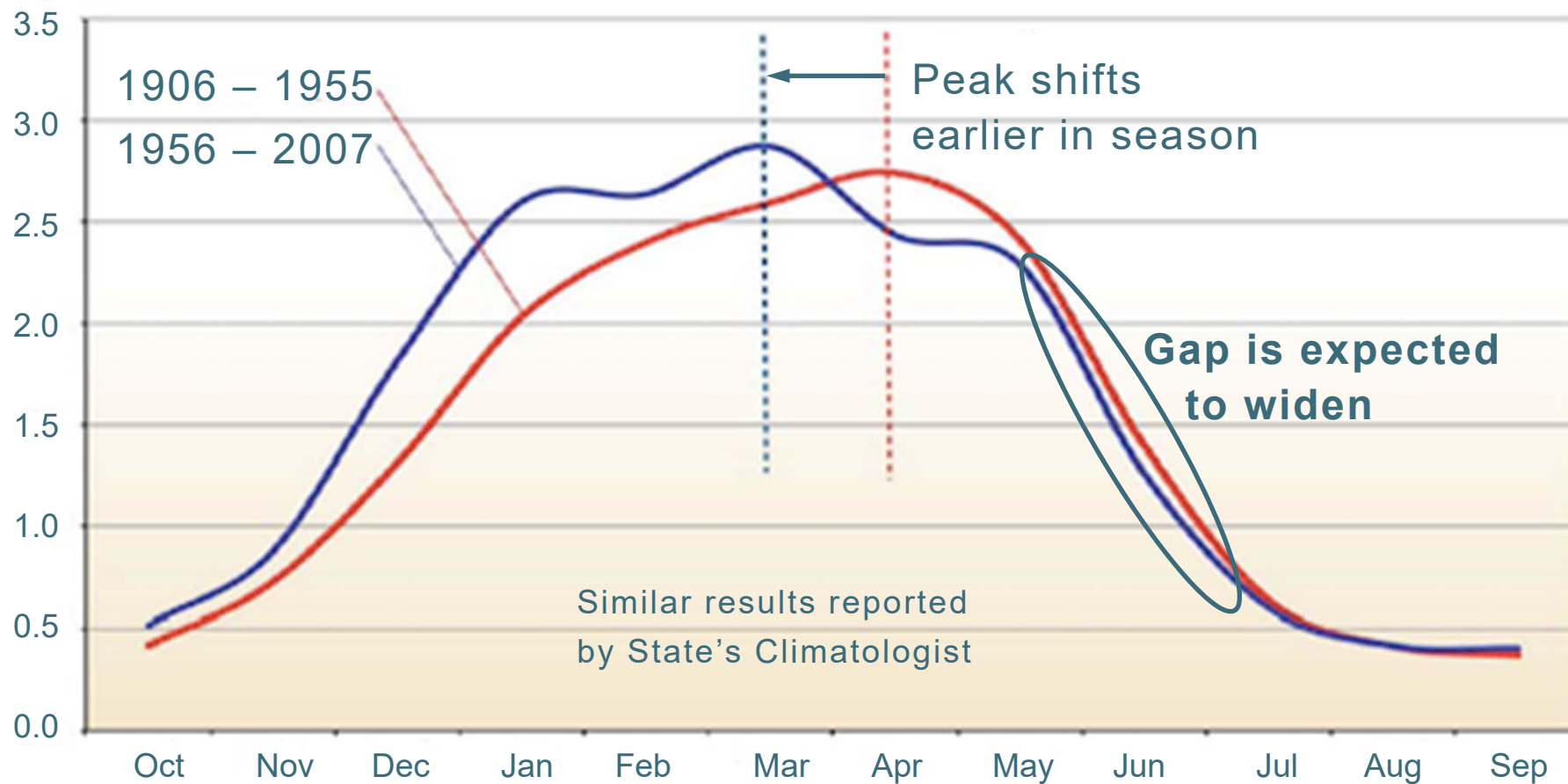
# Diversions into Storage



Source: Adapted from DWR System Reoperation presentation to Water Commission (2017 Sept 20)

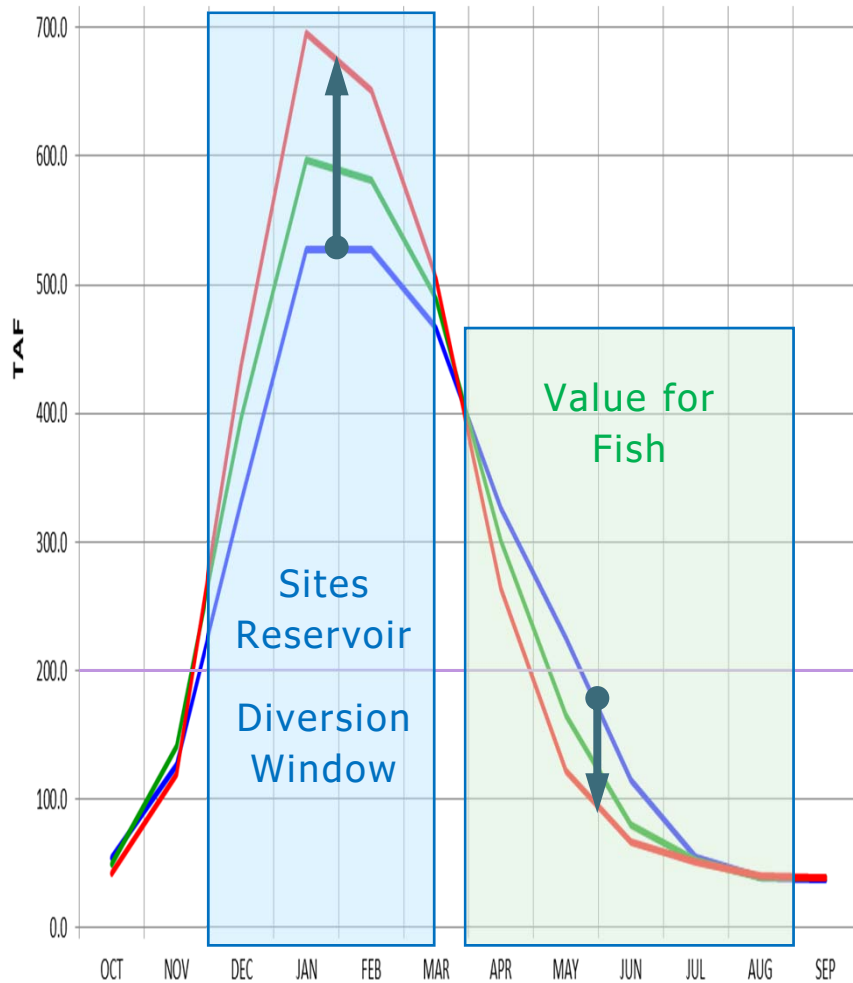
# Effects of Changing Climate to Sacramento River

Runoff (million acre-feet)



# Comparative Climate-Forecast Hydrology

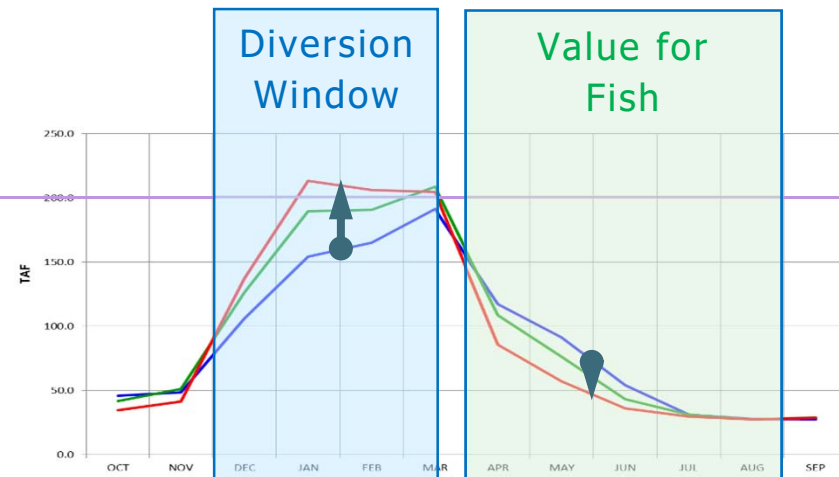
## Long Term Average



### Legend:

- 2070
- 2030
- 2015

## Critical Water Years



Water Year Classification: SAC 40-30-30

Source: CA Water Commission's Water Storage Investment Program's CalSim model with proposed Sites Reservoir