



CALIFORNIA  
**WATER FIX**  
RELIABLE. CLEAN. WATER.

# CALIFORNIA WATERFIX OVERVIEW



# INTRODUCTION

- **Background**
- **Summary of California WaterFix (CWF)**
  - Physical Components
  - Operations
  - Collaborative Science and Adaptive Management





# SWP/CVP FACILITIES IN THE SOUTH DELTA





# CWF FUNDAMENTAL PURPOSE AS DESCRIBED IN THE EIR/EIS

- **To make physical and operational improvements to the system to restore and protect:**
  - Ecosystem health
  - Water supplies of the SWP and CVP south of the Delta
  - Water quality within a stable regulatory framework, consistent with statutory and contractual obligations



Protect our state's water supplies from climate change through water system upgrades



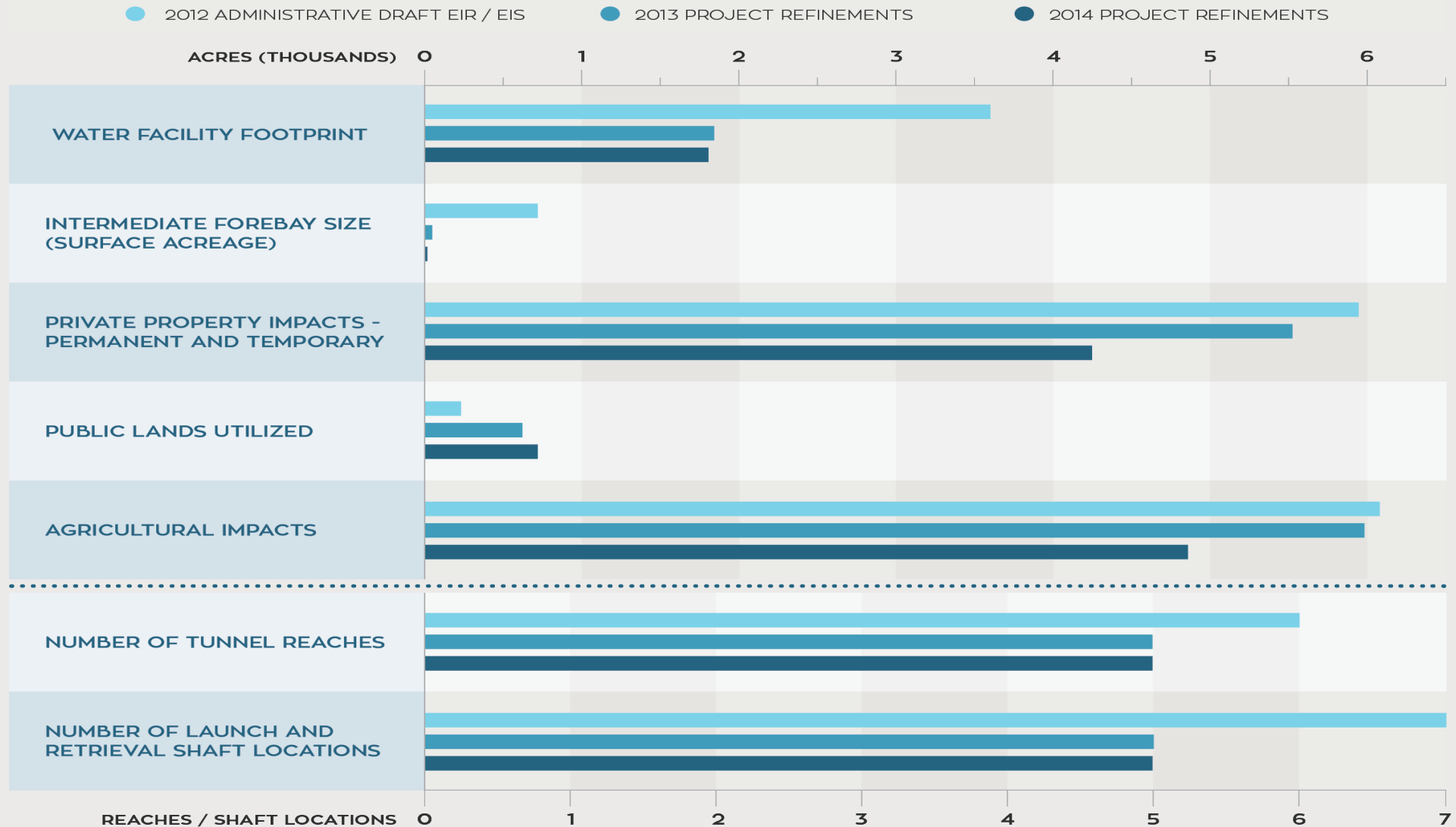
Improve river flows for threatened fish species



Ecosystem restoration and protection



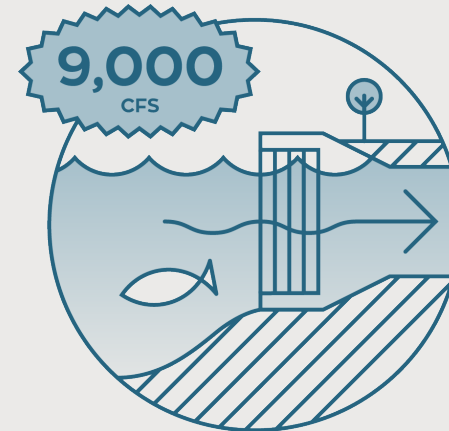
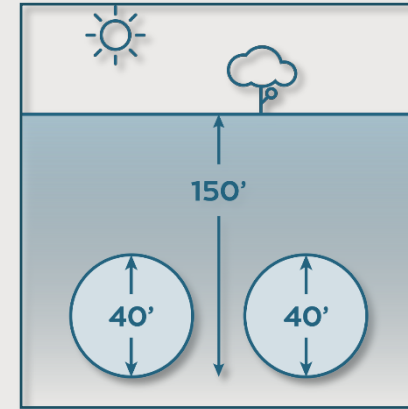
# PROJECT REFINEMENTS



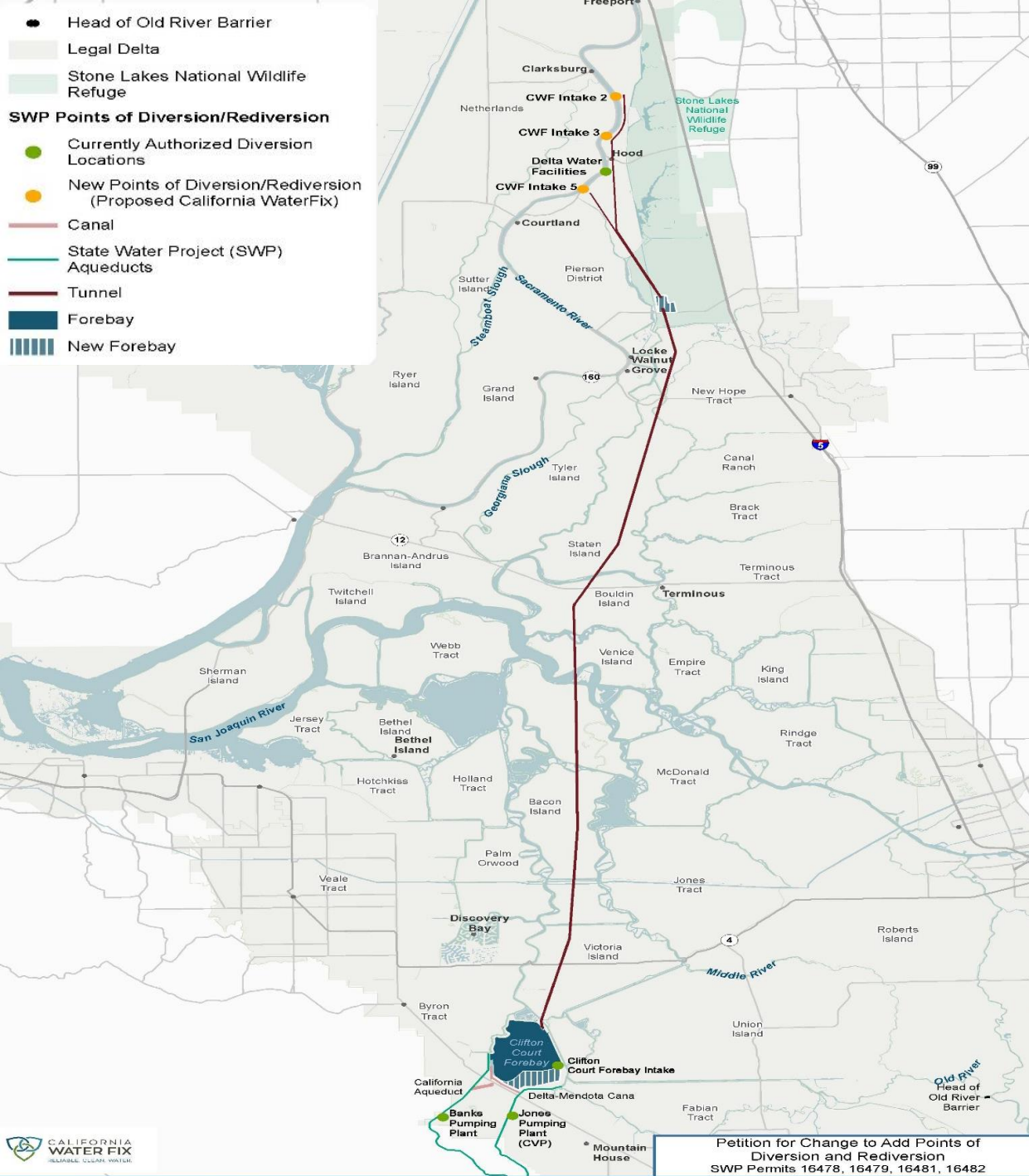


# PHYSICAL COMPONENTS OF THE PROJECT

- 2 tunnels up to 150' below ground designed to protect California's water supplies
- 3 new intakes, each with 3,000 cubic-feet per second (cfs) capacity. **Average annual yield of 4.9 million acre-feet**

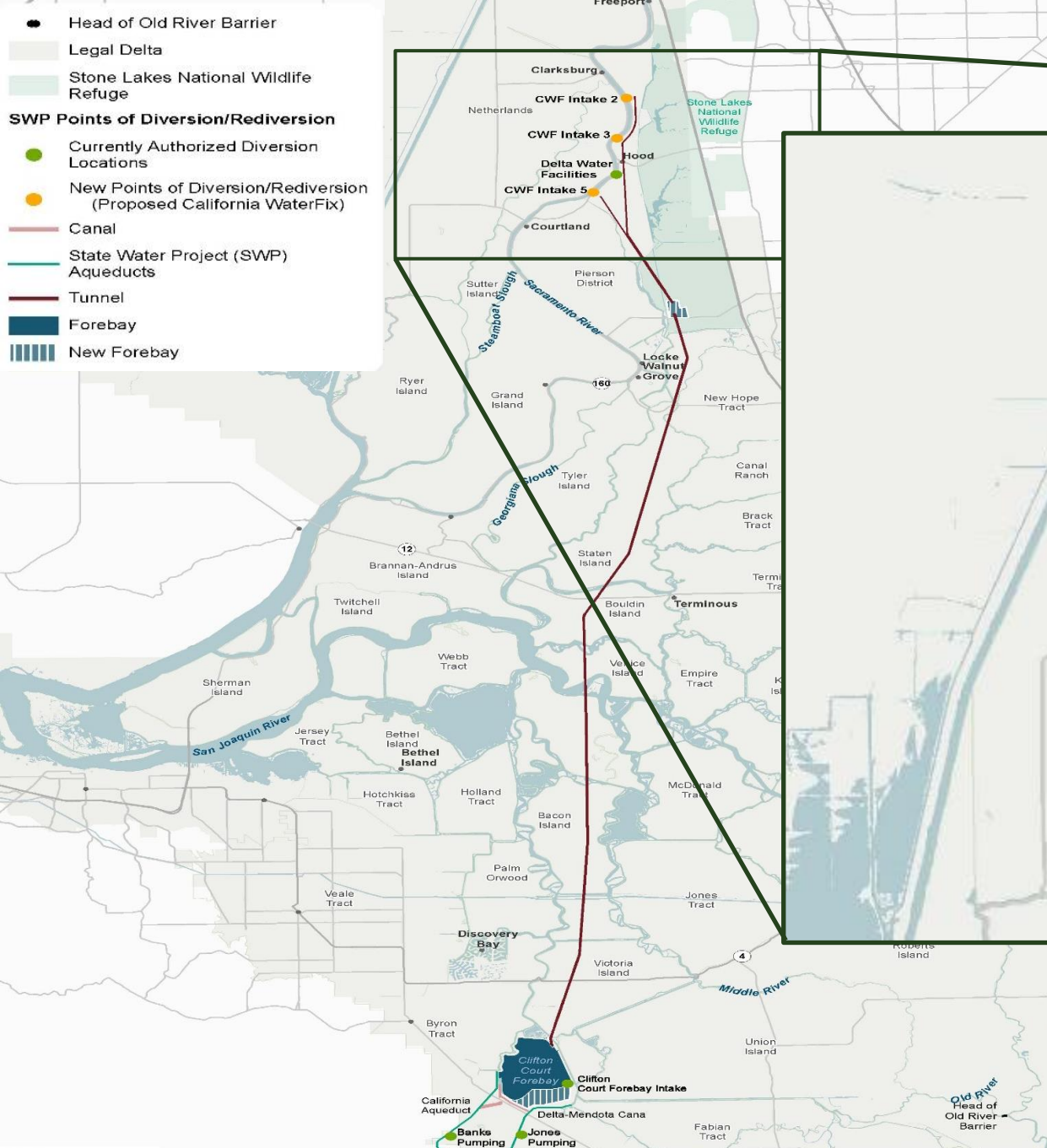


- Head of Old River Barrier
- Legal Delta
- Stone Lakes National Wildlife Refuge
- SWP Points of Diversion/Rediversion**
- Currently Authorized Diversion Locations
- New Points of Diversion/Rediversion (Proposed California WaterFix)
- Canal
- State Water Project (SWP) Aqueducts
- Tunnel
- Forebay
- ▨ New Forebay



Petition for Change to Add Points of Diversion and Rediversion  
 SWP Permits 16478, 16479, 16481, 16482

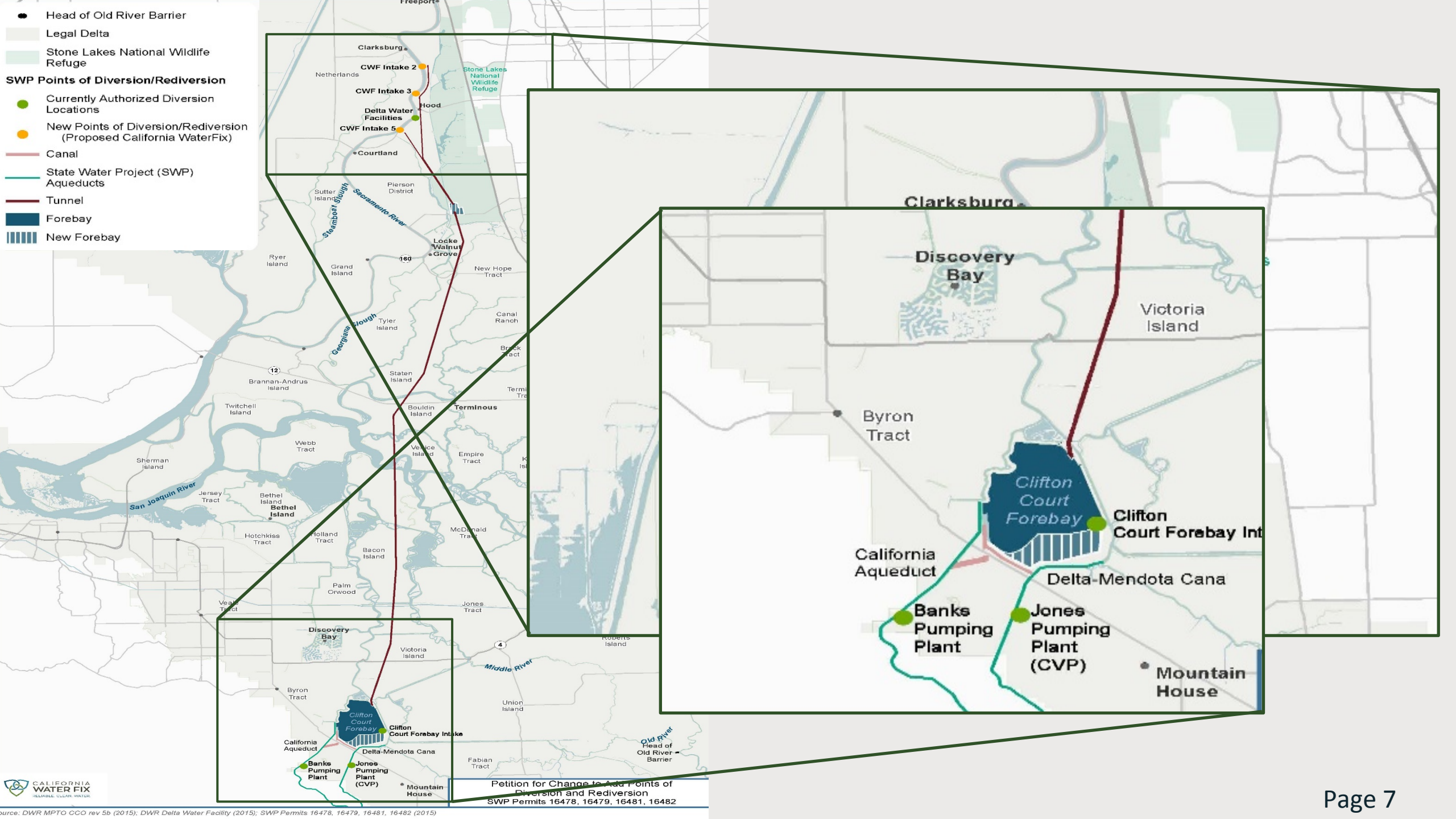
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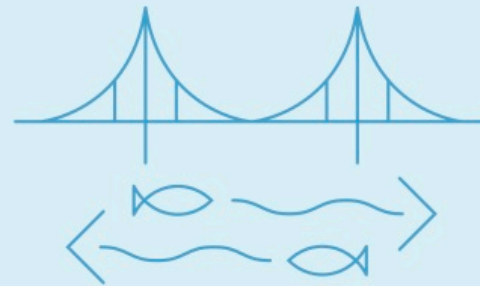
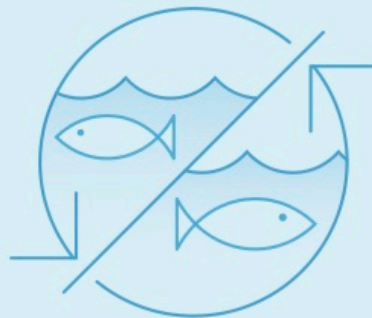
Source: DWR MPTD CCO rev 5b (2015); DWR Delta Water Facility (2015); SWP Permits 16478, 16479, 16481, 16482 (2015)



# DUAL CONVEYANCE CONCEPT

- **Use North Delta Diversion under wetter conditions, less-so in drier conditions**
- **Coordinated with south Delta diversions to meet water quality objectives, maximize fish protection and water supply**

## IMPROVED RIVER FLOWS





# TABLE OF MODELING OPERATIONS

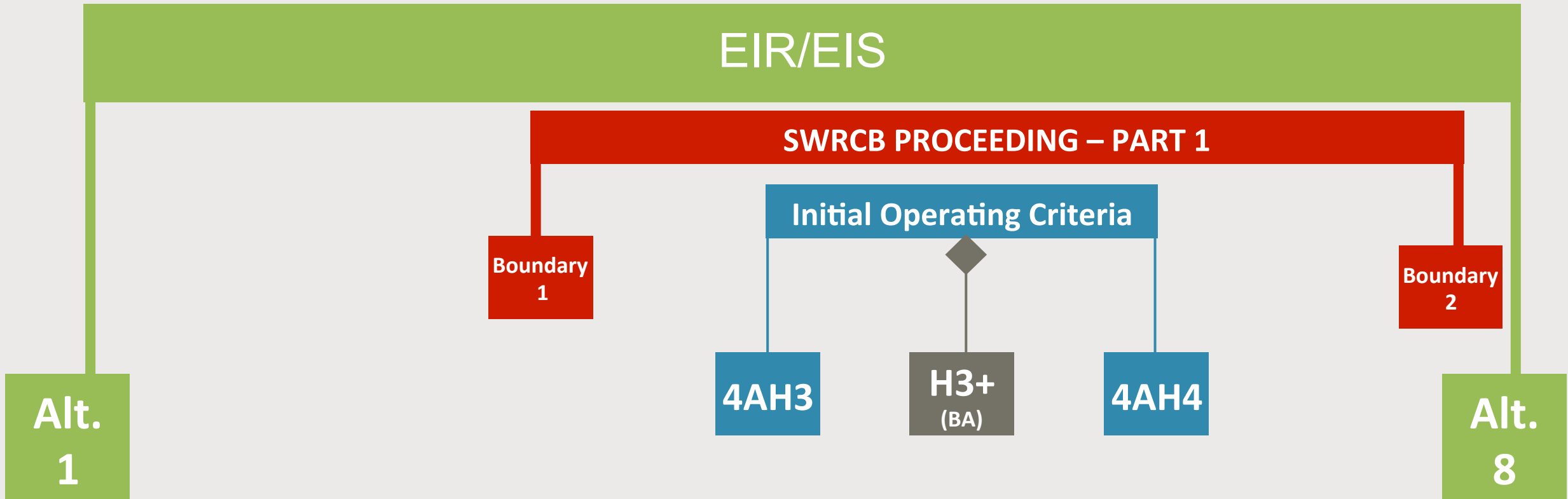
<b>Regulatory Context</b>	<b>Proposed Conveyance</b>	<b>Operations Analyzed</b>
<b>EIR/EIS</b>	Alternative 4A	H3-H4
<b>ESA draft BA</b>	Alternative 4A	H3+
<b>SWRCB Proceeding</b>	Alternative 4A	Boundary 1 – Boundary 2



# ALTERNATIVES COMPARISON

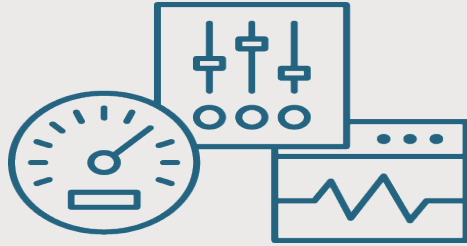
Similar to  
Existing  
Outflow

High  
Outflow





# WHAT ISN'T CHANGING



**Upstream operations  
of SWP/CVP**



**Water contractor  
service areas**



**No change to quantity,  
rate, timing, place or  
purpose of use under  
the existing permits**



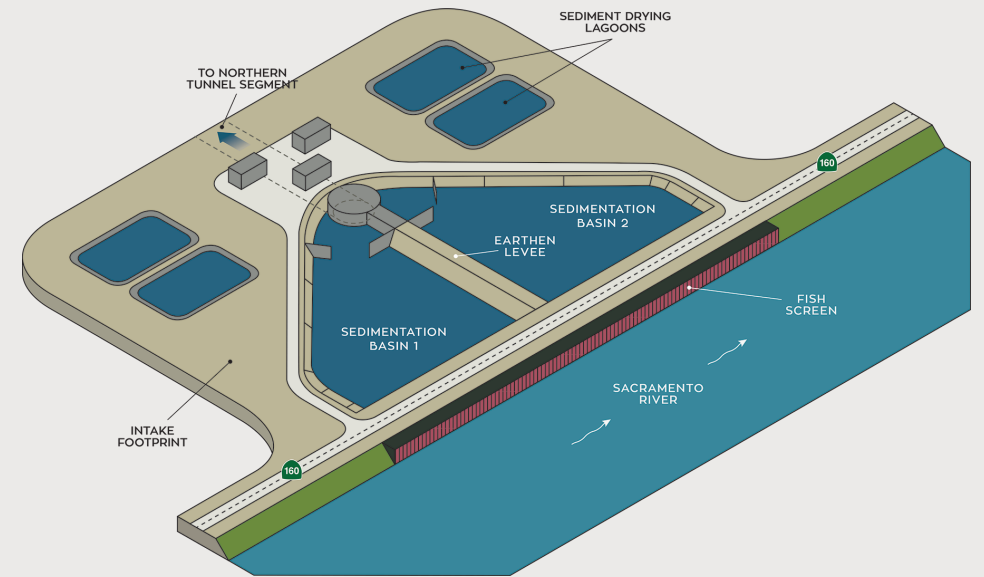
## OPERATIONAL COMPONENTS

- **CWF Initial Operational Criteria**
- **Real Time Operations**
- **Collaborative Science and Adaptive Management**
  - Consistent with applicable water quality control plan requirements
  - Decision making coordinating with state and federal fish and wildlife agencies.
  - The framework is developed consistent with existing state and federal adaptive management programs



# CWF INITIAL OPERATIONAL CRITERIA

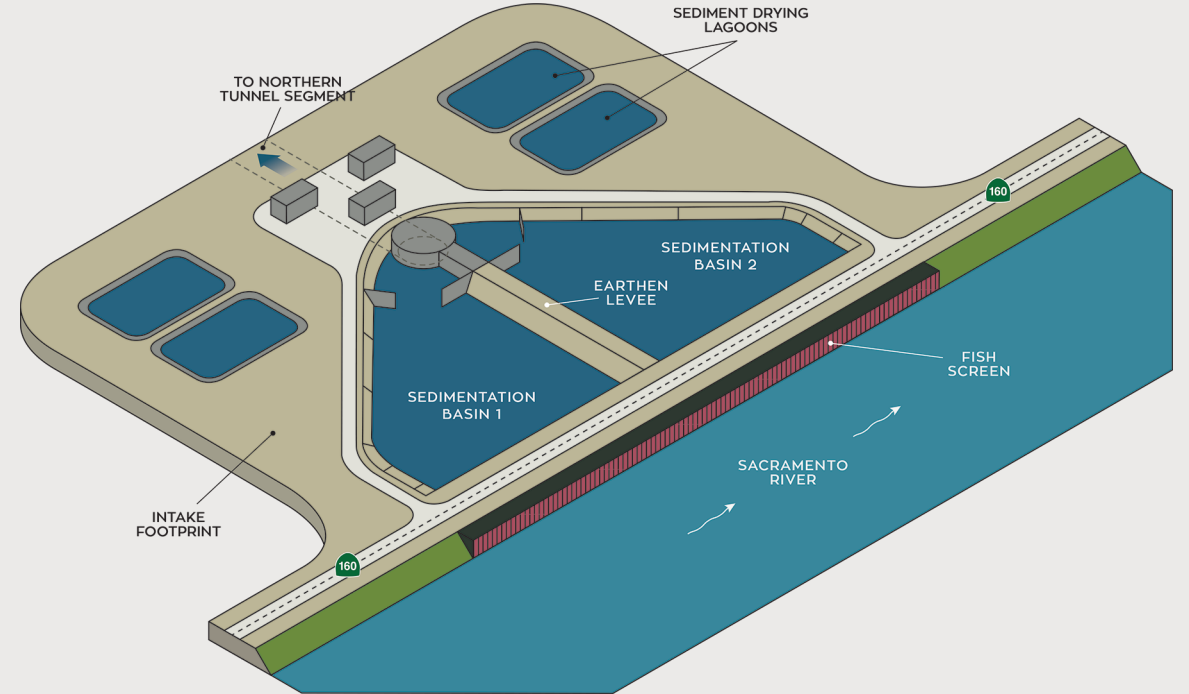
- Continued compliance with D-1641
- No change to Delta Cross Channel, Suisun Salinity Control Gate operations, or Fall X2
- Consistent with existing water rights





# CWF INITIAL OPERATIONAL CRITERIA (CONT'D)

- **New criteria for:**
  - North Delta Diversions Bypass Flows
  - South Delta OMR
  - Head of Old River Gate
  - Rio Vista minimum flows
  - Potential spring outflow







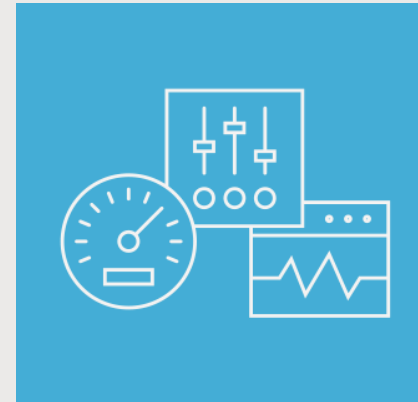
	<b>9,000 cfs North Delta Diversion</b>	<b>Fall X2</b>	<b>Delta Outflow requirements</b>	<b>NMFS BiOp SJR i/e ratio</b>	<b>OMR Requirements</b>	<b>Head of Old River Barrier/Gate</b>
<b>No Action Alternative</b>	No	Yes	Per D-1641	Yes	Yes; per BiOps	Temporary barrier installed in fall months
<b>Boundary 1</b>	Yes	No	Per D-1641	No	Yes; per BiOps	Permanent gate operating in fall months consistent with NAA
<b>H3</b>	Yes	Yes	Per D-1641	No	Yes; more restrictive of either BiOps or new OMR requirements identified in the RDEIR/SDEIS for Alternative 4A	Permanent gate operating in fall, winter and spring months (partial closure)
<b>H4</b>	Yes	Yes	Per D-1641 and increased Delta Outflow requirements during March-May	No		
<b>Boundary 2</b>	Yes	Yes	Per D-1641 and increased Delta Outflow goals in all months	No	Yes; more restrictive of either BiOps or new OMR requirements identified in the RDEIR/SDEIS Appendix C	Permanent gate operating in fall, winter and spring months (full closure)



# COLLABORATIVE SCIENCE & ADAPTIVE MANAGEMENT

- **Focused on**

- North Delta Diversion screen design
- Habitat restoration
- Delta Operational Criteria





## COLLABORATIVE SCIENCE & ADAPTIVE MANAGEMENT FRAMEWORK

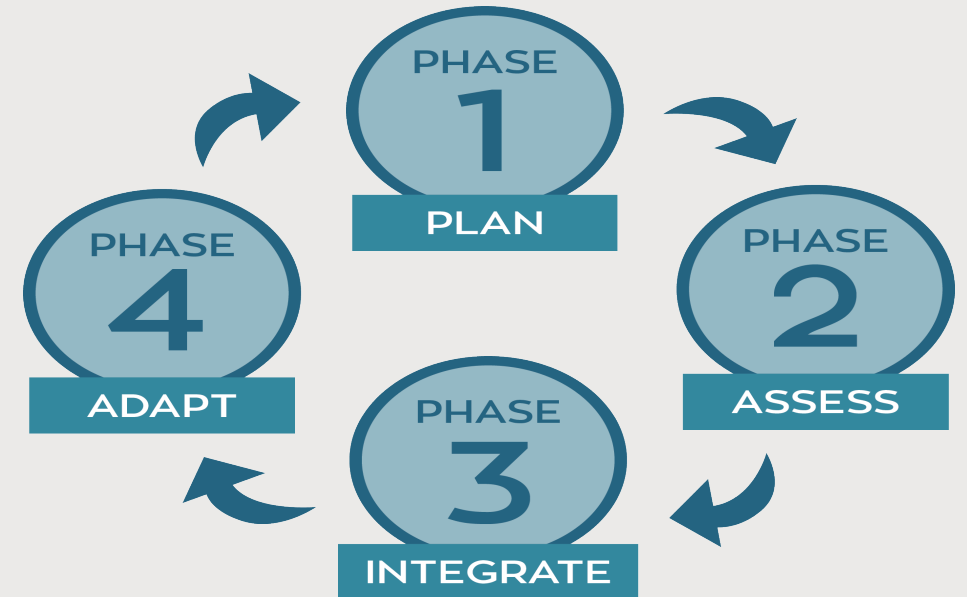
- **Provides framework for targeted scientific research to address uncertainties and make adjustments over time**
- **Consistent with applicable water quality control plan requirements**
- **Decision making coordinating with state and federal fish and wildlife agencies**
- **The framework is developed consistent with existing state and federal adaptive management programs**



# COLLABORATIVE SCIENCE AND ADAPTIVE MANAGEMENT (CONT'D)

- **Key Concepts include:**

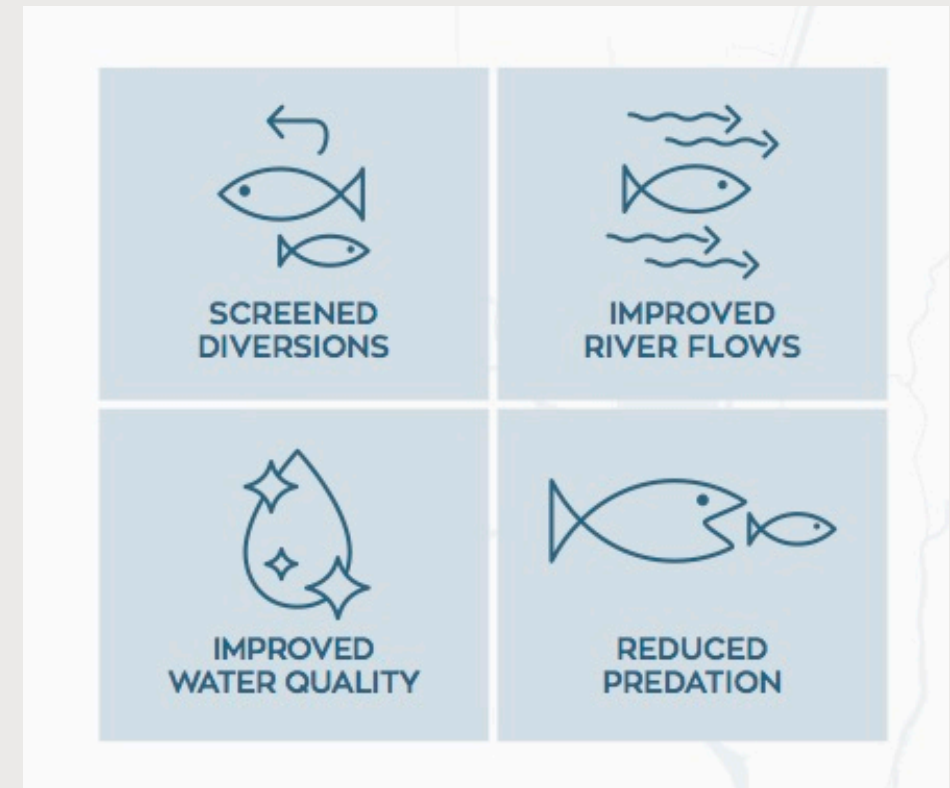
- Undertake collaborative science
- Guide the development and implementation of scientific investigations and monitoring
- Apply new information to management decisions and actions





# TESTIMONY OVERVIEW

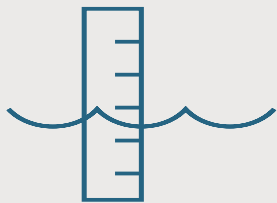
- **Engineering testimony will provide detail about mitigation for project construction**
- **Operations testimony will provide detail about existing and continued real time operations:**
  - Real-time adjustments to North Delta Diversion, south Delta facilities, and Head of Old River Gate to continue to operate to D-1641





# TESTIMONY OVERVIEW

**Modeling testimony will provide detail regarding the assumptions and modeling results completed for the boundary analysis:**



Water Levels



Water Supply



Water Quality



Reservoir Storage



# TESTIMONY OVERVIEW

**Water Rights testimony will provide detail about:**



Water Rights

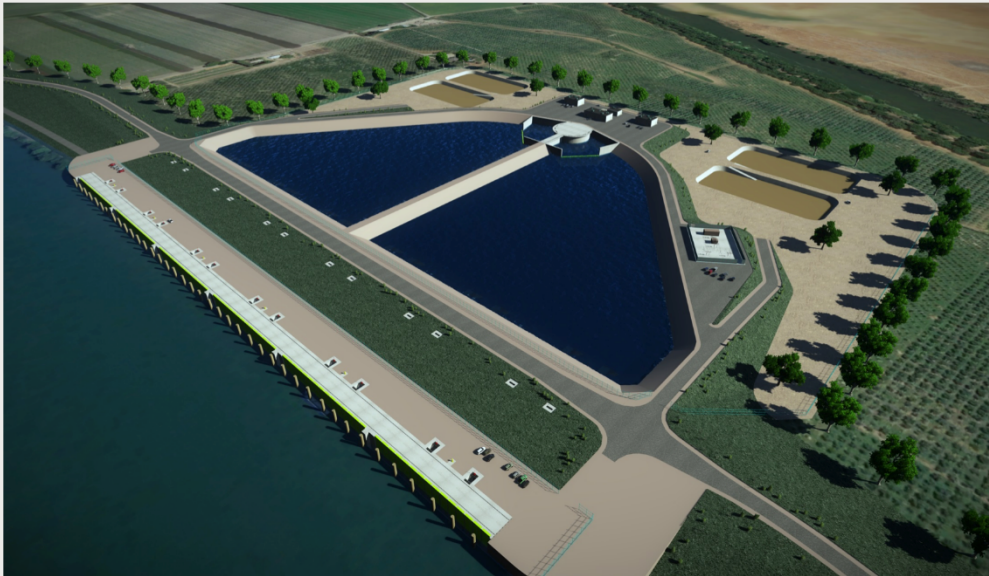


Overview of Settlement  
Agreements

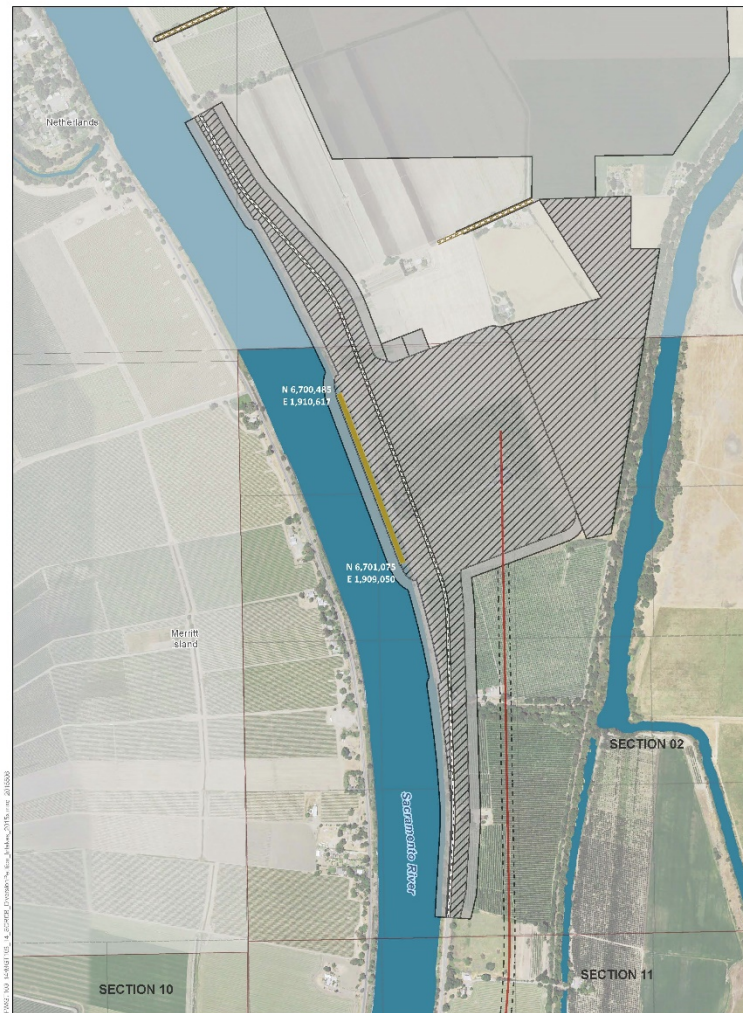


# NEXT PRESENTER

## Engineering/Facility Description







**Legend**

Interstate	Permanent Access Road
State Highway/Route	Temporary Access Road
Railroad	Tunnel
Water	Intake
	Permanent Subsurface Impact
	Permanent Surface Impact
	Temporary Surface Impact

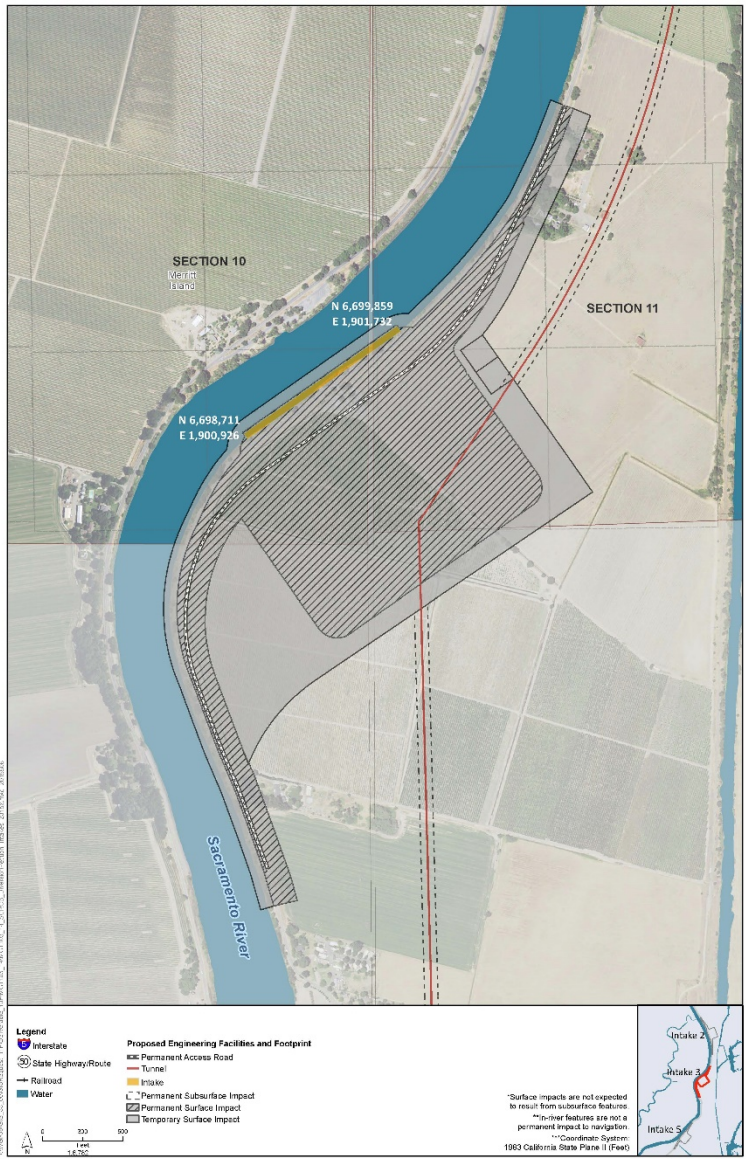
**Proposed Engineering Facilities and Footprint**

\*Surface impacts are not expected to result from subsurface features.  
\*\*Intake facilities are not a permanent impact to navigation.  
\*\*\*Coordinate System: 1983 California State Plane II (Feet)

**Intake 2**  
**Intake 3**  
**Intake 5**

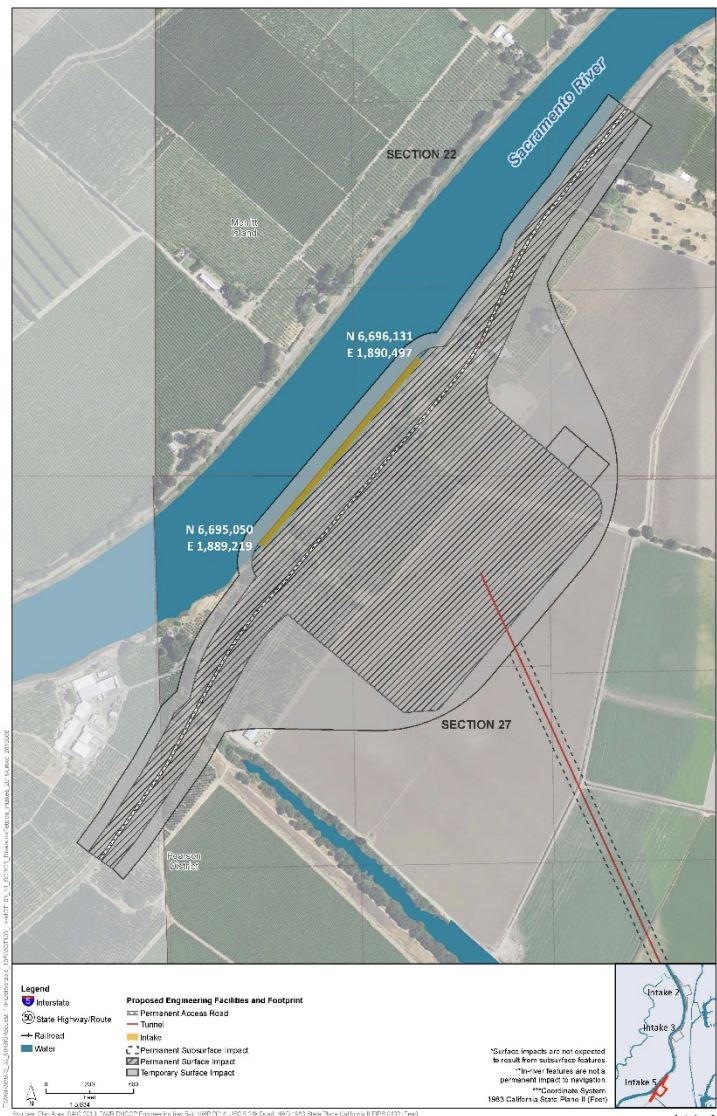
Version Date: 06 May 2015

State Water Resources Control Board  
Petitions for Change in Points of Diversion  
Application Numbers: A17512, A14445A, A14443, A5630



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