



CALIFORNIA
WATERFIX
RELIABLE. CLEAN. WATER.

CA WATERFIX & ECORESTORE OVERVIEW

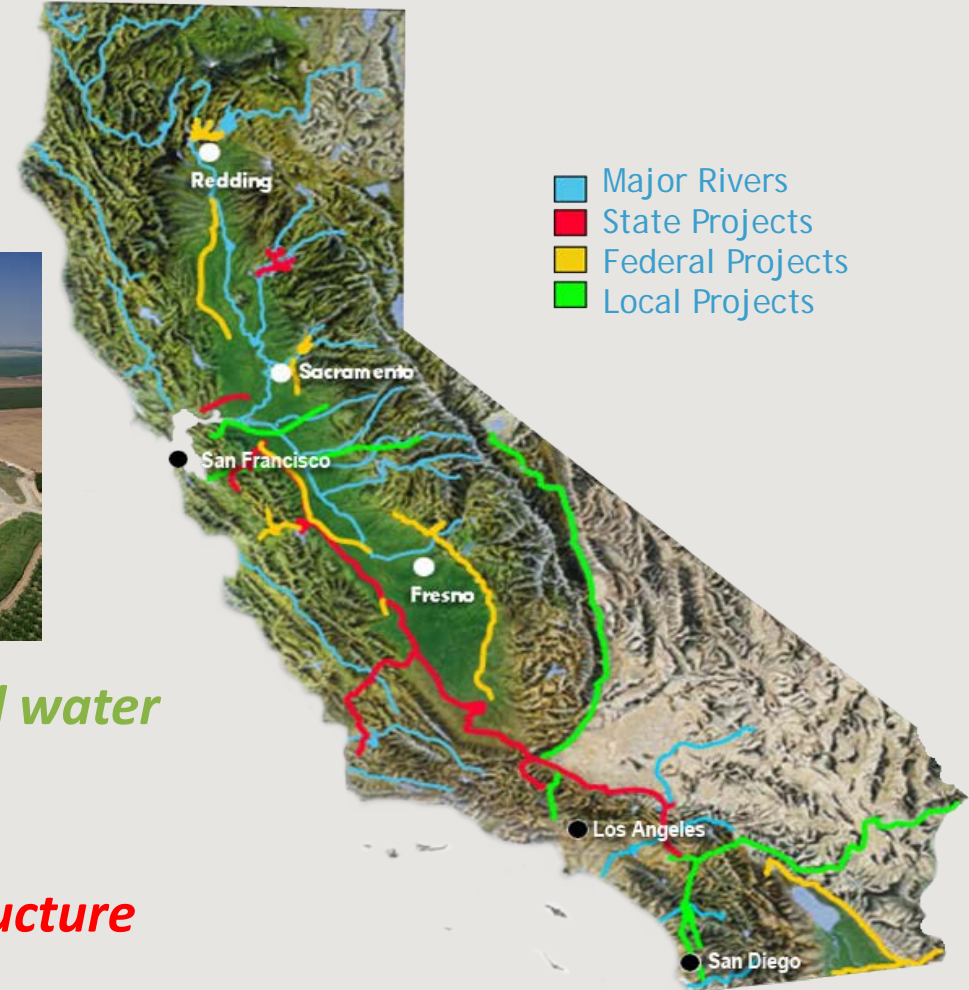
B.G. Heiland, P.E.

May 15, 2018



STATE, FEDERAL, AND LOCAL WATER PROJECTS

- 54 reservoirs and lakes
- 1,200 miles of canals and pipelines
- 16 hydro facilities



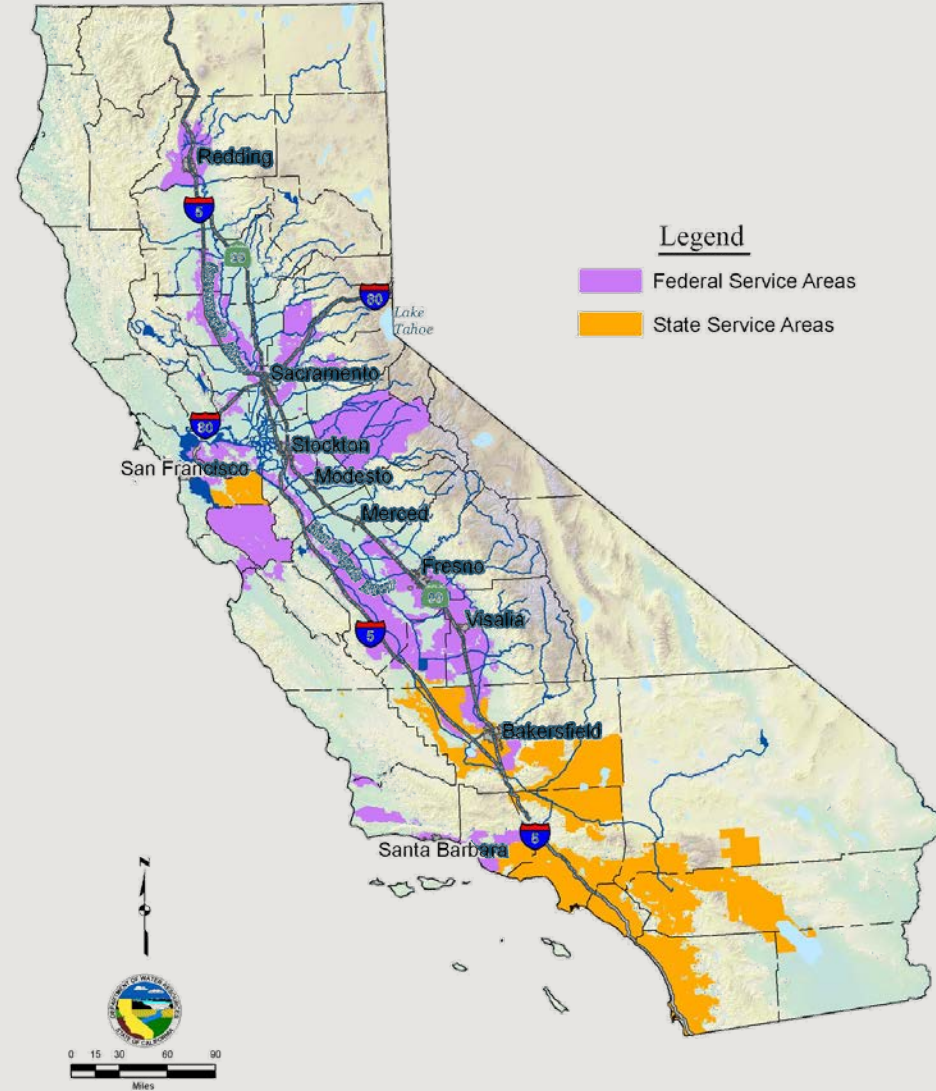
Largest publically-built and operated water supply project in the world

Bay-Delta is the hub of this infrastructure



SWP/CVP WATER DELIVERIES

Areas of California served by water supplies from the Delta.





29 SWP CONTRACTORS





RESTORING MORE NATURAL FLOWS





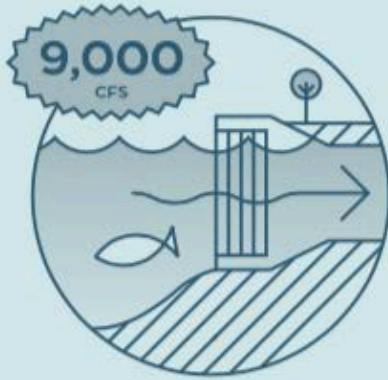
IMPORTANT FOR CALIFORNIA



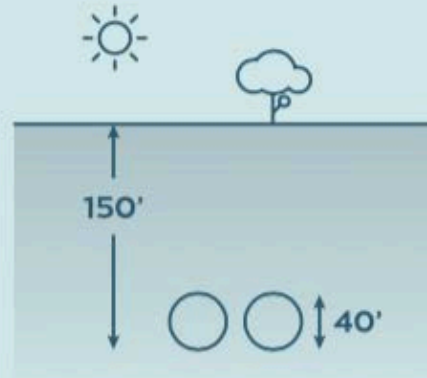
Part of the state's overall water management portfolio



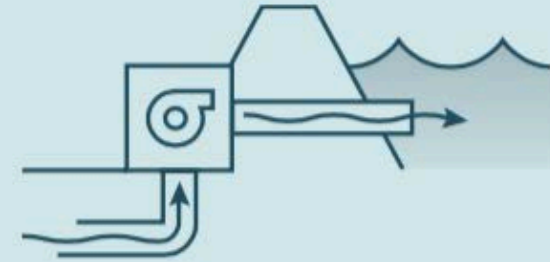
WATER SYSTEM UPGRADE



Three new intakes, each with 3,000 cubic-feet per second (cfs) capacity, located on the Sacramento River in the north part of the Delta, closer to high quality water and away from critical habitats.



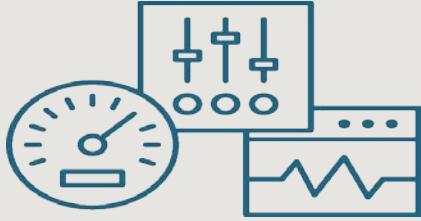
Two tunnels up to 150' below ground designed to protect California's water supplies from sea level rise, earthquakes, floods and levee failure.



Consolidated pumping plant to lift water into forebay in the south Delta to connect to SWP/CVP facilities.



WHAT ISN'T CHANGING



**Upstream operations
of SWP/CVP**



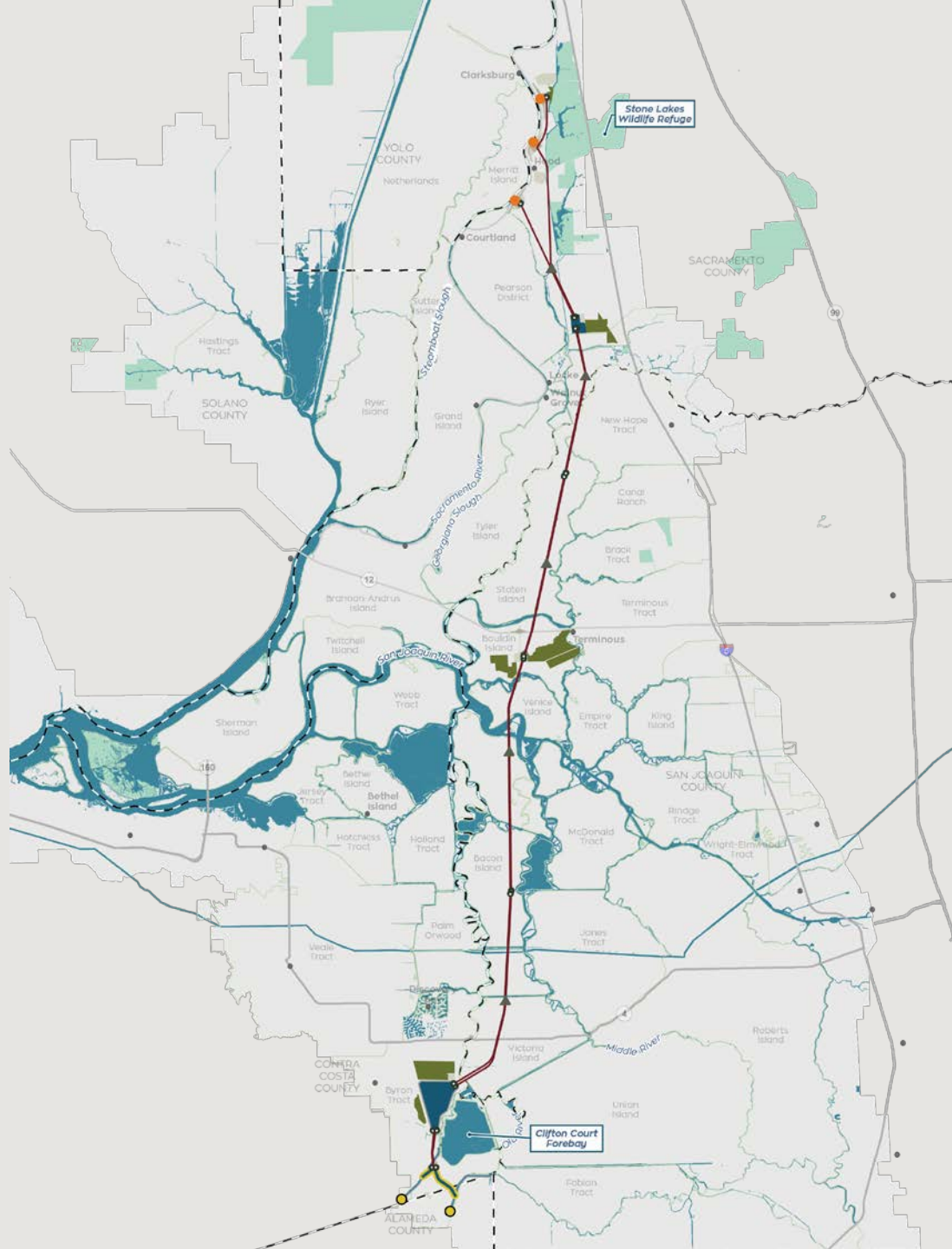
**Water contractor
service areas**



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



PROJECT FACILITIES



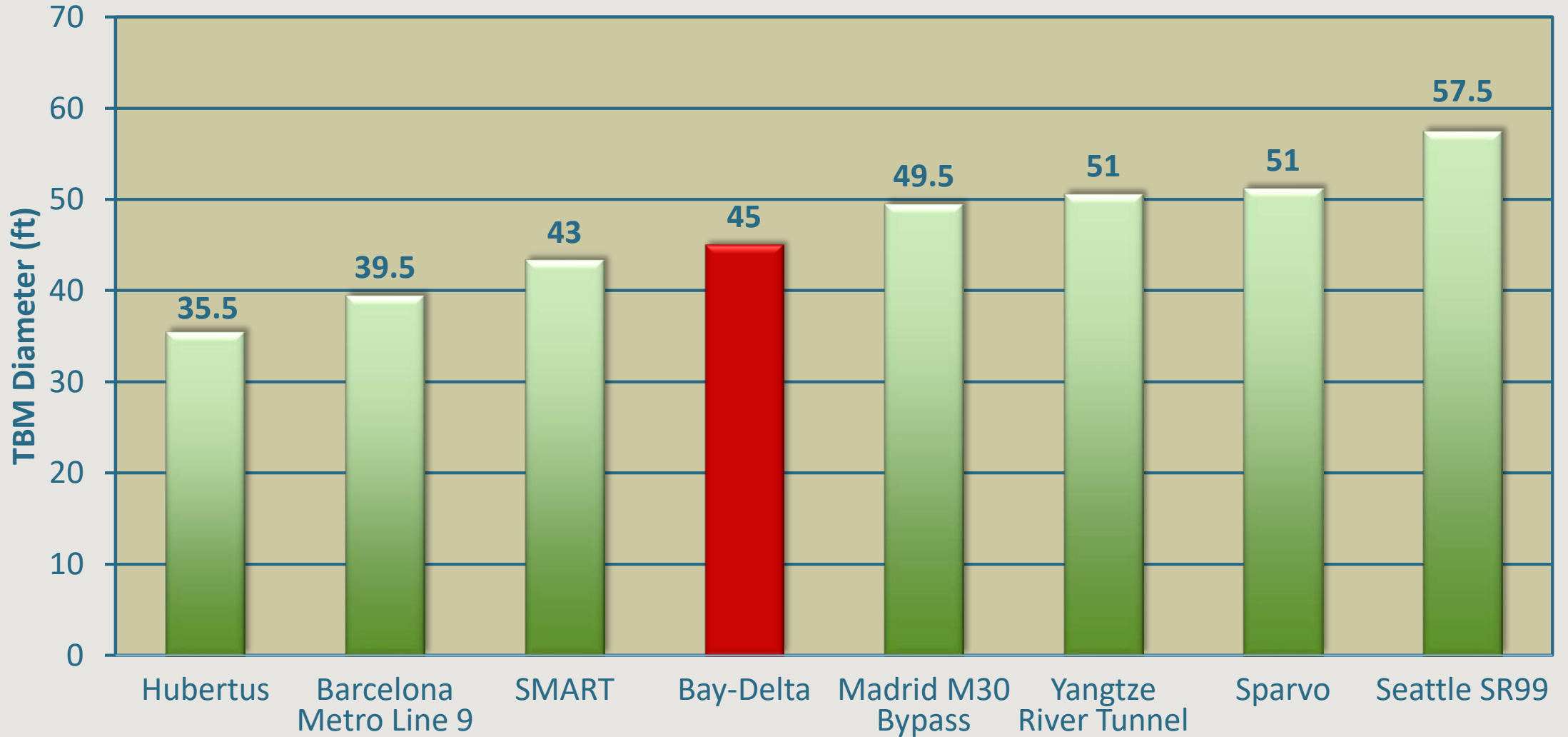
MAP LEGEND

- Forebay Overflow
- Intake
- Tunnel Route
- Tunnel Shaft
- New canals
- Existing CVP and SWP pumps
- Reusable Tunnel Material Area
- County Lines

** Map includes proposed footprint modifications due to ongoing optimization of the design to reduce impacts*



LARGE DIAMETER TBM PROJECTS





TYPICAL TUNNEL SEGMENTS





FLOW PROTECTION RULES

EXAMPLE SACRAMENTO RIVER FLOWS AND NORTH DELTA DIVERSIONS

WET YEAR EXAMPLE

WET

64,000 cfs (Jan. 21, 2006)
Maximum Diversion: 9,000 cfs

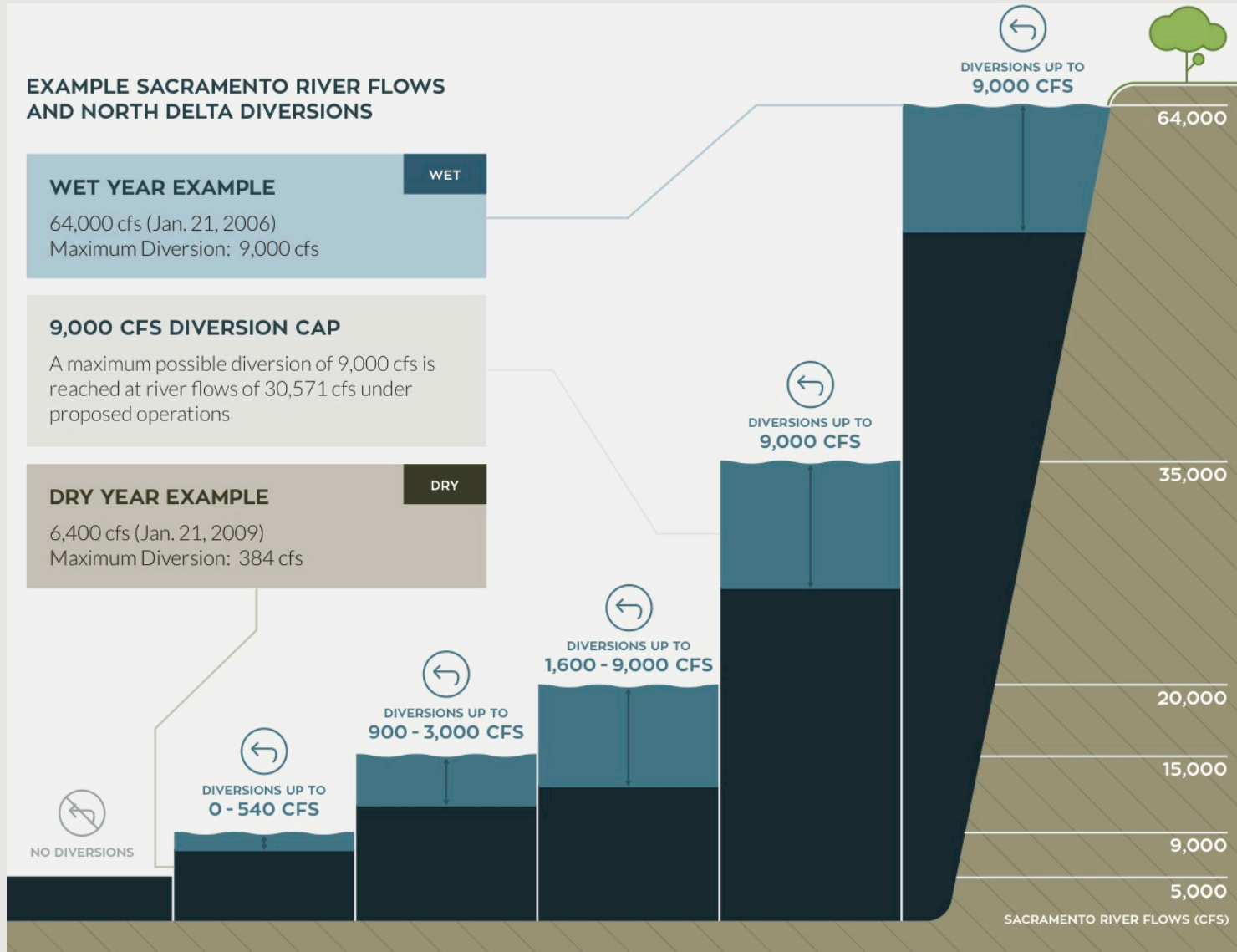
9,000 CFS DIVERSION CAP

A maximum possible diversion of 9,000 cfs is reached at river flows of 30,571 cfs under proposed operations

DRY YEAR EXAMPLE

DRY

6,400 cfs (Jan. 21, 2009)
Maximum Diversion: 384 cfs



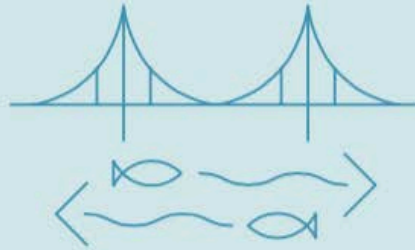


IMPROVING FLOWS

WaterFix will reduce the impact of pumping water solely from the southern part of the Delta and restore more natural flow conditions.



A return to more natural river flows in the south Delta, minimizing harmful reverse flows caused by powerful pumps.



Continued compliance to meet San Francisco Bay outflow requirements to protect against salt water intrusion and improve the overall health of the Delta ecosystem.



New intake location away from endangered species, with advanced fish screens to protect aquatic species.

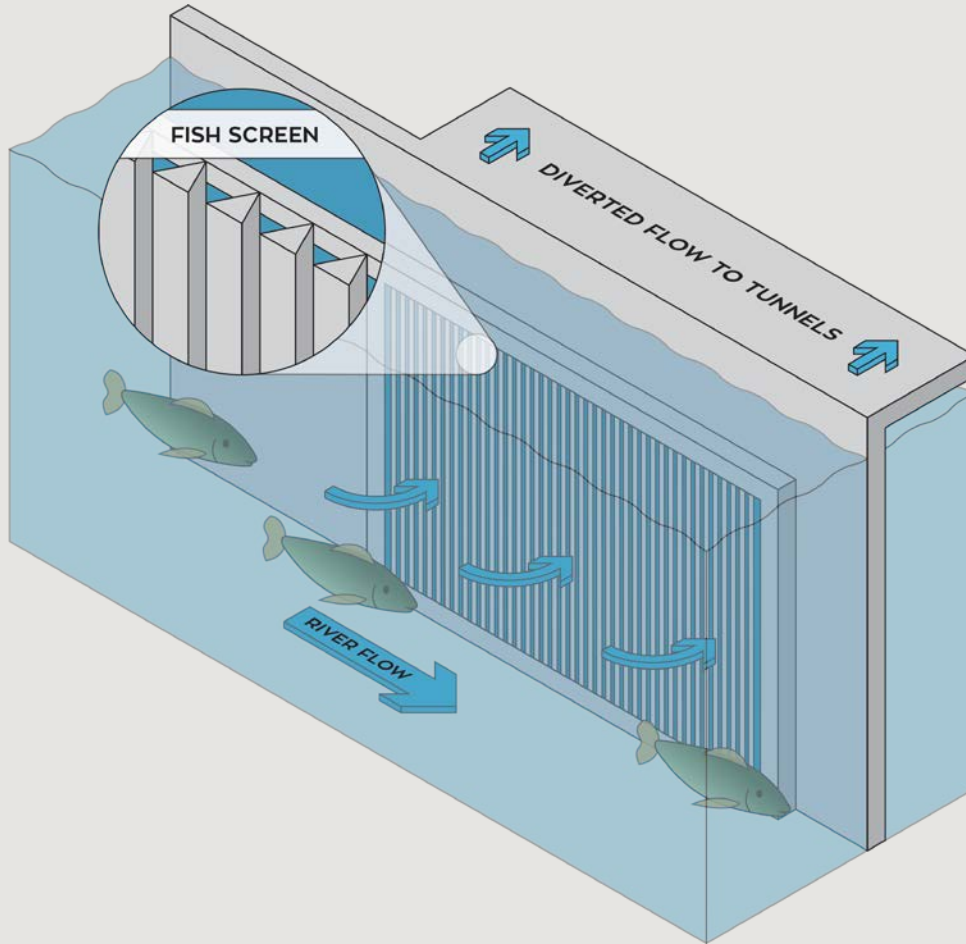


INTAKES – DRAWING REVIEW





PROTECTING WATER SUPPLIES & FISH





ENVIRONMENTAL MITIGATION



Improve habitat conditions along five miles of important juvenile salmon migration routes



Restore tidal and non-tidal wetland habitat to sustain habitat functions for native wildlife, such as the Giant Garter Snake and salmon



Restore native riparian forest and scrub to support habitat for riverside species and improve linkages for terrestrial and other native species



Improve connectivity among existing patches of grassland and other natural habitats



COST & FUNDING

COST AND FUNDING



2014 dollars



FINAL EIR/EIS

- 100+ alternatives considered in screening process
- CEQA/NEPA proposed project/preferred Alternative 4A
- 18 action alternatives
- No Action (NEPA)/No Project (CEQA) Alternative

STAKEHOLDER INPUT HELPED INFORM CALIFORNIA WATERFIX

228-DAY

PUBLIC REVIEW PERIOD
ON THE DRAFT EIR/EIS

18,500
COMMENTS

OVER

600

**BRIEFINGS, PUBLIC
MEETINGS, AND
WORKING GROUPS**

HELD THROUGHOUT THE
DELTA AND CALIFORNIA TO
PROVIDE CRITICAL PROJECT
INFORMATION AND SOLICIT
INPUT SINCE 2008

113-DAY

PUBLIC REVIEW PERIOD
ON THE RECIRCULATED DRAFT
EIR (RDEIR)/SUPPLEMENTAL
DRAFT EIS (SDEIS)

12,500
COMMENTS



PERMITTING

		Completed
✓	California Environmental Quality Act (<i>DWR</i>)*	Notice of Determination
✓	U.S. Endangered Species Act (<i>USFWS & NMFS</i>)	Section 7 Consultation
✓	National Historic Preservation Act (<i>USACE & SHPO</i>)	Programmatic Agreement
✓	California Endangered Species Act (<i>CDFW</i>)	2081(B) Permit
		Expected 2018
	National Environmental Policy Act (<i>USBR</i>)	Record of Decision
	Clean Water Act - Water Quality Certification (<i>SWRCB</i>)	Section 401
	State Water Resources Control Board	Change Petition
	Lake and Streambed Alteration Agreement (<i>CDFW</i>)	Section 1602
	Clean Water Act (<i>USACE</i>)	Section 404 Permit
	Rivers and Harbors Act (<i>USACE</i>)	Section 14 Permit
	Delta Stewardship Council, Delta Plan	Certification of Consistency

* *DWR is preparing a Draft Supplemental Environmental Impact Report expected in Summer 2018*



RECENT NEWS

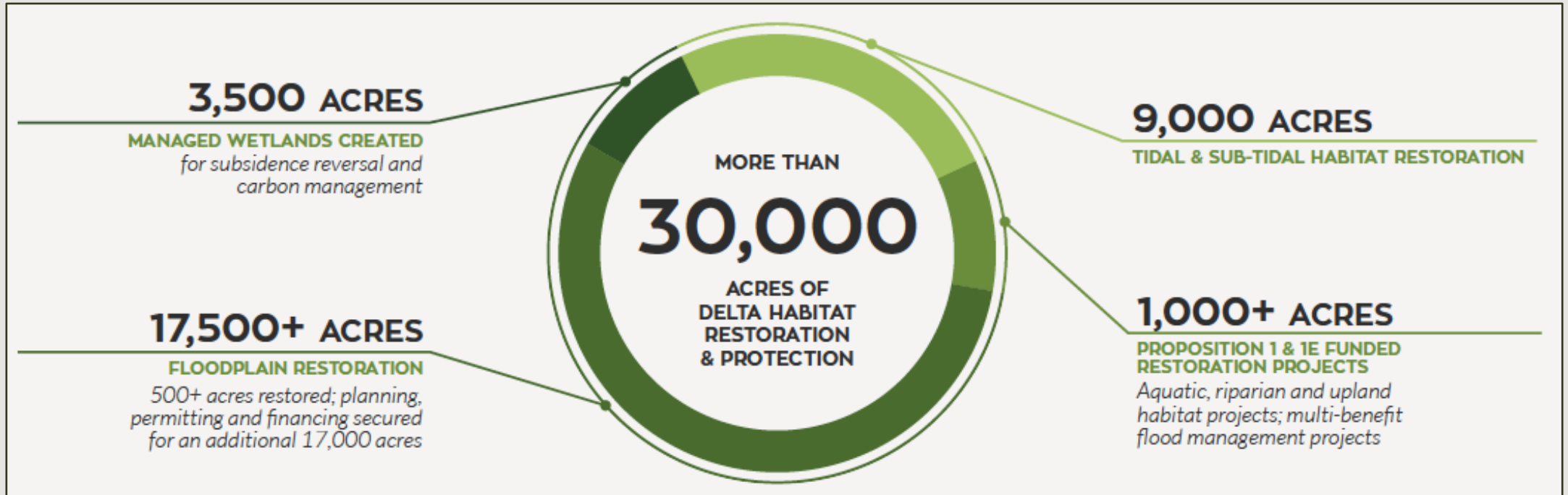


ECORESTORE ORIGINS

- April 2015 – Governor Announces EcoRestore along with California Water Fix
- EcoRestore implements parts of the California Water Action Plan
- Short term – jumpstart restoration projects
- California Department of Fish and Wildlife working on a Delta Conservation Framework to address longer term restoration



RESTORATION PROJECTS





CALIFORNIA ECORESTORE

- Program will accelerate and implement a comprehensive suite of habitat restoration actions.
- More than 30,000 acres.
- Actions include critical Delta restoration and pre-existing regulatory requirements and enhancements to improve overall health of the Delta.
- Projects identified through locally-led processes facilitated by the Delta Conservancy.
- Projects implemented by the Delta Conservancy in collaboration with local governments.
- Funding provided through multiple sources.



MAJOR CHALLENGES FOR RESTORATION EFFORTS

- Land Acquisition
- State contracting constraints
- Permitting processes/delays
- Long-term management of restoration lands
- Uncertainty





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QUESTIONS