CA WATERFIX & ECORESTORE OVERVIEW

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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
Areas of California served by water supplies from the Delta.
29 SWP CONTRACTORS

Upper Feather River Area
- City of Yuba City
- County of Butte *
- Plumas County Flood Control and Water Conservation District *

San Joaquin Valley Area
- County of Kings
- Dudley Ridge Water District
- Empire West Side Irrigation District
- Kern County Water Agency
- Oak Flat Water District
- Tulare Lake Basin Water Storage District

South Bay Area
- Alameda County Flood Control and Water Conservation District - Zone 7
- Alameda County Water District
- Santa Clara Valley Water District

Central Coast Area
- Santa Barbara County Flood Control and Water Conservation District
- San Luis Obispo County Flood Control and Water Conservation District

Southern California Area
- Antelope Valley - East Kern Water Agency
- Castaic Lake Water Agency
- Coachella Valley Water District
- Crestline - Lake Arrowhead Water Agency
- Desert Water Agency
- Little Lake Irrigation District
- Metropolitan Water District of Southern California
- Mojave Water Agency
- Palmdale Water District
- San Bernardino Valley Municipal Water District
- San Gabriel Valley Municipal Water District
- San Gorgonio Pass Water Agency
- Ventura County Flood Control District
RESTORING MORE NATURAL FLOWS

CWF Main Tunnels Alignment
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
* Map includes proposed footprint modifications due to ongoing optimization of the design to reduce impacts
LARGE DIAMETER TBM PROJECTS

- Hubertus
- Barcelona Metro Line 9
- SMART
- Bay-Delta
- Madrid M30 Bypass
- Yangtze River Tunnel
- Sparvo
- Seattle SR99

TBM Diameter (ft):
- Hubertus: 35.5
- Barcelona Metro Line 9: 39.5
- SMART: 43
- Bay-Delta: 45
- Madrid M30 Bypass: 49.5
- Yangtze River Tunnel: 51
- Sparvo: 51
- Seattle SR99: 57.5
TYPICAL TUNNEL SEGMENTS
FLOW PROTECTION RULES

EXAMPLE SACRAMENTO RIVER FLOWS AND NORTH DELTA DIVERGENCIONS

WET YEAR EXAMPLE
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
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

~2,300 ACRES OF HABITAT RESTORATION

1,070 ACRES GRASSLAND RESTORATION
925 ACRES SEASONAL, TIDAL & NON-TIDAL WETLAND RESTORATION
351 ACRES RIPARIAN HABITAT RESTORATION

~13,300 ACRES OF HABITAT PROTECTION

11,870 ACRES CULTIVATED LAND PROTECTION
269 ACRES SEASONAL & NON-TIDAL WETLAND PROTECTION
1,060 ACRES GRASSLAND PROTECTION
103 ACRES RIPARIAN HABITAT PROTECTION

~15,600* TOTAL ACRES OF ECOSYSTEM RESTORATION AND PROTECTION

*Preliminary, subject to change.

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

TOTAL
$15.74 BILLION

$14.94 BILLION
Tunnel Design & Construction

$796 MILLION
Mitigation & Associated Costs

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
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<tr>
<th>Act/Act</th>
<th>Status</th>
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<tr>
<td>California Environmental Quality Act <em>(DWR)</em></td>
<td>Notice of Determination</td>
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<td>U.S. Endangered Species Act <em>(USFWS &amp; NMFS)</em></td>
<td>Section 7 Consultation</td>
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<td>National Historic Preservation Act <em>(USACE &amp; SHPO)</em></td>
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<td>National Environmental Policy Act <em>(USBR)</em></td>
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<td>Clean Water Act - Water Quality Certification <em>(SWRCB)</em></td>
<td>Section 401</td>
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<td>Lake and Streambed Alteration Agreement <em>(CDFW)</em></td>
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<td>Rivers and Harbors Act <em>(USACE)</em></td>
<td>Section 14 Permit</td>
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<td>Delta Stewardship Council, Delta Plan</td>
<td>Certification of Consistency</td>
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* 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

3,500 ACRES
MANAGED WETLANDS CREATED
for subsidence reversal and carbon management

MORE THAN
30,000
ACRES OF
DELTA HABITAT
RESTORATION & PROTECTION

17,500+ ACRES
FLOODPLAIN RESTORATION
500+ acres restored; planning, permitting and financing secured for an additional 17,000 acres

9,000 ACRES
TIDAL & SUB-TIDAL HABITAT RESTORATION

1,000+ ACRES
PROPOSITION 1 & 1E FUNDED RESTORATION PROJECTS
Aquatic, riparian and upland habitat projects; multi-benefit flood management 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