



● EASTERN MUNICIPAL WATER DISTRICT

# Bay Delta Conservation Plan Update

● Paul D. Jones II, P.E.  
General Manager, Eastern Municipal Water District

● November 18, 2014



# EMWD's Service Area



- 542 square miles
- Population: 768,000
- Moreno Valley to Temecula
- Seven cities and the unincorporated areas
- One of 26 member agencies of the Metropolitan Water District of Southern California (MWD)





# Products and Services



- **Potable (drinking water):** 140,000 active water accounts
  - 88,944 AF sold in 2013/2014
  - Sources:
    - Imported Water from the Bay Delta and Colorado River
    - Groundwater wells
    - Menifee & Perris desalters
- **Wastewater:** 229,000 accounts
  - Four regional reclamation facilities
  - Capacity: 193 AF/day
  - Currently treating: 138 AF/day
- **Recycled water:** 304 accounts
  - 37,467 AF sold in FY 2013/2014
    - One of the largest in California!
- **Agricultural/Irrigation:** 122 active accounts
  - 2,116 AF sold in FY 2013/2014





# EMWD is one of the largest marketers of recycled water in California



*Program started in 1960's:*

- Four tertiary treatment plants – 45 MGD
- Agricultural Irrigation (10,800 acres).
- Sport fields, golf courses, parks, schools, medians, recreational.
- Industrial (regional power plant, manufacturing).
- \$188 million in capital investments



Inland Empire Energy Center



***Currently 100% of Wastewater is Recycled for Beneficial Use***

***37,800 af in 2013***

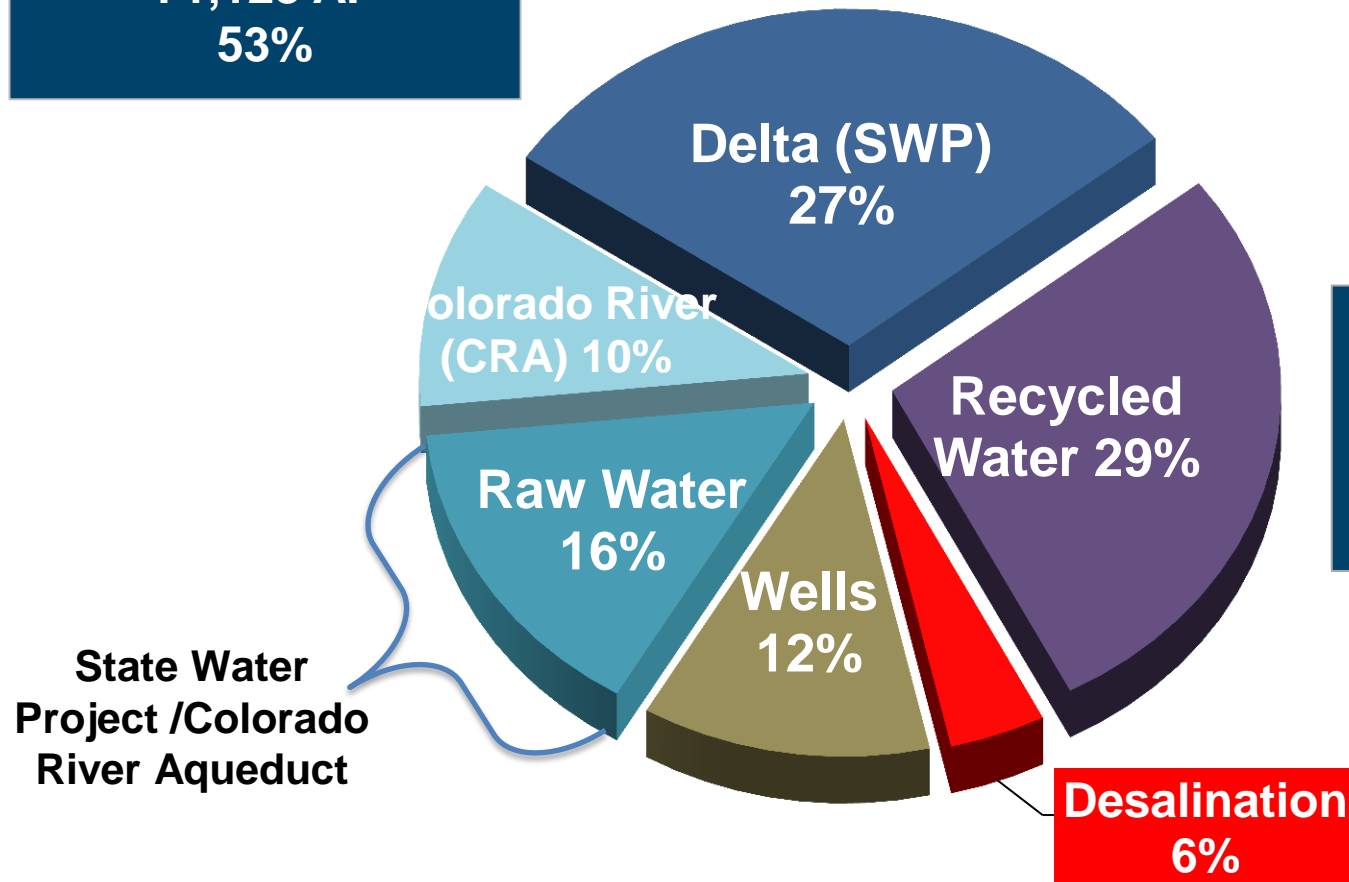
***Succession Plan: Indirect Potable Reuse project***



# EMWD's Total Water Supply Portfolio



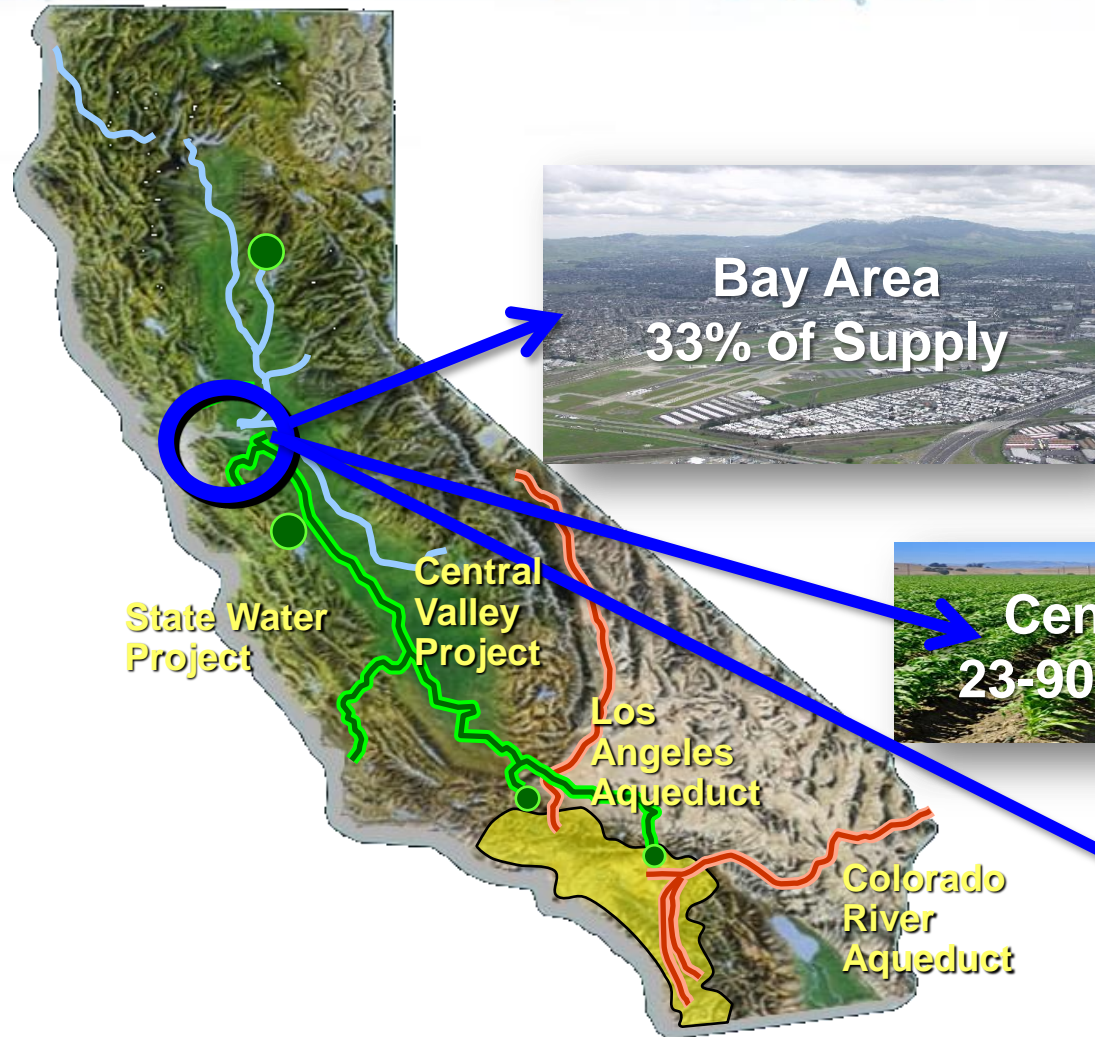
**Imported Water  
Supply from MWD:  
71,128 AF  
53%**



**Local Water Supply:  
64,500 AF  
47%**



# The Bay-Delta: The State Water “Hub”

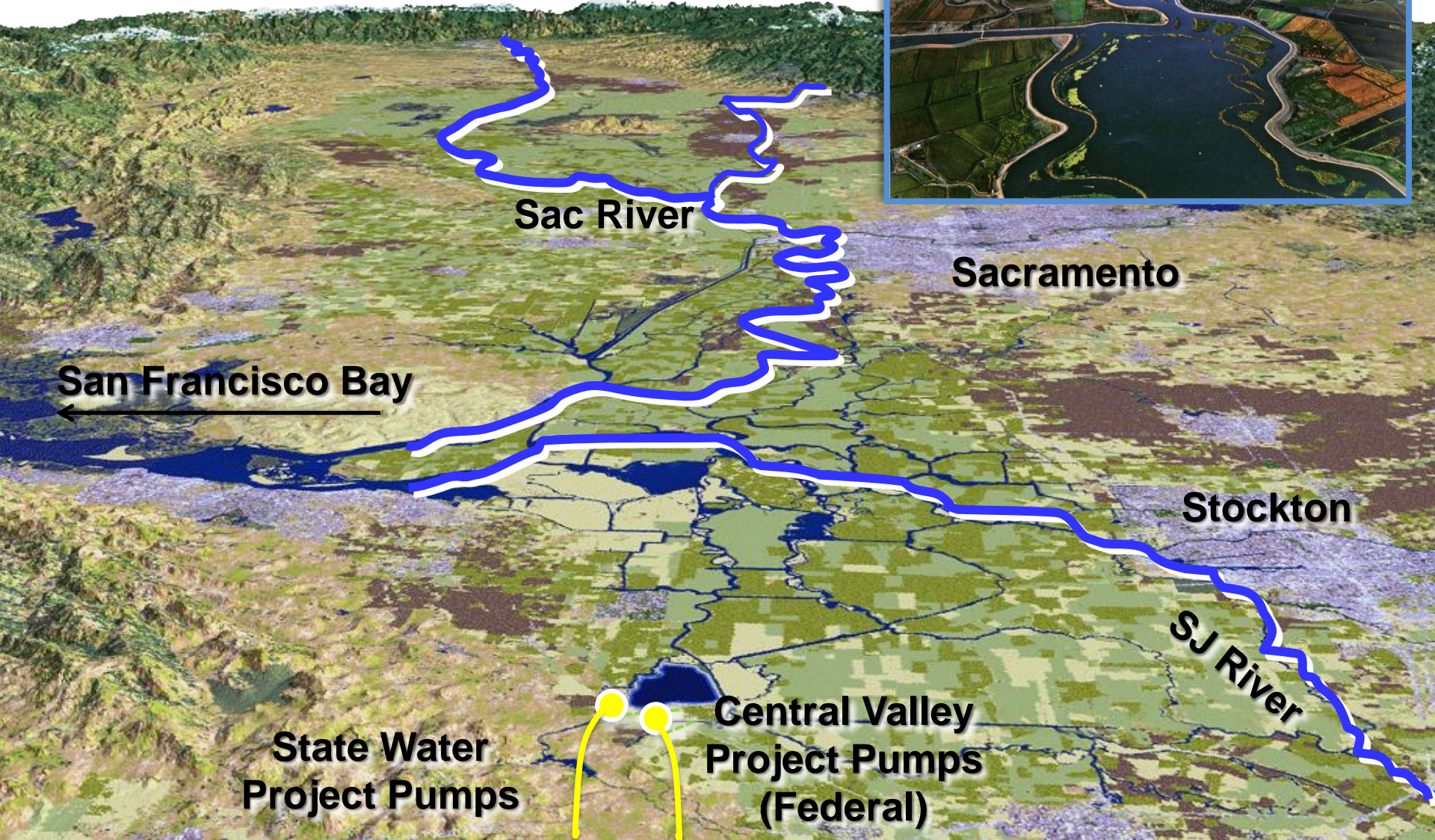


- Drinking water for 25 million Californians
- Irrigation for half of the nation's fruits & vegetables
- 558,000 acres in agricultural production
- \$27 billion agricultural economy





# Bay Delta: Critical Water Supply



**Sac River**

**Sacramento**

**San Francisco Bay**

**Stockton**

**SJ River**

**State Water  
Project Pumps**

**Central Valley  
Project Pumps  
(Federal)**



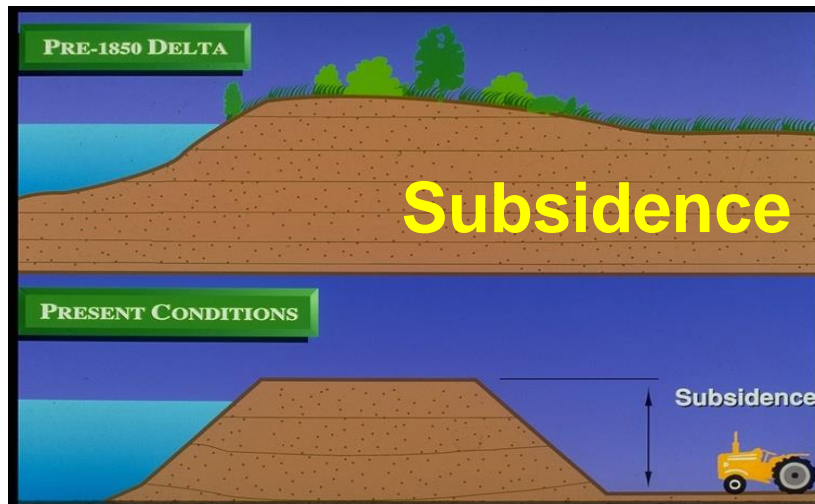
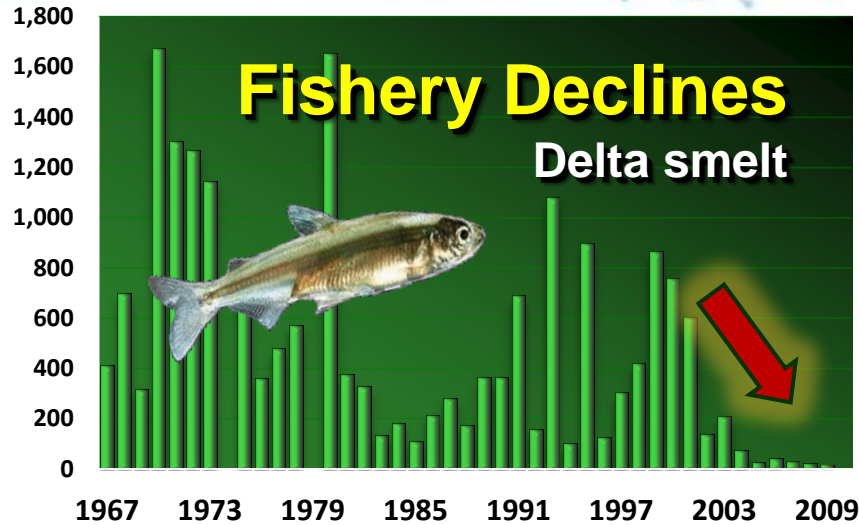
# Bay Delta: A Valuable Ecosystem

- Over 750 plant, bird, animal and fish species, including:
  - Over 50 different fish species
  - Over 225 bird species
- More than 40 threatened or endangered species





# Key Delta Risks

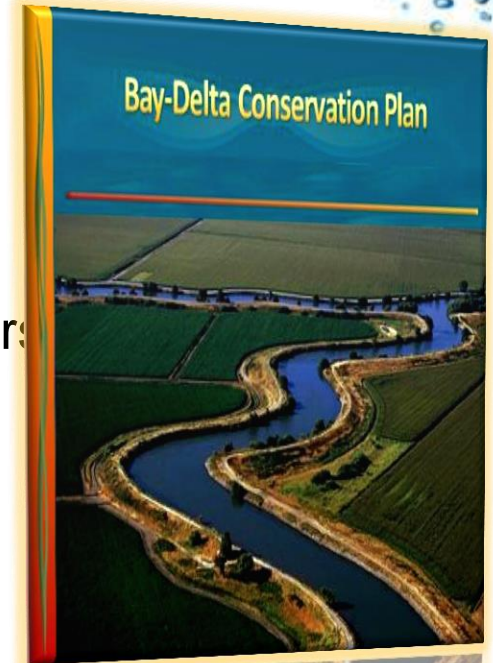




# Bay-Delta Conservation Plan Overview



- Plan Based upon achieving Co-equal Goals:
  - Habitat preservation and enhancement
  - Water supply reliability and security
- Multi-species approach to endangered species protection, habitat conservation, and other stressors control
- Conveyance improvements
- Regulatory assurances
  - Long-term operations permit
  - Coverage for existing and future listed species
  - Regulatory obligations defined upfront
  - Habitat Conservation Plan (*HCP*) and Natural Communities Conservation Plan (*NCCP*)





# Environmental Impact Report Alternatives



- Conveyance and Habitat Alternatives:

- No action
- Dual conveyance/up to 113,000 acres of restored habitat
- Dual conveyance with smaller pipeline/tunnel
- Fully Isolated conveyance
- Dual conveyance with additional habitat restoration and smaller pipeline/tunnel
- Through Delta conveyance with screens at Cross Channel and Georgiana Slough



- Additional analyses:

- Conveyance capacities (3,000/6,000/9,000/15,000 cfs)
- Operational alternatives





# Preferred Option



- Three intakes/pumping plants
- State-of-the-art fish screens
- Forebay temporarily stores water pumped from river
- Two 26-ft gravity flow tunnels (30 miles long; 9,000 cfs)
- Operated as “Dual” Conveyance
  - Through-Delta flows
  - Isolated facility
- Cost: \$12 to 14 billion including direct mitigation (MWD 25%)
  - \$5-\$6 per household/month



*Preliminary Subject to Revision*



# BDCP: Ecosystem Restoration



- Ecological Conservation
  - Biological goals/objectives
    - Nearly 60 species
  - Accelerated habitat restoration
    - 30,000 acres of aquatic habitat over the next 15 years
  - Restoration Costs: \$3.6 billion



## Restoration & Preservation

## Targets

New Floodplain	Up to 10,000 acres
Tidal Habitat	Up to 65,000 acres
Channel Margin	20 Levee Miles
Riparian	Up to 5,000 acres
Grassland	Up to 10,000 acres
Other (Vernal pool, nontidal marsh, and alkali seasonal wetland)	Up to 13,000 acres

**TOTAL**

**Approx. 113,000  
acres**



# Importance of Bay-Delta Improvements



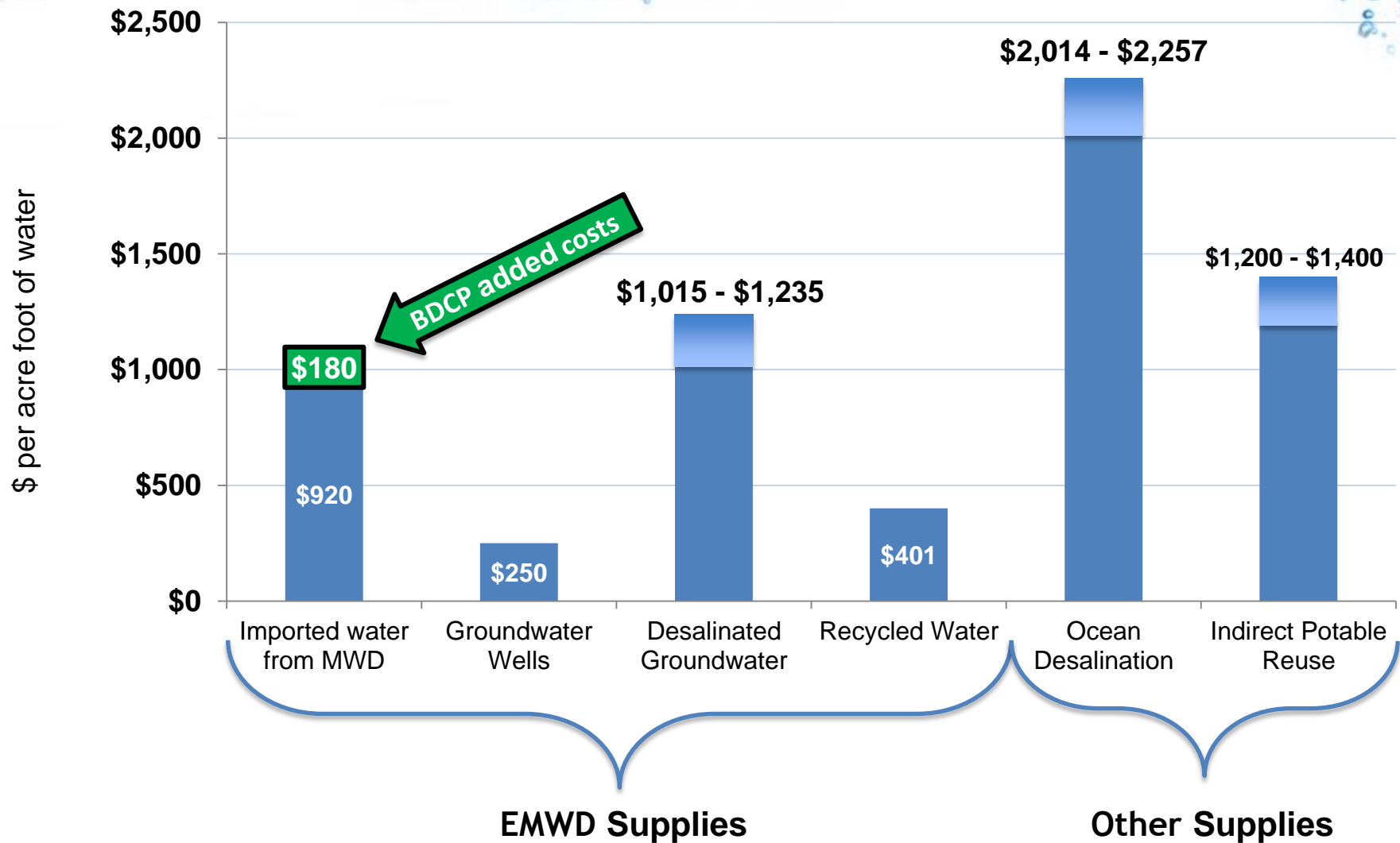
- Contributes toward a **diverse water supply portfolio** and provides additional supplies in wet years for storage
- Protects against **catastrophic levee failures** including earthquakes:
  - *Minimal water exports 1.5 to 3 years*
  - *Potential \$40 billion state economic impact*
- Provides **134,000 jobs**
- **Improves water quality** which facilitates local supply and management, such as **water recycling** and groundwater storage

Supply	Salt (TDS – mg/l)	Lbs. of salt/acre foot
Colorado River Water	~500 to 700 mg/l	1,360 to 1,900 lbs./AF
State Water project (current)	~250 mg/l	680 lbs./AF
State Water project (with conveyance)	~100 mg/l	272 lbs./AF

Groundwater Benefit



# Water Supply Costs





# Proposed Timeline BDCP Completion



- Draft BDCP and EIR/EIS released
- Comment period closes on draft BDCP and EIR/EIS
- Determination to recirculate Draft BDCP and EIR/EIS
- Recirculate BDCP EIR/EIS
- Close of 2nd public comment period on recirculated Draft BDCP
- Habitat Restoration
- Tunnel Construction

*December 2013*

*July 29, 2014*

*August 27, 2014*

*March 2015 (Estimate)*

*June 2015 (Estimate)*

*2010-2050*

*2016-2026*





# What You Can Do!



- Use available resources to educate yourself:
  - <http://baydeltaconservationplan.com>
  - [www.emwd.org](http://www.emwd.org)
- Voice your support for the BDCP to our local state and federal legislators and officials:
  - Members of the House of Representatives
  - Secretary of the Interior
  - State Senators and Assembly Members
- Educate the membership of WaterReuse on the salinity management benefits for local supply sustainability including water recycling.







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# Contact Information

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Paul D. Jones II, P.E.  
General Manager  
Eastern Municipal Water District

[jonesp@emwd.org](mailto:jonesp@emwd.org)

951-928-6130

[www.emwd.org](http://www.emwd.org)