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
  o 88,944 AF sold in 2013/2014
  o Sources:
    ➢ Imported Water from the Bay Delta and Colorado River
    ➢ Groundwater wells
    ➢ Menifee & Perris desalters

• **Wastewater:** 229,000 accounts
  o Four regional reclamation facilities
  o Capacity: 193 AF/day
  o Currently treating: 138 AF/day

• **Recycled water:** 304 accounts
  o 37,467 AF sold in FY 2013/2014
    ➢ One of the largest in California!

• **Agricultural/Irrigation:** 122 active accounts
  o 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

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%

Delta (SWP) 27%
Colorado River (CRA) 10%
Raw Water 16%
Wells 12%
Recycled Water 29%
Desalination 6%
Local Water Supply: 64,500 AF 47%

State Water Project /Colorado River Aqueduct

www.emwd.org 5
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 Area 33% of Supply

Central Valley 23-90% of Supply

Southern California 30% of Supply

- 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: 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

Fishery Declines
Delta smelt

Seismic Risk
Bay Area Faults

Subsidence

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

• Additional analyses:
  o Conveyance capacities (3,000/6,000/9,000/15,000 cfs)
  o 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
BDCP: Ecosystem Restoration

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

<table>
<thead>
<tr>
<th>Restoration &amp; Preservation</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Floodplain</td>
<td>Up to 10,000 acres</td>
</tr>
<tr>
<td>Tidal Habitat</td>
<td>Up to 65,000 acres</td>
</tr>
<tr>
<td>Channel Margin</td>
<td>20 Levee Miles</td>
</tr>
<tr>
<td>Riparian</td>
<td>Up to 5,000 acres</td>
</tr>
<tr>
<td>Grassland</td>
<td>Up to 10,000 acres</td>
</tr>
<tr>
<td>Other</td>
<td>Up to 13,000 acres</td>
</tr>
<tr>
<td>(Vernal pool, nontidal marsh, and alkali seasonal wetland)</td>
<td></td>
</tr>
</tbody>
</table>

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

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

$ per acre foot of water

- **Imported water from MWD**: $180
- **Groundwater Wells**: $920
- **Desalinated Groundwater**: $1,015 - $1,235
- **Recycled Water**: $401
- **Ocean Desalination**: $2,014 - $2,257
- **Indirect Potable Reuse**: $1,200 - $1,400

**EMWD Supplies**

**Other Supplies**

**BDCP added costs**
Proposed Timeline BDCP Completion

- Draft BDCP and EIR/EIS released  
  **December 2013**
- Comment period closes on draft 
  BDCP and EIR/EIS  
  **July 29, 2014**
- Determination to recirculate 
  Draft BDCP and EIR/EIS  
  **August 27, 2014**
- Recirculate BDCP EIR/EIS  
  **March 2015 (Estimate)**
- Close of 2nd public comment 
  period on recirculated Draft BDCP  
  **June 2015 (Estimate)**
- Habitat Restoration  
  **2010-2050**
- Tunnel Construction  
  **2016-2026**
What You Can Do!

• Use available resources to educate yourself:
  o [http://baydeltaconservacionplan.com](http://baydeltaconservacionplan.com)
  o [www.emwd.org](http://www.emwd.org)

• Voice your support for the BDCP to our local state and federal legislators and officials:
  o Members of the House of Representatives
  o Secretary of the Interior
  o State Senators and Assembly Members

• Educate the membership of WateReuse on the salinity management benefits for local supply sustainability including water recycling.
EASTERN MUNICIPAL WATER DISTRICT

Contact Information

Paul D. Jones II, P.E.
General Manager
Eastern Municipal Water District
jonesp@emwd.org
951-928-6130
www.emwd.org