Improving Water Reliability

Sweetwater to Lower Otay Pipeline Relining Project

Eastlake I Community Association

November 26, 2012
San Diego County Water Authority

- Wholesale water agency created by Legislature in 1944
  - 24 member agencies
  - 36-member board of directors
  - Serves 3.1 million people, $186 billion economy

- Service area
  - 950,000 acres
  - 97% of county’s population

- Build, own and maintain large-scale water infrastructure
Sources of San Diego County’s Water Supply in 2011

- **State Water Project (Bay-Delta)**: 16%
- **Colorado River**: 54%
- **Local Supplies and Conservation**: 30%

San Diego County imports ~70% of its water supply.
Increasing San Diego County's Water Supply Reliability through Supply Diversification

### 1991
- Metropolitan Water District: 552 TAF (95%)
- Imperial Irrigation District Transfer: 85 TAF (14%)
- Total: 578 TAF

### 2012
- Metropolitan Water District: 274 TAF (45%)
- Imperial Irrigation District Transfer: 24 TAF (4%)
- All American & Coachella Canal Lining: 18 TAF (3%)
- Groundwater: 61 TAF (10%)
- Conservation: 80 TAF (11%)
- Local Surface Water: 70 TAF (11%)
- Total: 612 TAF

### 2020
- Metropolitan Water District: 231 TAF (30%)
- Imperial Irrigation District Transfer: 44 TAF (6%)
- Seawater Desalination: 103 TAF (13%)
- All American & Coachella Canal Lining: 48 TAF (6%)
- Groundwater: 56 TAF (7%)
- Local Surface Water: 80 TAF (10%)
- Recycled Water: 190 TAF (24%)
- Total: 779 TAF

TAF = Thousand Acre-Feet
Capital Improvement Program

- $3.5 billion CIP (1989 – 2030)
  - $1.5 billion Emergency Storage Program (ESP)
- Dozens of major projects – completed or under construction
- 2010 debt issuance of $625 million to fund CIP
Pipeline Relining Program

• Maintains and protects water-delivery infrastructure
• Reinforces aging concrete pipeline with steel
• Less obtrusive than total excavation, trenching, and replacement project
• Increases the reliability of pipelines
Pre-stressed Concrete Cylinder Pipe

- Anchor Assembly
- Thin Steel Cylinder
- Bell Ring
- Spigot Ring
- Mortar Coating
- High-Tensile Prestressing Wire
- Mortar Lining
- High-Strength Concrete Core
Pipeline Relining Experience

• Relined 30 miles of pipe
  – Experienced team
  – Incorporate lessons learned from previous projects
  – Streamline processes

• Current project:
  – Mission Trails to Lake Murray (in city of San Diego)
• 5.4 miles
• 17 portal locations
• Begins south of Sweetwater Reservoir in Bonita, west of SR 125
• Continues south through Chula Vista
• Ends just south of Lower Otay Lake, east of the water treatment plant
• Play movie
Removing Existing Section of Pipe from the Portal
Receiving Steel Liners
Preparing to Lower Steel Liner into Portal
Lowering Steel Liner into Portal
Securing Steel Liner to Cart
Installing Steel Liner
Welding
Grout Installation
Completed Mortar Lining
Installing Steel Pipe, Portal Closure
What Can You Expect?

- Security – Portals locked at night
- Traffic – Construction access, trucks use surface streets and Water Authority easements
- Work hours
  - 7 a.m. – 7 p.m., Monday – Saturday
  - Extended work hours, case-by-case basis (shutdowns)
Water Authority Commitment

- Communicate early and often
- Update other organizations and elected officials
- Minimize community impacts
- Respond to community concerns
Community Outreach Efforts

- Planning group briefings
- Community briefings and meetings
- Updates to elected officials
- Postcards
- Doorhangers
- Information line
- Project webpage
Project Schedule

• Public review of environmental document:
  – December 2012 – January 2013
  – Public hearing: January 24, 2013

• Board consideration of environmental document:
  – March 2013

• Construction:
  – Scheduled for Mid-2014 – Late-2015*

*Construction may be fast-tracked to begin as early as mid-2013.
More Information

- Phone: 877-682-9283, Ext. 7005
- Project webpage: www.sdcwa.org/sweetwater-lower-otay-relining-project
Questions?