Pasadena Non-Potable Water Project (Recycled)

Los Angeles Chapter of the WateReuse Association
Bi-Monthly Meeting
April 12, 2016
Pasadena Water and Power

- 166,500 customers
- > 37,000 service connections
- Water demand - 30,000 AFY

Water supply

- 60% MWD - Bay Delta and Colorado River
- 40% Raymond Basin groundwater
History of Recycled Water in Pasadena

- 1993 - agreement w/Glendale: 6,000 AFY
- 1995 - project on hold
- 1996 - USBR Title XVI Program
- 2003 - $0.5 M - federal grant
- 2005 - feasibility study: project not feasible
- 2006 - de-obligation of grant
- 2008 - Water Reclamation Task Force
Pasadena Non-Potable Water Project

New $50 Million Non-Potable System

- 6 phases
- 25 years
- 3 water sources
- 3,060 AFY
- 10% of demand
Recycled Water Supply - LAGWRP

Pasadena Water and Power

Los Angeles/Glendale Water Reclamation Plant

Capacity 20 MGD (20,000 AFY)
Owned by LA & Glendale (50/50)
Connection point: Scholl Canyon
Devil’s Gate and Richardson Tunnels

- Built 1891 - 1903
- Supply of 3,400 AFY
- Discontinued in the 1930s
- Devil’s Gate 1971 - 1999 Irrigation
- Estimated supply - 430 AFY
Stream Water Supply

Arroyo Seco Stream

- Irregular Flow
- Currently recharged in Arroyo Seco spreading basins
- Estimated supply - 1,200 AFY
Project 6 Phases Built in 25 Years

Phase 1 - 700 AFY
4 customers
30 AFY mixed use
670 AFY irrigation

Phase 2 - 400 AFY
15 customers
140 AFY mixed use
260 irrigation

Phase 3 - 900 AFY
7 customers
650 AFY mixed use
200 irrigation

Phase 4 - 300 AFY
2 customers
irrigation

Phase 5 - 400 AFY
7 customers
irrigation

270 AFY irrigation

Pasadena Non-Potable Water Project
Figure 2-2
Build-out System Map

Potential Demands
- > 0 afy
- > 10 afy
- > 25 afy
- > 50 afy
- > 100 afy

Proposed Facilities
- Storage Reservoir
- Pump Station
- Pressure Reducing Station
- Hydrotropic Turbine Facility

Proposed PWP RW Pipes
- Phase 1 Project
- Southern Extension I
- Southern Extension II
- Northeastern Extension
- Northwestern Extension
- Northwestern Extension Alternative
- Amanazote Extension
- Tunnel Water Facilities

Existing RW Pipes
- Existing Tunnel Water Pipes
- Existing Glendale RW Pipes

Potential Demands
- FMWD Customers
- PWP Customers
- CalAmerican Customers

Other Features
- Roads
- Railroads
- City Boundary
- Parks/Golf Courses
- Cemetery
- PWP Service Area
- Project Study Area

Notes:
- FMWD - Foothills Municipal Water District
- GWP - Glendale Water and Power
- HML - High Water Level
- JPL - Jet Propulsion Laboratory
- PRS - Pressure Reducing Station
- RW - Recycled water
- TW - Tunnel Water
- WTP - Water Treatment Plant
- Maximizes RW use - 5,000 AFY
- **Arroyo Seco**
  - Cannot meet min. travel time of 12 mo
  - Groundwater contamination
- **Eaton Canyon**
  - 80% spreading credits
  - Twombly well > 36 months travel time
EIR Process

• NOP Aug 2014
• 2 Scoping Meetings Sep 2014
• Draft EIR Public Review 75 days
  ✓ 112 public comments
• 2 Public Meetings Aug 2015
• Final EIR:
  ✓ Dec 24, 2015 - in print at 5 locations
  ✓ Feb 22, 2016 - certified
Tentative Project Schedule

- Alternative routes: Summer 2016
- Final design: Fall 2016
- Permits: 2016 - 2017
- Funding: 2016 - 2017
  - Prop 1 and CWA SRF Loan
  - USBR Title XVI FY 2016 grant
  - MWD LRP – pending route evaluation
- Construction NTP: 2017
Questions?
Phase 5 – Northwestern Extension

Pasadena Non-Potable Water Project

Northwestern Extension 128 AFY mixed use
7 AFY dust control 256 AFY irrigation

Northwest Extension
16 customers
Caltrans – FMWD (3 total) 39  Irrigation
Caltrans 1781 Casitas 10  Irrigation
Caltrans 210 Del Monte 12  Irrigation
Caltrans 4 – 210 at Rosemont/Windsor/Arroyo 29  Irrigation
City of La Canada-Flintridge Medians (3 total) 1  Irrigation
Flintridge Preparatory School 7  Irrigation
Flintridge Riding Club 7  Dust Control
JPL 128  Mixed Use
La Canada High School 46  Irrigation
Muir High School 73  Irrigation
Oak Grove/Hahamongna Park 27  Irrigation
St. Francis High School 11  Irrigation