Regional Recycled Water Program Update
Engineering and Operations Committee
Item 6a
June 10, 2019
Outline

- Program Background
- Demonstration Plant
- Upcoming Activities
  - White Papers
  - Board Workshops
  - Potential Board Action
Collaboration between Metropolitan and the Sanitation Districts of Los Angeles County

Development of a new regional water source

Up to 150 mgd (168,000 AFY)

Deliveries to Member Agencies

- Groundwater replenishment
- Industrial consumption
- Future direct potable reuse applications
Decade of discussions on water recycling

2010-12 Pilot studies on treatability of JWPCP effluent

November 2015 – Board authorized

Agreement with LA County Sanitation District No. 2 for development of potential regional recycled water program

Recycled water demonstration project

Feasibility and phasing studies
Three-Step Planning Process

Feasibility Study (Complete)

Conceptual Planning (Complete)

Environmental Planning (commence late-2019)
Conceptual Planning Studies

Major Conclusions

Phased implementation is recommended

- 100 MGD first phase
- Construct backbone conveyance system within first phase of program (capacity up to 150 MGD)
- Provide flexibility for future conditions

Include potential for future Direct Potable Reuse (DPR) applications within overall program

- Focus on raw water augmentation at existing treatment plants
- Potential regulations by 2023

Programmatic environmental document
Phase 1: Backbone System

- Initial Backbone System
- JWPCP 100-mgd AWT & Pump Station
- Rio Hondo Spreading Grounds
- Montebello Forebay Injection Wells
- Long Beach Injection Wells
- Harbor Industrial Users
- Up to 150-mgd Pipeline
- Pump Station
- Santa Fe Spreading Grounds
- Long Beach Injection Wells
Phase 2: DPR Option at Weymouth WTP

- West Coast Basin Injection Wells
- Montebello Forebay Injection Wells
- Rio Hondo Spreading Grounds
- Harbor Industrial Users
- Long Beach Injection Wells
- Junction Structure
- Pump Station(s)
  - Santa Fe Spreading Grounds
- Orange County Spreading Grounds
- MWD EOCF#1
- Diemer WTP
- MWD Yorba Linda Feeder

- Initial Backbone System
- Additional Basin Options
- Future DPR Options

JWPCP 150-mgd AWT & Pump Station

Up to 150-mgd Pipeline
Demonstration Plant
Advanced Water Treatment at JWPCP
Demonstration Plant Construction

- Capital Budget: $17 million
- Construction Contract: $13.85 million
- Construction status: 98% complete
- Commence operation: August 2019
Obtain final operational permits
Replace deficient chemical feed pumps and piping
Install weather covers on chemical feed pumps
Conduct final contract-required commissioning
Chemical Feed Pump Enclosures
Learning Center
Exhibits

Pressurized membranes further remove microscopic materials such as bacteria, pharmaceuticals and salts, eliminating more than 99% of all impurities.
Tours

Employees  Member agencies  Key stakeholders
Upcoming Activities
Upcoming Activities

- Commence Phase 1 of Demonstration Plant testing (August)
- Continue Stakeholder engagement
- Issue White Papers (July and September)
- Conduct Board Workshops
  - July/August: Approach to Implementation
  - September/October: Agreements and Financial Considerations
- Board Action on environmental planning process (Winter 2019/Spring 2020)
Provide sufficient information for consideration of a Board action, potentially consisting of:

- Commencing CEQA process
- Beginning preliminary engineering
- Refining rights of way

Define approach to cost recovery

Develop consensus on integration of program into CIP budget cycles

Discuss alternatives for early delivery of purified water
Environmental Planning Process

Program implementation options
- Traditional approach
- Accelerated path to construction
- Accelerated path to make early deliveries of water

Scopes of work and budget estimates for potential board action

Benefits and risks of schedule acceleration

Direct Potable Reuse opportunities
White Paper No. 2
Agreements and Financial Considerations

- Implementation agreements
- Delivery commitments
- Potential partners
- Debt financing
- Other sources of funds
- Cost recovery from Member Agencies
Metropolitan Recycled Water Website

A NEW SOURCE OF WATER FOR SOUTHERN CALIFORNIA

Water is too precious to use just once. So the Metropolitan Water District of Southern California is making a major investment in a potential water recycling project that will reuse water currently sent to the ocean.

www.mwdh2o.com/RRWP