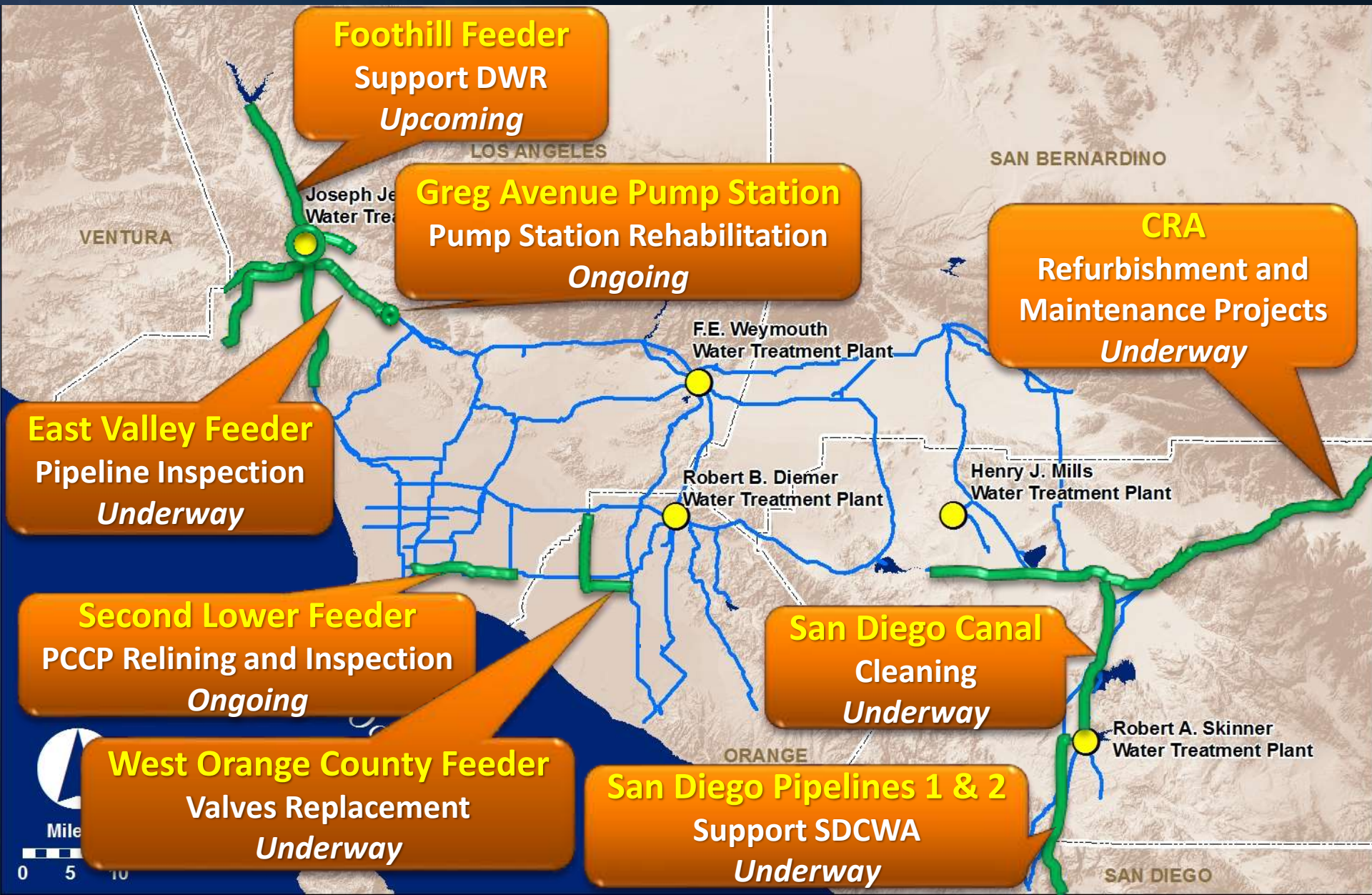
Water System Operations Manager's Report

Engineering and Operations Committee
Item 7a
February 10, 2020

Current Operational Conditions

- 2020 SWP Allocation is 15%
- SWP blend targets are 50% at Weymouth, and 75% at Diemer and Skinner
- CRA is currently shut down
- Managing storage based on WSDM principles
- January 2020 deliveries of 94 TAF were 1 TAF higher than January 2019

Ensuring Continued System Reliability



Colorado River Aqueduct

Performing Annual Maintenance and Inspections

Greg Avenue Pump Station

Pump Station Rehabilitation

Diemer Shutdown
January 21 - 27, 2020

- Full plant shutdown was accelerated from original March 2020 shutdown date
- Over 25 individual projects
- Over 100 MWD personnel involved over course of shutdown, in addition to contractors
- Possibly last full Diemer shutdown for next several years
- Shutdown completed ahead of schedule

Diemer Plant
Chemical Exposure Incident

Diemer Chemical Exposure
January 23, 2020

- During Diemer shutdown, staff were making planned repairs to ozone cooling water return line
- 5 employees exposed to chemical through inhalation (reported throat irritation) when disconnecting piping
- 911 immediately called and Orange County Fire Authority quickly arrived onsite with EMTs and HAZMAT team
- Media reports also issued regarding event

Diemer Chemical Exposure

January 23, 2020

Diemer Chemical Exposure

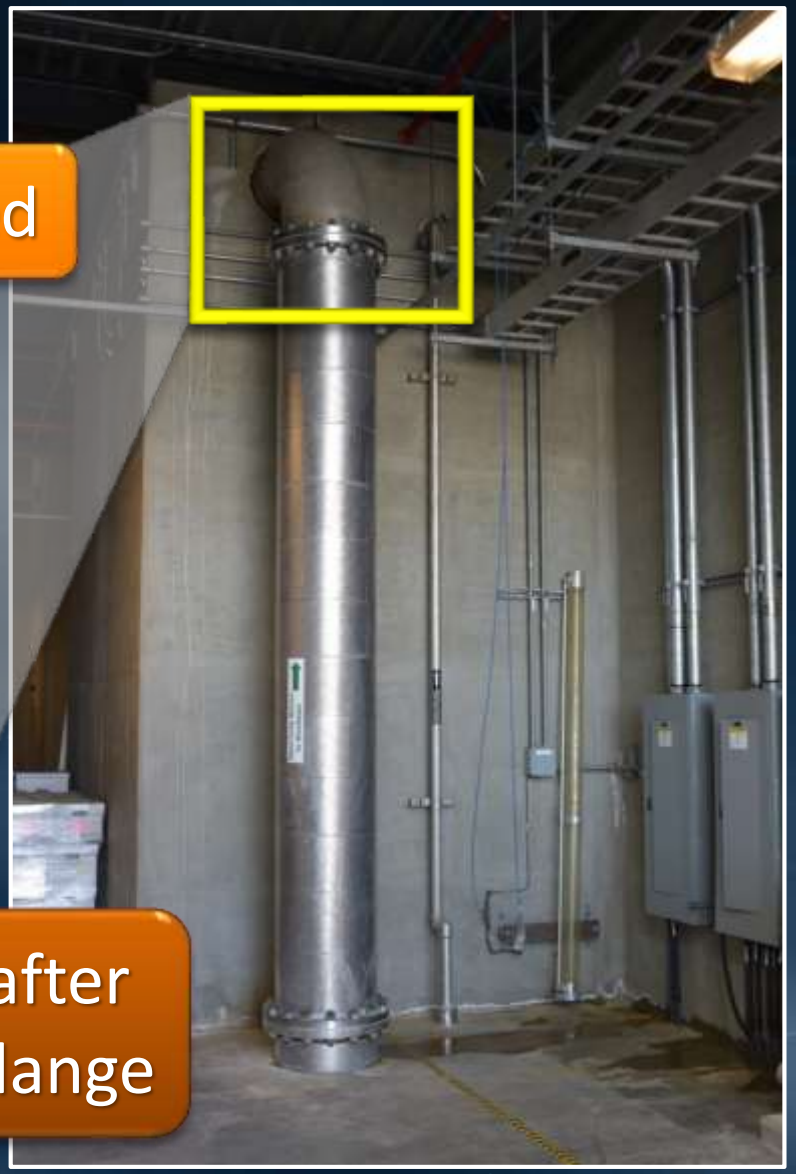
- Employees evaluated by EMTs onsite and subsequently released
  - Employees also sought own medical evaluations
- All 5 employees returned to work the following day reporting no adverse effects
- Exposure from sulfuric acid solution vapors
  - Ozone cooling water return line was not fully flushed; 5 gallons of chemical solution dripped from pipe joint
  - Chemical solution was safely contained and removed from site by hazardous waste vendor

Ozone Cooling Water Return Line

Pipe Repair Location

Area to be Repaired

Chemical Exposure after Loosening Bolts on Flange



Diemer Chemical Exposure

Initial Actions Taken Following Event

- Chief Operating Officer sent memo to Board, Member Agency managers, and employees regarding event
- Safety briefings held and full review of event began immediately
- Survey provided to staff to evaluate safety measures and shutdown activities
- “Lessons Learned” identified and initial improvements made while full review in progress

Diemer Chemical Exposure

Lessons Learned and Initial Improvements

- Improved processes for staff working on chemical feed or process piping
- Qualified, facility leads assigned for work performed by contractors or non-facility staff
- Safety work plans and toolboxes for individual project activities
- Expanded review of shutdown plans including cautionary notes on chemical hazards

Diemer Chemical Exposure

Next Steps

- Complete full event review and identify additional areas for improvement
  - Report available to all employees
- Conduct “hot wash” with Orange County Fire Authority to review response and assess future opportunities for collaboration and improvement
- Implement recommendations to ensure safety and process improvements

THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928