



Engineering, Operations, & Technology Committee

Water System Operations Manager's Report

Item 7a

September 11, 2023

Managing Surplus Conditions

Current Operational Conditions



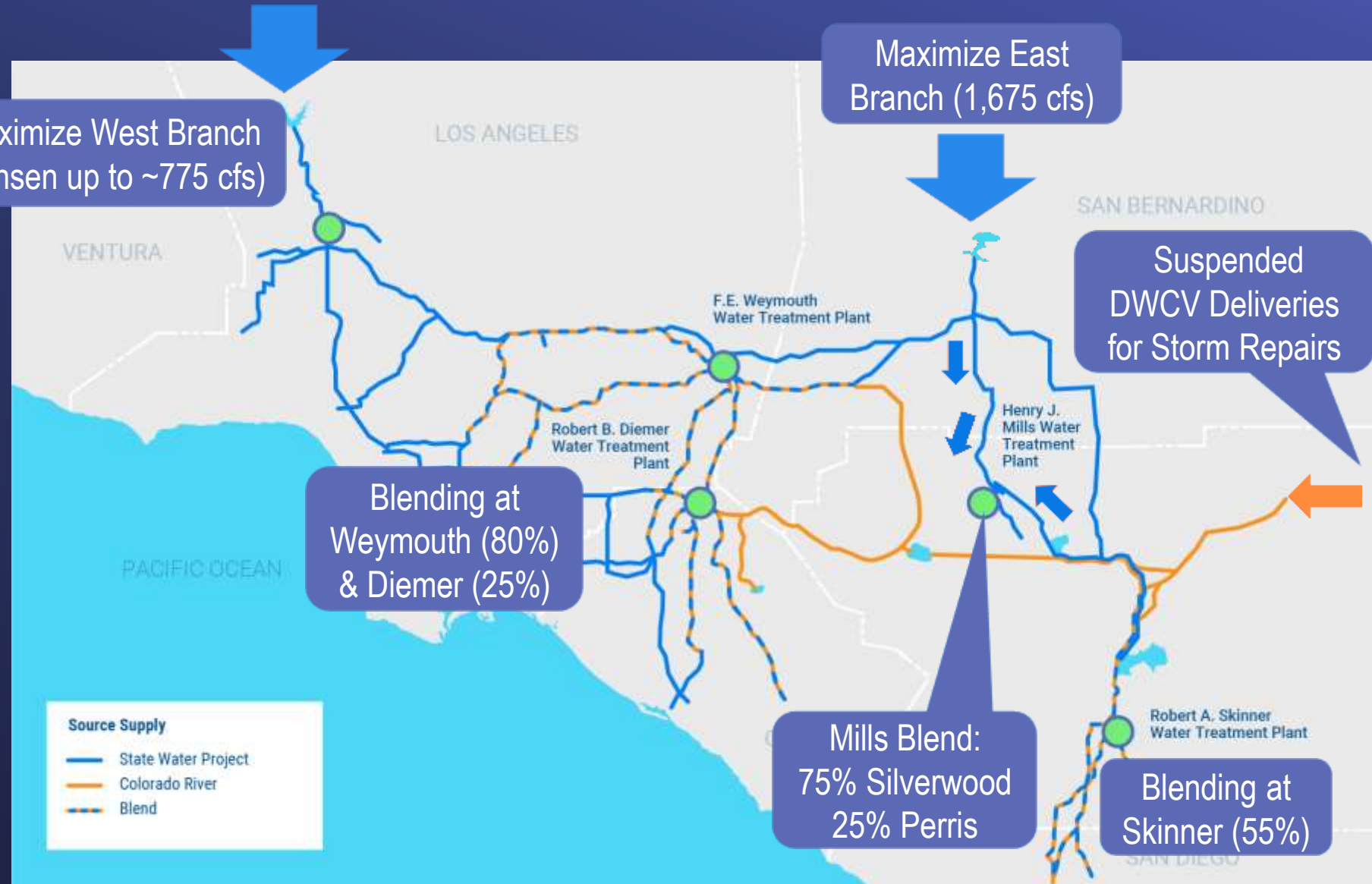
Colorado River Aqueduct
August 30

- 2023 SWP Allocation at 100%
- CRA at 3-pump flow
- Suspended deliveries to DWCV storage due to recent storm event
- SWP blend targets are 80% at Weymouth, 25% at Diemer, and 55% at Skinner
- August 2023 deliveries of 110 TAF were 53 TAF lower than August 2022; lowest August demand on record

Maximizing SWP Supplies

Current Surplus Operations

Balancing water supply, quality, and system constraints



Emergency Preparedness and Response

Tropical Storm Hilary August 2023



- Activated Emergency Operations Center at Level 3
 - Preparations to elevate to Level 2 if needed
 - Incident Command Posts activated in Desert and Eastern Regions
- Coordinated extensively with emergency partners
- Sent MetAlert message to all member agencies to coordinate emergency contacts
- Utilized WebEOC for situational awareness and internal communications
 - Tested alternate communication equipment

Emergency Preparedness and Response



Exposed section of CRA

Tropical Storm
Hilary
August 2023

*No major impacts
to Metropolitan
facilities or
operations*

- Reduced from 5 to 3-pump flow on CRA as precautionary measure
- Prepared facilities and staged equipment at key locations to facilitate repairs
- Prepared for potential power outages
- Assessed dams & reservoirs
- Performed aerial & ground patrols following storm
- Minor erosion and localized flooding in areas



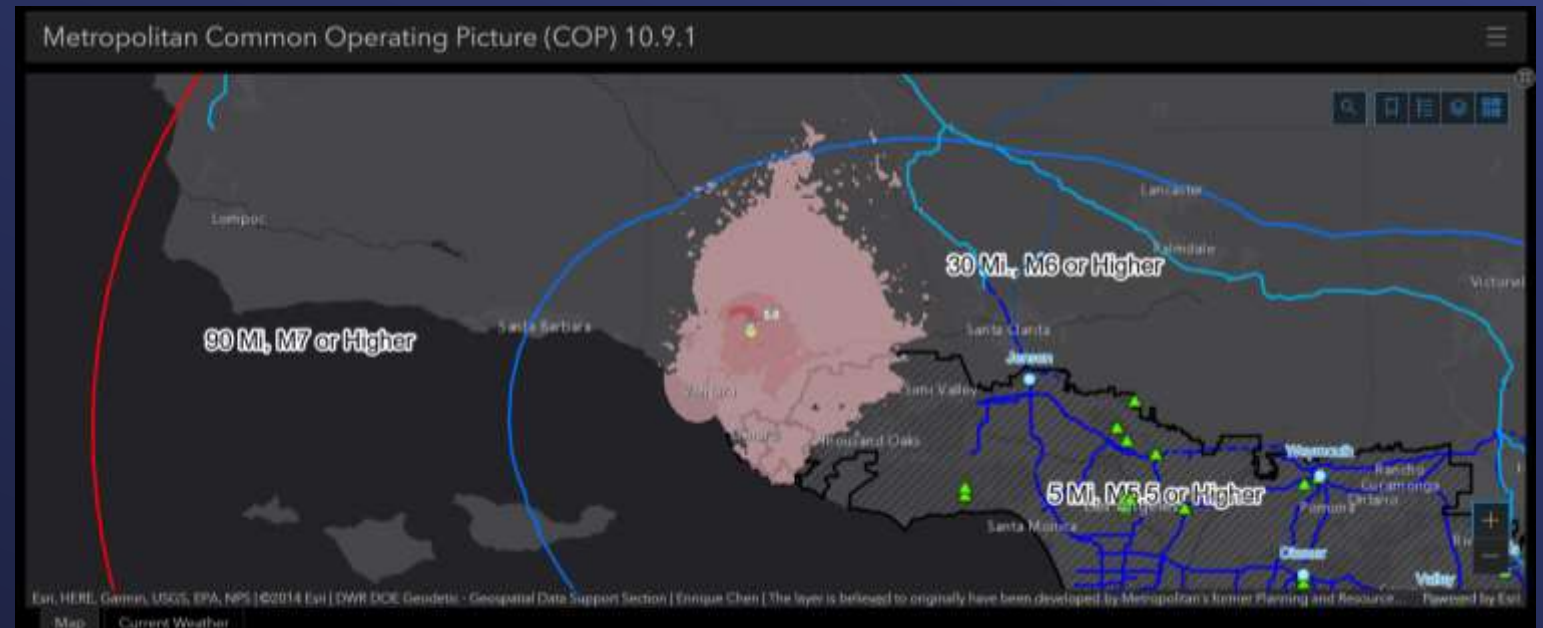
Photo by Nicholas Weiss
Equipment Operator on Aqueduct Maintenance Team

Emergency Preparedness and Response

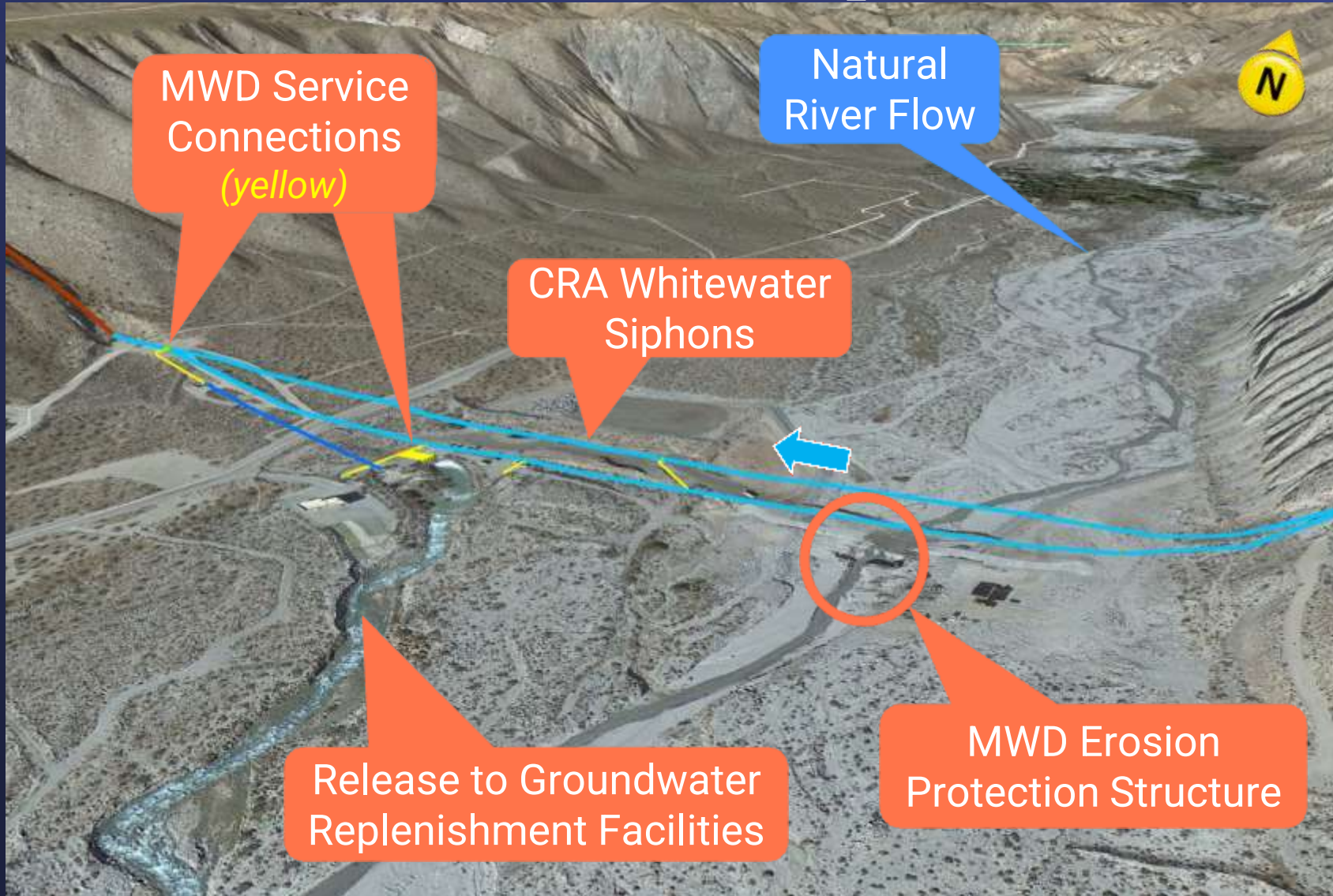
- 5.1-magnitude earthquake felt in portions of Southern California
- Patrols conducted at treatment plants and western distribution system area
- Member agencies contacted

Ojai
Earthquake
August 2023

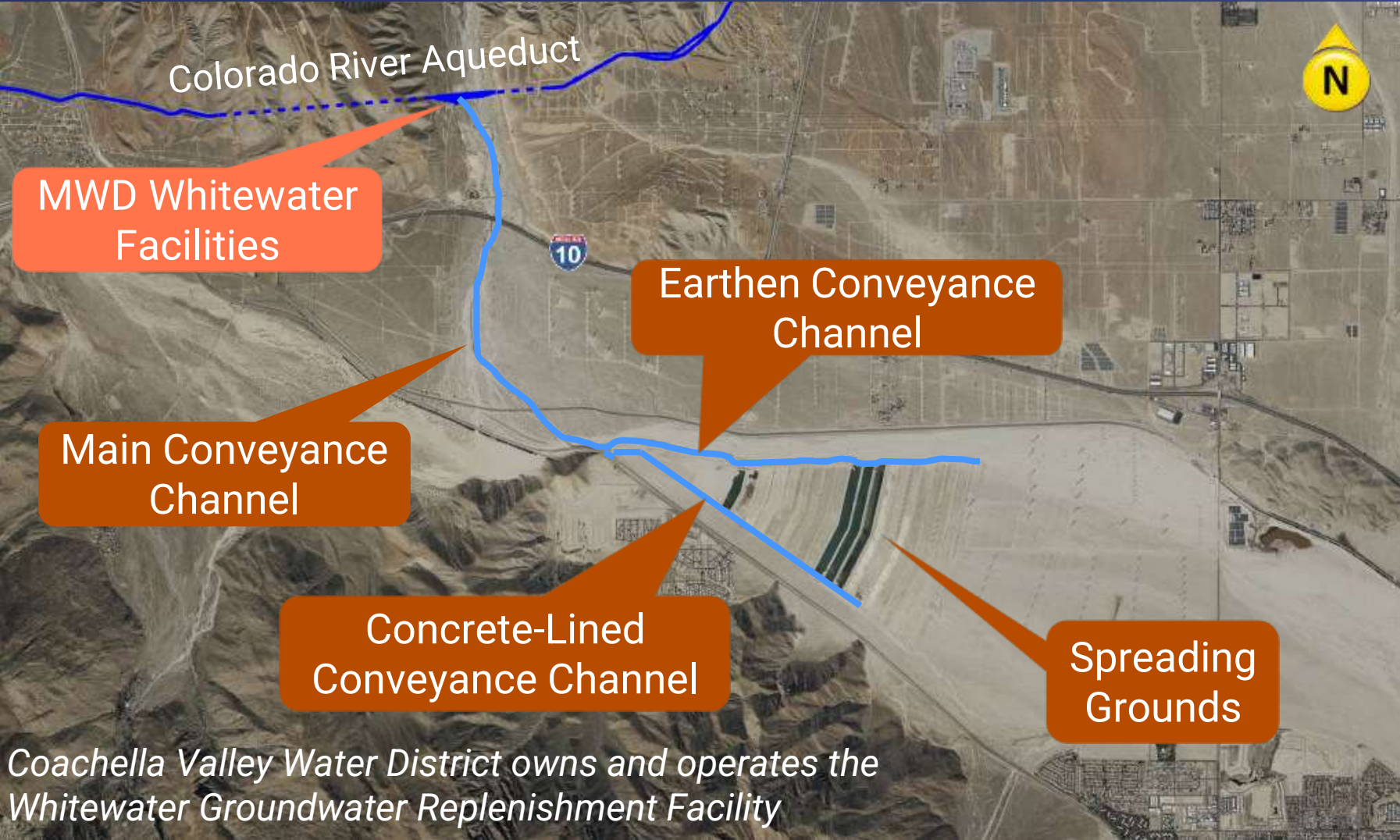
*No damage to
Metropolitan
facilities*



Whitewater Erosion Protection Structure Successfully Sustained Effects of Tropical Storm



Significant Damage Sustained at Downstream Whitewater Groundwater Replenishment Facility



Damage to Earthen Channel



Damage to Main Channel

Whitewater Replenishment Facilities



Metropolitan staff repairing
Main Channel

Partnering on Facility Repairs

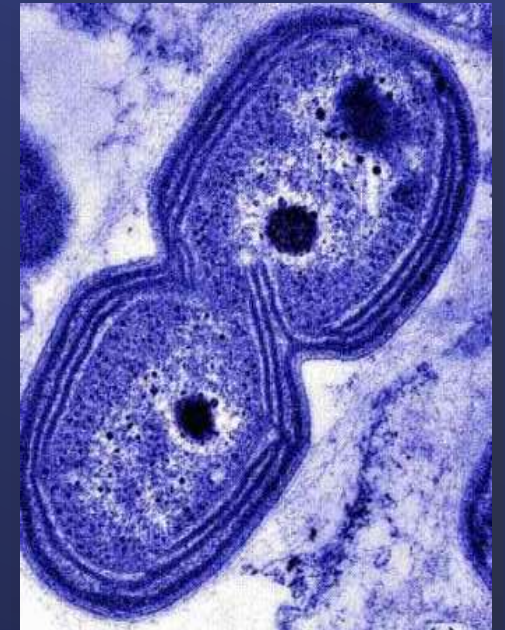
- Estimated repair schedule to restore delivery channels and spreading facilities
 - Mid-October: 400 cfs
 - Mid-December: 400-700 cfs
- Up to ~100,000 AF reduction in DWCV recharge capability in 2023
 - Water not stored in DWCV will be stored in Lake Mead
- Metropolitan providing resources (staff, equipment) to support work and advance schedule
 - Mutual assistance under CalWARN
 - Coachella seeking FEMA/CalOES reimbursement for repairs

Nitrification Event Summer 2023

- *Naturally occurring bacteria*
- *Not contaminants, not pathogens*
- *Normally present in aquatic systems*

Background on Nitrification

- Nitrifying bacteria are always present in chloraminated systems
 - **Sequentially convert ammonia to nitrite and nitrate**
- Conditions that influence nitrification
 - **Long detention times**
 - **Warm water**
 - **Excess free ammonia**
 - **Low or no disinfectant**
 - **Dead-end configurations**
 - **Poor circulation in reservoirs**
 - **Biofilm on pipe surfaces**

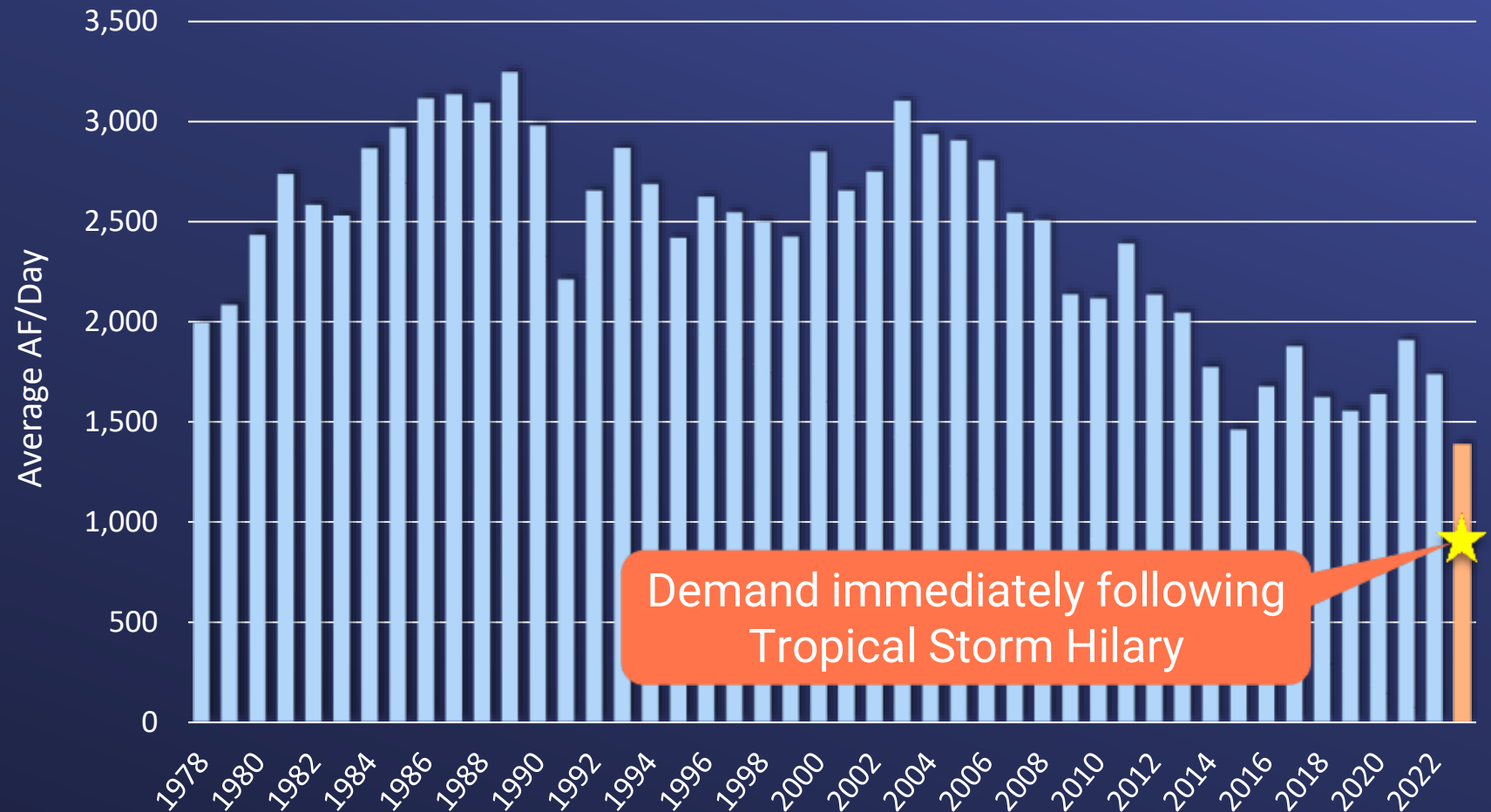


Record Low August Demands

Nitrification Event Summer 2023

2023 August summer demand is lower than average February winter demands prior to 2014

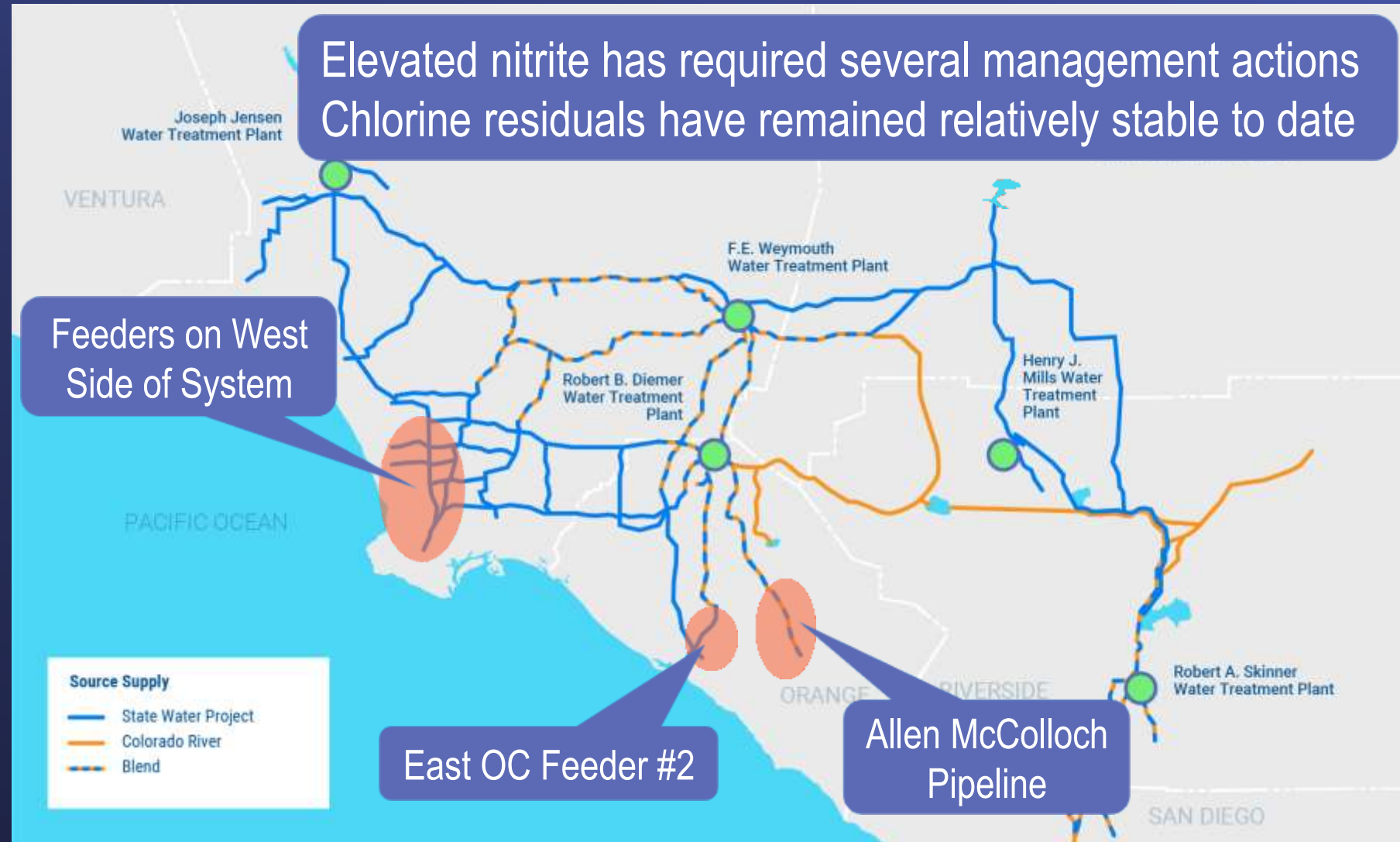
Historical Central Pool Demands for August



Affected Areas in LA and Orange Counties

Nitrification Event Summer 2023

*Extensive coordination
with member and
retail agencies*



Nitrification Event Summer 2023



Nitrification Management Actions

- Continued operational changes to increase flow in affected areas
- Monitoring water quality daily throughout system
- Increased pH at treatment plant effluents
- 24/7 flushing at multiple pipelines starting Aug. 22
 - Social media, door-to-door, and targeted outreach in impacted communities
- Reduced SWP blend at Diemer plant
- Updated Division of Drinking Water
- Coordinating daily with affected member agencies

Nitrification Event Summer 2023



Upcoming Actions

- Next Steps
 - Continuing system changes to increase flows in affected areas
 - Evaluating further chemical and/or blend adjustments at treatment plants
 - Continuing pipeline flushing as needed
 - Considering targeted shutdowns, if necessary, for pipeline disinfection
- Update on Nitrification Management to EO&T Committee planned for Fall 2023

Submitted Joint Comment Letter

California Direct Potable Reuse (DPR) Regulations



- Updated draft DPR criteria released on July 21
 - Proposed Regulations
 - Initial Statement of Reasons
- Workshop held on September 7
- Submitted joint comment letter with Los Angeles County Sanitation Districts on September 8
 - Comment letter to be posted on PWSC webpage
- Final regulations anticipated by end of 2023
 - Potential action to adopt at Dec. 22 SWRCB meeting
 - Estimated effective date mid-2024

