



2025 Shutdown Schedule

1. Jan 6 – 12
2. Jan 27 – Feb 2

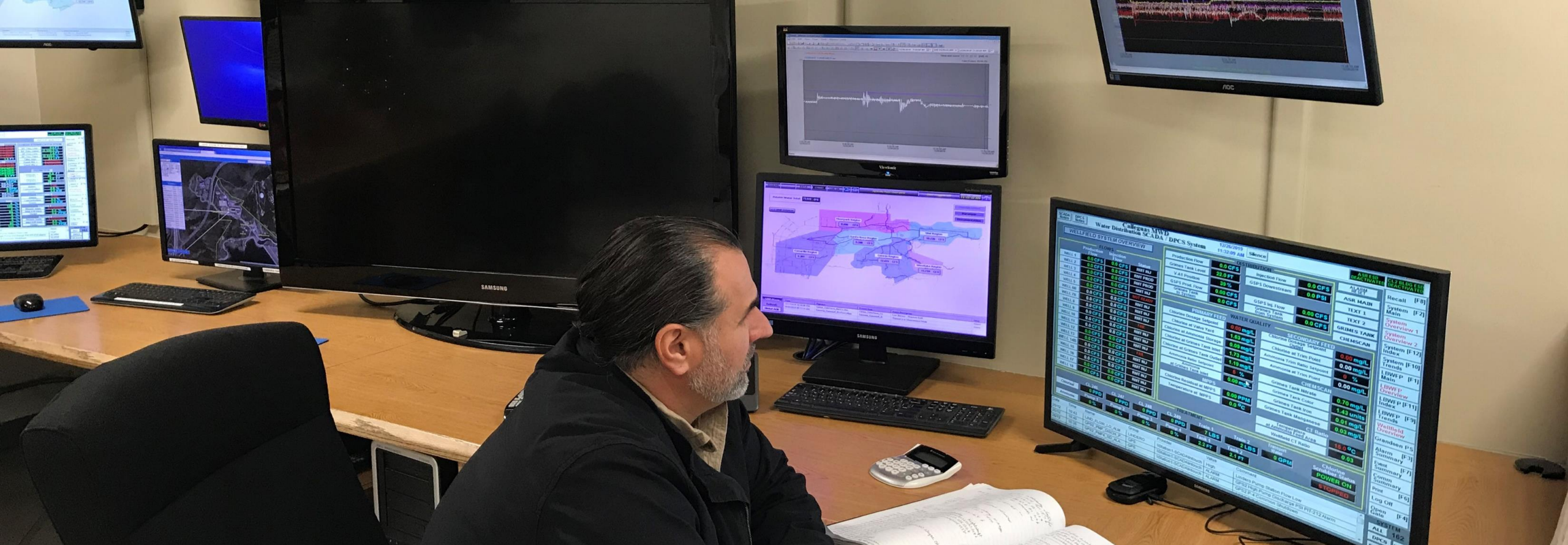
Supporting MWD Foothill Feeder shutdown for DWR corrosion and valve repair on 78" turnout

Shutdown	Duration	Purpose	Physical Limits	2025							
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
FY 2024/25				FY 2024/25							
Second Lower Feeder	145 days	Install bulkhead west of WB-37, rehabilitate PCCP, and replace 3 sectionalizing valves	From bulkhead (downstream of WB-37) to Oak Street PCS			12/2				4/25	
Sepulveda Feeder	134 days	Support Second Lower Feeder shutdown	From 219th St. Sectionalizing Valve to the Van Ness/El Segundo Sectionalizing Valve			12/2				4/14	
San Diego Pipeline No. 1 & 2	10 days	SDCWA to perform work on their portion of SDPL 1 & 2, while MWD inspects upper reach of SDPL 1 and Rainbow Tunnel, and performs repairs, as needed	From Auld Valley Pipeline to SDCWA jurisdiction			12/8			12/17		
Auld Valley Pipeline	10 days	Inspect PCCP	From Robert A. Skinner Water Treatment Plant to Service Connection EM-17A			12/8			12/17		
Foothill Feeder	7 days	Support DWR's bulkhead installation to perform corrosion and valve repair work at 78' turnout	From Castaic Lake to Joseph Jensen Water Treatment Plant				1/6			1/12	
San Fernando Tunnel	7 days	Support Foothill Feeder shutdown	From Foothill Feeder to pipeline terminus				1/6			1/12	
Joseph Jensen Water Treatment Plant	7 days	Support Foothill Feeder shutdown	Joseph Jensen Water Treatment Plant				1/6			1/12	
East Valley Feeder	7 days	Support Foothill Feeder shutdown	From Sepulveda Feeder to Greg Avenue PCS				1/6			1/12	
Sepulveda Feeder	7 days	Support Foothill Feeder shutdown	From Joseph Jensen Water Treatment Plant to Venice PCS				1/6			1/12	
West Valley Feeder No. 1	7 days	Support Foothill Feeder shutdown	From Sepulveda Feeder to pipeline terminus				1/6			1/12	
West Valley Feeder No. 2	7 days	Support Foothill Feeder shutdown	From Sepulveda Feeder to pipeline terminus				1/6			1/12	
Calabasas Feeder	7 days	Support Foothill Feeder shutdown	From West Valley Feeder No. 2 to pipeline terminus				1/6			1/12	

Shutting Down Calleguas Conduits

- All hands on deck
- Operations and System Maintenance require extensive coordination
- Timing with MWD shutdowns
- Purveyors can anticipate regular service





How does the Operations Division prepare for LBWFP and Las Posas Wellfield Production?

Lake Bard Water Filtration Plant

Start at the source and determine Lake Bard water quality:

- Anoxic water (low oxygen) could cause the water to smell like hydrogen sulfide (rotten eggs)
- Elevated algae levels can hinder filter performance
- Turbidity (the cloudiness of the water) determines coagulant dosage for filtration
- Temperature and pH dictate the effectiveness of chlorine disinfection

Lake Bard Water Filtration Plant

RECIRCULATION MODE

Lake water is then circulated through the Filtration Plant and back to Lake Bard to displace water that has been sitting in the system.

Ancillary equipment is exercised and tested to ensure reliability during production.



Rafael Medina overseeing a filter backwash



Casey Versteeg observing a filter in slipstream

Las Posas Wellfield

- Wellfield 1 and 2 are high in iron and manganese.
- Pre-injecting a plume of MWD water reduces the oxidization of iron and manganese and reduces chlorine demand.
- We need to make sure that we bank enough MWD water into the ground that will last for the duration of the outage.
- Most wells inject at a rate of 1.5 CFS yet extract at a rate of 3.0 CFS. It takes longer to inject the same quantity of water than it takes to extract.
- The longer we extract, the likelier iron and manganese concentrations are to increase.

Calleguas MWD

Distribution Sources During Scheduled Outage

- January 6th to January 12th: Calleguas Purveyors will be receiving a blend of LADWP and Calleguas Las Posas Wellfield, and Lake Bard Water Filtration Plant. (No deliveries from MWD)
- January 13th to January 26th: Calleguas Purveyors will be receiving a blend of MWD and Calleguas Lake Bard Water Filtration Plant.
- January 27th to February 2nd: Calleguas Purveyors will be receiving a blend of LADWP and Calleguas Las Posas Wellfield, and Lake Bard Water Filtration Plant. (No deliveries from MWD)

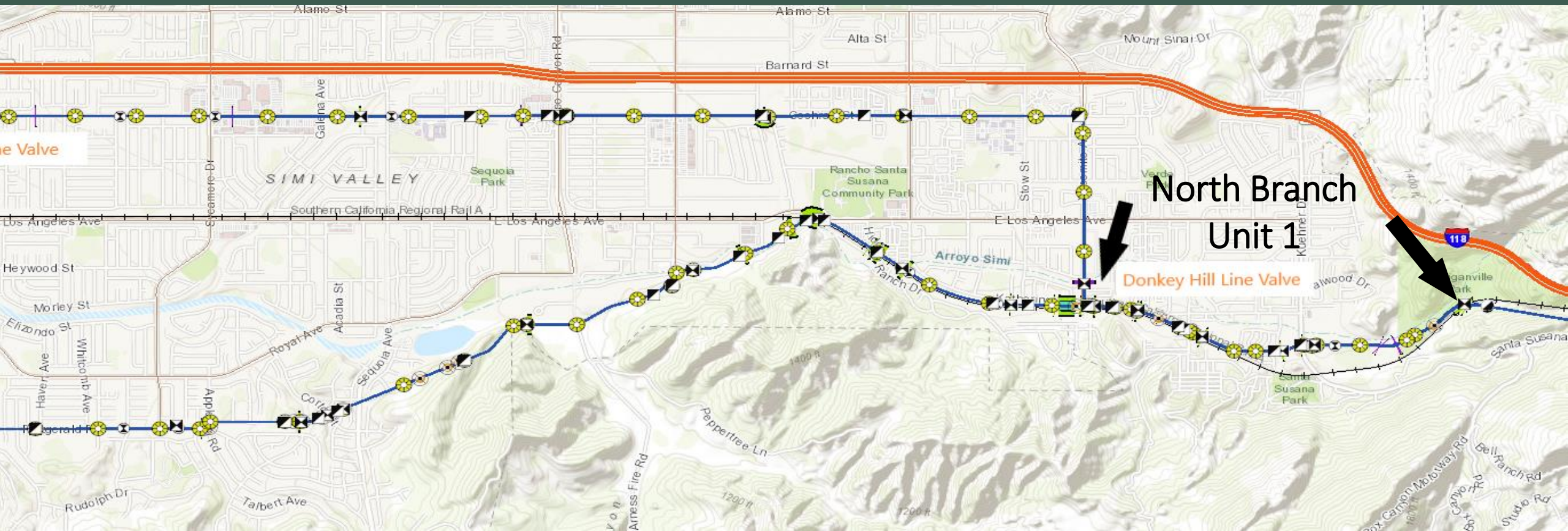
Calleguas MWD

Distribution System Water Quality

TARGETS:

- Turbidities not greater than 0.15 NTU. But lower is always better and it usually is.
- pH of 8.0 to 8.3 for corrosion control.
- Chloramine residual of 2.5 ppm at a 5 to 1 ratio of chlorine to ammonia.

System Maintenance Shutdown Preparation Overview



ISOLATION

- Isolation for a shutdown can be anywhere from 2-5 main feeder valves.
- We prefer to double-isolate as a safety precaution when we can.
- Operations must be called before the isolation of any valve within the system.



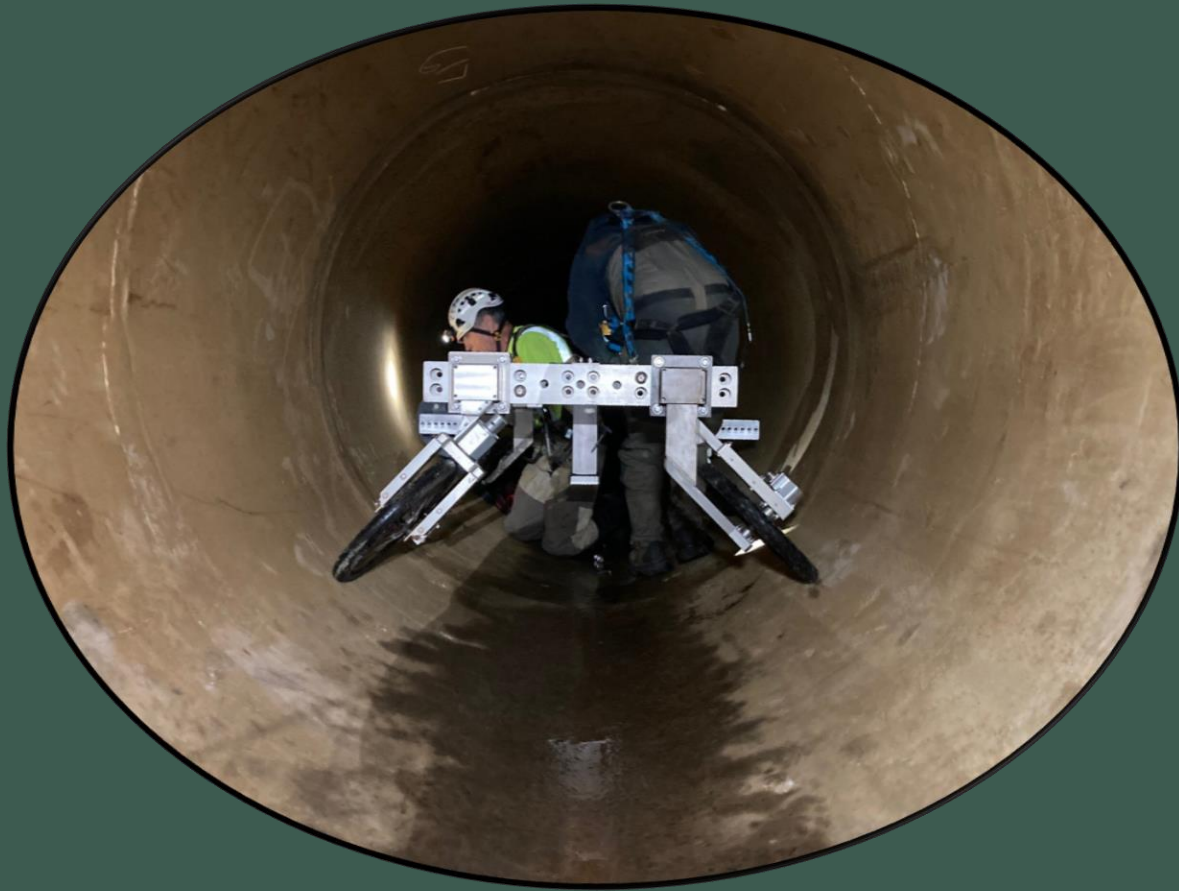
DE-WATERING & PUMPING



PIPELINE PRE-INSPECTION



PIPELINE INSPECTION SUPPORT



AFTER INSPECTION

- Install all manholes
- Close all blow-offs
- Install pump-well Victaulic caps
- Assign staff to Air and Vacuum valves to monitor air while re-charging
- Begin re-charge





Final steps after the 24-hour waiting period and a negative Bac-T.

- Operations and System Maintenance staff coordinate to un-isolate all valves.
- Resume normal operations of the distribution system.
- Notify all the impacted purveyors that they can resume normal operations.

Transitioning off Calleguas Local Resources and Back to MWD



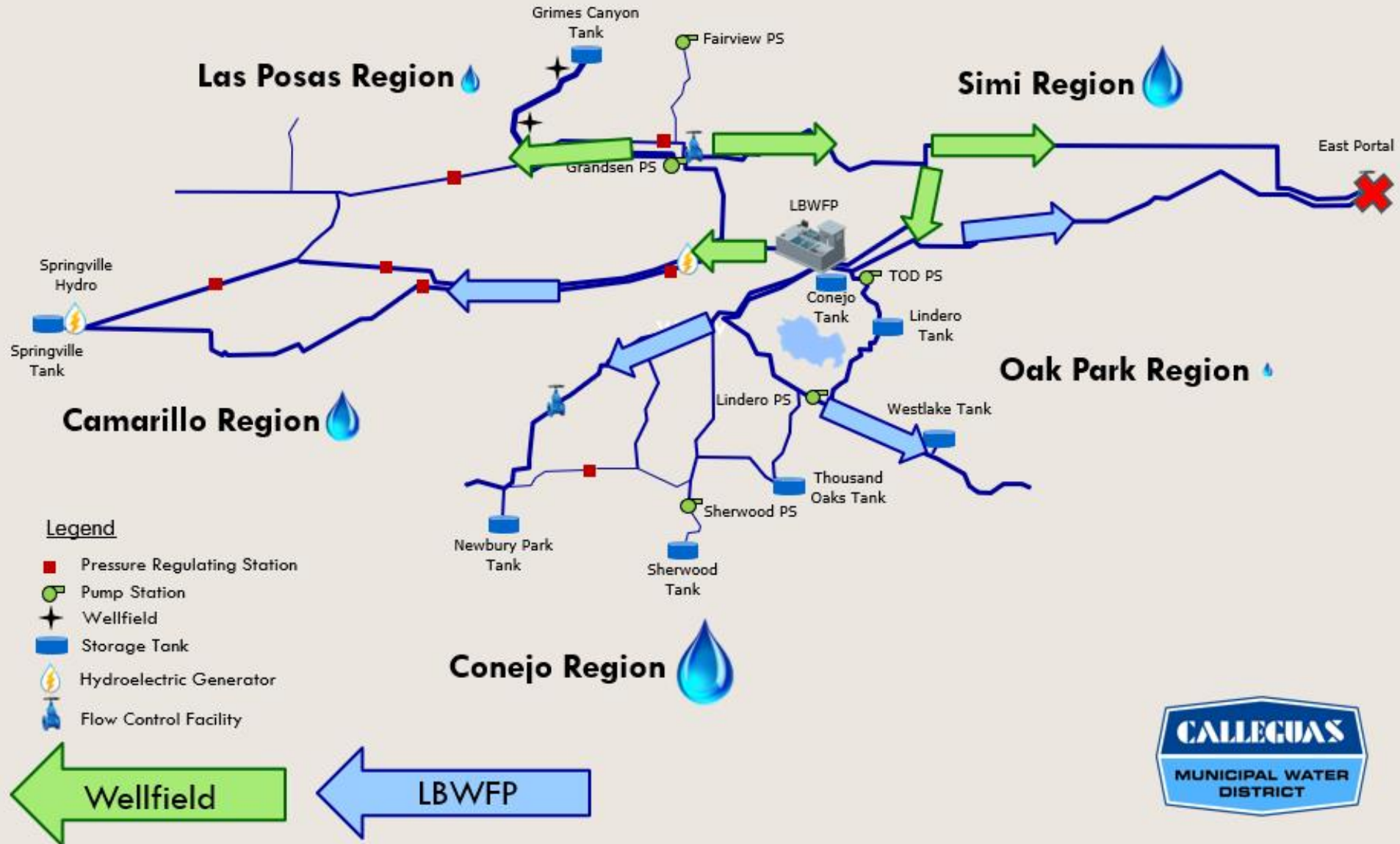
Grandsen Pump Station



Conejo Pump Station

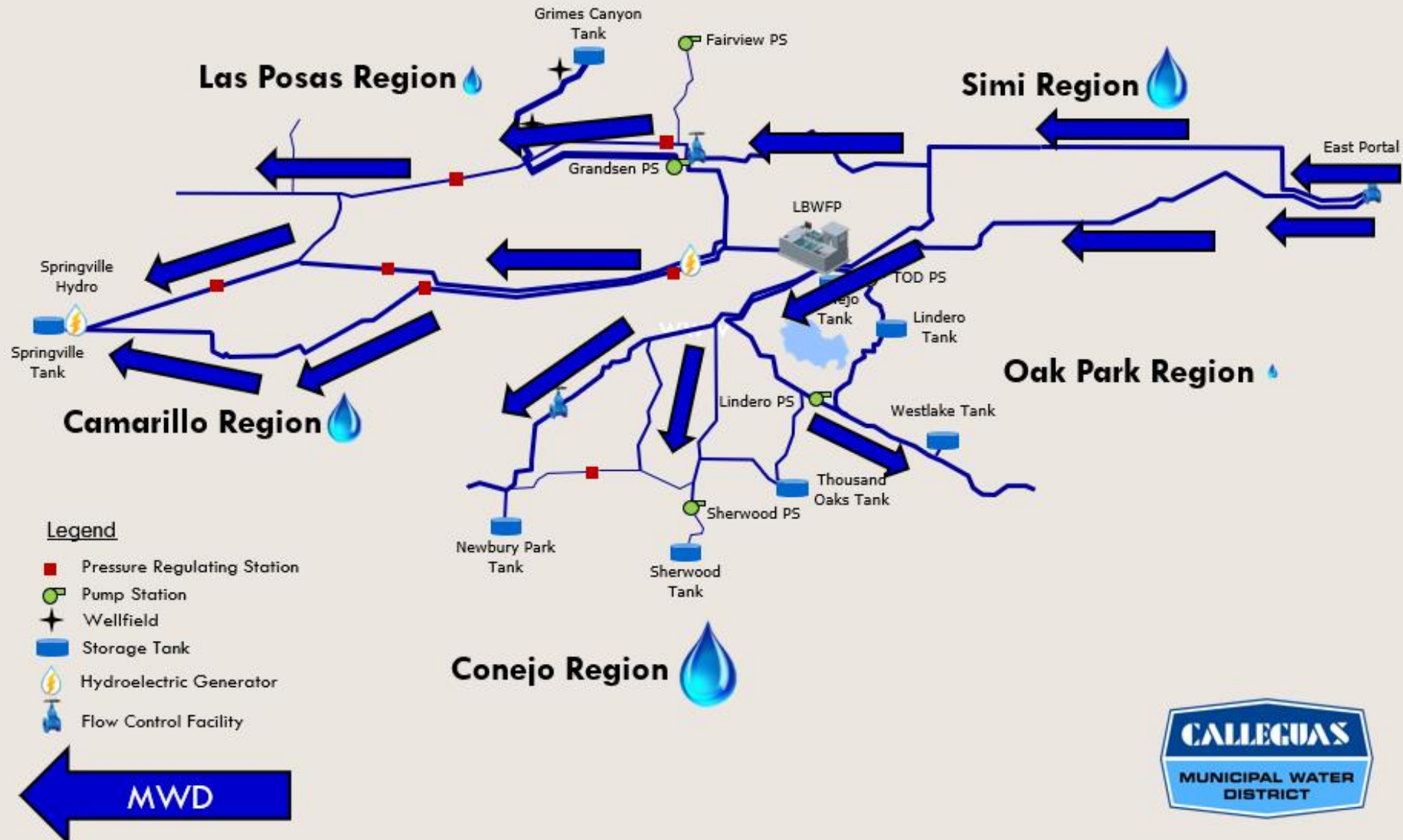
Calleguas Distribution System

LBWFP and Las Posas Wellfield online



Calleguas Distribution System

Normal Operation (Importing from MWD)





Questions?