



Welcome

Operated by the San Francisco Public Utilities Commission

San Francisco Public Utilities Commission Regional Water System Wholesale Customer Meeting June 20, 2024



Agenda

- Introductions / Welcome
- Current and Upcoming Operations
- Water Supply and Deliveries Update
- Transmission System Update
- Rehabilitation and Capital Improvements Update
- Water Quality Update
- Natural Resources and Lands Management Update
- Emergency Planning

Current and Upcoming Operations

Ryan Gabriel, P.E.
System Operations Manager

Current and Upcoming RWS Operations

- Three month lookahead

| Month | HH | SVWTP | HTWTP |
|--------|---------|---------------------------------|----------------------------------|
| June | 235 MGD | Standby | 30 MGD |
| July | 235 MGD | Online at 30 MGD 7/1 to 7/15 | Online at 30 MGD 7/15 to 7/31 |
| August | 235 MGD | Standby | 30 MGD |

Mountain Tunnel Shutdown Schedules

- Upcoming Mountain Tunnel shutdown schedules:

| MT S/D # | Date Range | Duration (days) |
|----------|--------------------|-----------------|
| 7 | 12/5/23 to 3/21/24 | 108 |
| 8 | 12/3/24 to 3/14/25 | 102 |
| 9 | 12/2/25 to 3/13/26 | 102 |

Current Project: San Andreas Reservoir Road and Embankment Improvements



- Capital project to improve reservoir access roads and bank stability

Water Supply and Deliveries Update

Rebecca Pluche, P.E.
Hydrology and Water Systems,
Water Enterprise
June 20, 2024

Water Supply

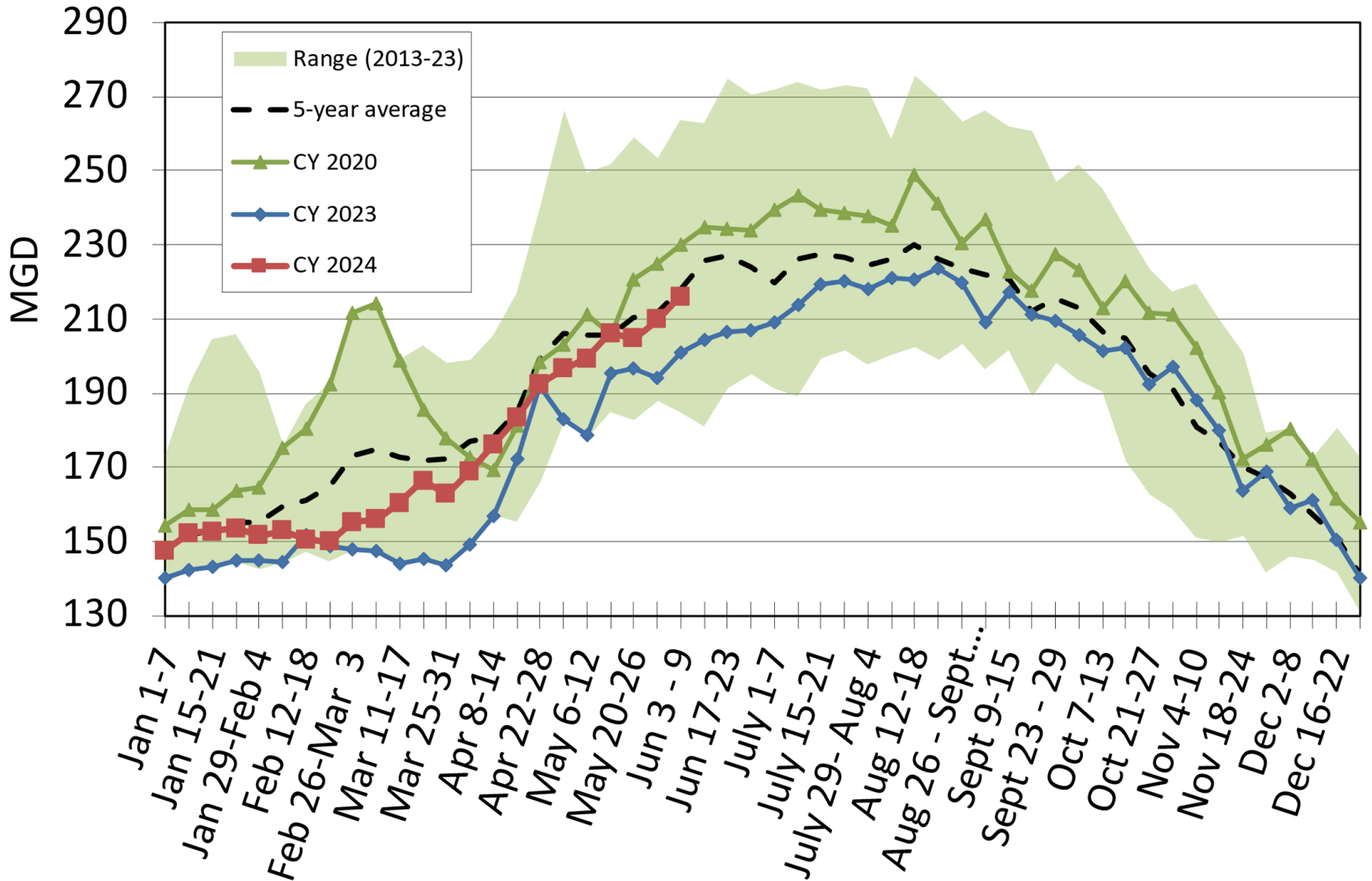
(see <https://www.sfwater.org/kiwidgets/SFPUC/index.html>)

| Reservoir Storage | Current | Storage | Percent of | Storage | Long-term | LT Median, |
|---------------------------------|------------------|------------------|--------------|------------------|------------------------|--------------|
| | Storage | Capacity | Capacity | One Year | Median on | Percent of |
| | (AF) | (AF) | (%) | Ago | this Date ¹ | Capacity |
| | | | | (AF) | (AF) | (%) |
| <u>Tuolumne System</u> | | | | | | |
| Hetch Hetchy | 344,900 | 360,360 | 95.7% | 302,176 | 344,710 | 95.7% |
| Cherry | 269,800 | 273,500 | 98.6% | 211,187 | 259,142 | 94.8% |
| Eleanor | 26,170 | 27,113 | 96.5% | 24,658 | 25,867 | 95.4% |
| Water Bank | 570,000 | 570,000 | 100.0% | 570,000 | 570,000 | 100.0% |
| <i>(As of Jun 02)</i> | | | | | | |
| Total Tuolumne Storage | 1,210,870 | 1,230,973 | 98.4% | 1,108,021 | 1,199,719 | 97.5% |
| <u>Local System</u> | | | | | | |
| Calaveras | 94,540 | 96,670 | 97.8% | 94,939 | 50,969 | 52.7% |
| San Antonio | 50,837 | 53,266 | 95.4% | 53,056 | 48,078 | 90.3% |
| Crystal Springs ² | 51,829 | 68,953 | 75.2% | 54,809 | 50,715 | 73.6% |
| San Andreas | 11,324 | 18,674 | 60.6% | 15,394 | 17,339 | 92.9% |
| Pilarcitos | 2,326 | 3,125 | 74.4% | 2,642 | 2,811 | 90.0% |
| Total Local Storage | 210,856 | 240,586 | 87.6% | 220,840 | 169,912 | 70.6% |
| Total System Storage | 1,421,726 | 1,458,684 | 97.5% | 1,328,861 | 1,369,631 | 93.9% |
| Total without Water Bank | 851,726 | 888,684 | 95.8% | 758,861 | 799,631 | 90.0% |

----- Provisional Data Subject to Revision -----

Total Deliveries

(Source: SFPUC Regional Water System Meters)



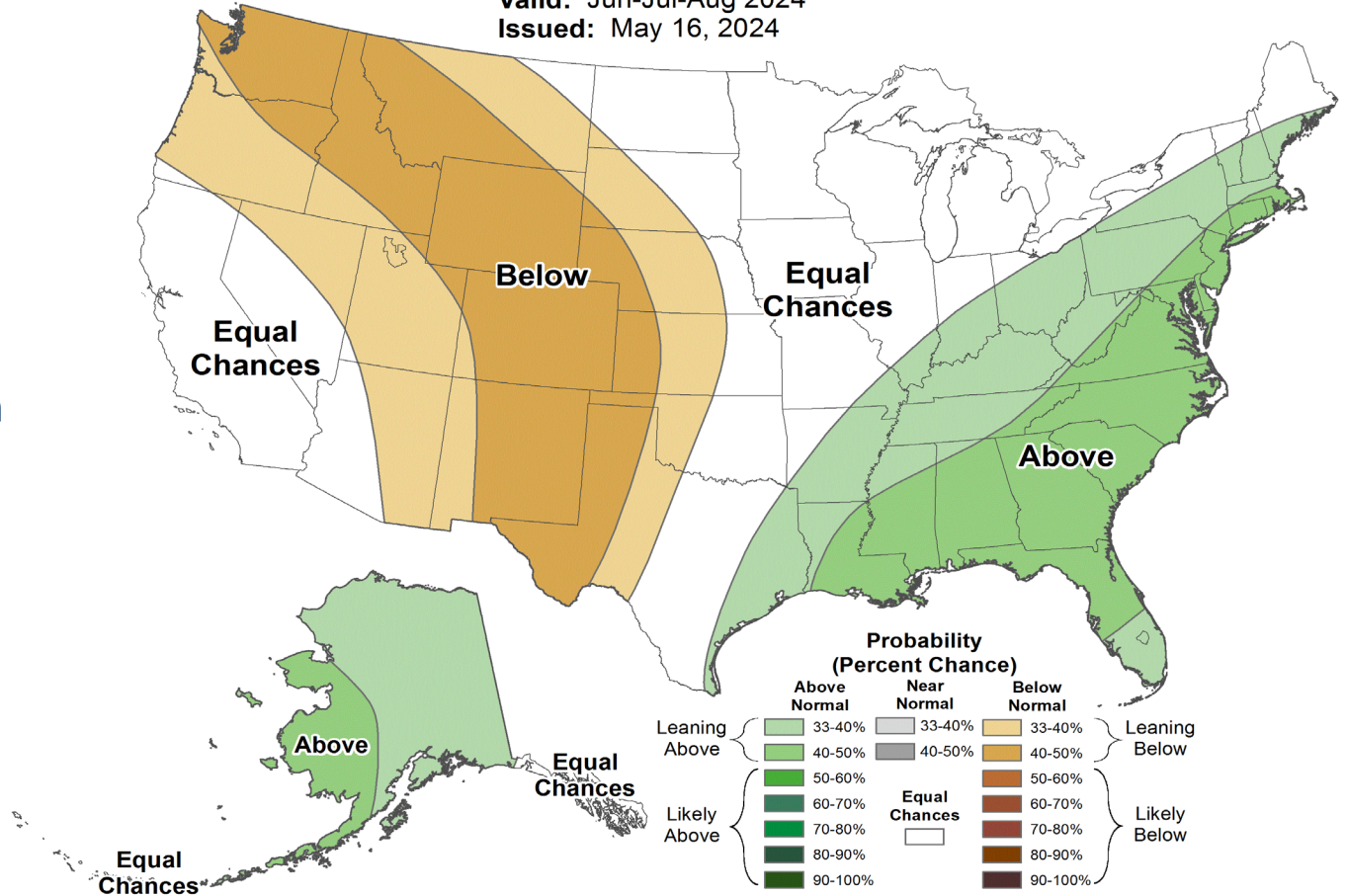


Seasonal Precipitation Outlook



Valid: Jun-Jul-Aug 2024
Issued: May 16, 2024

**Jun-Jul-Aug
Precipitation
Outlook:
Equal chances of
above or below
normal precipitation**



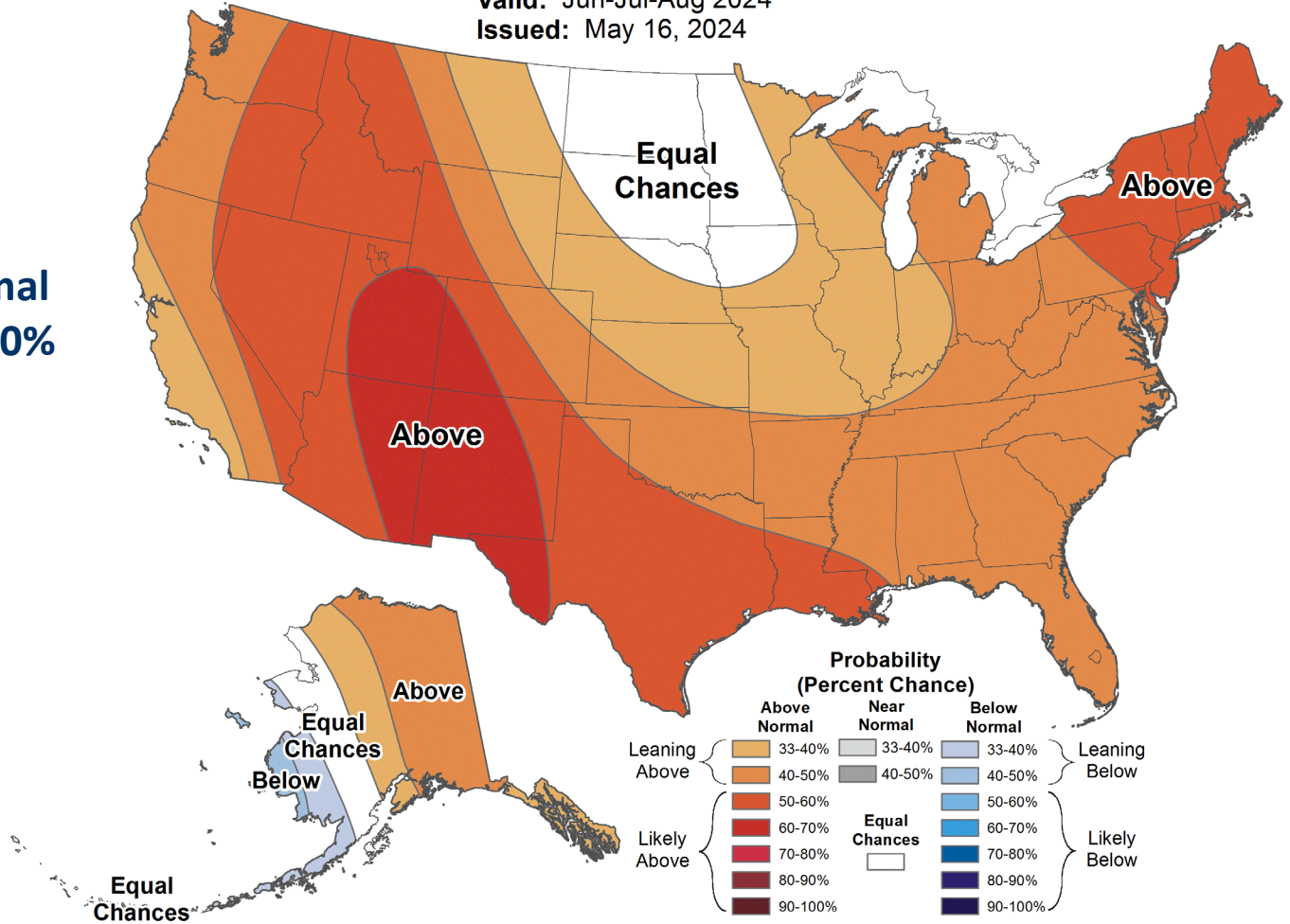


Seasonal Temperature Outlook

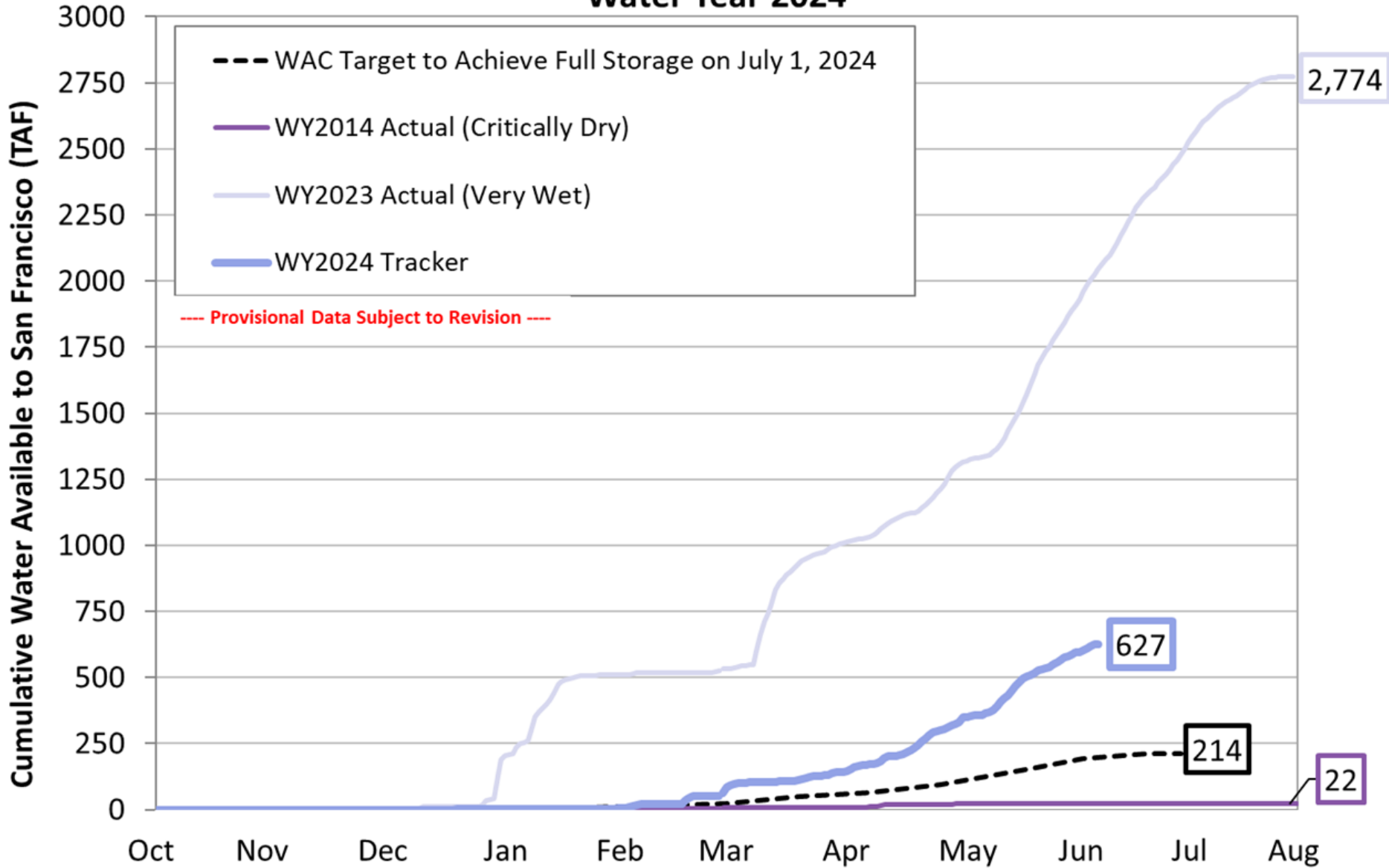


Valid: Jun-Jul-Aug 2024
 Issued: May 16, 2024

**Jun-Jul-Aug
 Temperature
 Outlook:
 Leaning above normal
 temperature, 33 – 50%**



Tuolumne River Water Available to San Francisco Target and Tracker: Water Year 2024



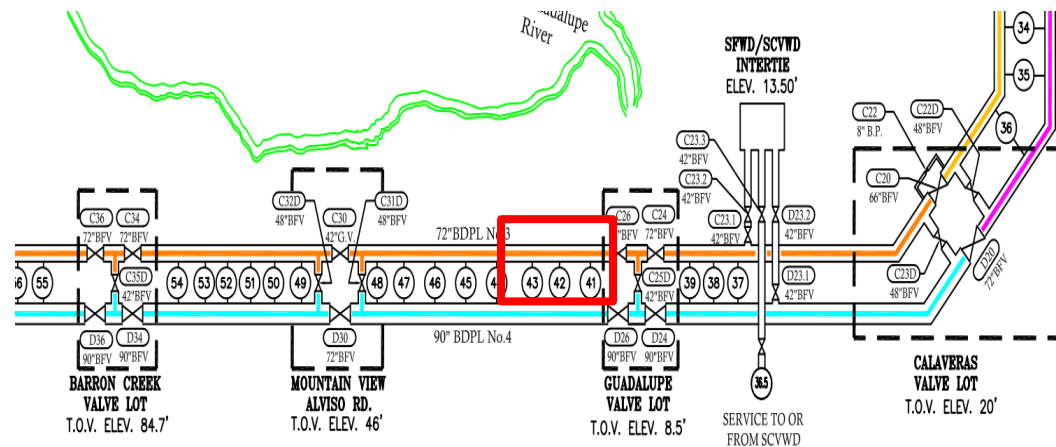
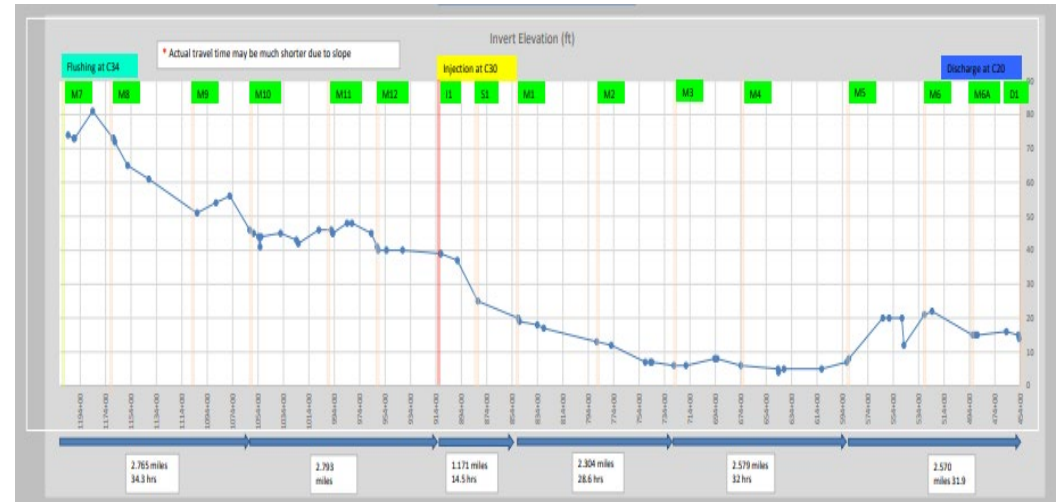
Target value assumes a modified maximum capacity at Crystal Springs Reservoir due to Fountain Thistle

Transmission System Update

James Heppert
Distribution Manager

Bay Division #3 UPRR

- Bay Division #3 Shutdown
- 72" Pipeline Diameter
- Start Date: October 7th
- Completion Date: December 19th
- C20 to C34



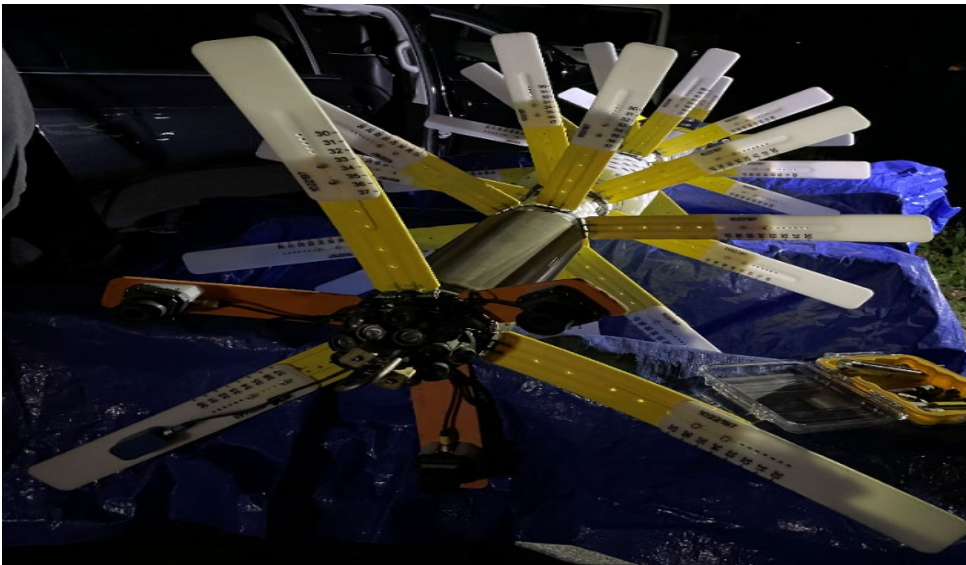
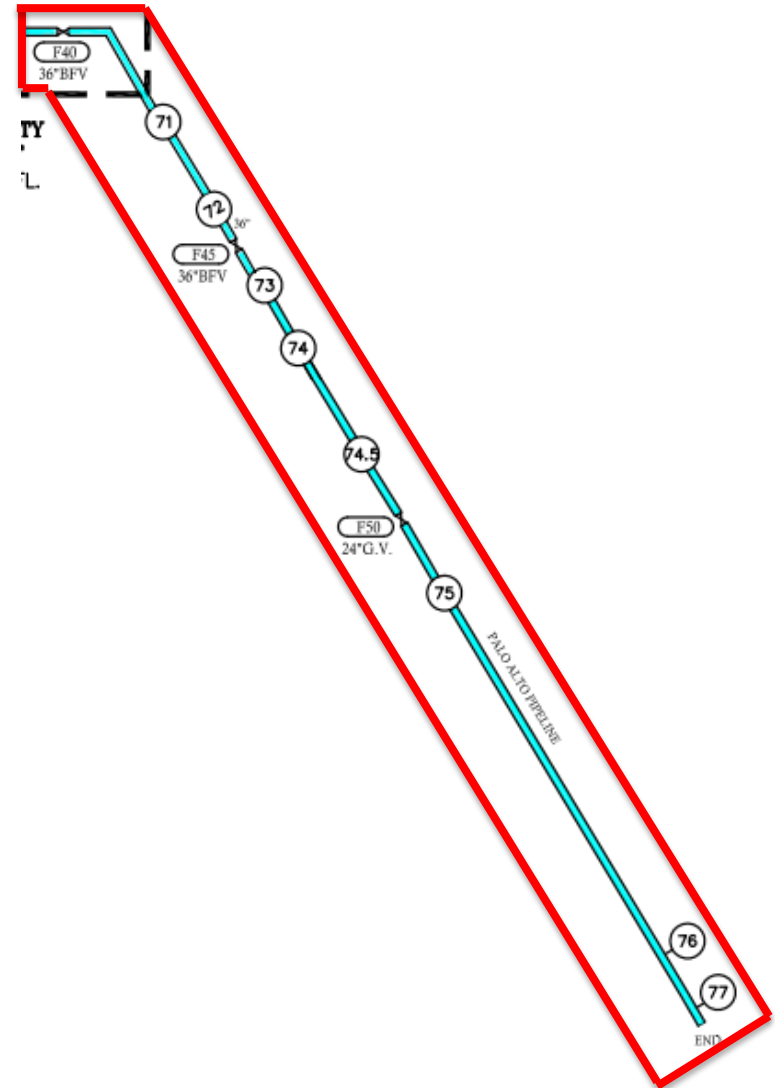
Bay Division #3 UPRR

- 8 mitigations during shutdown
- Total disinfection length of 8.6 miles



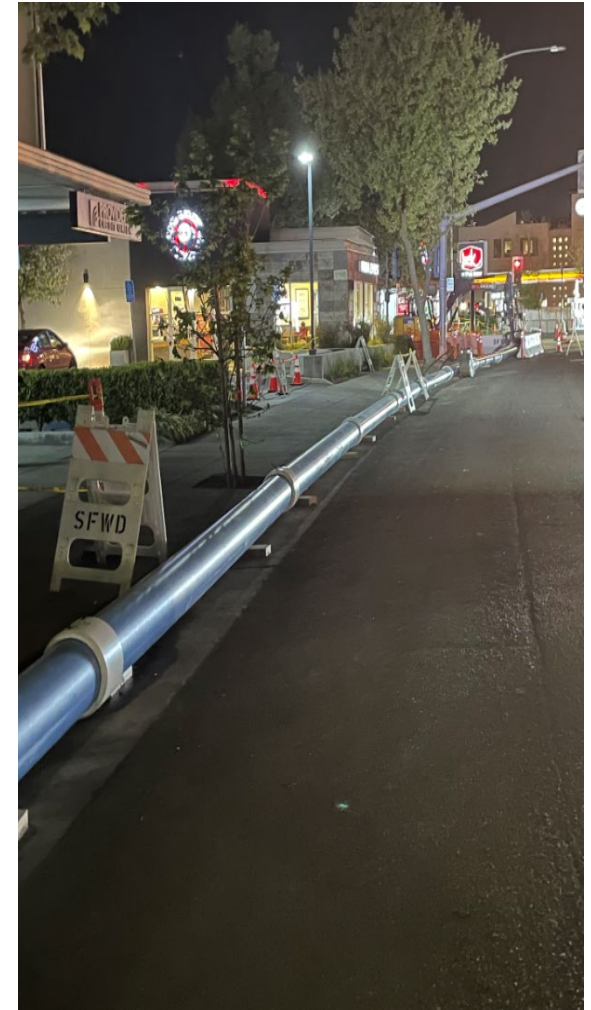
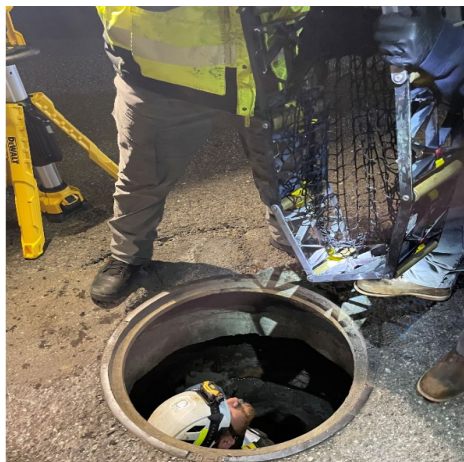
Palo Alto Pipeline Inspection

- 36" and 24" Pipeline Diameter
- Total Inspection Length 5.3 miles
- Total time of pipeline inspection 4:05 hours
- Start Date: April 1st
- Completion Date April 12th

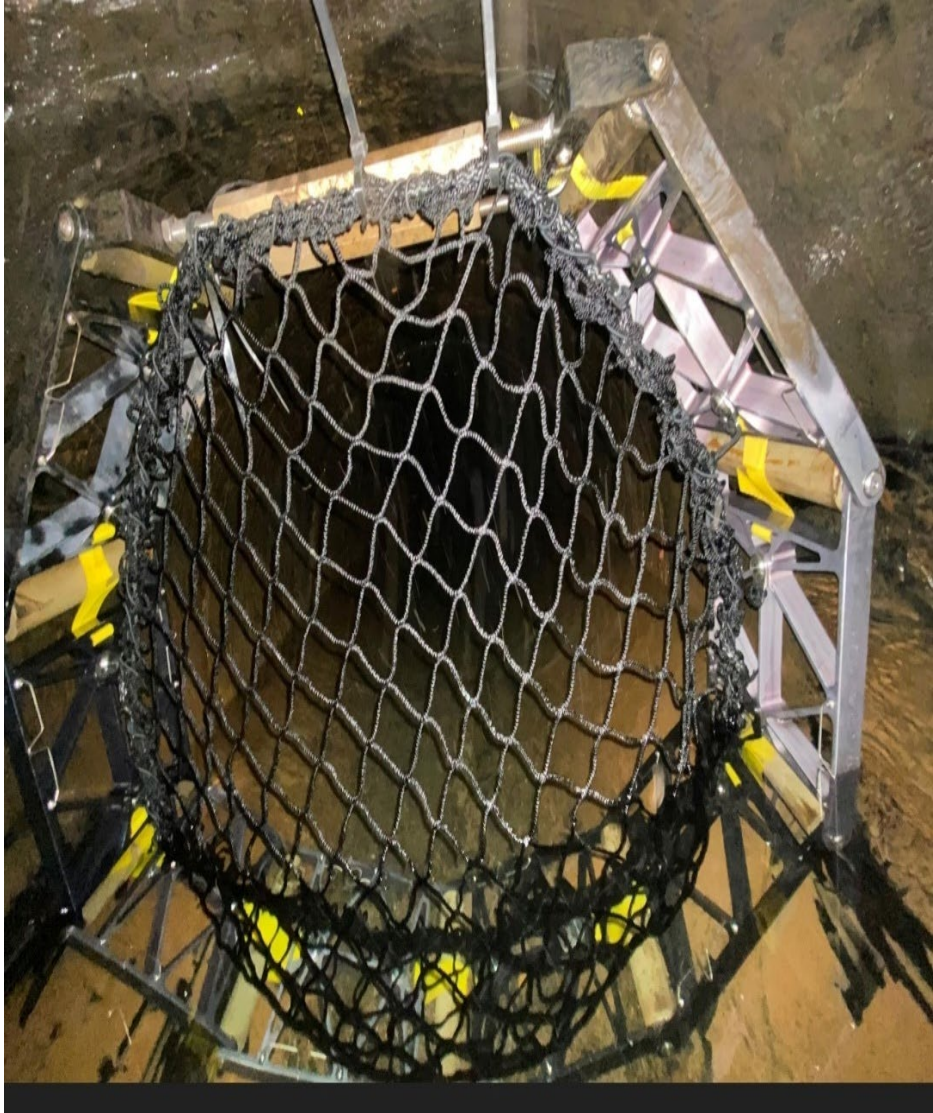


Palo Alto Pipeline Inspection

Flushing at 3600 to 4600 gpm during inspection

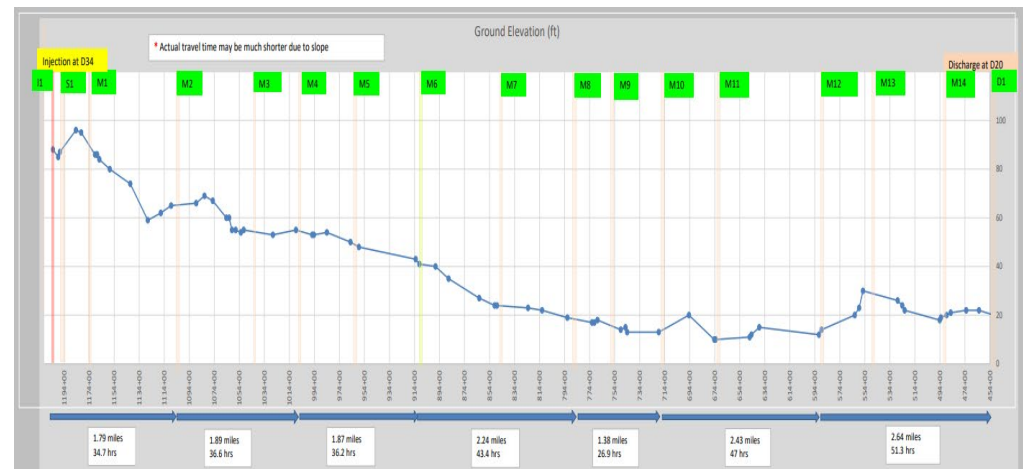
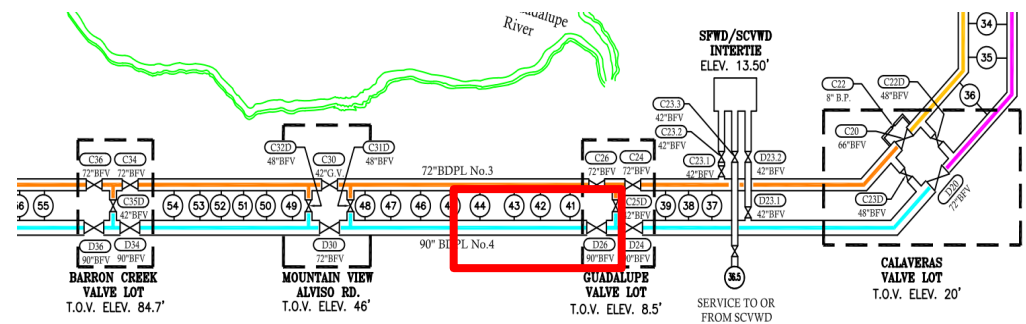


Palo Alto Pipeline Inspection



Union Pacific Railroad Slip-lining Project

- Bay Division #4 shutdown
- 90" Pipeline Diameter
- Start Date: January 3rd
- Completion Date: June 27th
- D20 to D34



Bay Division #4 UPRR

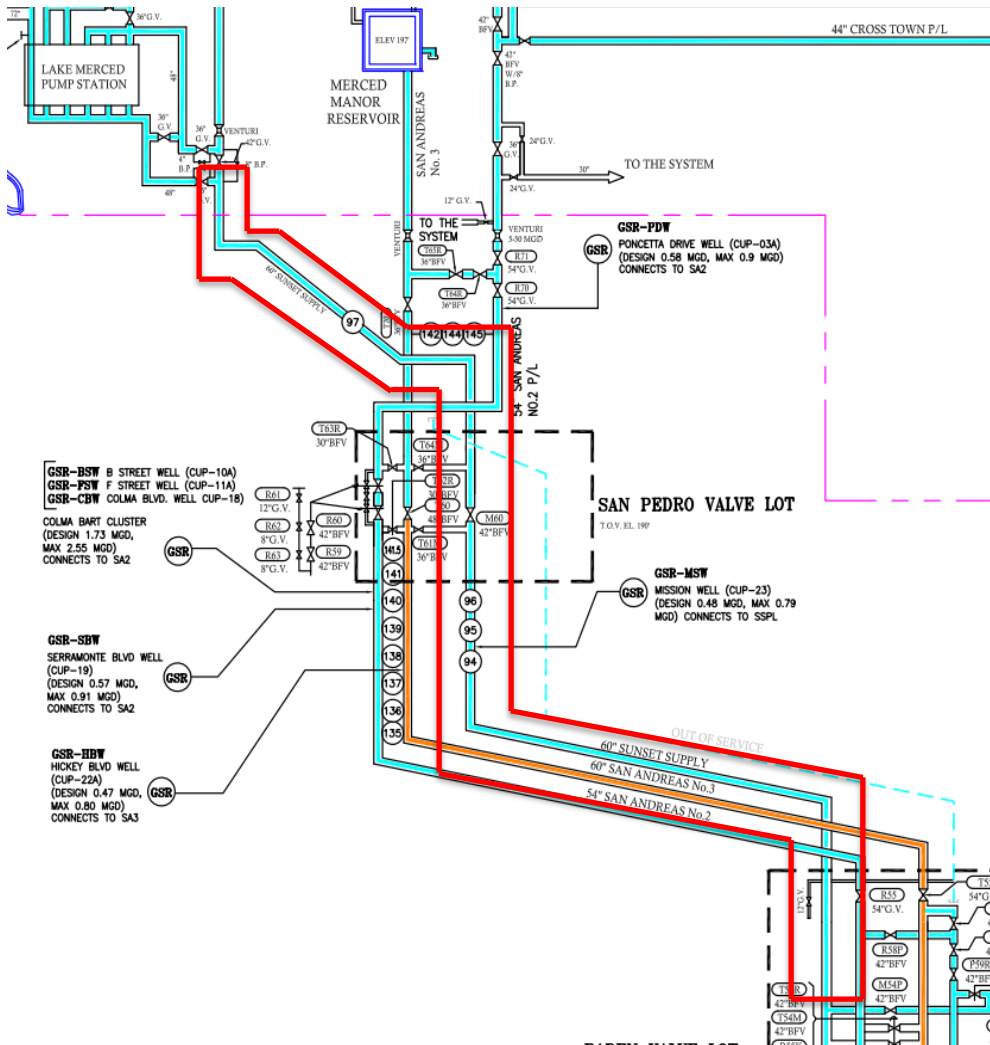
- Total disinfection length 14.2 miles
- 13 Mitigations during shutdown



Bay Division #4 UPRR



Sunset Supply Shutdown



Sunset Supply
Inspection &
Disinfection

Start Date: January
22nd

Completion Date:
TBD

Delay due to fire
incident inside
pipeline

Sunset Supply Shutdown



SFPUC Water Supply & Treatment Division



June 20, 2024



Wholesale Customer Quarterly Meeting

Sunset Supply Pipeline Inspection



Vegetation Maintenance

Approximately 70 miles of Vegetation Maintenance in SFPUC Right-of-Way



Cross-Connection Control Program

- 1,382 Sites assessed
- 731 sites mitigated
- 397 sites remaining for mitigation to be completed by 2026



SFPUC Wholesale Meter Testing

- Implementing new Wholesale Customer Meter Maintenance and Testing Procedures

San Francisco Public Utilities Commission
Water Supply and Treatment Division
Regional Water System
Water Meter Maintenance and Testing Procedures



Rehabilitation and Capital Improvements Update

Annie Li
Engineering Manager

Palo Alto Pipeline Inspection

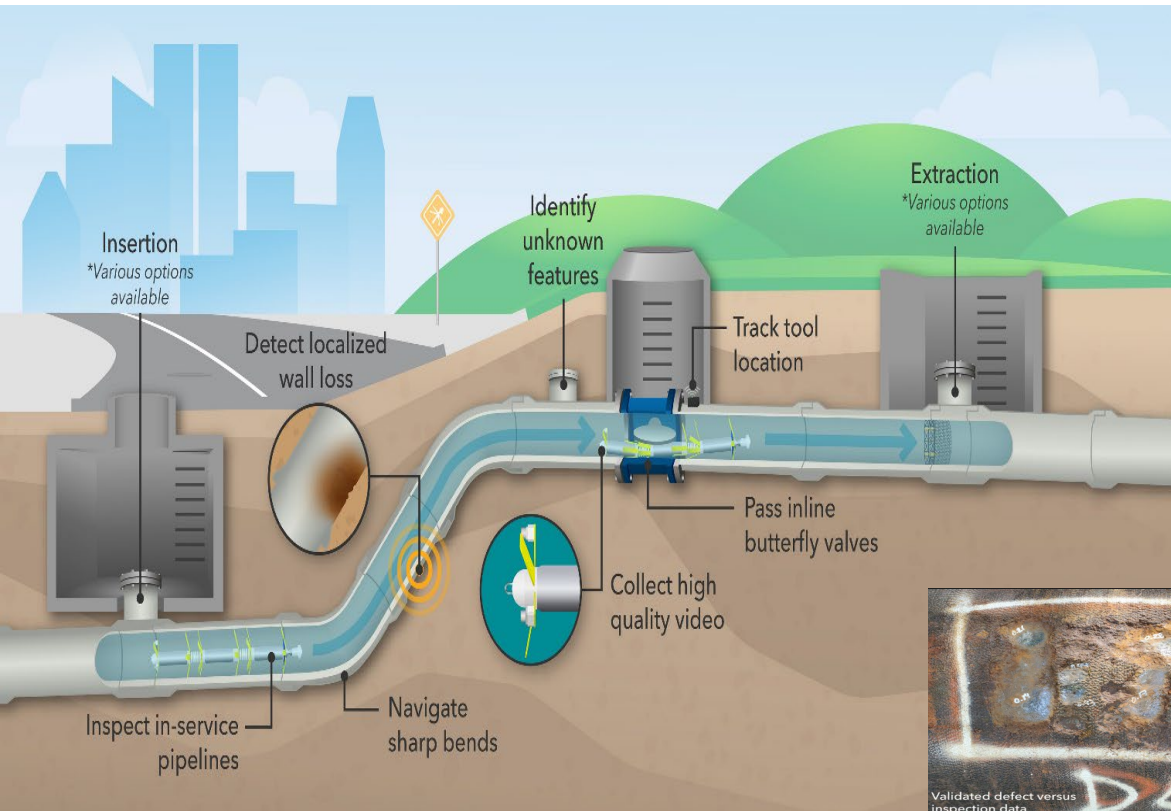


Figure 3: PipeDiver Ultra Inspection Overview

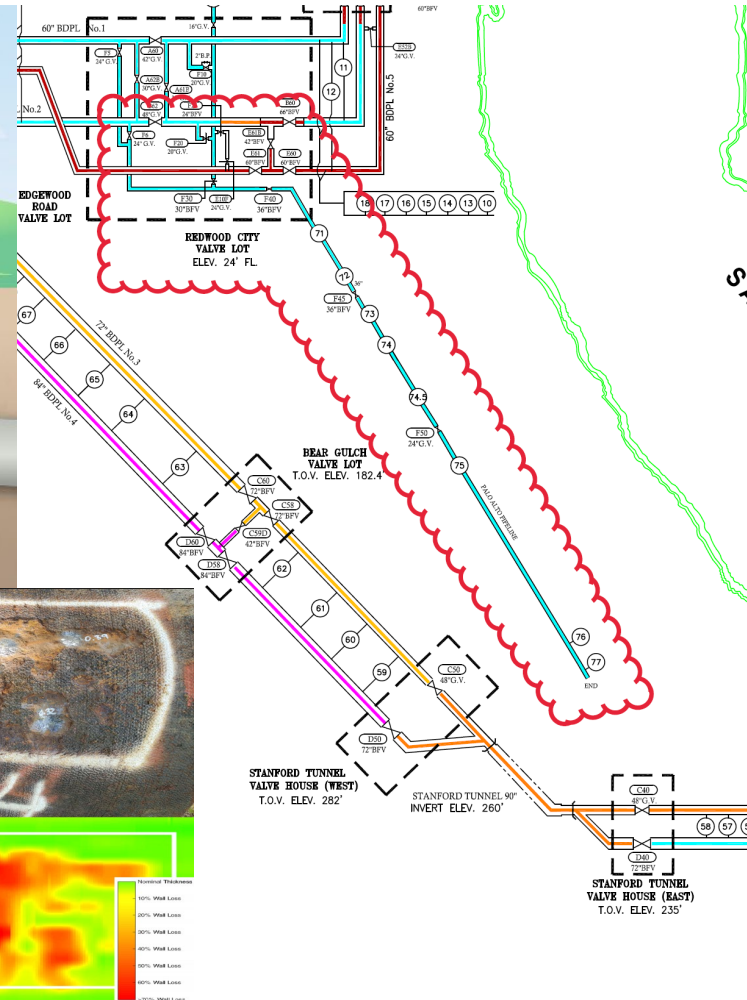


Figure 2: PipeDiver Ultra data compared to pipe wall loss defects

Palo Alto Pipeline Inspection

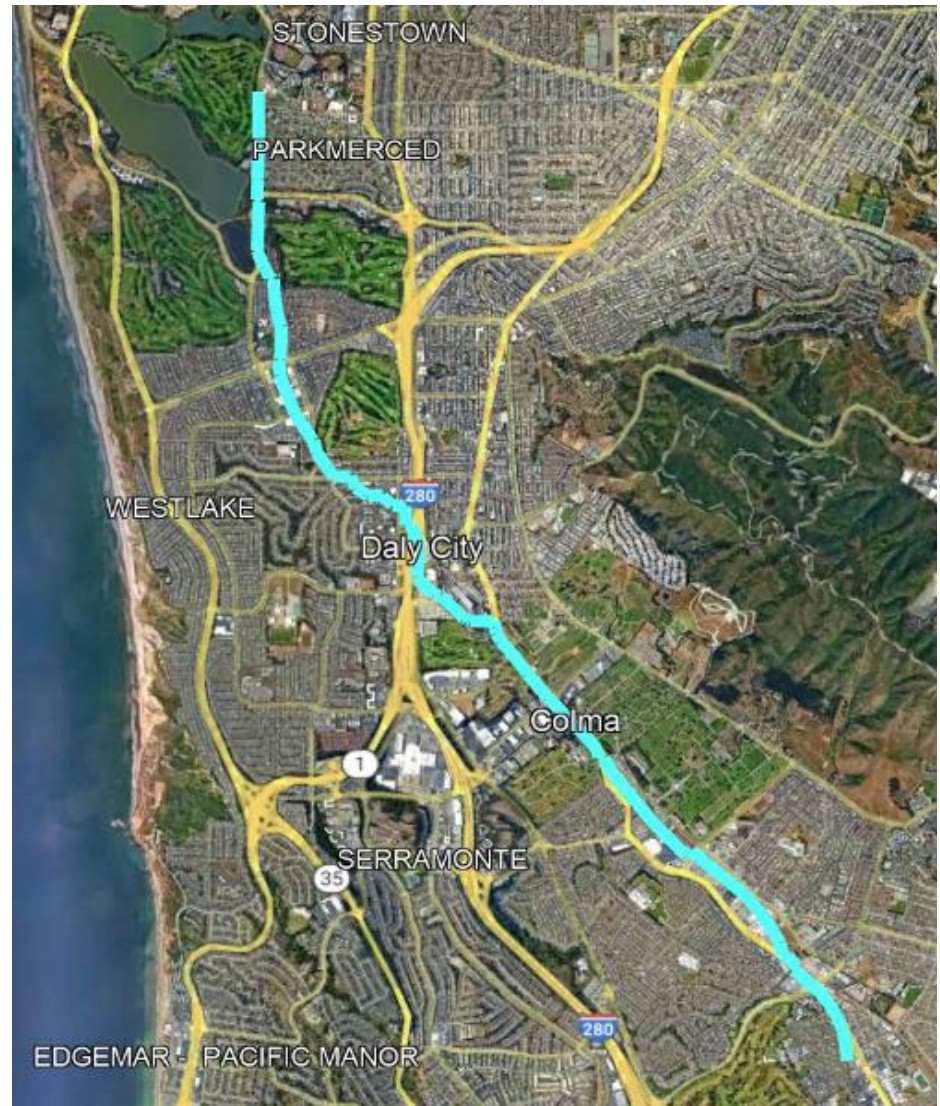


Palo Alto Kodak Vault Abandonment



Sunset Supply Pipeline Inspection

- Sunset Supply Pipeline is a 60" steel pipe constructed in 1950s
- Inspect 5.9 miles between Baden and Lake Merced Pump Station
- PICA's Electromagnetic Tool was to detect metal wall loss



SVWTP Chlorine Contact Tank Outlet Weir Leak Repairs

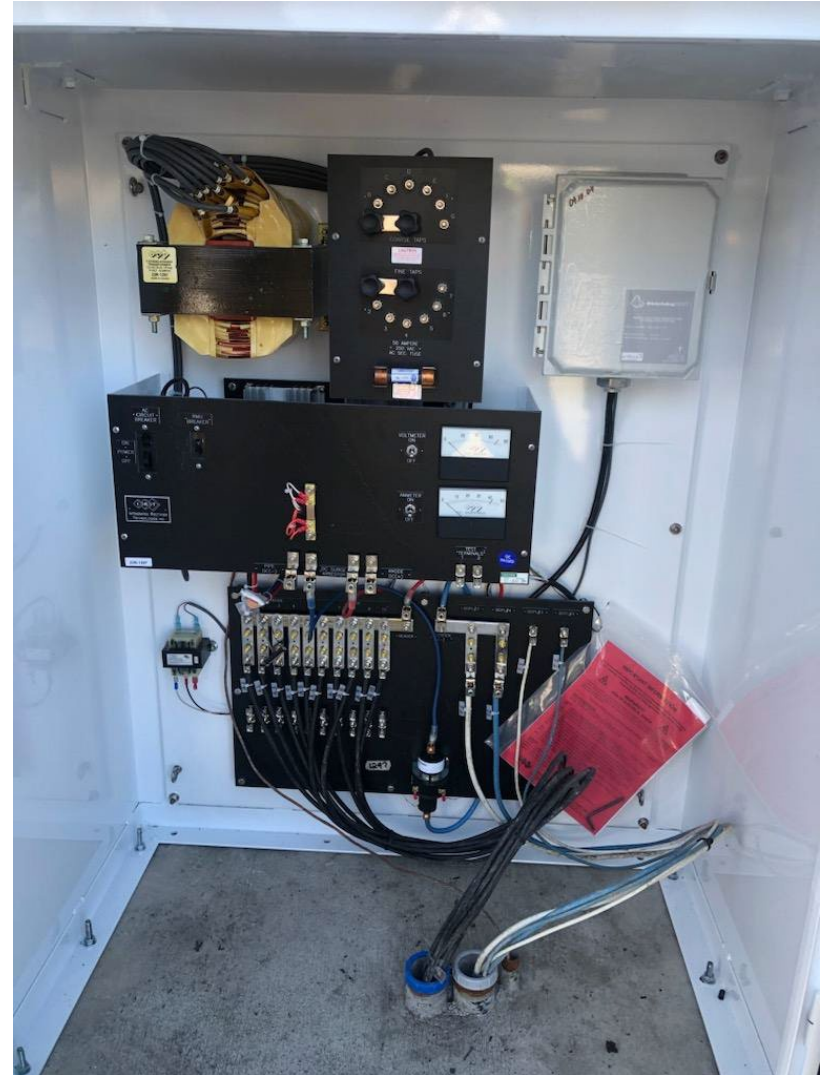


Corrosion Control CIP - Phases 1, 2, & 3



- Phase 1 – San Andreas Nos. 1 & 2, & Crystal Springs No. 2
- Phase 2 – BDPL Nos. 1 – 4 & Palo Alto Pipeline
- Phase 3 – Sunset Supply, Alameda Siphon Nos. 1 & 2, Calaveras, SVWTP

Corrosion Phase 2 Construction



Calaveras Dam – Goat Grazing



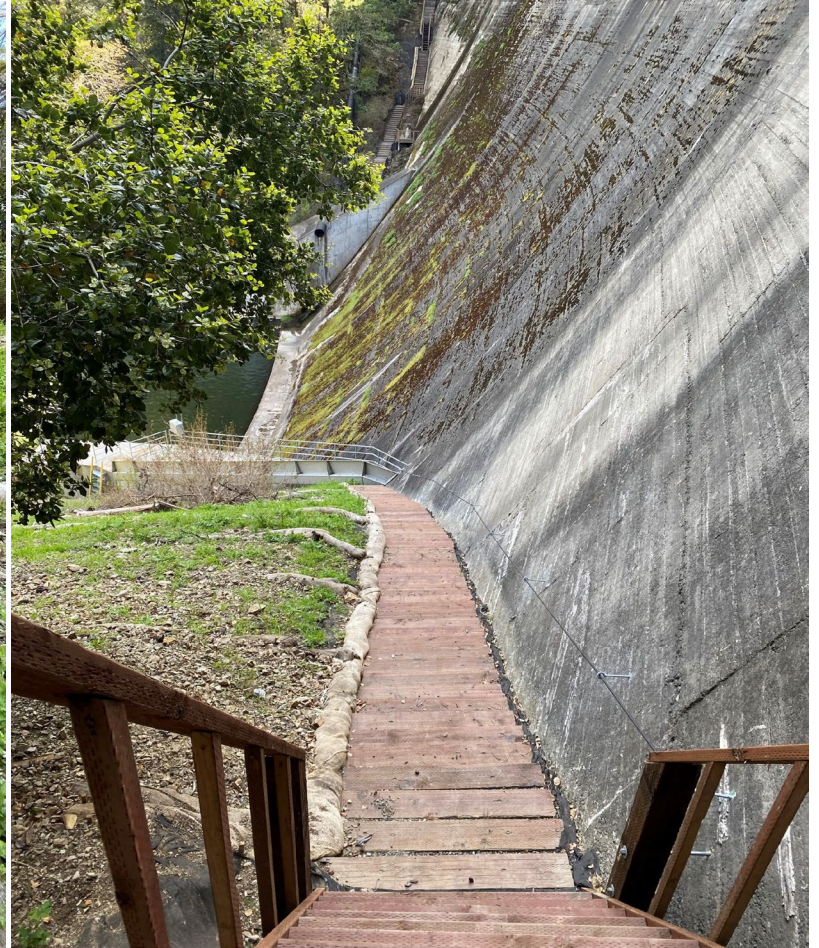
Turner Dam – Goat Grazing



San Andreas Dam – Goat Grazing



Lower Crystal Springs Dam – Wooden Stairs Installation



Thomas Shaft Chlorination Facility Repairs



SVWTP Flocculation Basin 3 Baffle Wall Replacement



Crystal Springs Pump Station MV Switchgear PM Work





Switchgear/Switchboard Maintenance Program Schedule

| Switchgear and Switchboard Preventive Maintenance 3-year Contract July 2021-September 2024 | |
|---|--|
| Facilities | Date PM Work Performed |
| Pulgas Pump Station | 09/02/2021 |
| Ravenswood Shaft Facility | 09/14/2021 |
| SABPL Discharge Facility | 09/16/2021 |
| Harry Tracy Water Treatment Facility | 10/18/2021-10/22/2021 & 04/13/2021 |
| Sunol Valley Chloramine Facility | 02/01/2022 |
| Thomas Shaft Chlorination Facility | 02/18/2022 |
| Newark Valve Lot | 05/03/2022 |
| San Antonio Pump Station | 06/29/2022-07/01/2022 |
| Town of Sunol Fire Pump Station | 10/05/2022 |
| Calaveras Dam - 1 | 02/01/2023 |
| Pulgas Dechlor Facility | 07/05/2023-07/06/2023 |
| Sunol Valley Water Treatment Plant | July 2023 & August 2023 |
| Crystal Springs Pump Station | 10/30/2023-11/02/2023 |
| Tesla UV Treatment Facility | 01/09/2024-01/12/2024 |
| Crystal Springs Substation | 04/08/2024-04/11/2024 |
| Facilities Still to be Done | Tentative Date PM Work to be Performed |
| Baden Pump Station | In Progress 06/10/2024 |
| Calaveras Dam - 2 | July 2023 |
| Millbrae Yard | Q3, 2024 |
| Sunol Yard | Q3, 2024 |

Water Quality Update

Alan Wong

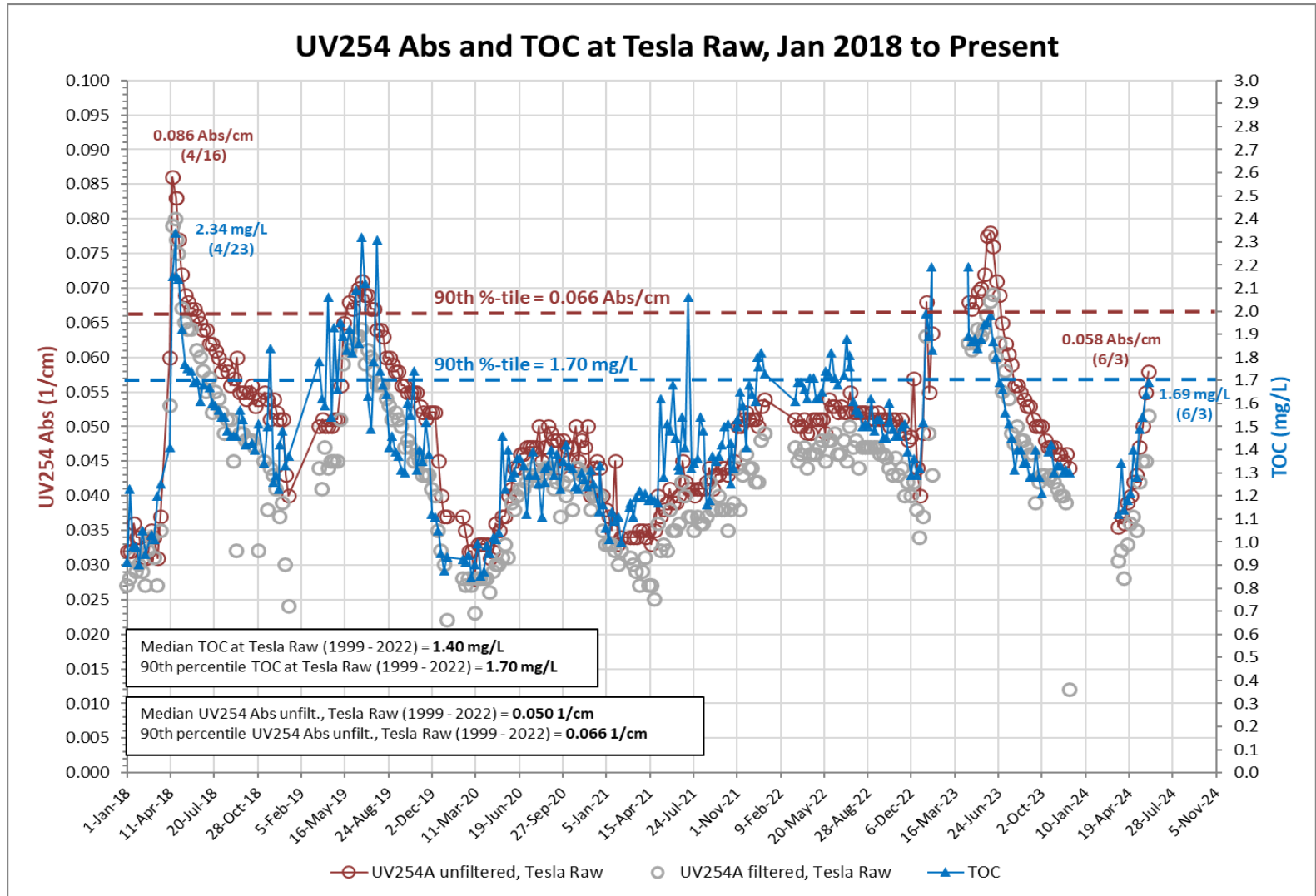
**SFPUC Water Quality Division
Engineering Section**

June 20, 2024

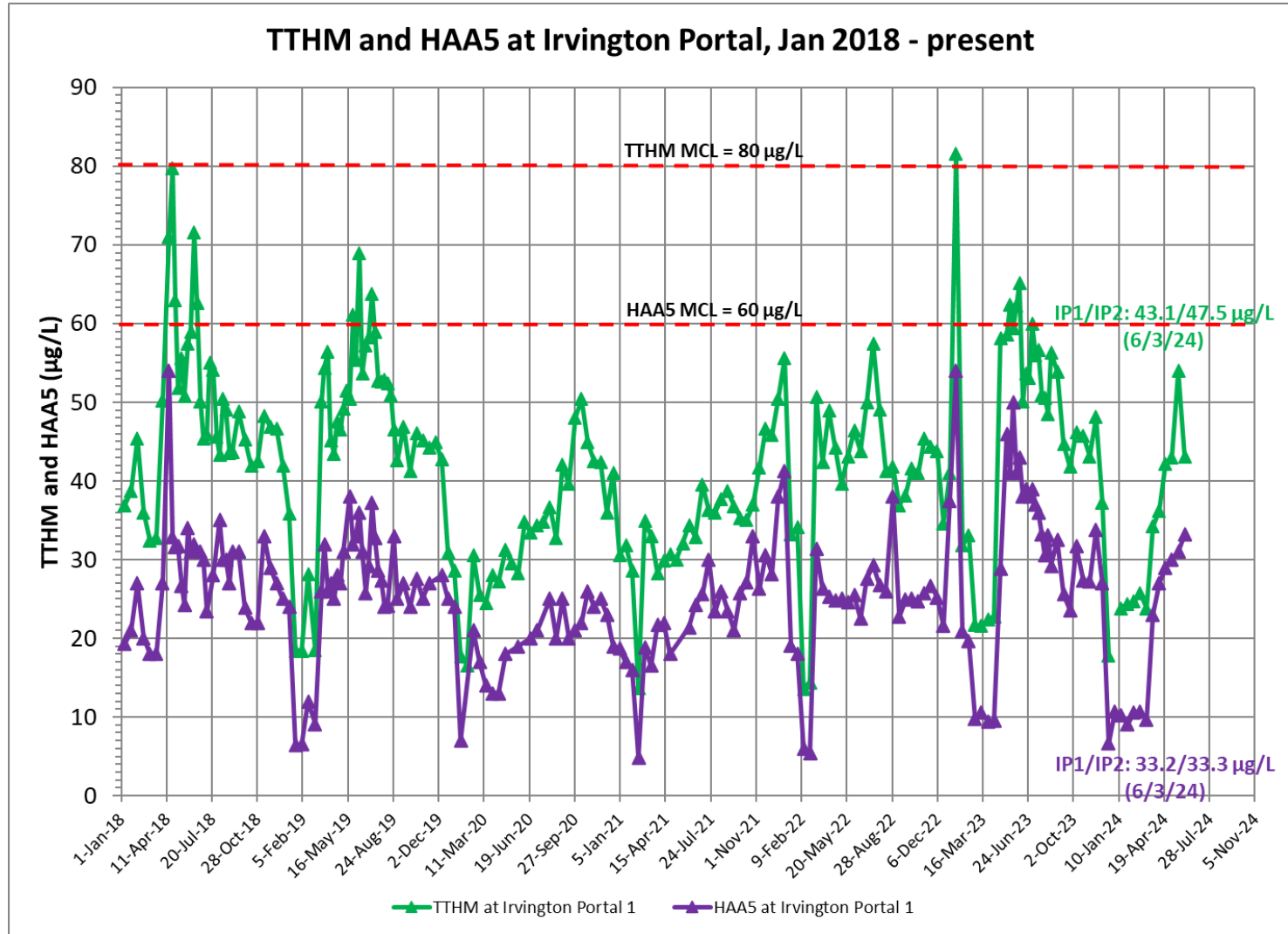
Water Quality Update

- **RWS Disinfection Byproducts**
- Taste & Odor Monitoring
- Nitrification Update

DBP Precursor Monitoring



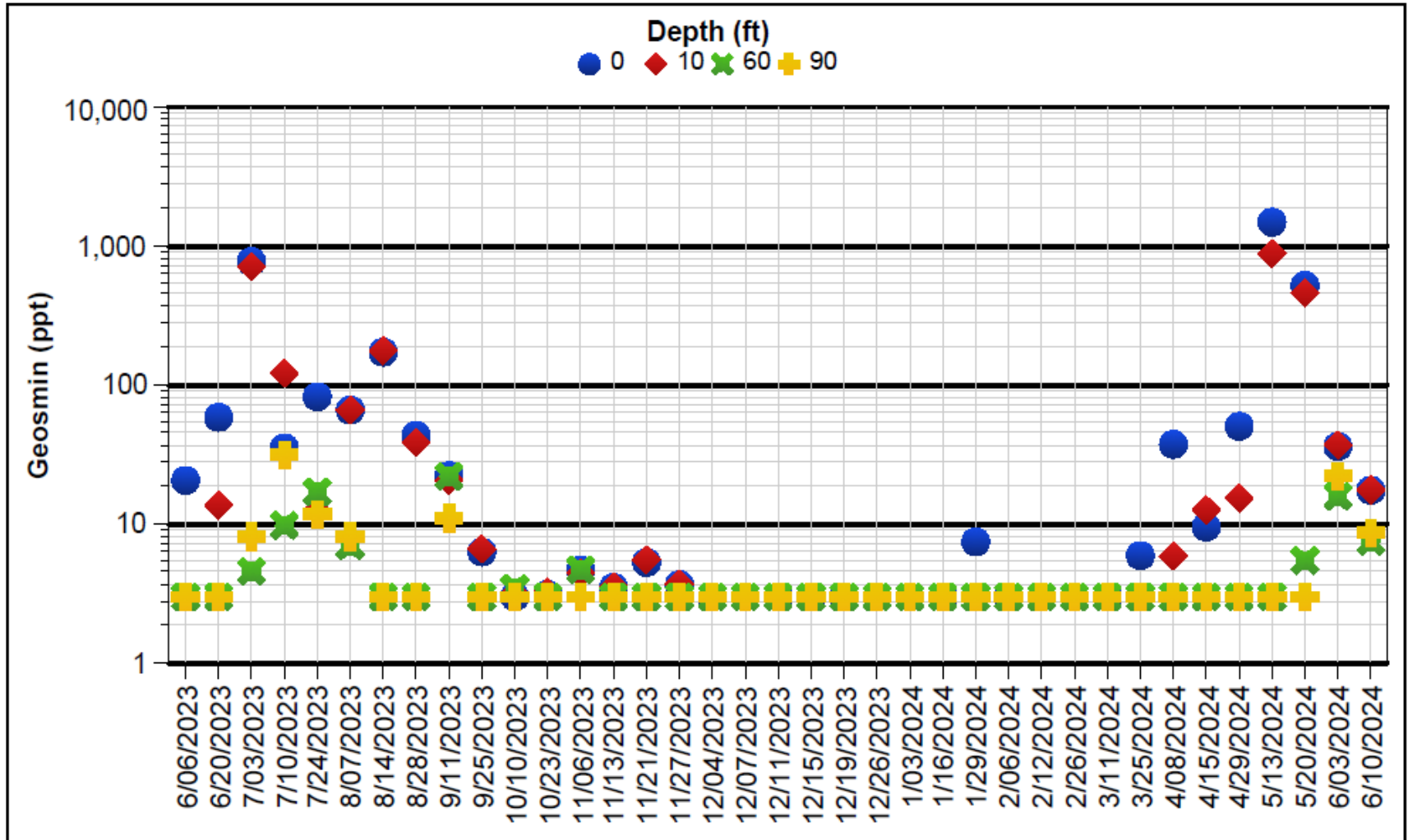
DBP Monitoring



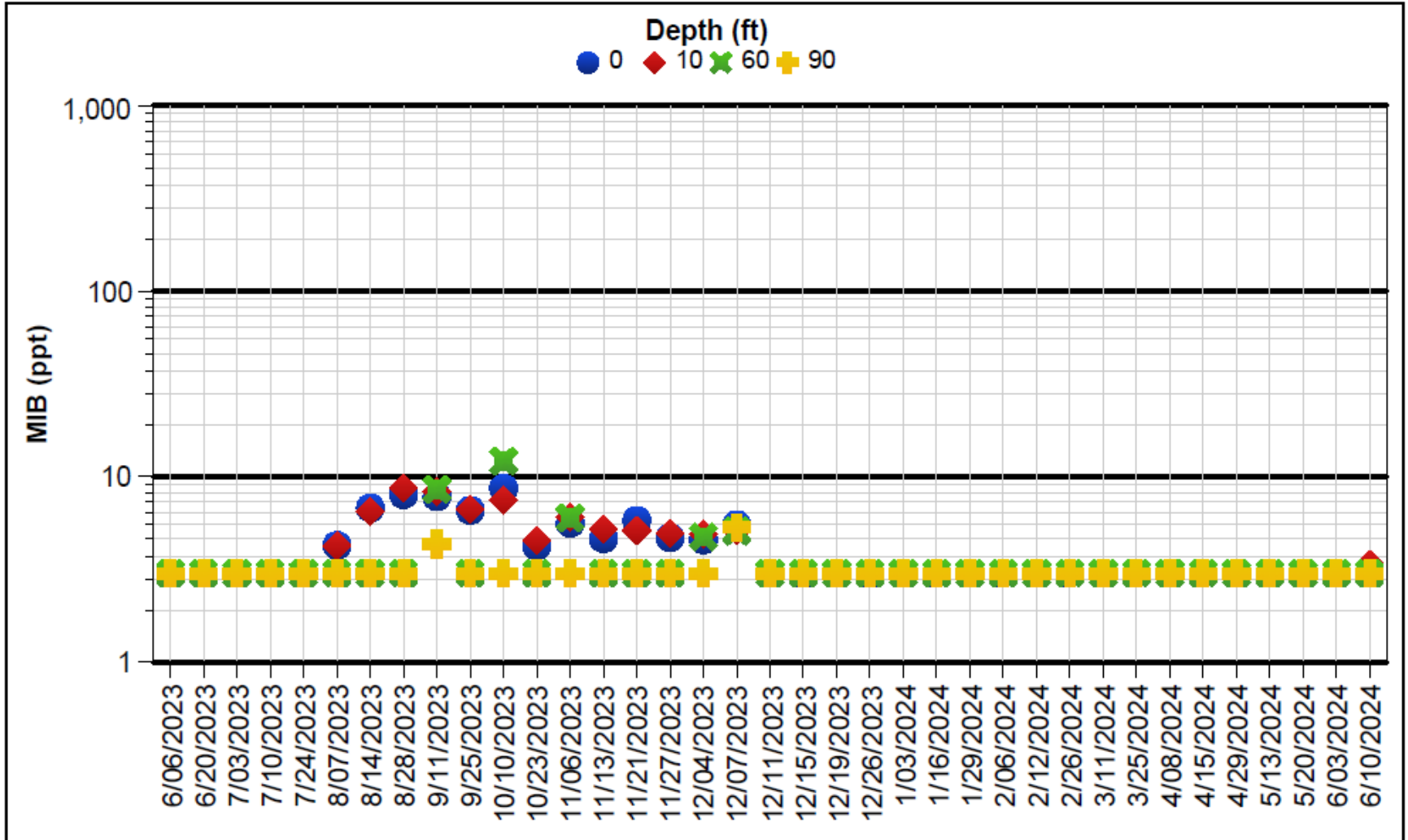
Water Quality Update

- RWS Disinfection Byproducts
- Taste & Odor Monitoring**
- Nitrification Update

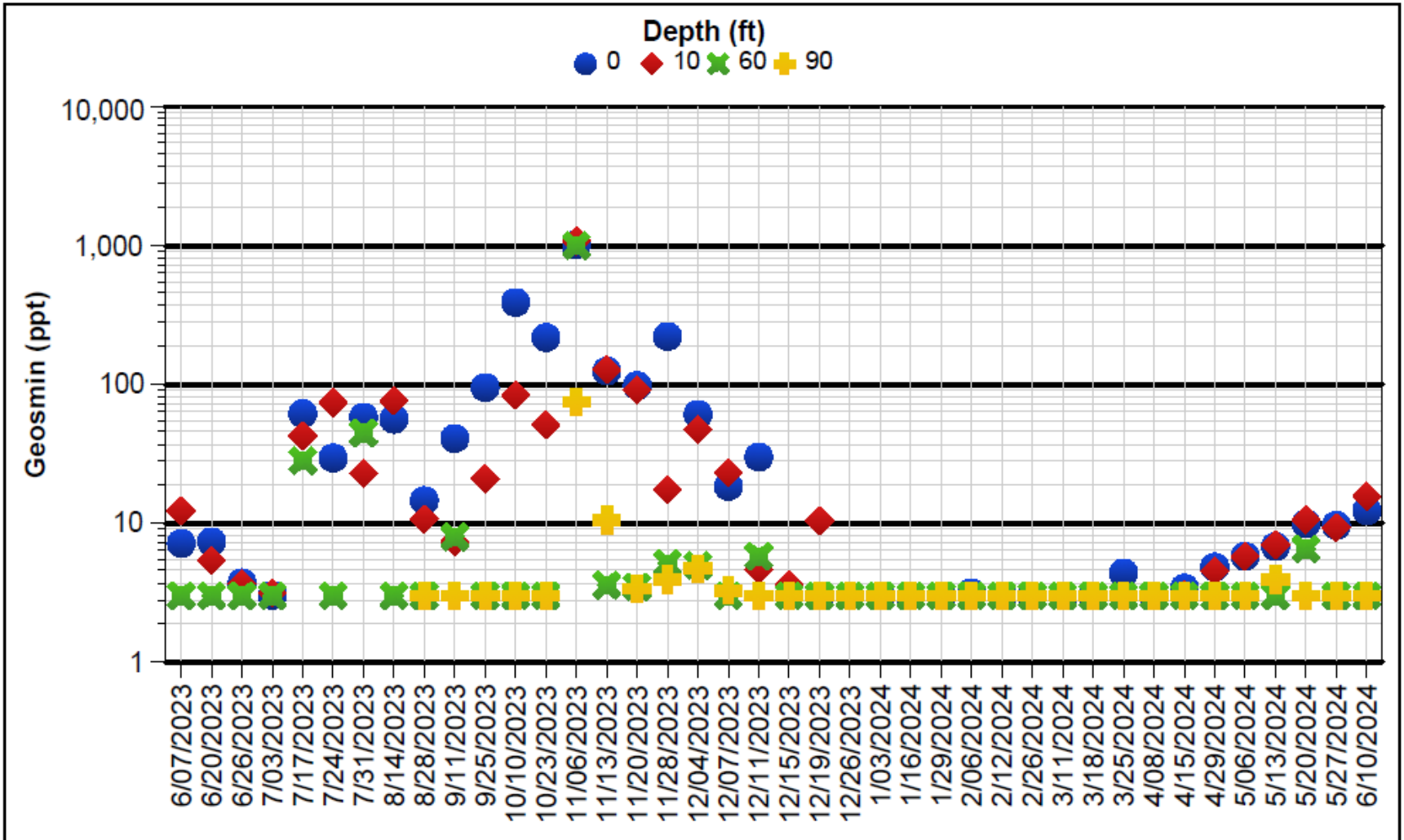
San Antonio Geosmin



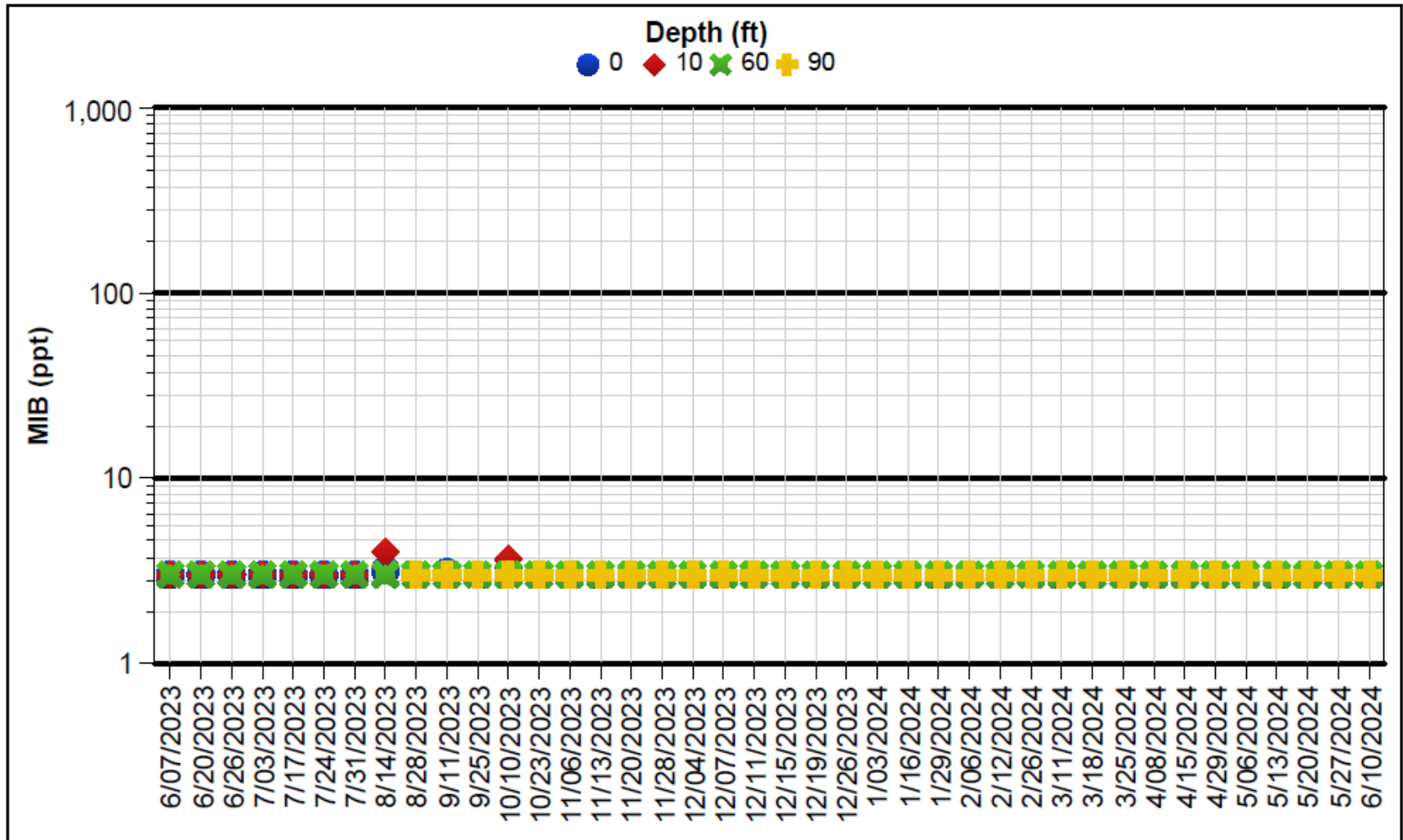
San Antonio MIB



Calaveras Geosmin

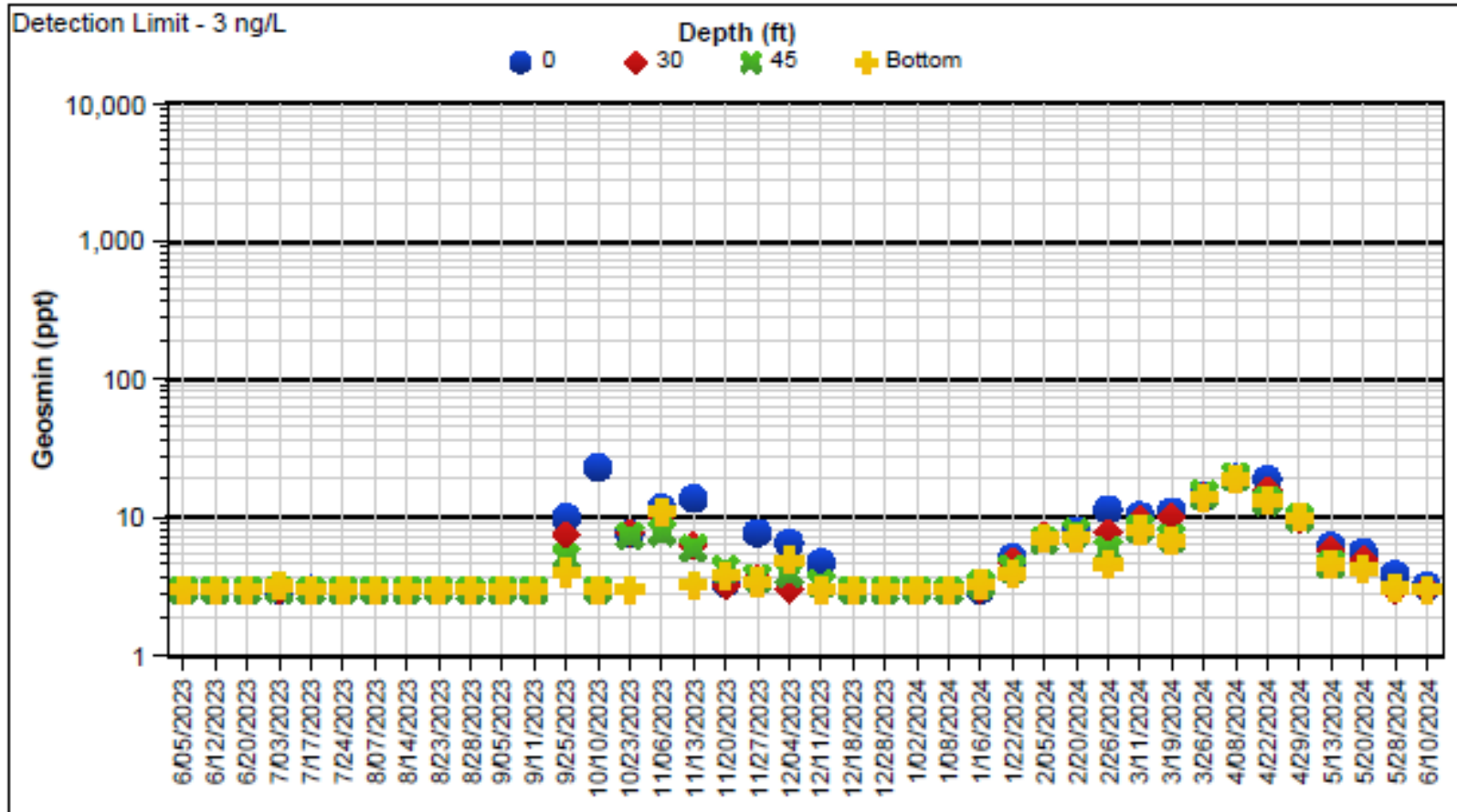


Calaveras MIB



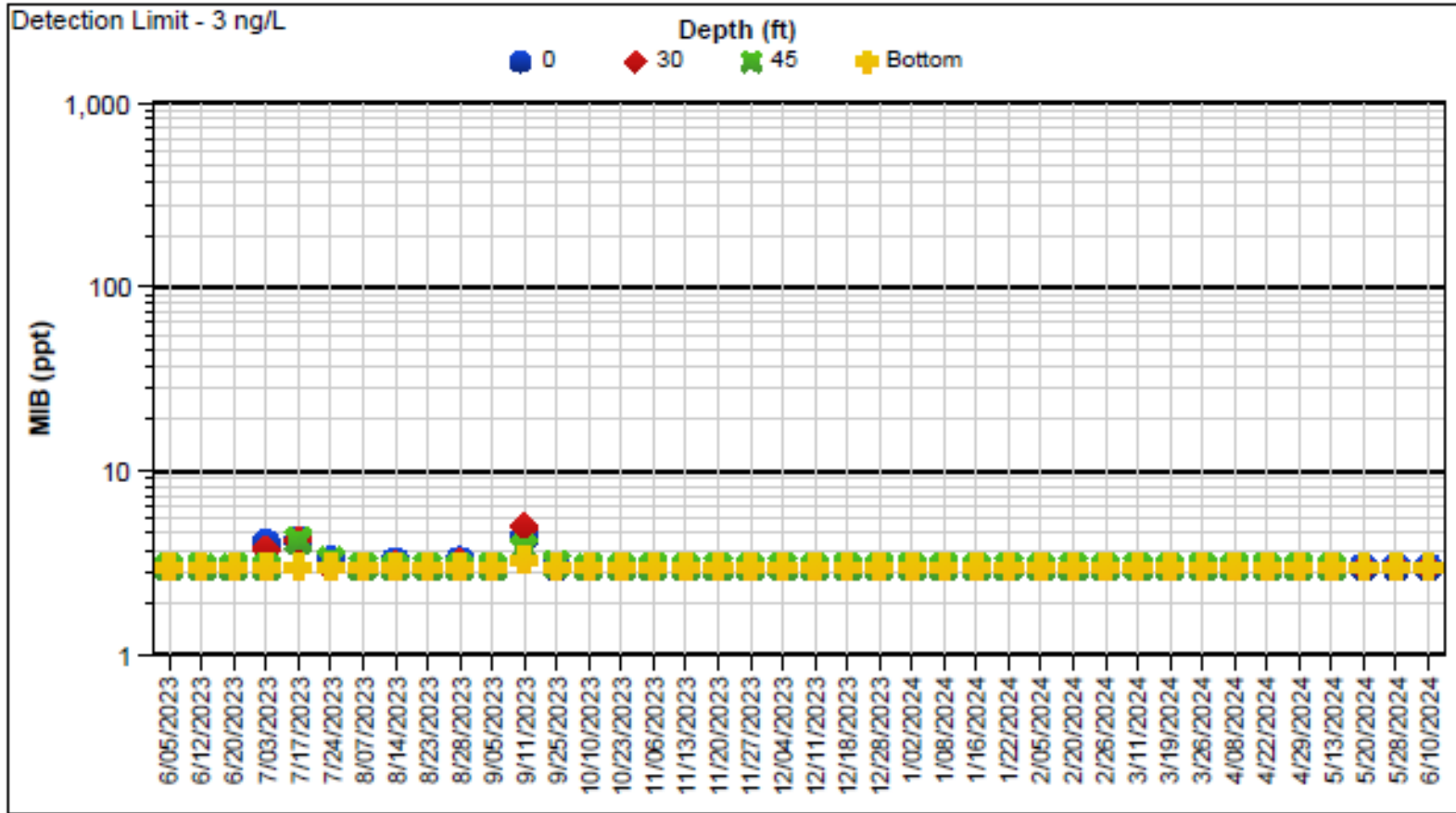
San Andreas Geosmin

San Andreas Reservoir Geosmin Chart:



San Andreas MIB

San Andreas Reservoir MIB Chart:

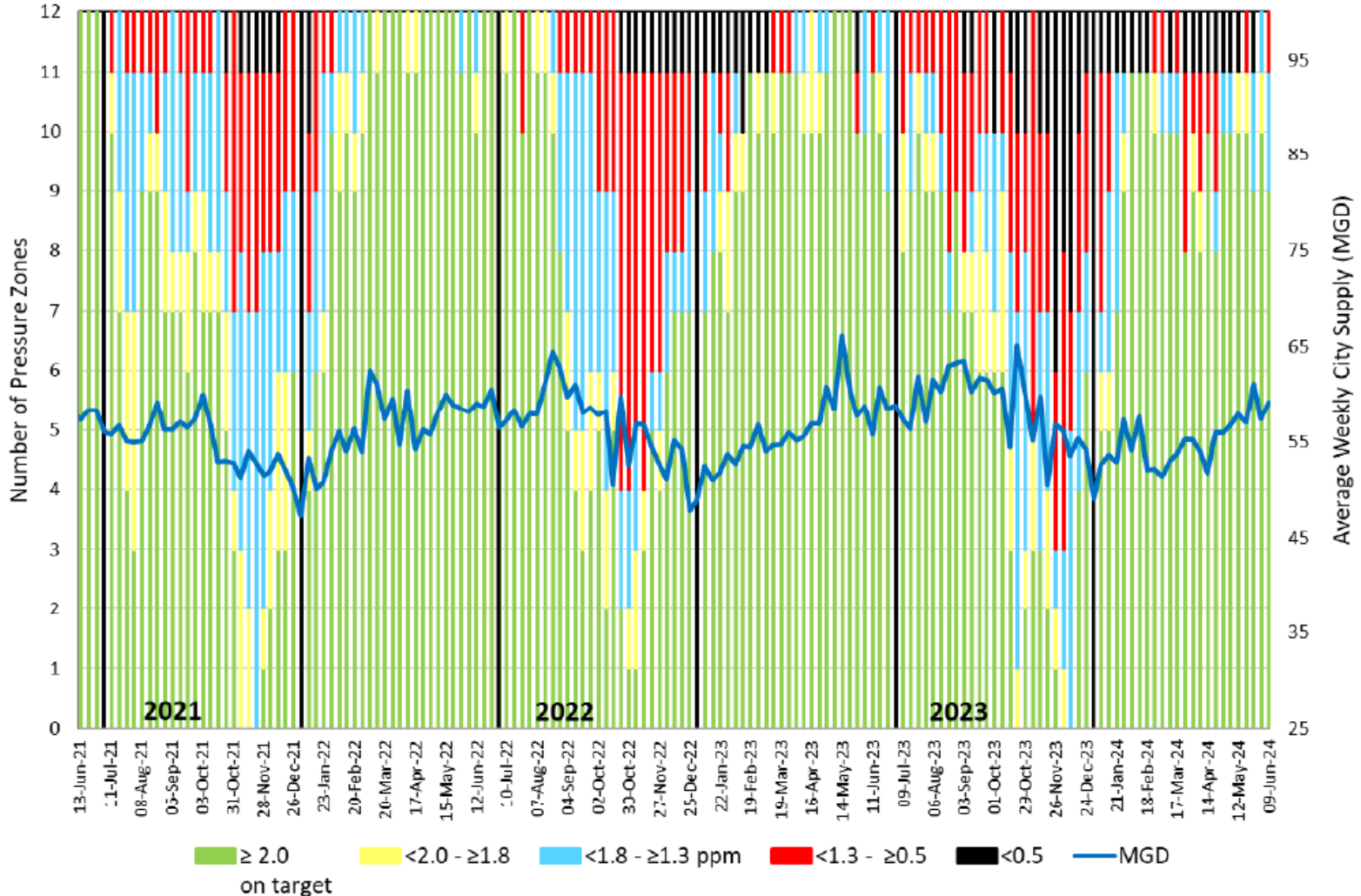


Water Quality Update

- RWS Disinfection Byproducts
- Taste & Odor Monitoring
- **Nitrification Update**

Nitrification Update

Minimum Total Chlorine Residual (mg/l) in 11 Major SFWS Pressure Zones plus TIWS
6/13/2021 - 6/9/2024 (weekly)



Questions?



Natural Resources and Lands Management

Peninsula and Alameda Watershed Management

June 20th, 2024

Brad Sentman, Arborist Technician

Clayton Koopmann, Rangeland Manager

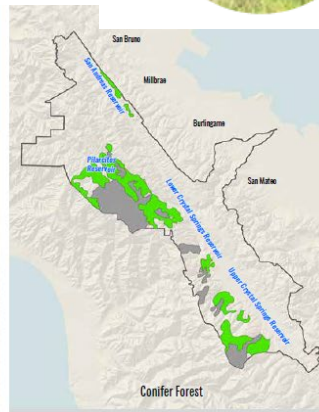
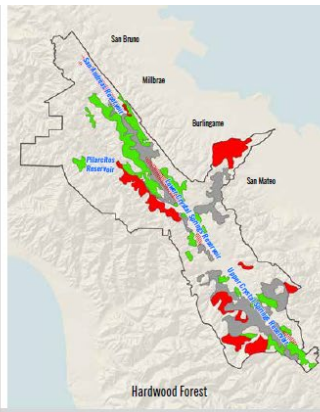
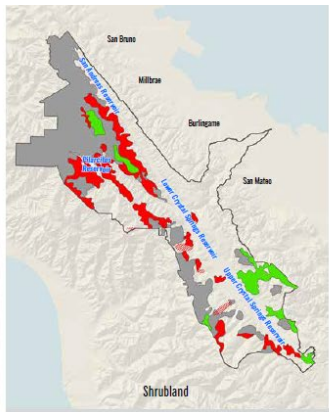
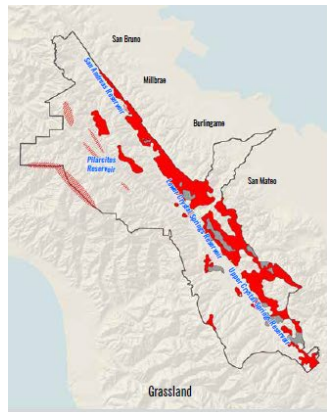
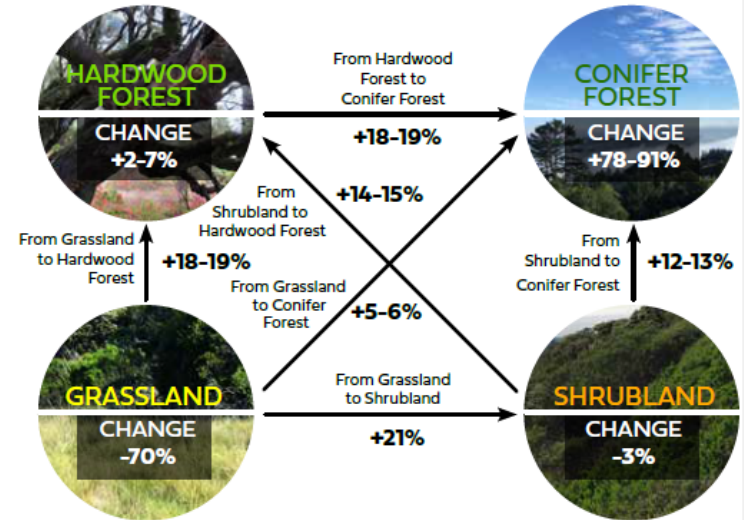
Peninsula Watershed

- 15 miles of urban edges
- 37 miles recreational trails
- 112 miles of roads (25 paved, 90 miles mowed)
- 4 reservoirs
- 47 miles of fuel breaks



Changes in Vegetation

Historical Ecology (1928 to present)
 70% reduction in grasslands
 serpentine grassland more resilient
 78-91% increase in conifer forest.



Vegetation Community Change



Fuels Reduction - Prescribed Fire

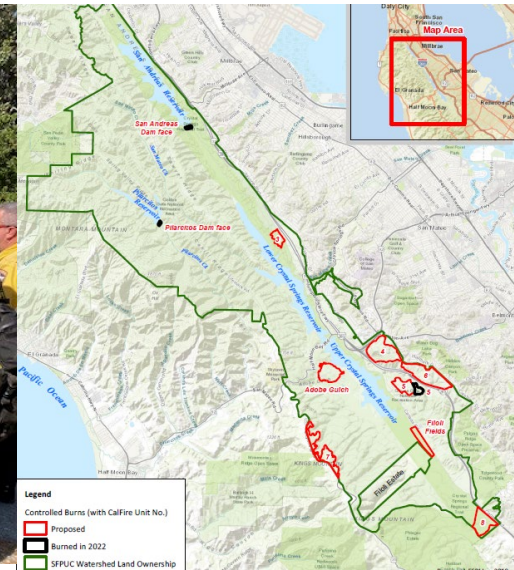
Collaboration with CAL FIRE

Burns

- Prior to 2022 – Training burns on dams, 5 acres
- 2022 – 2 sites, 23 acres
- 2023 – 4 sites, 121 acres
- 2024 *Projected* – 4 sites, 125 acres

Objectives

- Fuels reduction
- Grassland habitat enhancement
- Invasive plant control
- Training



Prescribed Fire



Prescribed Fire – Medusahead Control at Filoli



Fire

- 29 acres
- One burn
- Visible cover reduction in Medusahead
- Thatch removal

Mowing

- 40 person hours/acre
- 3 years
- No visible change in Medusahead
- No thatch removal

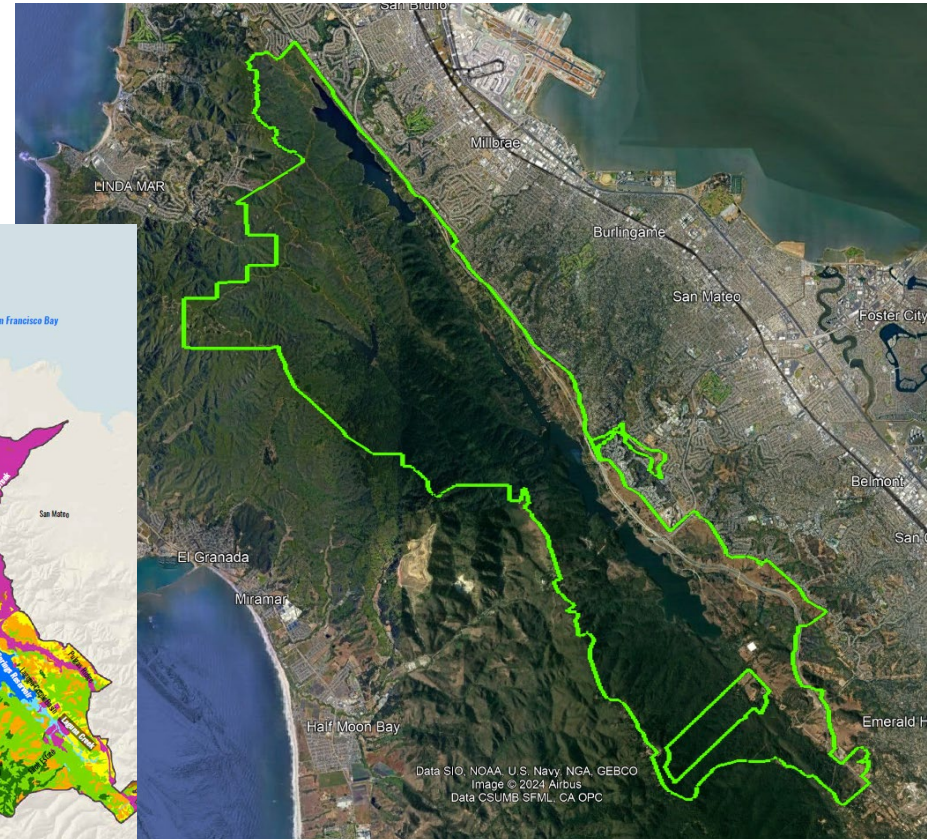
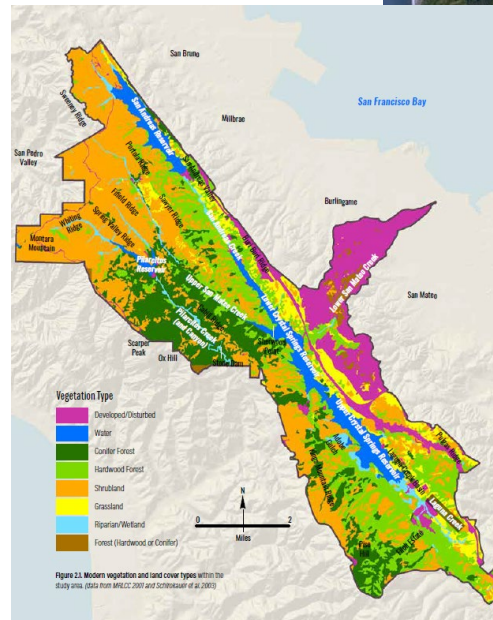


15 Miles Wildland Urban Interface (WUI)

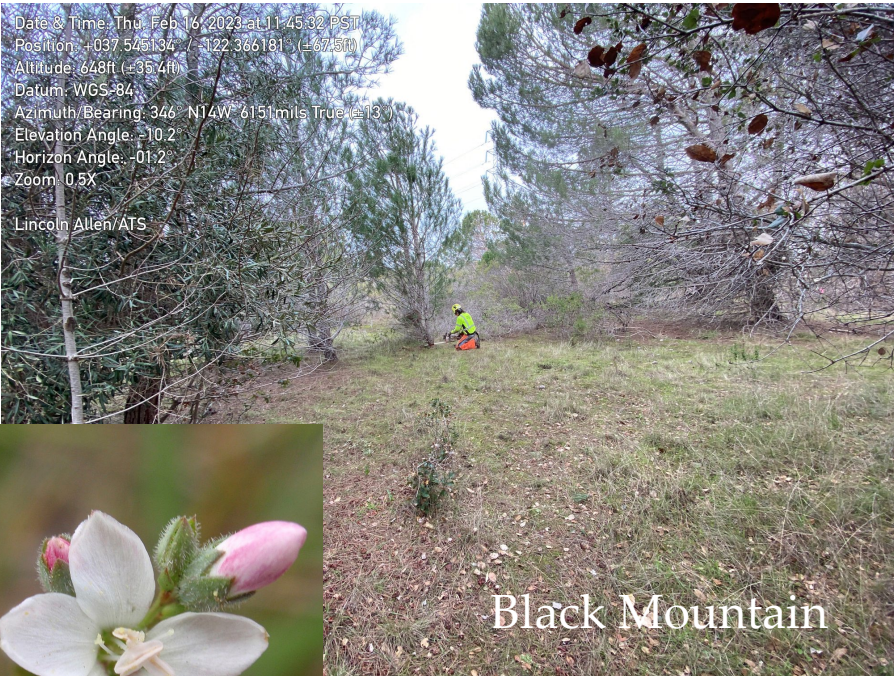
25+ Miles Public Roads

Objectives

- Reduce fuel load
- Restore grassland



Forestry and Fuels Reduction – WUI with Serpentine Grasslands



Peninsula First Responders



Alameda First Responders



Emergency Planning

Josh Gale
June 20, 2024

i-INFO Wholesale Customer Contact Improvements

Contact update requests will now include the following options for agency contacts:

- All
- Operational Updates/Water Quality Updates
- Water Supply Updates
- Annual Water Quality Report/CCR Coordination
- Finance/Rate Notices
- Water Supply Planning
- Urban Water Management Plan Coordination