



# PFAS Updates

## **PFAS History & Update**

- State and Federal regulations have been a moving target
  - Division of Drinking Water Notification and Response Levels
    - Several DDW Orders have been issued and NL/RL values updated
    - Current NL & RL
      - PFOA NL 5.1 nanograms/liter (ng/L), RL 10 ng/L (Running Annual Averages)
      - PFOS NL 6.5 ng/L, RL 40 ng/L (Running Annual Averages)
  - Office of Environmental Health Hazard Assessment (OEHHA)
    - Public Health Goals non-enforceable levels set at the No Observed Adverse Effect Level (NOAEL)
    - Draft PFOA 0.004 ng/L, PFOS 1 ng/L
  - US Environmental Protection Agency 2023 Draft Levels Discussed in detail later

## PFAS History & Update

- Unregulated Contaminant Monitoring Rule 3 first required sampling for PFAS
- DDW initial Order required quarterly sampling
  - May 2019 15 wells sampled
  - Aug 2019 All wells sampled
- Initially 21 wells were taken offline (15 wells still offline)
- Four wells have been returned to service with treatment,
  with another 2 expected by the end of 2023



### **Public Notifications**

- Division of Drinking Water Notification Levels
  - Requires public notification to governing entities
- 40 CFR 300.415(n) Community Relations in Removal Actions
  - The Lead Agency (SCVWA) shall inform the community
    - Actions taken
    - Respond to inquiries
    - Provide information concerning the release



#### **DDW NL Notifications**

Well	PFOS (6.5 ng/L)	PFOA (5.1 ng/L)	PFHxS (3.0 ng/L)	Status
E15	6.7*	9.3	5.7	Online
E17		7.3	6.3	Online
Lost Canyon 2A	9.9*	6.4	3.2	Online
Mitchell 5B**	15	6.7	5.3	Offline
P3		7.1	7.0	Online
Sand Canyon	6.4*	5.7*	3.4	Online
Sierra	8.9*	5.1*	5.6	Online
W9		19		Online
W10	5.4*	6.8*		Online
206			3.7	Online
207		6.6	3.5	Online
N13			23	
N13 Blend			6.4	Online

<sup>\*</sup>Previously notified \*\*Sampled 5/2021 (taken offline Nov 2020) Blank cells are either below the NL or <MRL

# 40 CFR 300.415(n) - Community Relations in Removal Actions

- Well N13 exceeded the PFHxS Response Level (RL) or 20 ng/L with a concentration of 23 ng/L.
- Several options were evaluated regarding the continued use
  - Purchase additional import water to blend PFHxS levels below RL
  - Provide PFAS treatment technologies to remove PFHxS
  - Operate the well without blending
  - Removing the well from service



### **Current Status - Groundwater Treatment**

- Two+ Plants online
  - N Wells 6,250 gpm and ~\$9.6M construction cost
  - Valley Center 1,200 gpm and ~\$5.1M construction cost
  - Q2 (May 2023) 1,200 gpm and \$2.4M
- One Plant under construction
  - Honby/Santa Clara 2,000 gpm and ~\$9.6M construction cost
- Two Plants in design
  - T7, U4 and U4 3,000 gpm and ~\$14.2M construction cost
  - S Wells 3,000 gpm and \$12M construction cost



#### **USEPA Draft MCLs**

- PFOA and PFOS 4 ng/L (ppt)
  - DDW current NL 5.1 ng/L & 6.5 ng/L
  - DDW current RL 10 ng/L & 40 ng/L
- PFNA, PFBS, PFHxS and GenX (HFPO-DA)
  - Combined Hazard Index calculation
- Impacts
  - ~11 additional wells will come offline
  - Up to 17.7K afy of supply
  - More precise supply impacts under analysis



### **Cost and Capacity - Future**

- Kennedy/Jenks provided an initial cost analysis using an 80% PFOA RL rule
- Planning Phase
  - 4 plants previously identified (based on KJ report)
    - ~6,500 gpm
    - ~\$40M construction cost\*
- Additional Impacts
  - 4 new plants identified (based on draft MCL)
    - ~6,500 gpm
    - ~\$27M construction cost\*



## Summarized Cost and Supply Impacts

Description	Capacity	Cost (CIP)	Cost/Year (O&M)
Restored	8,650 gpm	\$17M	\$2.4M
Construction/D esign Phase	8,000 gpm	\$41M	\$2.5M
Planning Phase	10,200 gpm	\$47M	\$3.9M
Additional Impacts	8,300 gpm	\$25M	\$2.9M
	TOTALS	\$130M - \$160M	\$11.3M - \$13.9M

- \*Includes Q2
- CIP & O&M estimates are still being developed. They are based on 2020 actual costs and consultant estimates and some recent costs
- The total range includes ~25% contingency

