

# Update on California Water Board PFAS Testing of Drinking Water and Potential Sources

*March 20, 2024*

## Biomonitoring California Scientific Guidance Panel Meeting

WENDY LINCK, PG, PMP  
*Sr. Engineering Geologist*  
*Division of Water Quality*



Divisions of Drinking Water and Water Quality

~40

~1,200

~4,700

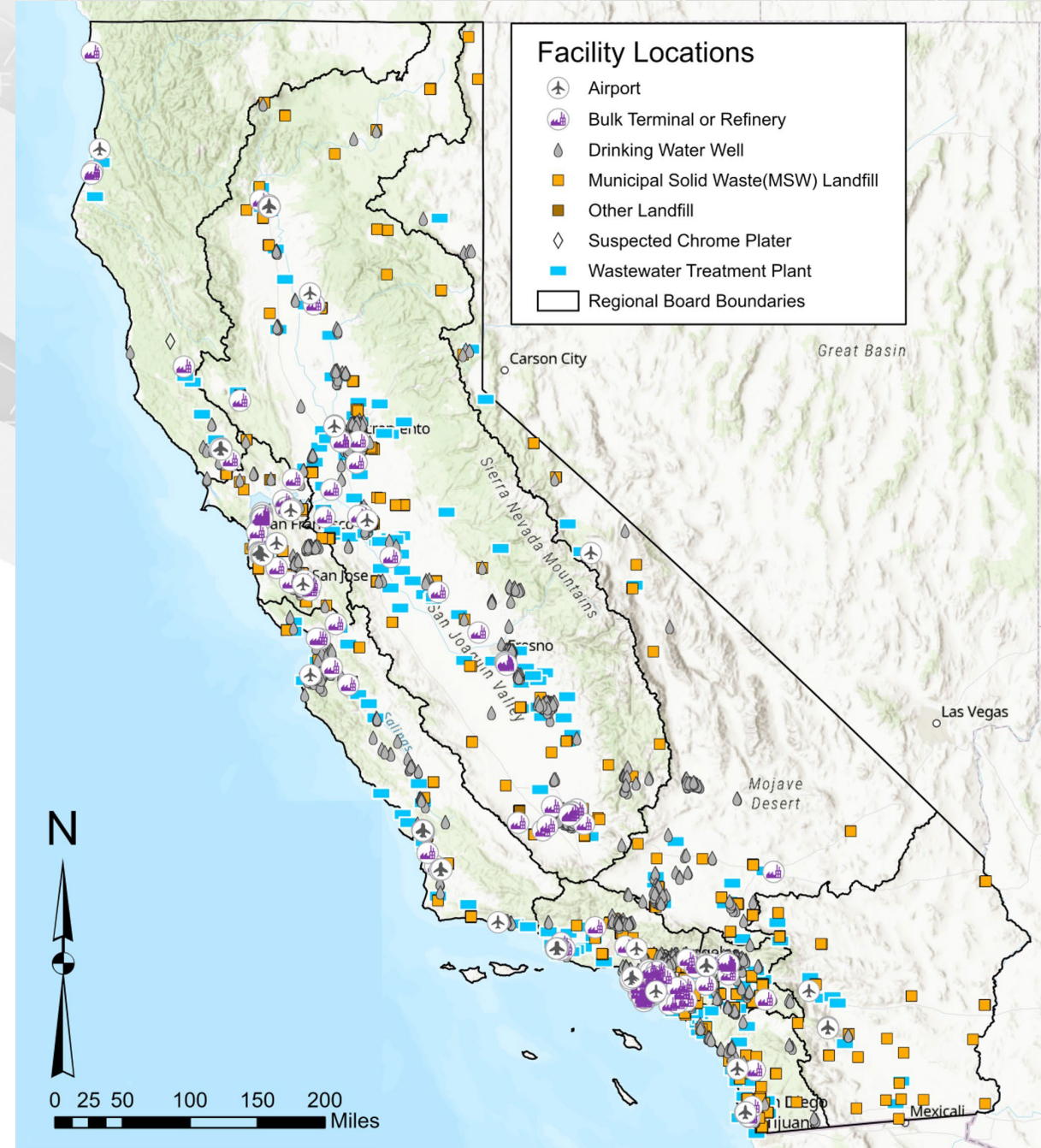
~14,000

# Perspective on the PFAS Class

- USEPA Analytical Methods
- Non-Target Analysis (NTA)
- OECD\* Global PFAS Database
- US EPA PFAS Master Description (August 2021)

\*Organization for Economic Cooperation and Development

# Occurrence of PFAS is Being Gathered Statewide for Water Quality



# GEOTRACKER PFAS MAP

## PFAS SAMPLING LOCATIONS

- Locations with PFAS Investigative Orders
  - Airport
  - Bulk Fuel Terminal/Refinery
  - Chrome Plating
  - Landfill
  - Wastewater Facilities
- Other Locations with PFAS Data
  - Cleanup Program Site
  - Land Disposal Site
  - Military Cleanup Site
  - Military Privatized Site
  - Non-Case Information
  - Project
  - Sampling Point - Private
  - WDR Site
  - NPDES
  - GAMA - Priority Basin Project (USGS)
  - GAMA - Water Replenishment District
- Water System Wells - GAMA DATA
  - Drinking Water Wells

## PFAS Chemical Filter

Chemical:  
Perfluorooctanoic sulfonate (PFOS)

Wells to Show:  
Any Result

GROUNDWATER - NG/L:

ND LOW HIGH

DRINKING WATER WELLS - NG/L:

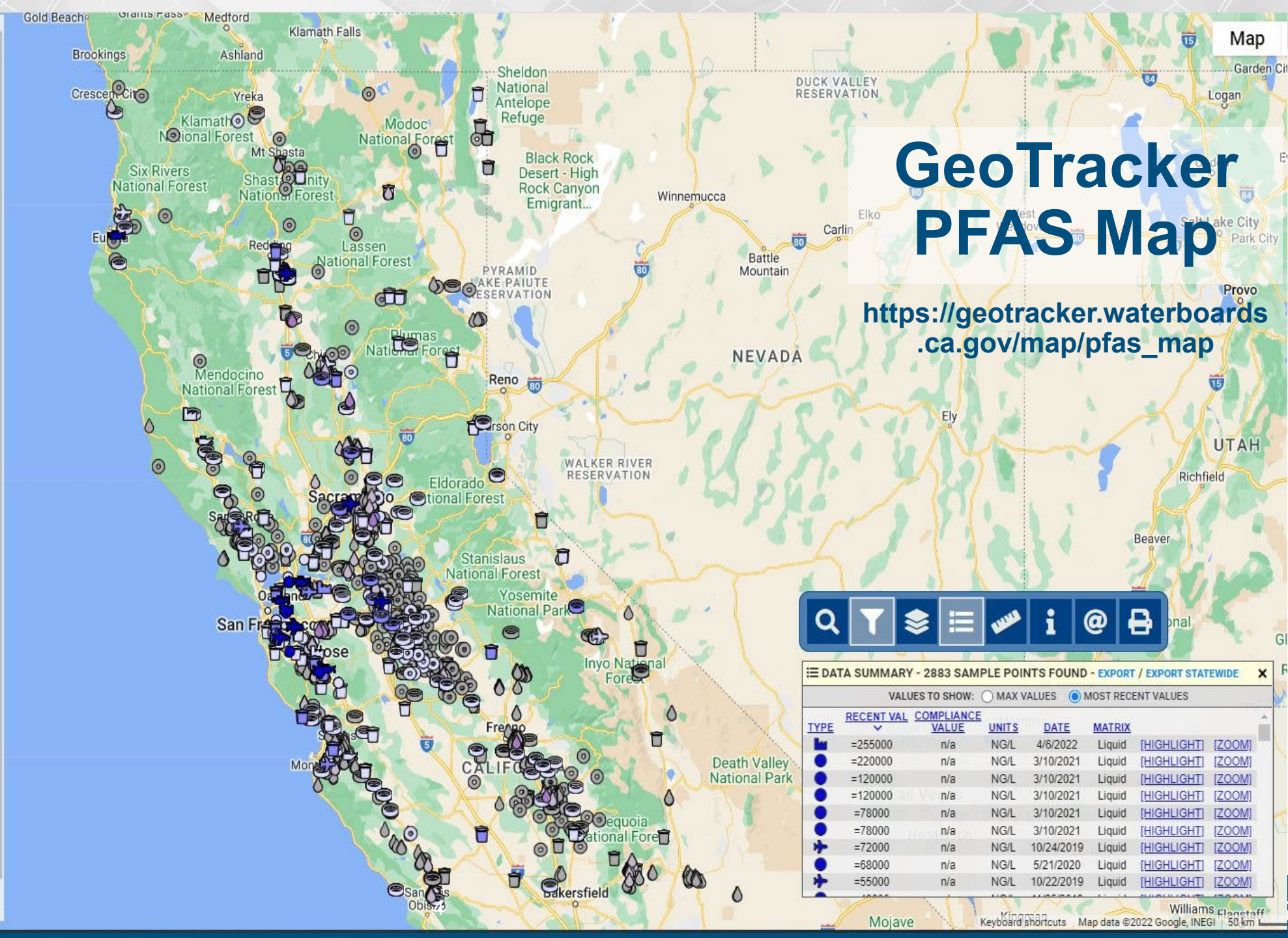
ND LOW HIGH

SOIL - UG/KG:

ND LOW HIGH

## Matrix

- Gas
- Liquid
- Solid

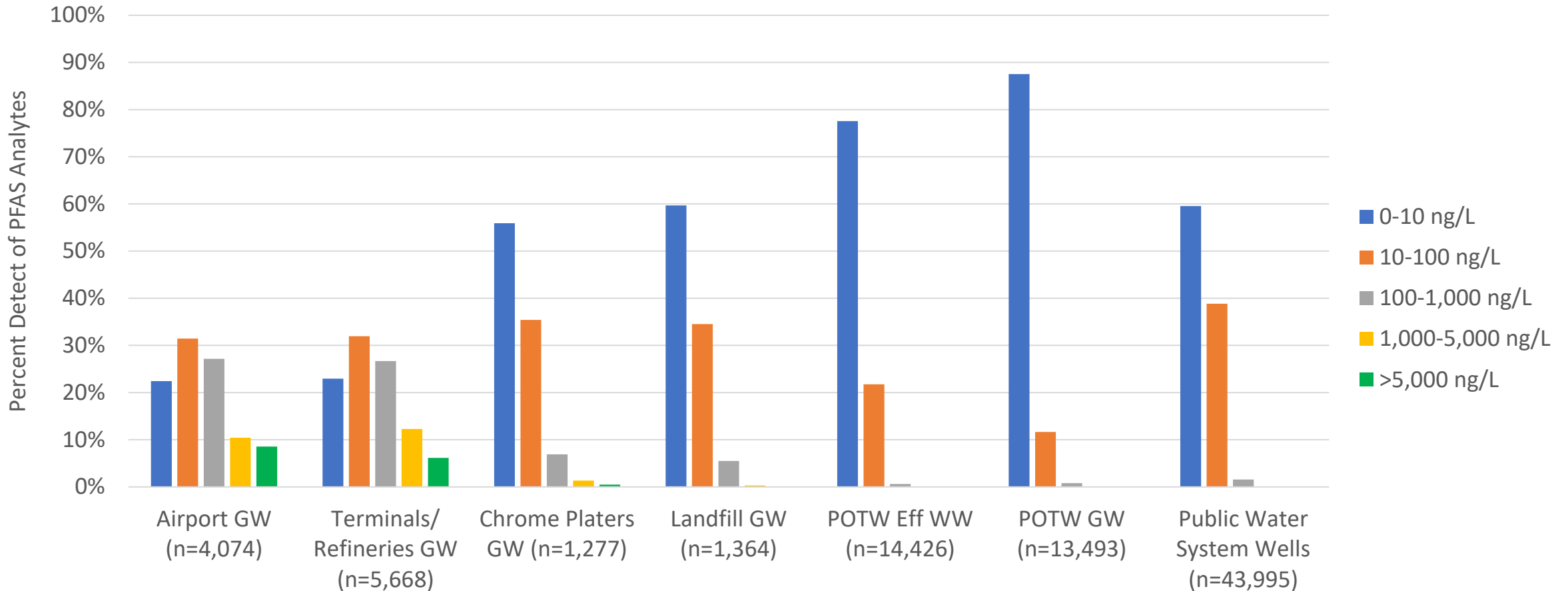


# GeoTracker PFAS Map

[https://geotracker.waterboards.ca.gov/map/pfas\\_map](https://geotracker.waterboards.ca.gov/map/pfas_map)

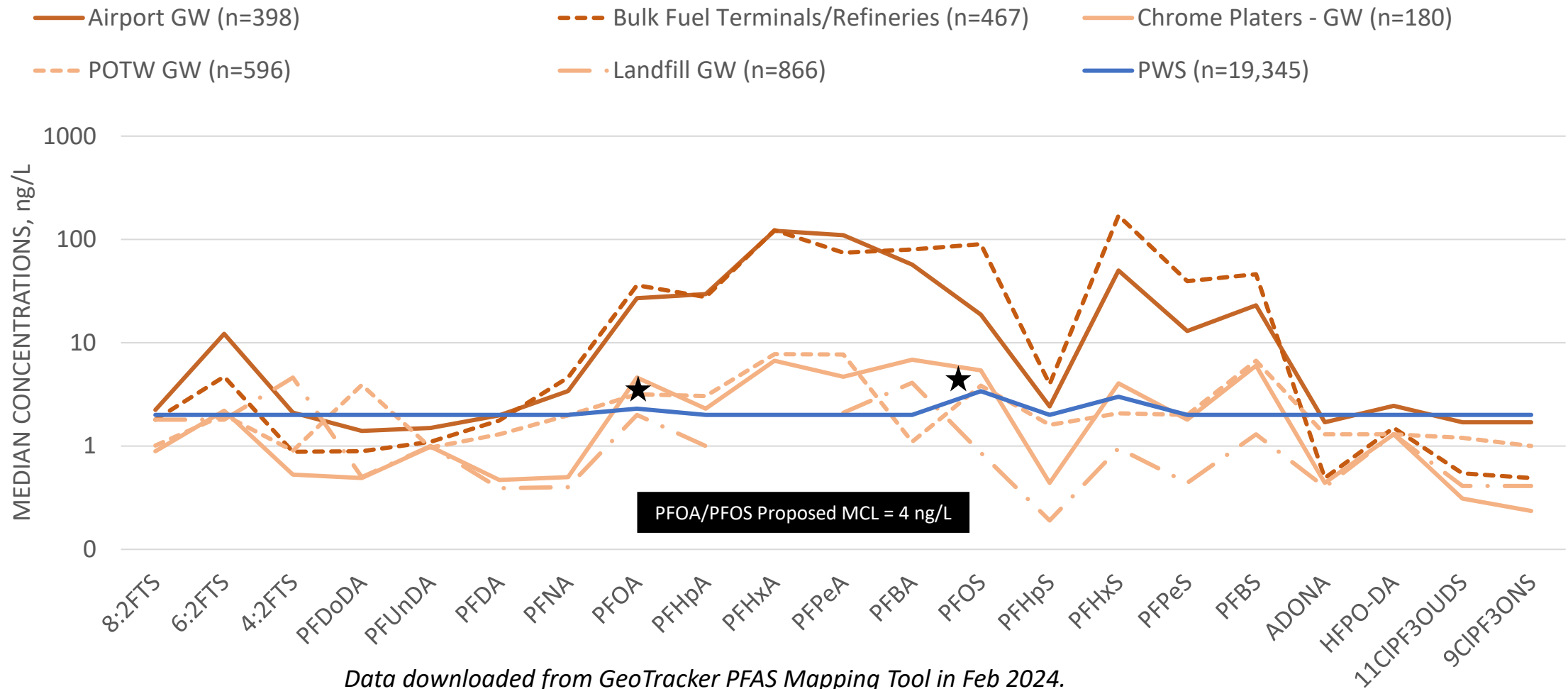
Map navigation controls: Search, Filter, Layers, Full Screen, Measure, Info, Share, Print.

# PFAS Concentrations are Broadly distributed at Airports, Bulk Fuel Terminals, and Refineries where Aqueous Film-Forming Foam is Used



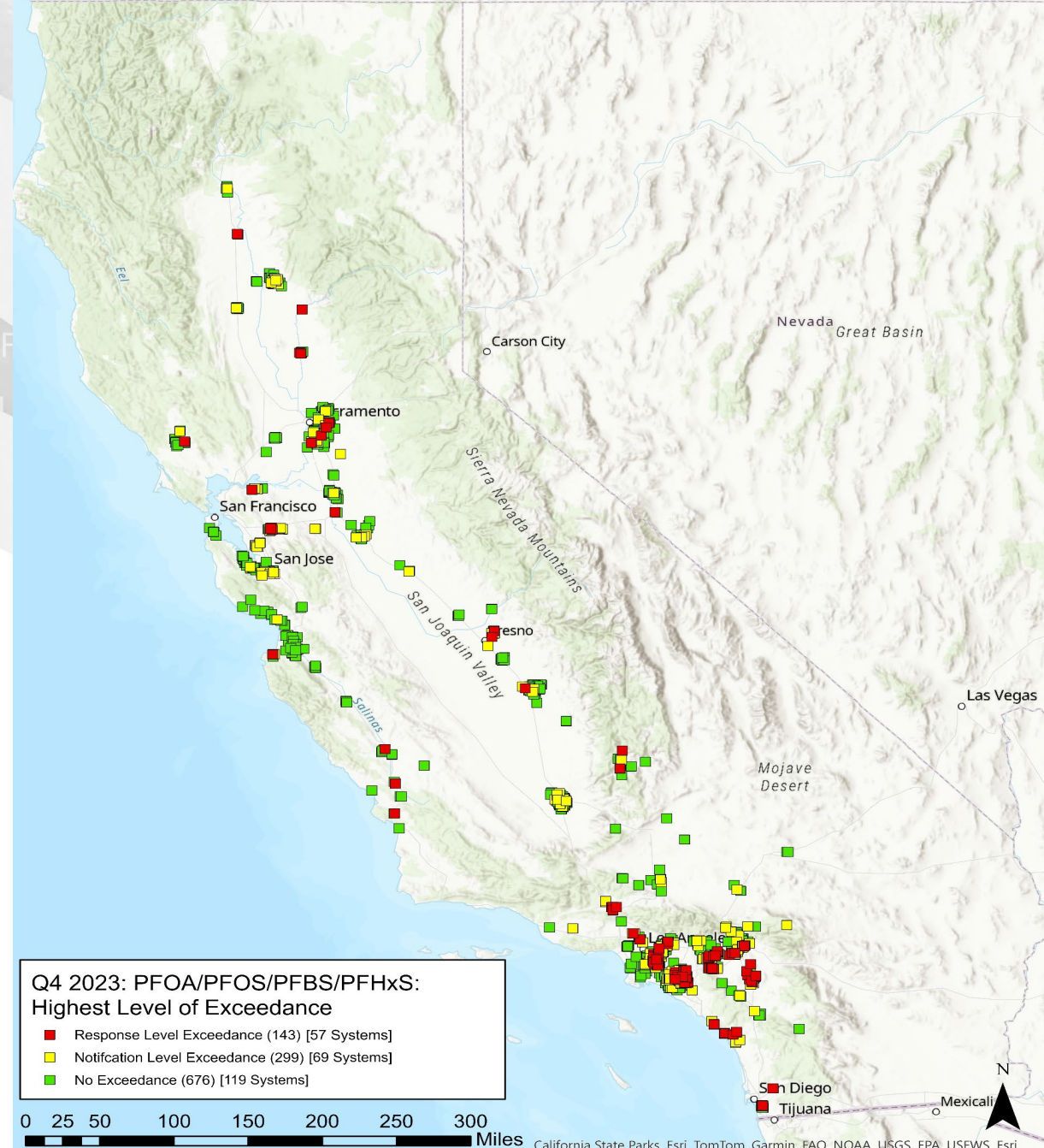
Data downloaded from GeoTracker PFAS Mapping Tool in Feb 2024.

# PFAS Median Concentrations are Higher at Sites with AFFF Use but also Similar Analytes are Reported at all Industrial Sources



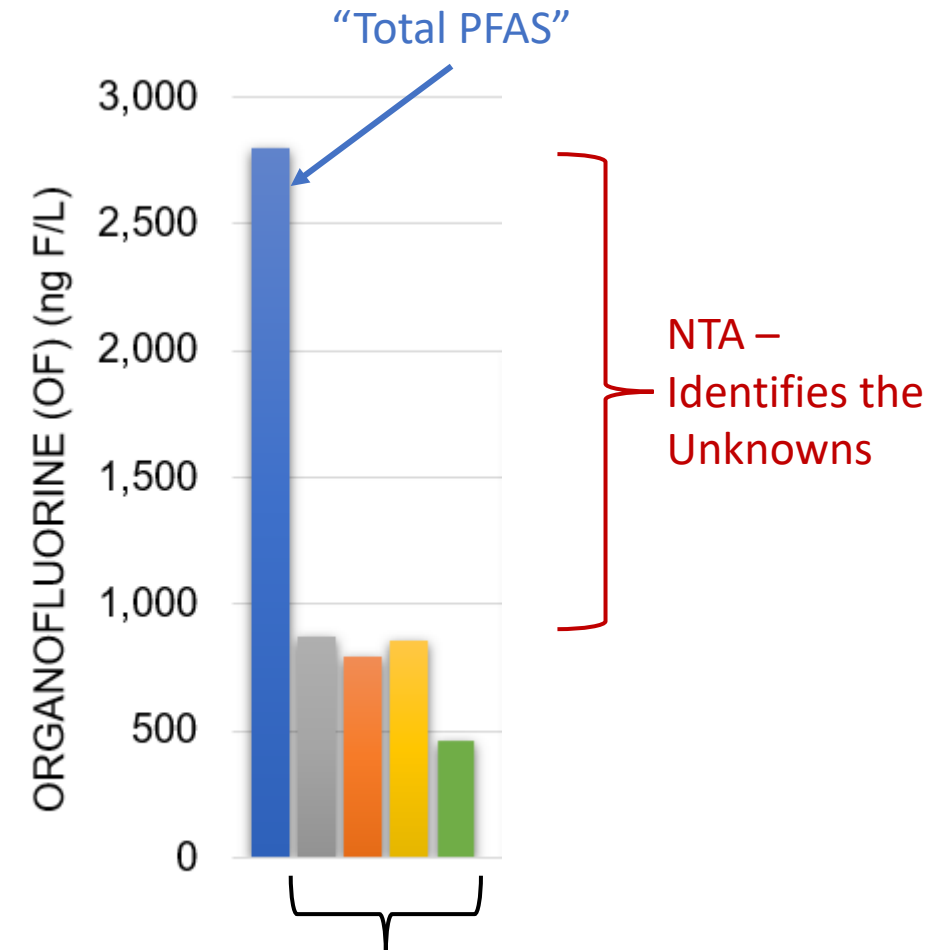
# 4th Quarter 2023 Drinking Water Advisory Level Exceedances – Statewide

■ Greater than 10 ng/L PFOA, 20 ng/L PFHxS, or 40 ng/L PFOS at the well



# PFAS is underestimated using conventional analytical testing methods

- Nine drinking water supply wells sampled in 2021
- Samples were analyzed by 5 different PFAS testing methods
- Up to 70% of the reported sums of the targeted PFAS were not accounted for in the “total PFAS” concentration
- **Non-Target Analysis (NTA) identifies the unknown PFAS structures and abundance relative to other samples**



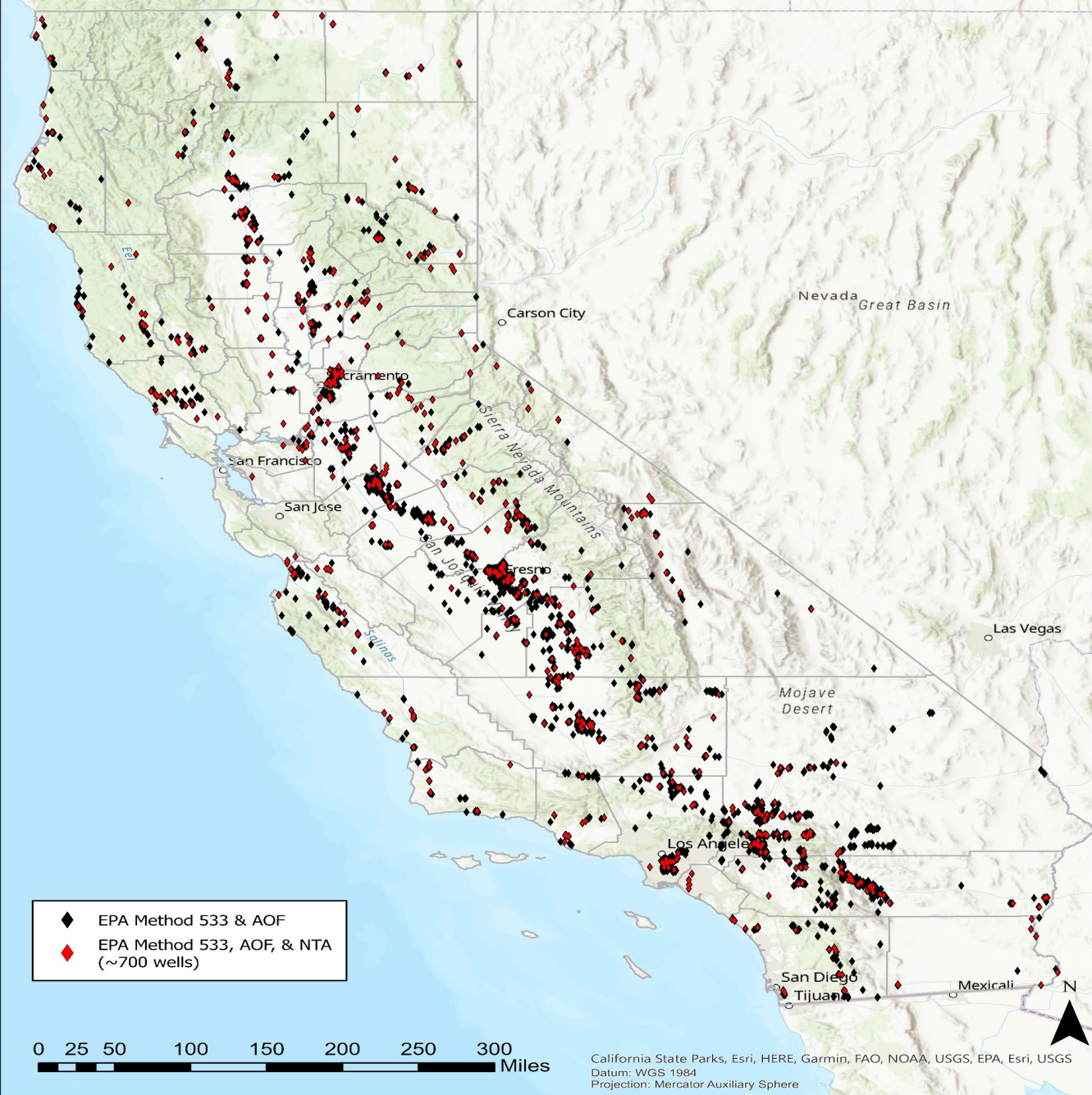
Conventional Targeted Lab Analyses

(each analysis included a range of analytes – 18 to 35 PFAS)



# AB-178 (Budget Act of 2022)

1. Develop and validate a **broad-spectrum test method** for the class of PFAS
2. Sample nearly 4,000 public water wells serving disadvantaged and severely disadvantaged communities
3. Develop a **treatment-based regulatory approach** for PFAS as a class



# THANK YOU!

**Division of Water Quality**

Wendy Linck

Wendy.linck@waterboards.ca.gov

**Division of Drinking Water**

Daniel Newton

daniel.newton@waterboards.ca.gov

Water Board's PFAS website: <https://www.waterboards.ca.gov/pfas/>

DDW's PFAS website: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/pfas.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/pfas.html)

Water Board's PFAS Mapping Tool: [https://geotracker.waterboards.ca.gov/map/pfas\\_map](https://geotracker.waterboards.ca.gov/map/pfas_map)