Federal and States Biosolids Update



Laleh Rastegarzadeh
State Water Board
Division of Water Quality

Biosolids Committee Meeting
Clean Water So Cal
October 14, 2026

CALIFORNIA
Water Boards

USEPA Approach to Address PFAS in Biosolids

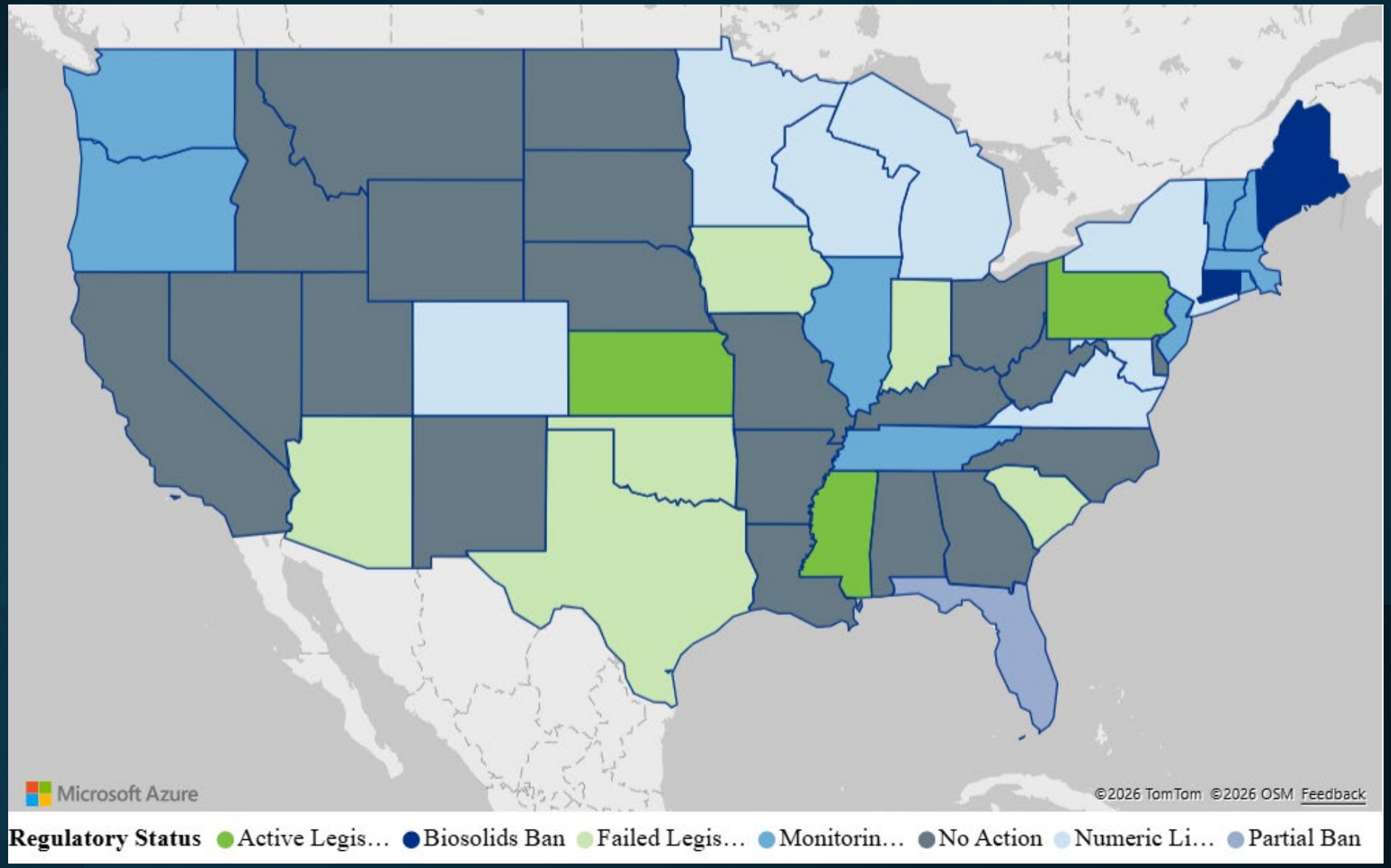
Draft Risk Assessment January 2025

- Evaluated for land application and monofill disposal
- Focused on narrow population of people
- Findings indicate application of biosolids more than 1ppb of PFOA or PFOS can cause human health risk
- Public comments period extended to 7 months

Draft Guidance Memorandum June 2026

- PFAS can pose health concerns
- Biosolids is applied to less than 1% of farmlands
- Non-binding Recommendations:
  - Source identification and pretreatment
  - Alternative disposal
  - Avoid application in sensitive areas
  - Land application in low risk area

States Approach to Address PFAS in Biosolids



CDM Smiths Interactive PFAS regulations tracker

Tiered Approach in Wisconsin, Minnesota, New York, Maryland, Virginia, Michigan

Action	PFOA or PFOS (ug/kg)
Land Application Prohibited	> 50 - 150
Source control required or agronomic rate restriction	> 25 - 50
Implement source control, reduce, tracking	> 20
No restrictions	< 20 - 25

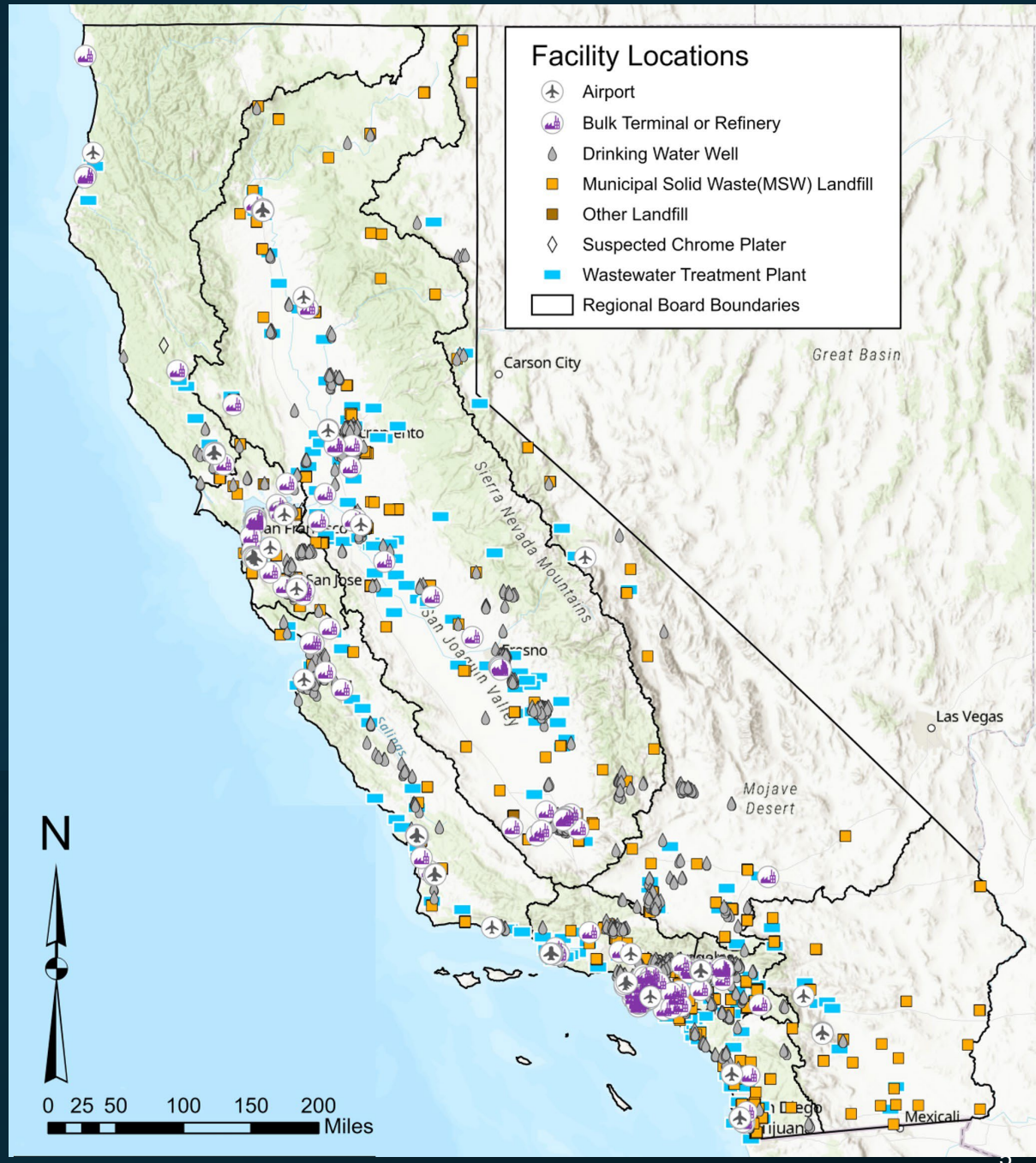
Vermont's limits for biosolids land application

Compound	Concentration (ug/kg)
PFOS	3.4
PFOA	1.6
PFHpA	0.84
PFNA	0.44
PFHxS	0.38

Locations of Highest Risk from PFAS are Understood

About 3,000 General Investigative Orders issued since 2019 within Division of Water Quality (DWQ) and Division of Drinking Water (DDW)

- DWQ - Point Sources: Airports, Bulk Fuel Terminals, Refineries, Chrome Platers, DoD
- DWQ - Secondary Sources: Landfills and Wastewater Treatment Plants
- DDW - Public Water System wells in the vicinity of these point sources and at the disadvantaged communities



California Median PFOA and PFOS concentrations in effluent is slightly higher than EPA proposed MCL

	California Median (ng/L)		Bay Area Median (ng/L)		EPA MCL (ng/L)
	Influent*	Effluent*	Influent**	Effluent**	
PFOA	8	11	3	6	4
PFOS	5.1	5	ND	5	4

*147 POTWs (as of 2/9/2022)

** 16 POTWs - https://www.sfei.org/documents/study-and-polyfluoroalkyl-substances-bay-area-potws-final-report

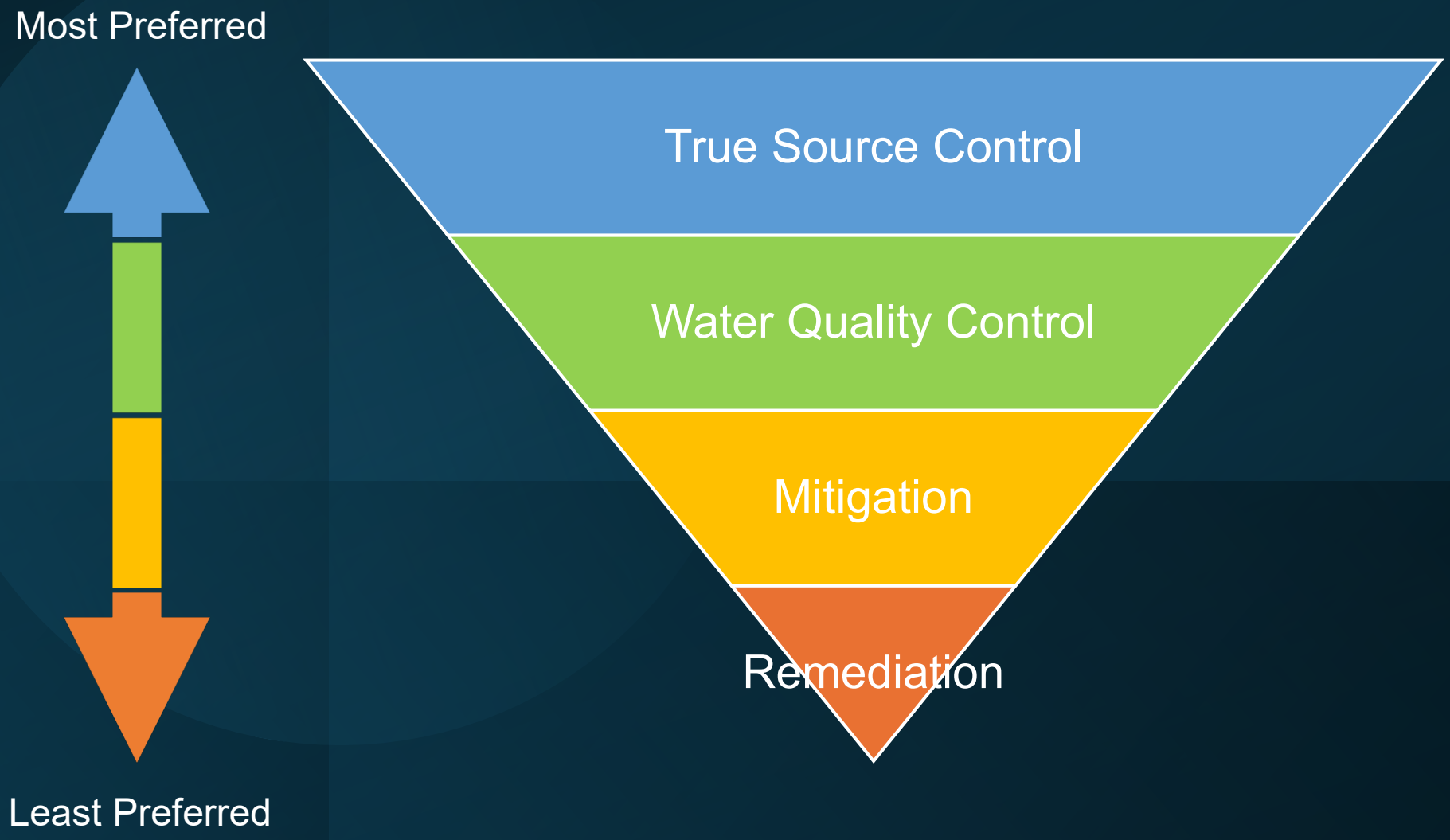
PFOA and PFOS in Biosolids: Statewide and Bay Area

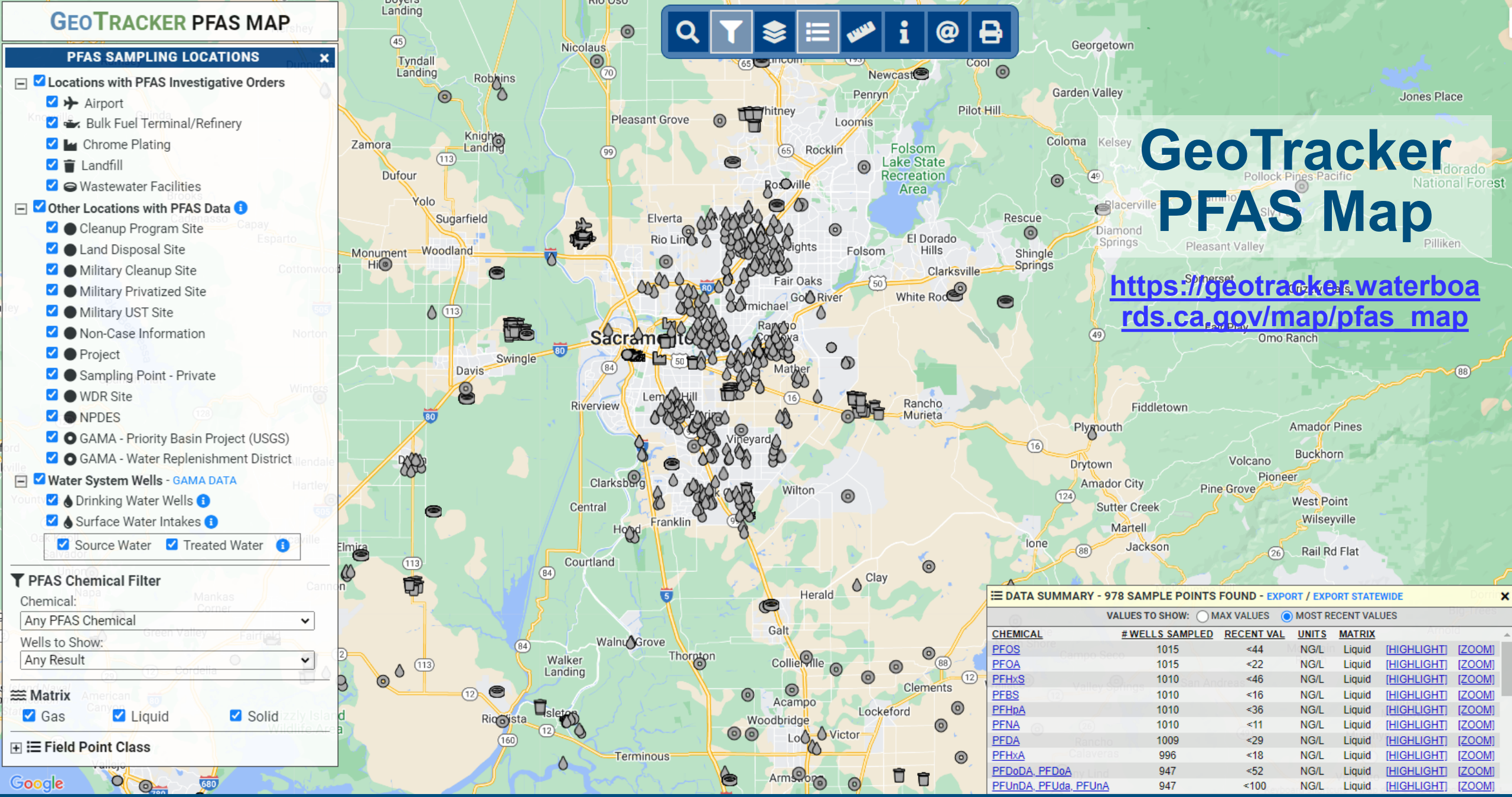
	California		Bay Area – Region 2	
	POTW Biosolids Maximum (ug/kg)**	POTW Biosolids Median (ug/kg)*	POTW Biosolids Maximum (ug/kg)**	POTW Biosolids Median (ug/kg)*
PFOA	60	3.3	49	1
PFOS	1300	11.6	13	13

*147 POTWs (as of 2/9/2022)

** 16 POTWs - https://www.sfei.org/documents/study-and-polyfluoroalkyl-substances-bay-area-potws-final-report

California is developing a strategic approach to address PFAS and other constituents of concern



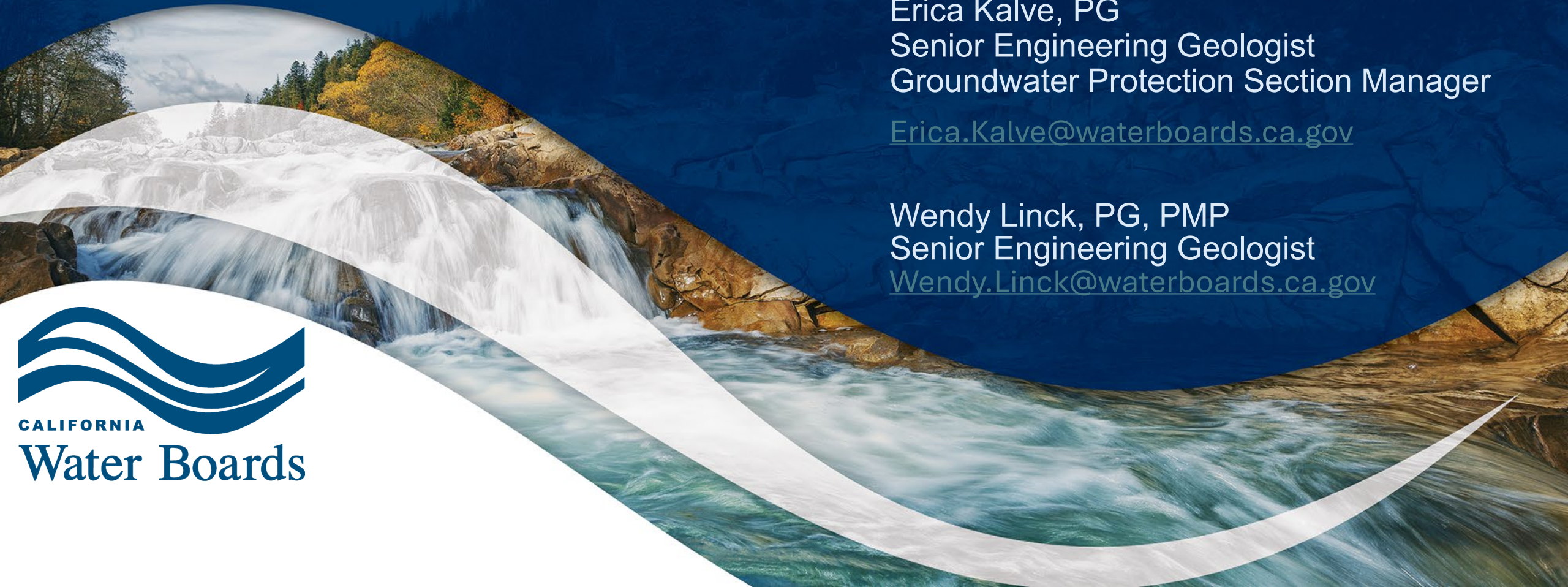

GeoTracker PFAS MAP
PFAS SAMPLING LOCATIONS
Locations with PFAS Investigative Orders
Airport
Bulk Fuel Terminal/Refinery
Chrome Plating
Landfill
Wastewater Facilities
Other Locations with PFAS Data
Cleanup Program Site
Land Disposal Site
Military Cleanup Site
Military Privatized Site
Military UST Site
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
Surface Water Intakes
Source Water
Treated Water
PFAS Chemical Filter
Chemical:
Any PFAS Chemical
Wells to Show:
Any Result
Matrix
Gas
Liquid
Solid
Field Point Class
GeoTracker PFAS Map
https://geotracker.waterboards.ca.gov/map/pfas_map
DATA SUMMARY - 978 SAMPLE POINTS FOUND - EXPORT / EXPORT STATEWIDE
VALUES TO SHOW: MAX VALUES MOST RECENT VALUES
CHEMICAL # WELLS SAMPLED RECENT VAL UNITS MATRIX
PFOS 1015 <44 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFOA 1015 <22 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFHxS 1010 <46 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFBS 1010 <16 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFHpA 1010 <36 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFNA 1010 <11 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFDA 1009 <29 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFHxA 996 <18 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFDoDA, PFDoA 947 <52 NG/L Liquid [HIGHLIGHT] [ZOOM]
PFUnDA, PFUda, PFUnA 947 <100 NG/L Liquid [HIGHLIGHT] [ZOOM]

Thank you!

Laleh Rastegarzadeh
Water Resource Control Engineer
Material Management Unit
Laleh.Rastegarzadeh@waterboards.ca.gov

Erica Kalve, PG
Senior Engineering Geologist
Groundwater Protection Section Manager
Erica.Kalve@waterboards.ca.gov

Wendy Linck, PG, PMP
Senior Engineering Geologist
Wendy.Linck@waterboards.ca.gov



CALIFORNIA
Water Boards