



Water Boards

PFAS Phased Investigation Approach

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Background: Actions to Date

U.S. EPA	U.S. EPA	DDW	DDW	DDW	U.S. EPA
<p>2013-2015</p> <p>Third Unregulated Contaminant Monitoring Rule</p>	<p>2016</p> <p>Health Advisory</p>	<p>2016</p> <p>Actions Based on Health Advisory</p>	<p>2018</p> <p>Notification Levels & Response Levels</p>	<p>2018</p> <p>Lab Capacity</p>	<p>2019</p> <p>Action Plan</p>

U.S. EPA Third Unregulated Contaminant Monitoring Rule (UCMR3) 2013-2015

- **One-time required testing:**
 - Systems >10,000 people & select small systems
 - High min. detection (PFOS 40 ppt, PFOA 20 ppt)
- **133 UCMR3 detections in California**
- **297 detections beyond UCMR3**

U.S. EPA Drinking Water Health Advisories 2016

Established Health Advisory levels:
70 parts per trillion (combined PFOA + PFOS)

Division of Drinking Water Required Testing 2016

- **Follow-up on detections above 70 ppt**
- **Nine water systems**
 - Anaheim, CalAm-Sacramento Suburban, Corona, CWS-Chico, CWS-Visalia, Eastern Municipal, Lathrop, Orange, Pico Rivera
- **Water sources re-sampled to confirm results**
 - Taken offline, treated, or blended

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Notification Levels and Response Level

2018

➤ Notification Levels:

- 14 ppt for PFOA
- 13 ppt for PFOS

➤ Response Level:

- 70 ppt combined PFOA and PFOS

➤ Water sources currently over Notification Level:

- PFOA: 18, PFOS: 25

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Notification Levels and Response Level

2018

➤ Notification Levels:

- Non-regulatory, no mandatory testing
- If exceedance:
 - ✓ Notification required to authorities
 - ✓ Notification recommended to consumers

➤ Response Level:

- Generally 10 to 100 times Notification Level
- DDW recommends removing drinking water source

Laboratory Capacity

	EPA Method 537 Rev 1.1	EPA Method 537.1	Analysis Compliant w/ DoD QSM
Release Year:	2009	2018	2017
Matrices:	DW	DW	GW, EF, WW, S, SE, SL
Total PFAS Compounds Analyzed	14	18	~25-30
Number labs accredited by DOD ELAP			16
Number labs accredited by CA ELAP	13		

DW=Drinking Water **GW**=Groundwater **EF**=Effluent **WW**=Wastewater **S**=Soil **SE**=Sediment **SL**=Sludge

Moving Forward

**Water Boards
PFAS Phased Investigation Plan**

PFAS Phased Investigation Approach

Airport Phase I Sampling

- **31 Airports with training/fire response sites**
 - California Water Code 13267 Investigative Orders
- **578 Drinking water wells (2 mile radius)**
 - California Health and Safety Code 116400 Orders

numbers subject to change

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Landfills Phase I Sampling

- **252 Municipal solid waste (MSW) landfills**
 - California Water Code 13267 Investigative Orders
- **353 Drinking water wells (1 mile radius)**
 - California Health and Safety Code 116400 Orders

numbers subject to change

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UCMR 3 Phase I Sampling

- **389 Impacted drinking water sources (1 mile radius)***
- **Adjacent small systems***

*California Health and Safety Code 116400 Orders

numbers subject to change

PFAS Phased Investigation: Timeline

- Each Investigation phase ~6 months
- Phases II and III investigation phases begin summer/fall 2019

Issue Orders

Questionnaires Due

Workplans Due

Workplans Accepted

Results Due

30 days

60 days

30 days

90 days

March

July

September

Phase I

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Phase II Sampling

- **Source investigation & nearby drinking water well sampling at:**
 - Primary manufacturing facilities (verifying none in CA)
 - Refineries, bulk terminals, & non-airport fire training areas
 - 2017-2018 urban wildfire areas

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Phase III Sampling

- **Source investigation & nearby drinking water well sampling at:**
 - Secondary manufacturing sites
 - Wastewater treatment & pre-treatment plants
 - Domestic wells

Public Outreach and Stakeholder Involvement

- **Website:** <http://waterboards.ca.gov/pfas> (coming soon)
- **Listserve:**
Water_boards_PFAS@swrcb18.waterboards.ca.gov
- **GAMA: Upcoming data viewing tools:**
waterboards.ca.gov/GAMA
- **GeoTracker: Sampling/Investigation Results:**
geotracker.waterboards.ca.gov

Looking Ahead 2020: Assessing Contaminant Levels

- Notification level adjustments or new contaminants?
- Regulation of PFAS by class?
- Public Health Goals (OEHAA)
 - Data gathered on occurrence is important
- Consideration of MCL, begin rule making
- Response strategy to PFAS detections

Questions/Comments

Email: PFAS@waterboards.ca.gov