



UCMR5 and PFAS Monitoring

February 25, 2021

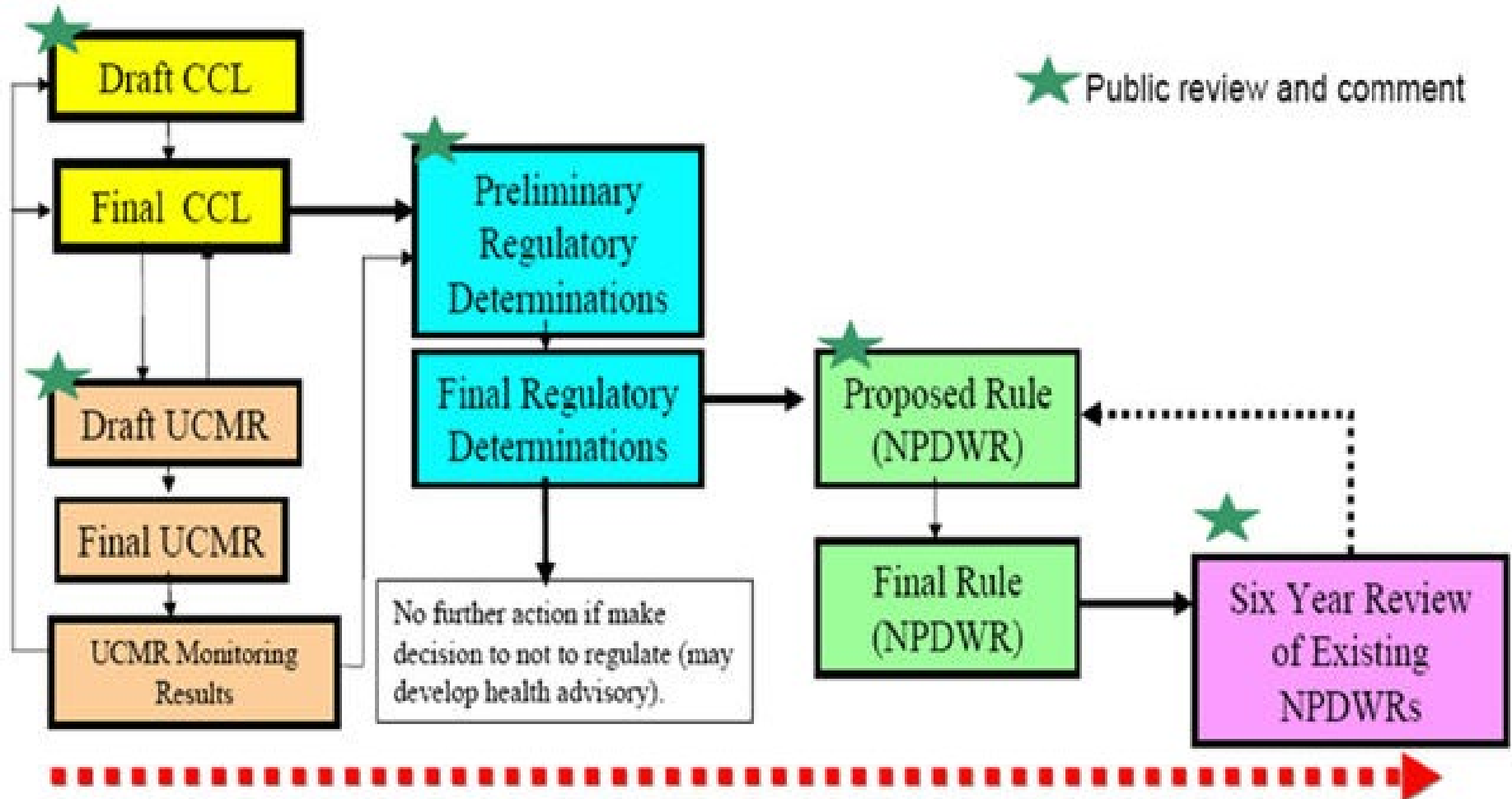
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Monrovia, CA

South Bend, IN



PURPOSE – WHY DO WE HAVE UCMR



UCMR HISTORY



UCMR1

2001 2002 2003

UCMR2

2008 2009 2010

UCMR3

2013 2014 2015

UCMR4

2018 2019 2020

UCMR5

2023 2024 2025

WHAT HAVE WE FOUND



4 UCMRs X 30 Analytes = 120 Analytes

UCMR1 – Perchlorate

UCMR2 – NDMA

UCMR3 – Hex Chrome, 1,4-Dioxane, PFAS

UCMR4 - not much



The proposed fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was not published in the Federal Register and is undergoing review in accordance with the **Regulatory Freeze Pending Review Memorandum** that **White House Chief of Staff Ronald Klain** issued on January 20, 2021.

TIMELINE – FINAL RULE WINTER 2021?



| 2022 | 2023 | 2024 | 2025 | 2026 |
|--|--|------|------|--|
| <p><i>After final rule publication:</i> EPA/State primacy authorities (1) develop SMPs (including the national representative sample) (2) inform PWS/establish monitoring plans</p> | <p style="text-align: center;">← Assessment Monitoring →</p> <p style="text-align: center;">Reporting and analysis of data</p> | | | <p>Complete reporting and analysis of data</p> |

SYSTEMS IMPACTED



- **Large systems (> 10K) = All SW, GWUDI, and GW systems**
- **Small Systems (3,300 – 10K) = All SW, GWUDI, and GW systems**
- **Very small systems (25 – 3,299) = 800 randomly selected SW, GWUDI, and GW systems**
- **Assessment Monitoring: A 12-month period from Jan. 2023 through Dec. 2025**
- **Sample Point Location: EPTDS**

LAB APPROVAL



Only USEPA approved laboratories may submit UCMR5 data and obtain ADHS approval in Arizona.

- **Five Step Process (Request, Registration, Application, PT Study, Approval)**
- **PT results + SIDWIS compatible EDD to pass**

METHODS & ANALYTES



| 25 PFAS by EPA 533 | Acronym | MRL (ng/L) |
|---|--------------|------------|
| perfluorobutanoic acid | PFBA | 5 |
| perfluoropentanoic acid | PFPeA | 3 |
| perfluorohexanoic acid | PFHxA | 3 |
| perfluorohexanoic acid | PFHxA | 3 |
| perfluorooctanoic acid | PFOA | 4 |
| perfluorononanoic acid | PFNA | 4 |
| perfluorodecanoic acid | PFDA | 3 |
| Perfluoroundecanoic acid | PFUnA | 2 |
| perfluorododecanoic acid | PFDoA | 3 |
| perfluorobutanesulfonic acid | PFBS | 3 |
| perfluoropentanesulfonic acid | PFPeS | 4 |
| perfluorohexanesulfonic acid | PFHxS | 3 |
| perfluoroheptanesulfonic acid | PFHpS | 3 |
| perfluorooctanesulfonic acid | PFOS | 4 |
| 1H,1H, 2H, 2H-perfluorohexane sulfonic acid | 4:2FTS | 3 |
| 1H,1H, 2H, 2H-perfluorooctane sulfonic acid | 6:2FTS | 5 |
| 1H,1H, 2H, 2H-perfluorodecane sulfonic acid | 8:2FTS | 5 |
| 4,8-dioxa-3H-perfluorononanoic acid ² | ADONA | 3 |
| hexafluoropropylene oxide dimer acid | HFPO-DA | 5 |
| nonafluoro-3,6-dioxaheptanoic acid | NFDHA | 2 |
| perfluoro(2-ethoxyethane)sulfonic acid | PFEESA | 3 |
| perfluoro-3-methoxypropanoic acid | PFMPA | 3 |
| perfluoro-4-methoxybutanoic acid | PFMBA | 3 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | 9Cl-PF3ONS | 2 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 11Cl-PF3OUdS | 5 |

METHODS & ANALYTES



| 4 PFAS by EPA 537.1 | Acronym | MRL (ng/L) |
|--|----------|------------|
| N-ethyl perfluorooctanesulfonamidoacetic acid | NEtFOSAA | 5 |
| N-methyl perfluorooctanesulfonamidoacetic acid | NMeFOSAA | 6 |
| perfluorotridecanoic acid | PFTTrDA | 7 |
| perfluorotetradecanoic acid | PFTeDA | 8 |

| 1 Metal by EPA 200.7, SM 3120 B, or ASTM D1976-20 | Acronym | MRL (µg/L) |
|---|---------|------------|
| Lithium | Li | 9 |

Representative Monitoring Plans (UCMR4)



TYPE 1= Groundwater Representative Monitoring Plan

Multiple EPTSs → Representative EPDS

- All wells have same or no treatment
- All wells are from the same source/aquifer

TYPE 2 = Representative Connections

Multiple Purchased Water Inlets → Representative Inlet

NOTE: a Representative sample must be:

- a) Highest volume producing well
- b) Consistently in operation during UCMR4 schedule



➤ GW PWS – Sample at the EPDS

➤ Collect 2 times during your 12 month assigned monitoring period.

➤ Collection events must be 5-7 months apart so ideally....

- January & July
- February & August
- March & September
- April & October
- May & November
- June & December

| | | |
|-----|-----|------|
| Jan | Feb | Mar |
| Apr | May | June |
| Jul | Aug | Sept |
| Oct | Nov | Dec |



➤ SW/GWUDI PWS – Sample at the EPDS

- Collect 4 times during your 12 month assigned monitoring period.
- Collection events must be 3 months apart so....

- Jan, Apr July, Oct
- Feb, May, Aug & Nov
- Mar, Jun, Sept, Dec

| | | |
|-----|-----|------|
| Jan | Feb | Mar |
| Apr | May | June |
| Jul | Aug | Sept |
| Oct | Nov | Dec |

PFAS Sampling – EPA 537.1, EPA 533



Lithium Sampling – EPA 200.8





➤ If like UCMR4

➤ > 3300 – 10K and 10K+ PWS

- APPROVED labs post data to SDWARS within **90 days** of sample collection **plus ALL QC data.**
 - PWS review / approve the data via CDX within **60 days of lab posting** – automatic approval after 60 days
 - Post any hits in your CCR
- All data publicly available in EPA National Contaminant Occurrence Database (NCOD)

UCMR5 CDX SET UP STEPS



- 1. CDX Account**
- 2. SDWARS5**
- 3. Profile Settings**
- 4. Notification Letter**
- 5. Add Contacts**
- 6. Add Inventory**
- 7. Confirm Schedule**
- 8. Add Zip Codes**
- 9. Nominate User**
- 10. Confirm & Save**

STEP 1 – CDX ACCOUNT



Log in to CDX

User ID

Password

Log In **Register with CDX**

Forgot your Password?
Forgot your User ID?
Warning Notice and Privacy Policy

<https://cdx.epa.gov/>

STEP 2 – SDWARS5



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Home About Recent Announcements Terms and Conditions FAQ Help

CDX Central Data Exchange Contact Us
Logged in as (Log out)

MyCDX Inbox My Profile Submission History

| Status | Program Service Name | Role |
|--------|---|----------------|
| | UCMR4: Unregulated Contaminants Monitoring Rule 4 | SDWARS4 |

CDX Service Availability
See the status for all program services

News and Updates
No news/updates.

Add Program Service Manage Your Program Services

STEP 3 – PROFILE SETTINGS



Application Profile Settings

Organization Name

PWS Name ▾


Program Client ID

PWS Identification Number ▾

Program

UCMR5

Proceed **Cancel**



STEP 4 – NOTIFICATION LETTER



Notification Letter NOTIFICATION LETTER
January 3, 2017

A PWS user must accept the notification letter.

RE: Unregulated Contaminant Monitoring for Surface Water (SW) and Ground Water Under the Direct Influence of Surface Water (GWUDI) Systems Serving over 10,000 Persons

Dear Public Water System:

The purpose of this letter is to notify your public water system (PWS) of its monitoring requirements under the revision to the Unregulated Contaminant Monitoring Rule (UCMR4). The U.S. Environmental Protection Agency (EPA) published the final rule detailing the upcoming monitoring of unregulated contaminants at PWSs on December 20, 2016, establishing a new list of contaminants to be monitored and the conditions for that monitoring. This rule benefits public health by providing EPA and other interested parties with scientifically valid data on the national occurrence of selected contaminants in drinking water. This dataset is one of the primary sources of information on occurrence, levels of exposure and population exposure EPA uses to develop regulatory decisions for contaminants in the public drinking water supply.

Under the UCMR4, all community water systems and non-transient, non-community water systems serving more than 10,000 persons must participate in Assessment Monitoring (AM). Our records indicate that your surface water system must monitor for all List 1 contaminants: metals, pesticides, semi-volatile organic chemicals (SOCs), alcohols (AM 1), haloacetic acids (HAAs) (AM 2), and cyanotoxins (AM 3).

What must your PWS complete in SDWARS before December 31, 2017?
Similar to reporting under UCMR3, PWSs will use the Central Data Exchange (CDX) (<https://cdx.epa.gov/>) to access the updated version of the Safe Drinking Water Accession and Review System (SDWARS4). PWSs are required to:

- enter your official and technical contact information;
- review and, if necessary, update your sample location data by adding missing locations (e.g., Stage 1 and Stage 2 Disinfectants and Disinfection Byproduct Rules sampling locations for the HAAs), indicating ineligible locations or editing basic information about the locations; and
- review and, if you wish, revise your monitoring schedule assigned by the EPA.

What must your PWS do during UCMR4 monitoring?
Your PWS must ensure that samples are properly collected, packaged and shipped to a UCMR4 EPA approved laboratory. Your PWS is also responsible for providing the data elements required for each sampling location (e.g., disinfection type, treatment type etc.) in SDWARS. Once data are posted to SDWARS by your laboratory, your PWS will have 60 days to review and act upon these results. If you choose not to review these results in this time frame, they will be considered final. Additionally, community water systems are required to address their UCMR monitoring results in their annual Consumer Confidence Report (CCR) whenever unregulated contaminants are detected (<https://www.epa.gov/ccr>).



Where can I find more information about UCMR4?
EPA recommends that you review the complete rule and supporting reference materials addressing UCMR4 at <https://www.epa.gov/ucmr/fourth-unregulated-contaminant-monitoring-rule>.

- The "Revisions to the Unregulated Contaminant Monitoring Rule (UCMR4) for Public Water Systems and Announcement of Public Meeting" [EPA-HQ-OW-2015-0218; FRL-9966-71-OW];
- UCMR4 Implementation fact sheets: Metals, Pesticides, SOCs, and Alcohols (AM 1), Haloacetic Acids (HAAs) (AM 2), Cyanotoxins (AM 3) and General Information;
- EPA approved laboratories for UCMR4 (the list will be updated as additional laboratories are approved);
- Outreach materials and announcements for stakeholder meetings and trainings.

Analytical results from UCMR are publicly available in the National Contaminant Occurrence Database (NCOD); for a summary of the NCOD results, tips for querying NCOD, and health effects information please refer to the UCMR Data Summary document.

This notification letter is being sent to you as the official representative of this PWS. If someone else at your PWS needs this information, such as the plant operator, please provide them with a copy of this letter. Your cooperation in meeting these requirements is appreciated.

For questions regarding SDWARS or CDX, please contact the CDX Help Desk at 1-888-890-1995. For implementation or general questions, please contact the UCMR Message Center at 1-800-949-1581 or UCMR4@epa.com. Thank you for your cooperation.



STEP 5 – ADD CONTACTS



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MyCDIX > PWS Home > Contacts

CDX

PWS

- Contacts
- Inventory
- Schedule
- Zip Code
- Nominate User
- Notification Letter
- SDWARSA Sitemap

MyCDIX

SOWARS Version: 4, Release 2.0
(03 PWS 1102)

Logged in as [redacted] [Log Out](#)

PWS Contacts

All PWSs must have an "Official" contact defined as the administrative representative for the PWS and a "Technical" contact that may be contacted as an alternate representative. Specify additional contacts as "Other" contact types. Edit or delete these contacts using the appropriate links any time you experience changes in personnel. Click Add Contact to include a contact. Click the edit icon to revise the information for that contact. Click the delete icon to remove that contact.

You must assign a Technical and Official contact immediately. If you have just deleted either of these, you must add a new contact to comply with UCMR4. You cannot proceed in SOWARS until you assign a Technical and Official contact.

[Add Contact](#)

| Contact Name | Contact Email | Affiliation/Organization | Contact Type | Actions |
|---------------------------------|---------------|--------------------------|--------------|---------|
| No Contacts found for this PWS. | | | | |

OFFICIAL & TECHNICAL CONTACTS



Add PWS Contact

i You must complete every field marked with an *. All contact information is confidential and is only available to regulatory authorities. You must click **Save Changes** for the information to be added to the database. Use the **Receive Auto Email Notification(s)** checkbox(es) if you wish to receive email messages reminding you about certain critical tasks.

First Name* Howard
Last Name* The Duck
Contact Type* Official
Affiliation / Organization* Marvel Universe
Mailing Address 1
Mailing Address 2
City Universal City
State California
Zip Code 91605
Phone* (800) 864-8377 ext.
Email* howard.duck@marvel-universe.org

Receive Auto Email Notification(s)

- Scheduling Reminders** ← !
- Lab Posted Data Notifications** ← !
- Any Missing Additional Data Notifications** ← !

(33-PWS-1102a) **Save Changes** Close

Add PWS Contact

i You must complete every field marked with an *. All contact information is confidential and is only available to regulatory authorities. You must click **Save Changes** for the information to be added to the database. Use the **Receive Auto Email Notification(s)** checkbox(es) if you wish to receive email messages reminding you about certain critical tasks.

First Name* Mimi
Last Name* Mouse
Contact Type* Technical
Affiliation / Organization* Disney
Mailing Address 1
Mailing Address 2
City Orlando
State Florida
Zip Code
Phone* ext.
Email*

Receive Auto Email Notification(s)

- Scheduling Reminders** →
- Lab Posted Data Notifications** →
- Any Missing Additional Data Notifications** →

(33-PWS-1102a) **Save Changes** Close

CONFIRM CONTACTS



✓ Contact has been added.



MyCDX > PWS Home > Contacts

PWS Contacts

i All PWSs must have an "Official" contact defined as the administrative representative for the PWS and a "Technical" contact that may be contacted as an alternate representative. Specify additional contacts as "Other" contact types. Edit or delete these contacts using the appropriate links any time you experience changes in personnel. Click **Add Contact** to include a contact. Click the **edit** icon to revise the information for that contact. Click the **delete** icon to remove that contact.

You must assign a Technical and Official contact immediately. If you have just deleted either of these, you must add a new contact to comply with UCMR4. You cannot proceed in SOWARS until you assign a Technical and Official contact.

Add Contact

| Contact Name | Contact Email | Affiliation/Organization | Contact Type | Actions |
|-----------------|---------------------------------|--------------------------|--------------|---|
| Howard The Duck | howard.duck@marvel.universe.org | Marvel Universe | Official |   |

MyCDX

SOWARS Version: 4, Release 3.0
(SOWARS 1102)

STEP 6 – ADD INVENTORY



The screenshot shows the EPA MyCDX PWS Inventory management interface. The header includes the EPA logo and the text "United States Environmental Protection Agency". On the right, it says "Logged in as [redacted] Log Out". The main content area is titled "Designate and Review Your Inventory" and contains instructions for adding inventory from SDWARS3. A red box highlights the "Add Facility" button. Another red box highlights the "Upload/Import Inventory" dropdown menu, which is currently set to "Upload Facilities & Sample Points" and "Import Inventory from SDWARS3". The interface also shows a sidebar with navigation options like "PWS", "Contacts", "Inventory", "Schedule", "Zip Code", "Nominate User", "Notification Letter", and "SDWARS4 Sitemap".

MyCDX > PWS Home > PWS Inventory

Designate and Review Your Inventory

i If you wish to load your inventory from SDWARS3, click Upload/Import Inventory drop-down and select Import Inventory from SDWARS3. You will be able to select which locations will get loaded. Select the 'Yes' under Sampling Required to identify applicable sample locations for UCMR4 monitoring. If you select 'No' under Sampling Required, you will be required to provide a reason. Click either the Facility ID or Sample Point ID to edit the inventory you specified. Click Add Facility or Add SP to Existing Facility to add inventory. You must click Save Changes for the information to be added to the database. [\(more...\)](#)

Note: Please ensure all required sample locations for UCMR4 are included in your inventory below. This includes all entry points to the distribution system and for those PWSs monitoring HAA5, their Stage 2 Disinfectants and Disinfection Byproducts Rule distribution system sites and intakes prior to treatment. An intake sample is not required for a consecutive connection (100% purchased).

Add Facility

No facilities or sample points have been added.

Upload/Import Inventory

- Upload Facilities & Sample Points
- Import Inventory from SDWARS3

SDWARS Version: 4, Release 3.0
(33 PWS, 1103)

MANUAL OR IMPORT



Create a New Facility and Sample Point

i You must complete every field marked with an (*). You must click Save Changes for the information to be added to the database.

Facility ID*

Facility Name*

Facility Type*

Water Type*

Sample Point ID*

Sample Point Name*

Sample Point Type - Select Facility Type -

CDX PWS 11/20/16

Logged in as

EPA United States Environmental Protection Agency

CDX

MyCDX » PWS Reporting » Upload Facilities & Sample Points

Upload Facilities & Sample Points

i Click for help with the file structure

No file chosen

CDX PWS version: 3 Release 1.0

CDX PWS 11/16

Logged in as

PWS

- Contacts
- Inventory
- Schedule
- Zip Code
- Nonstate User

IMPORT FROM SDWARS4



Import Facilities and Sample Points from ~~SDWARS3~~

i Select the sample locations from SDWARS3 which need to be loaded into SDWARS4. You must click Next > button to review your inventory before it is added to the database.

| Select All <input type="checkbox"/> | Facility ID | Facility Name | Facility Type | Water Type | Sample Point ID | Sample Point Name | Sample Point Type |
|-------------------------------------|-------------|--------------------|---------------|------------|-----------------|-------------------|-------------------|
| <input type="checkbox"/> | 00001 | Treatment Plant #1 | TP | GW | EP001 | EP from TP #1 | EP |
| <input type="checkbox"/> | 00002 | Treatment Plant #2 | TP | GW | EP002 | EP from TP #2 | EP |

SS.PWS.1103f

Next >

Cancel

Import Facilities and Sample Points from ~~SDWARS3~~

i Select the Import button to add the inventory to the database.

| Facility ID | Facility Name | Facility Type | Water Type | Sample Point ID | Sample Point Name | Sample Point Type |
|-------------|--------------------|---------------|------------|-----------------|-------------------|-------------------|
| 00001 | Treatment Plant #1 | TP | GW | EP001 | EP from TP #1 | EP |
| 00002 | Treatment Plant #2 | TP | GW | EP002 | EP from TP #2 | EP |

SS.PWS.1103g

Back

Import

Cancel

MANUALLY ADD



Create a New Facility and Sample Point

i You must complete every field marked with an (*). You must click **Save Changes** for the information to be added to the database.

Facility ID*

Facility Name*

Facility Type*

Water Type*

Sample Point ID*

Sample Point Name*

Sample Point Type - Select Facility Type -

Save Changes **Cancel**

(SS PWS 1102a)

Add Sample Point to Your Facility

i You must complete every field marked with an (*).

Select an existing Facility to which the sample point (SP) will be added. If the facility you are looking for is not listed, you must create it by clicking **Add Facility** link on the previous page.

You must click **Save Changes** for the information to be added to the database.

Facility*

Sample Point ID*

Sample Point Name*

Sample Point Type - Select Facility -

Save Changes **Cancel**

(SS PWS 1102c)

STEP 7 – CONFIRM SCHEDULE



EPA United States Environmental Protection Agency

MyCDX > PWS Home > PWS Schedule > AM1

Review Your Schedule

Click the date specified for Sample Event 1 (SE1) if you wish to edit the sample schedule for the corresponding location. (For groundwater sample points, the second sampling may occur within 5-7 months from the original sampling. Surface water systems must sample every 3 months.)

Filter by...

Facility ID: Facility Name: Facility Type: Water Type:

Sample Point ID: Sample Point Name:

Monitoring Requirement: AM1

Facility ID: 00001 Facility Name: Treatment Plant #1 Facility Type: TP Water Type: GW

| Sample Point ID | Sample Point Name | Sample Point Type | SE1 | SE2 | SE3 | SE4 |
|-----------------|-------------------|-------------------|----------|----------|-----|-----|
| EP001 | EP from TP #1 | EP | Jan 2018 | Jul 2018 | | |

Review Schedule

Facility ID: 00002 Facility Name: Treatment Plant #2 Facility Type: TP Water Type: GW

| Sample Point ID | Sample Point Name | Sample Point Type | SE1 | SE2 | SE3 | SE4 |
|-----------------|-------------------|-------------------|----------|----------|-----|-----|
| EP002 | EP from TP #2 | EP | Jan 2018 | Jul 2018 | | |

Review Schedule

STEP 8 – ADD ZIP CODES



EPA United States Environmental Protection Agency

Logged in as [PWS] Log Out

MyCDX > PWS Home > Zip Codes

Zip Codes

Click Add Zip Codes to add a zip code(s). Click Delete Zip Codes to remove one or more selected zip codes.

Add Zip Codes

| Zip Code |
|-------------------------------|
| No zip codes have been added. |

Add PWS Zip Codes

You can copy/paste a comprehensive list of zip codes within the zip code field. A zip code MUST be a five digit number. You must click **Save Changes** for the zip code(s) to be added to the database.

Zip Code(s):^{*}

Zip codes can be copy/pasted or typed

(SS.PWS.1100a)

Save Changes Close

STEP 9 – NOMINATE USER



EPA United States Environmental Protection Agency

MyCDX > PWS Home > Nominate PWS User

Nominate a PWS User

You must complete every field marked with an *. You must click Nominate to generate a CRX.

First Name*

Last Name*

Organization Name*

Registrant's Work Mailing Address 1*

Registrant's Work Mailing Address 2

City*

State*

Zip Code*

Phone*

Email*

Terms And Conditions

By nominating this individual, the nominator attests to the following:

- As an authorized representative of the public water system (PWS), I am nominating another individual to review and/or report Unregulated Contaminant Monitoring Rule (UCMR) data as required under the 1996 Amendments to the Safe Drinking Water Act and specified in 40CFR 141.35.
- I authorize the nominee to report UCMR information for the PWS.
- I attest that the nominee has a legitimate business affiliation with the PWS.
- I understand that by nominating this user, I accept full responsibility for their actions while engaging the Federal Safe Drinking Water Assessment and Review System (SDWARS). I further understand that the system will be able to associate nominees with the nominator.
- I agree to print and present the CRX to the nominee and verify that they fully understand the TERMS AND CONDITIONS.
- I understand that the nominee will have the right to nominate additional representatives for the PWS.
- I agree to notify the Central Data Exchange (CDX) within ten working days if the duties of the nominee change, and they no longer need to interact with CDX on behalf of the PWS. I agree to make this notification via either the CDX web interface or by notifying the CDX Technical Support staff at 1-888-830-1335. The notification allows CDX to deactivate the designated account and protect it from potential abuse.

Warning Notice

The CDX registration procedure is part of a United States Environmental Protection Agency (EPA) computer system, which is for authorized use only. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms.

Privacy Statement

EPA will use the personal identifying information which you provide for the expressed purpose of registration to the Central Data Exchange site and for updating and correcting information in internal EPA databases as necessary. EPA will not make the information available for other purposes unless required by law. EPA does not sell or otherwise transfer personal information to an outside third party. (Privacy Register: March 12, 2002; Volume 27 Number 52@Page 0215-0216)

STEP 10 – CONFIRM & SAVE



| Facility ID: 91821 Facility Name: Oliver P. Roemer Facility Type: IN Water Type: SW | | | | | | | | | | |
|--|---------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sample Point ID | Sample Point Name | Sample Point Type | SEH1 | SEH2 | SEH3 | SEH4 | | | | |
| 3610004051 | State Project Water | SR | Jan 2018 | May 2019 | Apr 2018 | Aug 2019 | Jul 2018 | Nov 2019 | Oct 2018 | Feb 2020 |

| Facility ID: 91801 Facility Name: Well 54 Facility Type: TP Water Type: GW | | | | | | | |
|---|-------------------|-------------------|----------|----------|----------|----------|--|
| Sample Point ID | Sample Point Name | Sample Point Type | SEA1 | SEA2 | SEA3 | SEA4 | |
| 3610004045 | EP #46 - Well 54 | EP | Jan 2018 | May 2019 | Jul 2018 | Nov 2019 | |

| Facility ID: 91813 Facility Name: 213 E. Walnut Facility Type: DS Water Type: MX | | | | | | | | | | |
|---|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sample Point ID | Sample Point Name | Sample Point Type | SEH1 | SEH2 | SEH3 | SEH4 | | | | |
| 3610004601 | 213 E. Walnut | DS | Jan 2018 | May 2019 | Apr 2018 | Aug 2019 | Jul 2018 | Nov 2019 | Oct 2018 | Feb 2020 |

PFAS – WHY TEST AGAIN?

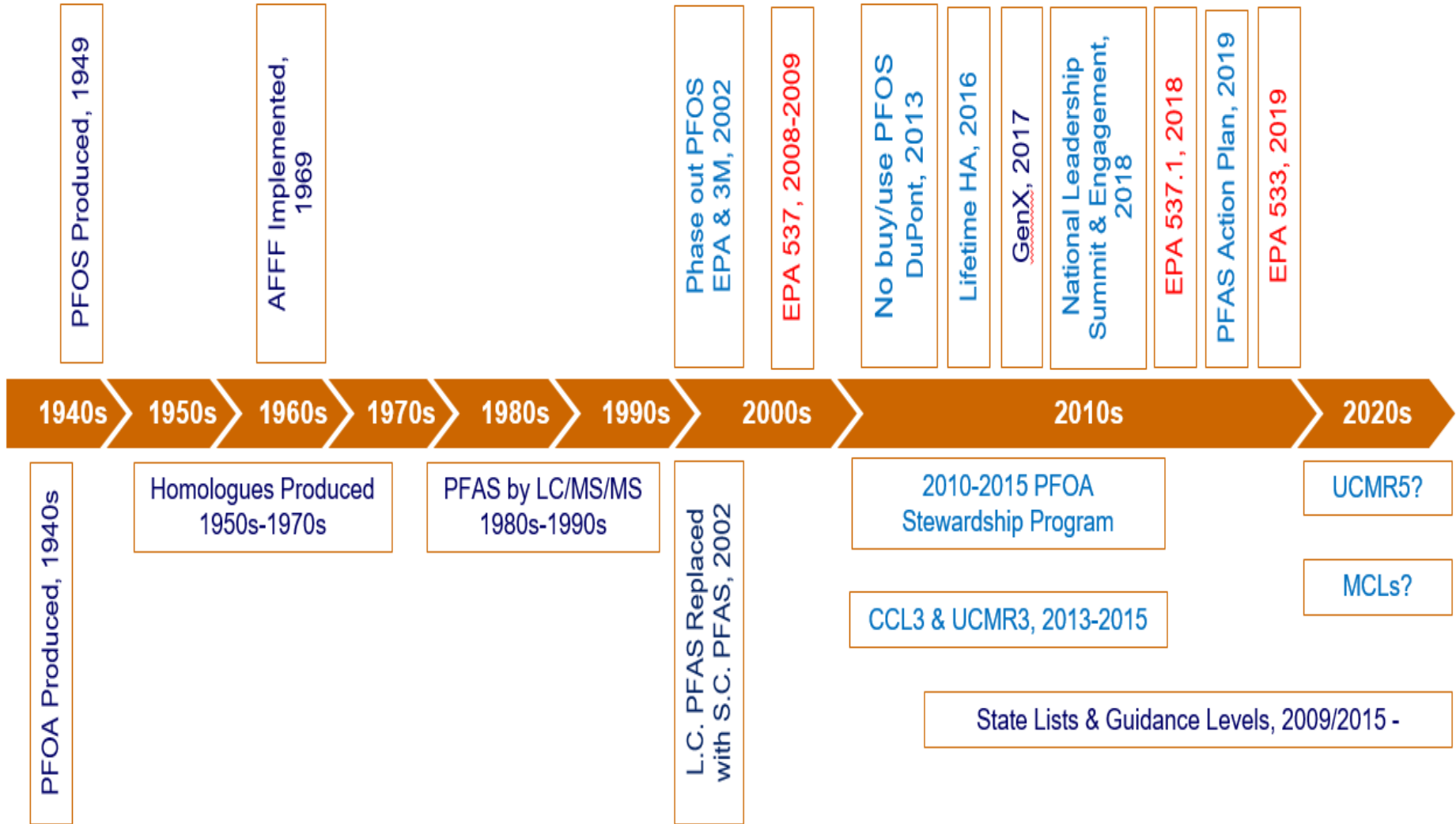


The UCMR 5 proposal fulfills a key commitment in EPA's PFAS Action Plan by including the collection of drinking water occurrence data for a broader group of PFAS (i.e., building on the monitoring for six PFAS that took place under UCMR 3).



Known health effects

PFAS Have Been around for a Long Time.



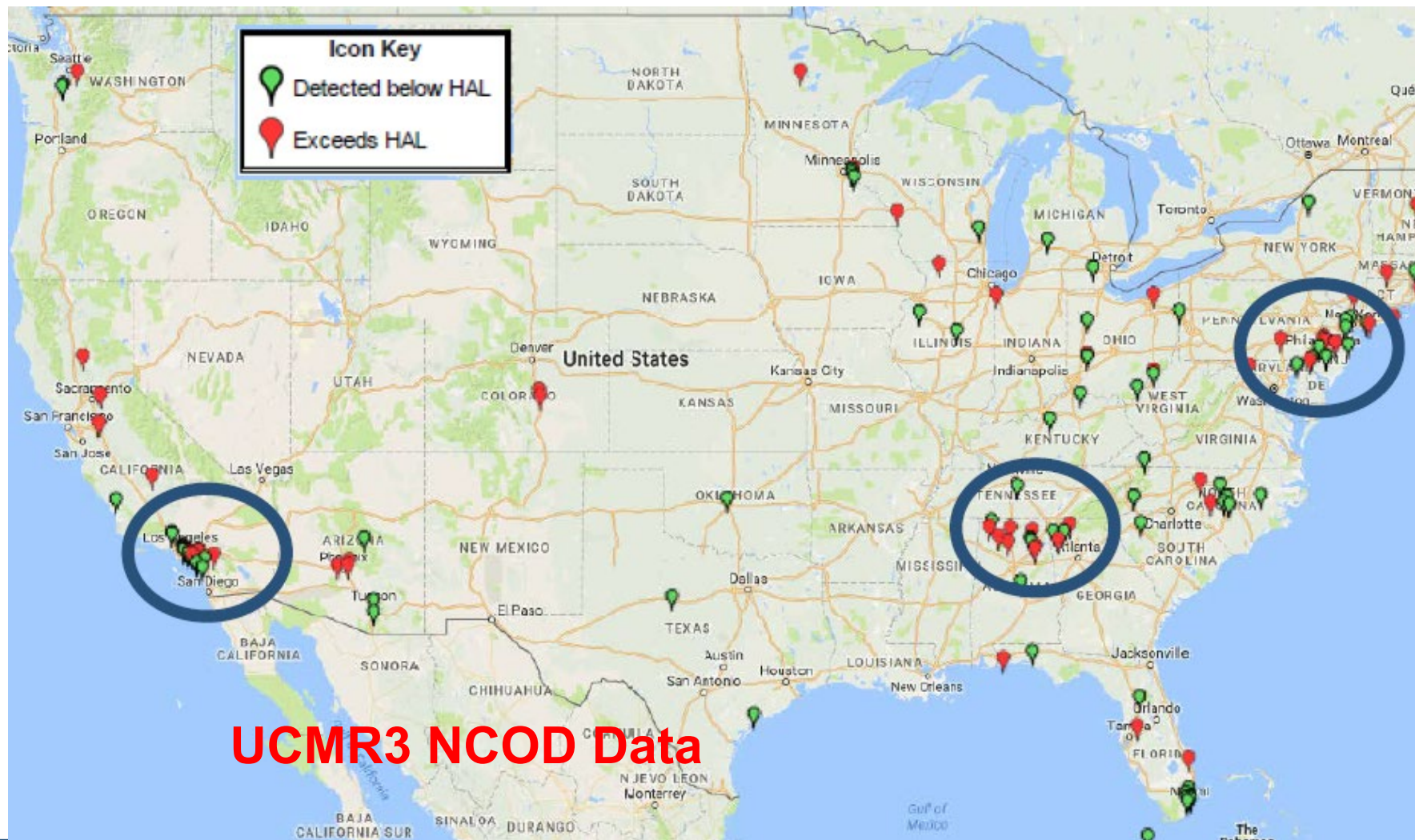


UCMR3: Only six PFAS and higher MRLs (ng/L)

- PFBS – 90
- PFHpA - 10
- PFHxS - 30
- PFOA - 20
- PFNA – 20
- PFOS – 40

UCMR5: 29 PFAS and lower MRLs of 2-8 ng/L

PFAS - UCMR3 OCCURRANCE

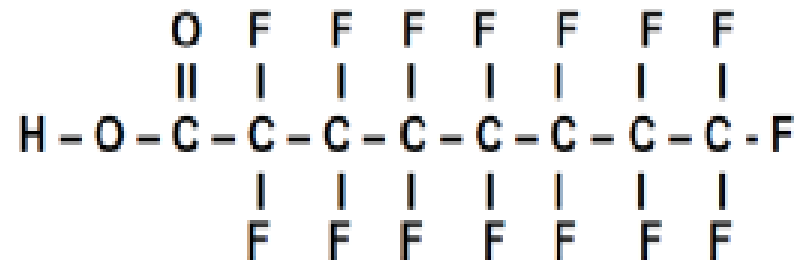




We now know that PFAS is far more widespread than what was identified during UCMR3

- Longer lists
- Lower reporting levels

PFOA



PFAS – CURRENT REGULATIONS



USEPA established the health advisory level of 70 ng/L for PFOA/PFOS, 2016.

At least 29 states have passed or proposed regulations monitoring some PFAS in state drinking water.

Maximum contaminant level (MCL), notification level (NL), action level (AL), health-based Value (HBV), or trigger level (TL), adopted by multiple states.

- AL – CA, OH, WA
- HBV – MI, MN
- MCL – MA, NH, NJ, NY, PA, VT, WI
- TL – OR

QUESTIONS



Brad Cahoon
National Sales Director
Eurofins Eaton Analytical

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602.524.0423

