



The Fifth Unregulated Contaminant Monitoring Rule (UCMR 5): March 2022 Meeting Presentations for Implementation

Held March 16 and 17, 2022
USEPA, Office of Ground Water and Drinking Water

The Fifth Unregulated Contaminant Monitoring Rule (UCMR 5)

Public Meeting by Webinar

March 16, 2022

March 17, 2022 – repeated

Office of Ground Water and Drinking Water, Standards and Risk Management Division, Technical Support Center



Office of Water

Welcome

Greg Carroll, U.S. EPA

Office of Ground Water and Drinking Water

Standards and Risk Management Division

Technical Support Center



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Agenda (Eastern Time)		
March 16	March 17	Topics
8:45-9:00am	12:45-1:00pm	Log in to the Meeting
9:00-9:10am	1:00-1:10pm	Welcome, Logistics, Agenda
9:10-9:30am	1:10-1:30pm	Overview of the UCMR Program
9:30-10:15am	1:30-2:15pm	Overview of UCMR 5
10:15-10:30am	2:15-2:30pm	UCMR 5 Contaminants, Analytical Methods, and Related Information
10:30-10:45am	2:30-2:45pm	Representative Samples
10:45-11:00am	2:45-3:00pm	Break
11:00-11:05am	3:00-3:05pm	Q&A Received Via Chat Box
11:05-11:50am	3:05-3:50pm	SDWARS and UCMR 5 Reporting Requirements
11:50am-12:10pm	3:50-4:10pm	Process for EPA Approval of Laboratories to Support UCMR 5
12:10-12:20pm	4:10- 4:20pm	Public Access to UCMR Data
12:20-12:30pm	4:20-4:30pm	Q&A Received Via Chat Box

Webinar Tips

- Webinar Slides
 - Located under “Handouts” in the right navigation bar on your screen
 - Slides contain all content that will be discussed
- Webinar Audio
 - Listen only mode
- Webinar Support
 - Send email to UCMRWebinar@cadmusgroup.com
 - e.g., “I can hear you speaking, but I cannot see the slides.”

Questions on the Presentation

- Click on “+” next to “Questions” in the control panel (Figure 1) to submit questions/comments
 - Type a question in the box; click send (Figure 2)
- Submit general clarifying questions throughout the webinar
 - Questions will be answered in the question box throughout the presentation
 - Common questions will be answered at the end of each section

Figure 1

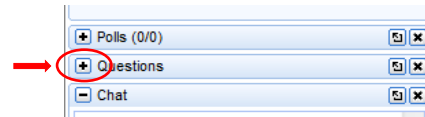
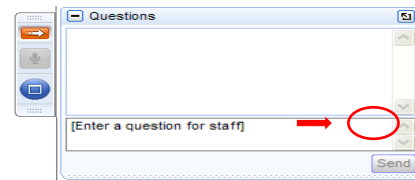


Figure 2



Specific PWS and Laboratory Questions about UCMR 5

- Please email specific details that are needed to answer your complex questions
 - Public Water System (PWS) – Specific Questions
 - UCMR5@glec.com
 - Schedule, sampling location, and UCMR 5 questions
 - UCMR_Sampling_Coordinator@epa.gov
 - PWS merged with another PWS(s), size category has changed, source water has changed, seasonal sample points
 - Laboratory – Specific Questions
 - UCMR_Lab_Approval@epa.gov
 - Laboratory merged with another laboratory, method-specific questions, proficiency testing results

General Meeting Information

- Purpose
 - Describe the requirements of UCMR 5 and provide a forum for questions
 - Monitoring requirements
 - Analytes and analytical methods
 - Representative monitoring
 - SDWARS and UCMR 5 reporting requirements
 - Laboratory approval process
 - Public access to UCMR data
- Webinar lines are muted to minimize background noise
- Q&A at the end of the webinar via the chat

Overview of the Unregulated Contaminant Monitoring Rule Program

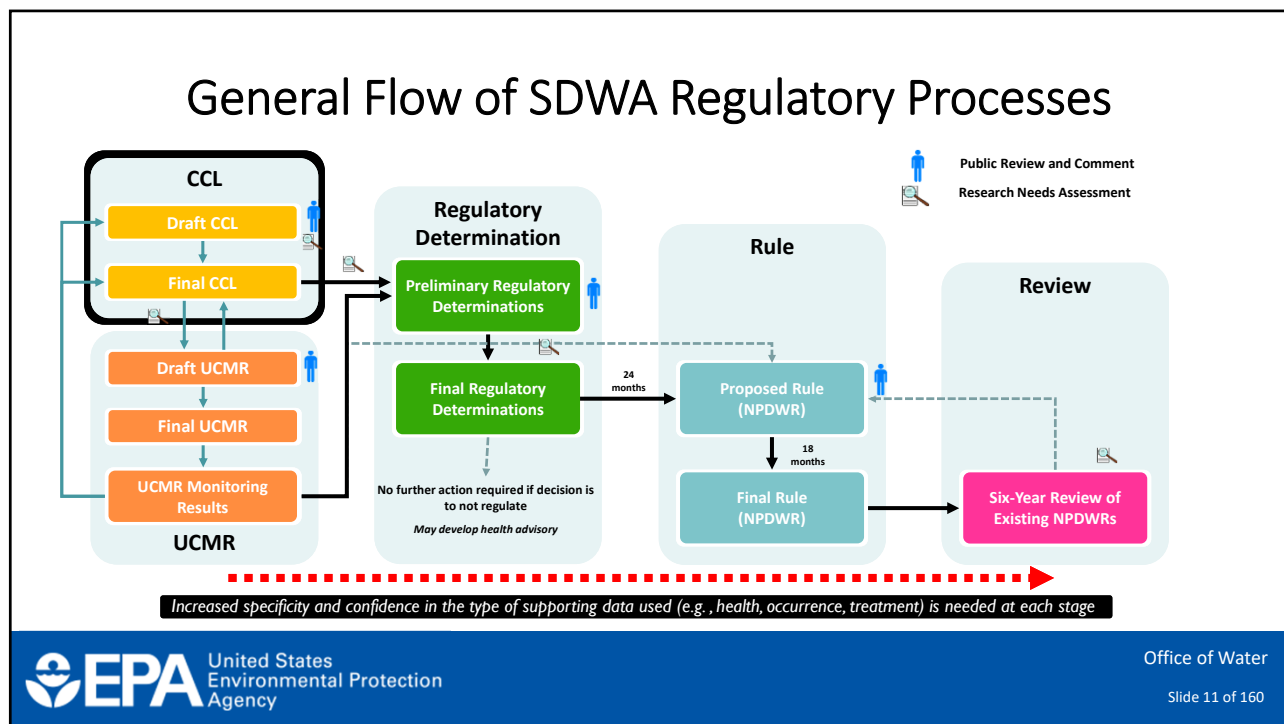
Becca Flynn Kettman, Research Fellow working with
EPA/OW/OGWDW/SRMD Technical Support Center via
Oak Ridge Institute for Science and Education

Overview

- Regulatory background for UCMR, relationship to other Safe Drinking Water Act (SDWA) programs
 - Contaminant Candidate List (CCL)
 - The Unregulated Contaminant Monitoring Rule (UCMR)
 - UCMR objective
 - History of UCMR
 - Regulatory Determinations
 - National Primary Drinking Water Regulations (NPDWRs)
 - Six-Year Review

The Safe Drinking Water Act (SDWA)

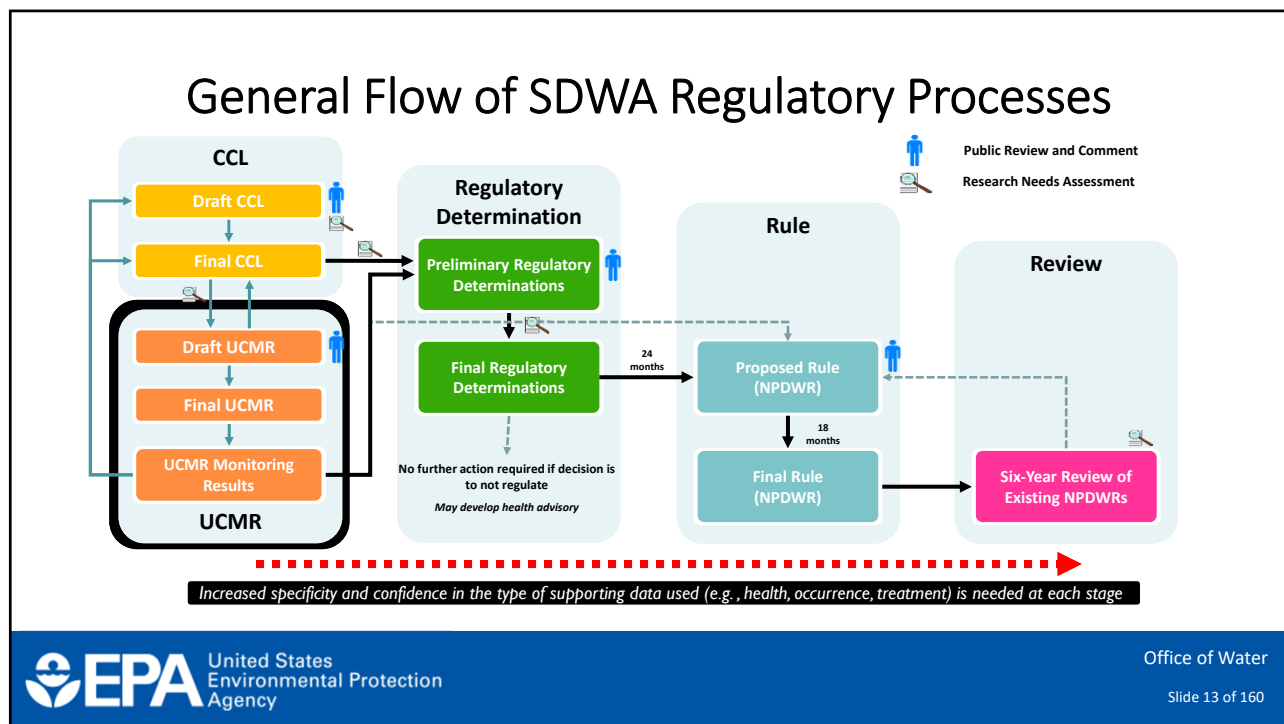
- Enacted in 1974, SDWA authorized the Environmental Protection Agency (EPA) to set enforceable health standards for contaminants in drinking water
 - National Primary Drinking Water Regulations (NPDWRs)
- The 1986 SDWA amendments were the basis for the original “UCM” program
 - State drinking water programs managed the original UCM program
 - Public water systems (PWSs) serving >500 people were required to monitor
- The 1996 SDWA amendments changed the process of developing and reviewing NPDWRs
 - CCL
 - UCMR (EPA-managed implementation)
 - Regulatory Determination
 - Six-Year Review



The Contaminant Candidate List (CCL)

- SDWA 1412(b)(1)(B) required EPA to establish a listing of contaminants that are:
 - Not subject to any proposed or promulgated NPDWR
 - Known or anticipated to occur in PWSs
 - May require regulation under SDWA
- List must be published every 5 years

The Final CCL 4 includes 97 chemicals or chemical groups and 12 microbes



The Unregulated Contaminant Monitoring Rule (UCMR)

- SDWA Section 1445(a)(2), as amended in 1996, established requirements for the UCMR Program:
 - Issue a list of no more than 30 priority unregulated contaminants in drinking water, once every 5 years
 - Require PWSs serving a population >10,000 people as well as a nationally representative sample of small PWSs serving ≤10,000 people to monitor
 - Make analytical results publicly available in the National Contaminant Occurrence Database for Drinking Water (NCOD)
 - EPA funds shipping and analytical costs for small PWSs
- EPA manages the program in partnership with States, Tribes, and Territories (hereafter referred to as “States”) that volunteer to assist

Objective of the UCMR Program

- Collect nationally representative occurrence data for unregulated contaminants that may warrant regulation under SDWA
 - Consider data collected as part of future EPA decisions on actions to protect public health
 - Provide data to States, local governments, and to the public for their use in decisions regarding public health protection

National occurrence data publicly available:

<https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule>

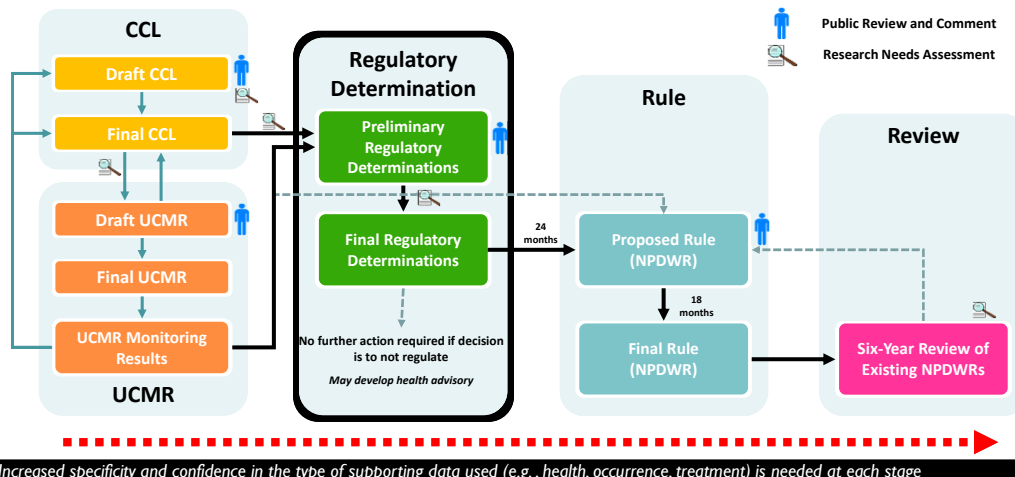
History of UCMR

- UCMR 1 (2001-2005)
 - Published in Federal Register (FR) on September 17, 1999
- UCMR 2 (2007-2011)
 - Published in FR on January 4, 2007
- UCMR 3 (2012-2016)
 - Published in FR on April 16, 2012
- UCMR 4 (2017-2021)
 - Published in FR on December 20, 2016
 - PWSs collected samples 2018-2020
- UCMR 5 (2022-2026)
 - Published on December 27, 2021 (86 FR 73131)
 - PWSs will collect samples 2023-2025

Federal Register / Vol. 86, No. 245 / Monday, December 27, 2021 / Rules and Regulations 73131			
<p>(FR Doc. 2021-27156 Filed 12-23-21; 8:45 am)</p> <p>BILLING CODE 6560-50-P</p> <p>ENVIRONMENTAL PROTECTION AGENCY</p> <p>40 CFR Part 141</p> <p>[EPA-HQ-OW-2020-0630; FRL-6791-03-OW]</p> <p>RIN 2040-AF89</p> <p>Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 5) for Public Water Systems and Announcement of Public Meetings</p> <p>AGENCY: Environmental Protection Agency (EPA).</p> <p>ACTION: Final rule and notice of public meetings.</p>			
<p>available electronically through https://www.regulations.gov.</p> <p>FOR FURTHER INFORMATION CONTACT: Brenda D. Bowden, Standards and Risk Management Division (SRMD), Office of Ground Water and Drinking Water (OGWDW) (MS 140), Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268; telephone number: (513) 569-7961; email address: brenda.bowden@epa.gov; or Melissa Simic, SRMD, OGWDW (MS 140), Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268; telephone number: (513) 569-7864; email address: melissa.simic@epa.gov.</p> <p>For general information, visit the Ground Water and Drinking Water web page at: https://www.epa.gov/ground-water-and-drinking-water.</p>			
<p>IV. Description of Final Rule and Summary of Responses to Public Comments</p> <p>A. What contaminants must be monitored under UCMR 5?</p> <p>1. This Final Rule</p> <p>2. Summary of Major Comments and EPA Responses</p> <p>a. Aggregate PFAS Measure</p> <p>b. <i>Legionella Pneumophila</i></p> <p>c. <i>Haloononitriles</i></p> <p>d. 1,2,3-Trichloropropane</p> <p>B. What is the UCMR 5 sampling design?</p> <p>1. This Final Rule</p> <p>2. Summary of Major Comments and EPA Responses</p> <p>C. What is the sampling frequency and timing?</p> <p>1. This Final Rule</p> <p>2. Summary of Major Comments and EPA Responses</p> <p>D. Where are the sampling locations and what is representative monitoring?</p> <p>1. This Final Rule</p> <p>2. Summary of Major Comments and EPA Responses</p>			

Each new UCMR cycle is established via a revision to the rule for the ongoing/preceding cycle

General Flow of SDWA Regulatory Processes

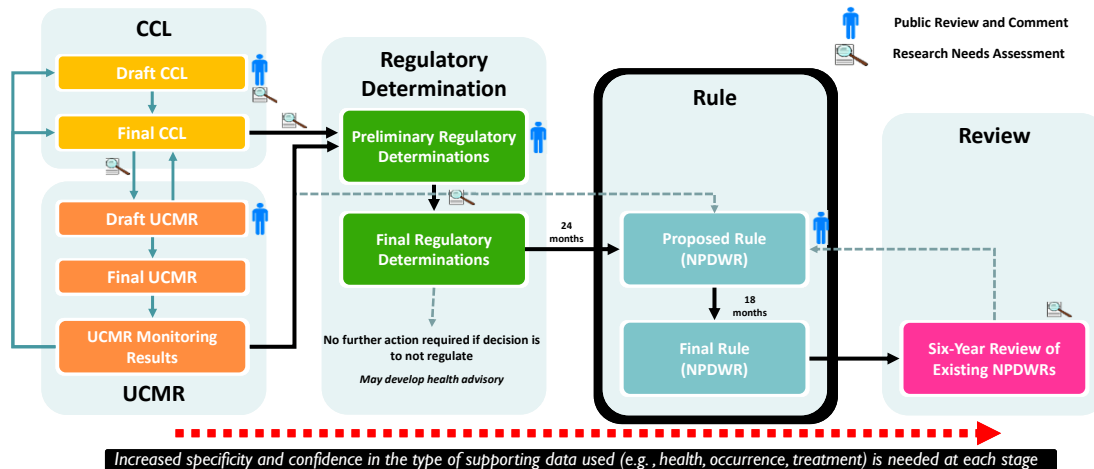


Regulatory Determinations

- Every five years, the Administrator shall, after notice of the preliminary determination and opportunity for public comment, for not fewer than five contaminants included on the CCL, make determinations on whether to regulate such contaminants
- SDWA requires EPA to publish a maximum contaminant level goal (MCLG) and promulgate an NPDWR for a contaminant if the Administrator determines that:
 1. The contaminant may have an **adverse effect** on the health of persons;
 2. The contaminant is **known to occur or there is a substantial likelihood** that the contaminant will occur in PWSs with a frequency and at levels of public health concern; **and**
 3. In the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by PWSs

– SDWA Section 1412(b)(1)

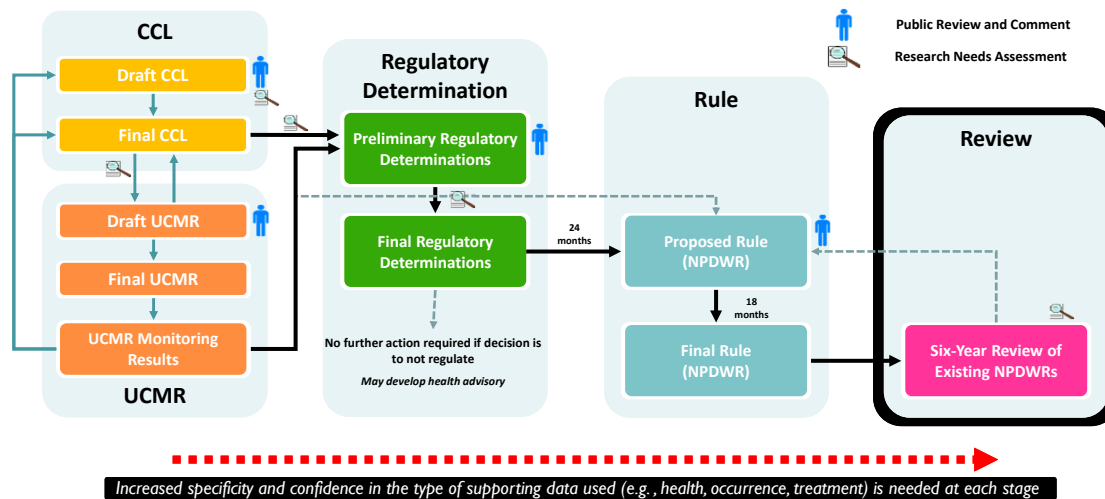
General Flow of SDWA Regulatory Processes



National Primary Drinking Water Regulations (NPDWRs)

- For each contaminant that the Administrator determines to regulate, the Administrator shall publish MCLGs and promulgate, by rule, NPDWRs. The Administrator shall:
 - Propose the MCLG and NPDWRs for a contaminant no later than 24 months after the determination to regulate
 - Publish an MCLG and promulgate an NPDWR within 18 months after the proposal thereof
- An NPDWR shall take effect three years after the date on which the regulation is promulgated. The Administrator, or a State, may allow this period to be extended up to two additional years if it determines that additional time is necessary for capital improvements

General Flow of SDWA Regulatory Processes



Six-Year Review

- SDWA Section 1412(b)(9) requires review and revision, as appropriate, of each NPDWR no less often than every six years. The review includes:
 - Re-evaluation of health effects, occurrence, exposure, analytical methods, treatment feasibility, risk-balancing, and implementation issues
- Any revision of an NPDWR shall maintain, or provide for greater, protection of the health of people

Overview of UCMR 5

Brenda Bowden, U.S. EPA
Office of Ground Water and Drinking Water
Standards and Risk Management Division
Technical Support Center



Office of Water

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Overview

- America's Water Infrastructure Act (AWIA)
- National Defense Authorization Act (NDAA)
- Sampling and statistical design
- PWS types
- UCMR monitoring tiers
- Notifications
- Sampling schedules
- Sampling frequency and locations
- Timeline of activities
- Implementation roles



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America's Water Infrastructure Act (AWIA) of 2018

- SDWA was amended in 2018 by Public Law 115-270
 - AWIA Section 2021, enacted October 23, 2018
- Key changes to UCMR (SDWA Section 1445(j)):
 - Require PWSs serving between 3,300 and 10,000 people to monitor
 - Ensure that only a representative sample of PWSs serving <3,300 people monitor
- Limitations:
 - Subject to the availability of appropriations and sufficient laboratory capacity
- Under the AWIA provisions, EPA continues to be responsible for all sample shipping and analytical costs associated with monitoring at systems serving ≤10,000 people

National Defense Authorization Act (NDAA) for Fiscal Year 2020

- Section 7311 of the NDAA (Public Law 116-92) requires EPA to include all per- and polyfluoroalkyl substances (PFAS) in UCMR 5 for which a drinking water method has been validated by the Administrator and that are not subject to an NPDWR

Sampling and Statistical Design

- Sampling design has been vetted with stakeholders and peer-reviewed
- Data Quality Objectives for the Representative Sample of PWSs
 - Provides occurrence data for unbiased national exposure estimates
- The statistical design:
 - Stratifies by PWS size and source water type
 - Allocates PWSs across the strata proportional to population served with at least two PWSs allocated to each State

Selection of Nationally Representative PWSs

The document "Selection of Nationally Representative Public Water Systems for the Unregulated Contaminant Monitoring Rule: 2021 Update" is available in the docket

- Updates the 2001 statistical design document
- Describes:
 - Refinement to the UCMR program monitoring tiers
 - Selection of representative PWSs for Assessment Monitoring and Survey Monitoring
 - Changes in statistical design to address the AWIA requirements
 - Development of State Monitoring Plans that identify specific PWSs participating in UCMR and establish sampling schedules

PWS Types

- **Public Water System (PWS):** provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year
 - **Community Water System (CWS):** PWS that supplies water to the same population year-round
 - **Non-Transient Non-Community Water System (NTNCWS):** PWS that supplies water to at least 25 of the same people at least six months per year but not year-round (e.g., schools)
 - **Transient Non-Community Water System (TNCWS)** (not generally included in UCMR sampling and not included in UCMR 5): PWS that provides water where people do not remain for long periods of time (e.g., gas stations, campgrounds)

UCMR Monitoring Tiers

- UCMR approach relies on using one or more of 3 monitoring tiers:
 - Assessment Monitoring (primary approach to-date)
 - Screening Survey
 - Pre-Screen Testing
- Based on:
 - Availability and complexity of analytical methods
 - Laboratory capacity
 - Sampling frequency
 - Characteristics of PWSs performing the monitoring
 - Other considerations (e.g., cost/burden)
- Assessment Monitoring is the only tier under UCMR 5

Assessment Monitoring

- Primary objective is to determine national contaminant occurrence in PWS-supplied drinking water for the purpose of estimating national population exposure
- Primary tier and largest in scope
- Generally relies on analytical methods that use more common techniques and are expected to be widely available
- Consistent with the AWIA provisions, monitoring for UCMR 5 includes:
 - Small
 - Nationally representative sample of 800 systems serving <3,300 people
 - Census of systems serving 3,300 to 10,000 people, if they are notified and confirmed by EPA
 - Large
 - Census of systems serving >10,000 people
- Sampling design is population weighted
- **Total number of systems: ~10,300**

PWSs Expected to Participate in UCMR 5 Monitoring

System Size Category (Number of people served)	Monitoring Design (CWSs and NTNCWSs) ²	Total Number of Systems per Size Category
Small Systems¹ (fewer than 3,300)	Nationally representative sample	800
Small Systems¹ (3,300 – 10,000)	All systems, if confirmed by EPA	5,147 ³
Large Systems (10,001 and over)	All systems	4,364 ³
TOTAL		10,311

¹ This requirement is based on the availability of appropriations and sufficient laboratory capacity

² Community Water Systems (CWSs), Non-Transient Non-Community Water Systems (NTNCWSs)

³ Counts are approximate

PWS Notifications

- Notifications were sent to ALL PWSs subject to UCMR 5 (~10,300)
- Notifications informed PWSs of their UCMR requirements and included:
 - Instructions on how to access EPA's web-based data reporting system, the Safe Drinking Water Accession and Review System 5 (SDWARS 5)
 - Actions that ALL PWSs must take in SDWARS 5 to prepare for their monitoring
- Most PWSs received their notification through email from UCMR@epacdx.net during the week of January 18th, 2022. Please check your junk/spam folders. Emails were sent to multiple contacts at each PWS, if available.
- PWSs without a valid email address were physically mailed a notification the week of February 22, 2022. The letter was addressed to the PWS, not a specific person.

Small PWS Notifications - Confirmed

- EPA has funding available to support monitoring at the representative national sample of 800 PWSs serving <3,300 people and has notified those systems that their participation is confirmed
- EPA also has funding available to support monitoring at ~400 randomly selected PWSs serving 3,300 to 10,000 people and has similarly notified those systems
- Prioritizing these systems allows EPA to ensure a national random sample for small PWSs serving ≤10,000 people, irrespective of participation by other small PWSs

Other Small PWS Notifications – Tentative

- As described in the final UCMR 5, EPA's ability to support monitoring at the other small PWSs serving 3,300 to 10,000 people depends on additional appropriations in fiscal year 2022 and future years. With the expectation that those systems will participate in UCMR 5, but allowing for the funding uncertainty, EPA has notified those PWSs of their participation in January and February 2022. Those notifications included the following additional information:
 - Those PWSs will be notified approximately 6 months prior to their scheduled sampling year to confirm their participation in UCMR 5 (i.e., by July 1, 2022, for 2023 sampling; by July 1, 2023, for 2024 sampling; and by July 1, 2024, for 2025 sampling)
 - Those PWSs must still prepare for their tentatively scheduled sampling and **must complete** the pre-sampling reporting requirements in SDWARS 5 by **December 31, 2022**

Sampling Schedules

- EPA initially drafted schedules for large and small PWSs
- Partnered State had opportunity to review and modify schedules for large and small PWSs during review of State Monitoring Plan
- Large PWSs have opportunity to review and modify their schedule through December 31, 2022
 - Starting in 2023, large PWSs must contact EPA at UCMR_Sampling_Coordinator@epa.gov to request schedule changes and provide a reason
- Small PWSs may request that EPA modify their schedule

Sampling Frequency and Locations

- PWSs will be required to collect samples based on the traditional UCMR sampling frequency and timeframe
- UCMR 5 samples will be collected at entry points to the distribution system (EPTDS) for all contaminants

Water Source	Timeframe	Frequency
Surface water, ground water under the direct influence of surface water, or mixed sources systems	Year-Round	Systems must monitor 4 times during a consecutive 12-month monitoring period. Sample events must occur 3 months apart
Ground water systems	Year-Round	Systems must monitor 2 times during a consecutive 12-month monitoring period. Sample events must occur 5-7 months apart

Timeline of Activities

2018	2019	2020	2021
<div style="display: flex; align-items: center; justify-content: space-between;"> ← UCMR 5 Development → </div>			Publish Final Rule
Method Development Stakeholder Meeting (June 6, 2018)	Pre-Proposal Stakeholder Meeting (July 16, 2019)	Develop Proposal	Publish Proposal (March 2021) Stakeholder Meeting (April 6 and 7, 2021) 60-day Public Comment Period Publish UCMR 5 Final Rule (December 27, 2021 (86 FR 73131)) →
		Post-Proposal: Initiate Implementation <ul style="list-style-type: none"> • Laboratory Approval Program • SDWARS registration/notification/inventory for PWSs • Partnership Agreements, State Monitoring Plans, PWS Inventory • Ground Water Representative Monitoring Plans (GWRMPs) submitted to EPA six months prior to the PWS's scheduled sample collection • Outreach/trainings 	

Timeline of Activities

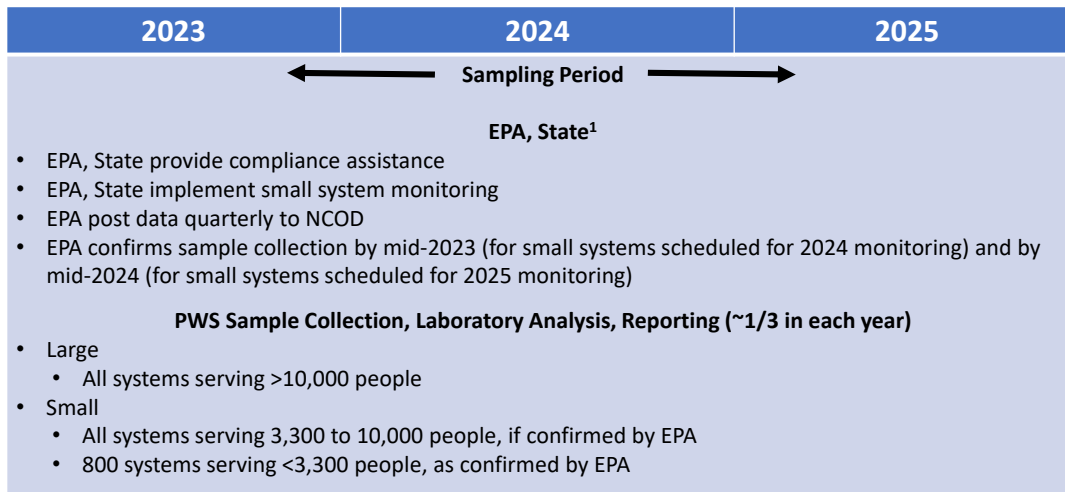
2022	2023	2024	2025	2026
Pre-sampling Activity by EPA, States	← Sampling Period →			Post-sampling Activity by PWSs, Laboratories
Pre-sampling Activity by PWSs	EPA, State Implementation Activities			Post-sampling Activity by EPA
	PWS Sample Collection, Laboratory Analysis, Reporting (~1/3 in each year)			

Pre-Sampling Activities

2022
<p>EPA, States¹</p> <ul style="list-style-type: none"> EPA manages Laboratory Approval Program EPA organizes Partnership Agreements and State Monitoring Plans EPA/States notify affected PWSs of UCMR 5 monitoring plan following final rule publication EPA/States review GWRMP submittals EPA conducts outreach/trainings EPA confirms future sample collection plan by mid-2022 with small systems scheduled for 2023 monitoring <p>PWSs</p> <ul style="list-style-type: none"> Register for a SDWARS account and provide sampling location inventory and contact information

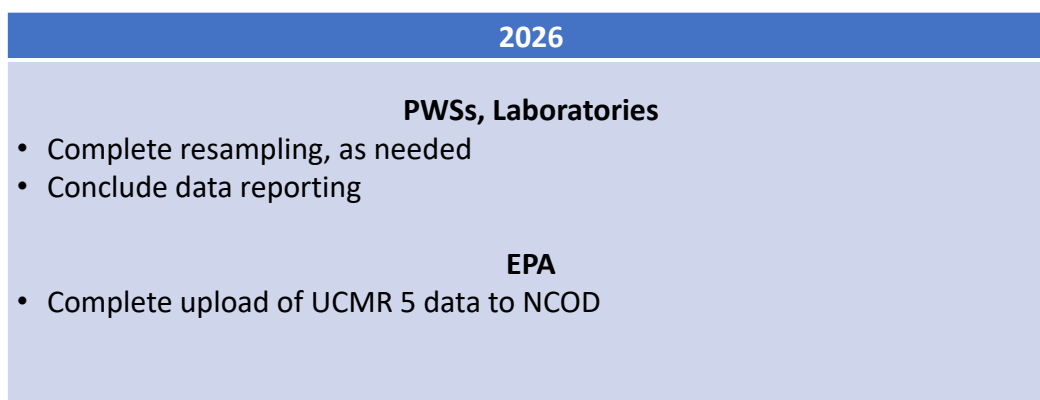
¹ State participation is defined in voluntary Partnership Agreements with EPA

Implementation Activities



¹ State participation is defined in voluntary Partnership Agreements with EPA

Post-Sampling Activities



EPA Implementation Roles

- Small PWS support:
 - Maintain laboratory and implementation contracts to support UCMR
 - Compile contact and inventory information
 - Manage sample kit distribution and tracking
 - Review data and report to NCOD
- Large and Small PWS support:
 - Extract data from SDWARS to review for completeness and reporting to NCOD
 - Support the SDWARS reporting system and users
 - Update PWS inventory and schedules as needed
 - Provide technical assistance
 - Use SDWARS for real-time communication and outreach

EPA Implementation Roles (Cont.)

- State, PWS, and Laboratory support:
 - Review and track rule applicability and PWS sampling progress
 - Coordinate Laboratory Approval Program
 - Provide technical support
 - Coordinate outreach
 - Lead compliance assistance

Extended UCMR Implementation Team

- EPA Office of Ground Water and Drinking Water (OGWDW)
 - Lead organization for direct-implementation of rule
- EPA Regional Offices
 - Coordinate State Partnership Agreements
 - Assist States and PWSs with UCMR requirements, compliance assistance, and enforcement
- Partnering States
 - Support various aspects of implementation based on State-specific interest

States' Role in the UCMR Program

- Participation by States is voluntary and documented via Partnership Agreements
- States help EPA implement the UCMR program and ensure high data quality
- Partnership Agreement activities can include any or all of the following:
 - Review and revise State Monitoring Plans
 - Provide inventory and contact information for small and large PWSs
 - Review proposed Ground Water Representative Monitoring Plans (GWRMPs)
 - Provide compliance assistance (e.g., notify and instruct systems)
 - Collect samples
 - Other

UCMR 5 is the highest “partnered” cycle. Thank you for the large amount of State-provided data.

EPA Responsibilities on behalf of Small PWSs

- EPA funding covers costs associated with analyses and shipping for PWSs serving $\leq 10,000$ people
- EPA engages States and PWSs to collect samples
- EPA coordinates sample analyses with contracted laboratories and funds the analyses
- EPA examines the results along with quality control (QC) data and makes results available to the respective State and PWS via SDWARS

Large PWS Responsibilities

- PWSs serving $> 10,000$ people are responsible for the costs associated with analyses
- PWS coordinates sample shipping and analyses with an EPA-approved UCMR 5 laboratory
- Laboratories post the data to SDWARS
- PWS reviews and can act upon (e.g., approve) data in SDWARS
- States have access to results following large PWS review period

Frequently Asked Question



What does the notification email look like?

From: ucmr@epacdx.net <ucmr@epacdx.net>
Sent: Sunday, January 23, 2022 10:57 AM
To: [REDACTED]
Subject: RE: Medium PWS Registration for U.S. EPA's Fifth Unregulated Contaminant Monitoring Rule

RE: Medium PWS Registration for U.S. EPA's Fifth Unregulated Contaminant Monitoring Rule

[REDACTED]

Your CRK is [REDACTED]

Dear Public Water System:

Our records indicate that your public water system (PWS) is subject to the requirements of the next [Unregulated Contaminants Monitoring Rule \(UCMR 5\)](#), published on December 27, 2021 (86 FR 73131). UCMR 5 requires certain PWSs to collect drinking water samples for 29 per- and polyfluoroalkyl substances (PFAS) and lithium analysis during a 12-month period between 2023 and 2025. This notification provides you with information to access the UCMR 5 internet-based reporting system, the Safe Drinking Water Accession and Review System (SDWARS 5), so that your account will be ready to support your pre-sampling and monitoring responsibilities.

The Safe Drinking Water Act (SDWA) requires the U.S. Environmental Protection Agency (EPA) to establish criteria for a program to monitor unregulated contaminants in drinking water and to identify contaminants to be monitored every five years. The UCMR dataset is one

Frequently Asked Question



Do the small PWSs have to pay for the monitoring if EPA does not receive the necessary appropriations?

No. If EPA does not receive appropriations to support the full scope of UCMR small system monitoring, EPA will reduce the scope of that monitoring for the PWSs serving 3,300 to 10,000 people.

Frequently Asked Question



How does EPA determine if a PWS monitors under UCMR 5?

The determination of whether a PWS is required to monitor under this rule is based on the type of system (e.g., community water system, non-transient non-community water system, etc.), and its retail population, as indicated by SDWIS/Fed on February 1, 2021, or subsequent corrections from the State.

Frequently Asked Question



I am a wholesaler with no retail population, am I subject to UCMR 5?

No. UCMR 5 applies to public water systems (PWSs), defined as systems that provide water for human consumption through pipes, or constructed conveyances, to at least 15 service connections or that regularly serve an average of at least 25 individuals daily at least 60 days out of the year. Under CFR 141.35(a), as revised by EPA for UCMR 5, a PWS' "population served" is defined as the retail population served directly by the PWS as reported to the Federal Safe Drinking Water Information System (SDWIS/Fed).

Frequently Asked Question



I purchase 100% of my water, am I subject to UCMR 5?

Yes. Purchasing 100% of your water that is supplied to customers does not exclude a PWS from UCMR 5. 40 CFR 141.40(a)(2) specifies UCMR 5 applicability. PWSs that purchase any of their water supply (i.e., 0-100%) and serve more than 10,000 people are required to monitor. Systems that serve 3,300 to 10,000 people are required to monitor if appropriations are provided to EPA. Systems that have a retail population of <3,300 are only required to monitor if they are selected as part of the nationally representative sample and notified by EPA.

Frequently Asked Question



I receive water from another water system via a consecutive connection. Where should I take my entry point to the distribution system (EPTDS) sample?

EPA advises samplers to collect from the closest location to the EPTDS that can be readily, safely, and consistently accessed. The PWSs should contact the UCMR Message Center (ucmr5@glec.com) with additional questions/concerns.

UCMR 5 Contaminants, Analytical Methods, and Related Information

Melissa Simic, U.S. EPA
Office of Ground Water and Drinking Water
Standards and Risk Management Division
Technical Support Center



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Overview

- Contaminants
 - Analytical methods
 - Minimum reporting levels (MRLs)
 - Health information
- Information Compendium



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UCMR 5 Contaminants: 29 PFAS + Lithium

EPA Method 533 (PFAS monitored under UCMR 3 are in bold)			
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	Perfluorohexanoic acid (PFHxA)
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	Perfluorobutanoic acid (PFBA)	Hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	Perfluorohexanesulfonic acid (PFHxS)
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	Perfluoroheptanesulfonic acid (PFHpS)	Perfluorobutanesulfonic acid (PFBS)	Perfluorononanoic acid (PFNA)
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluorodecanoic acid (PFDA)	Perfluorooctanesulfonic acid (PFOS)
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	Perfluoropentanoic acid (PFPeA)	Perfluorododecanoic acid (PFDoA)	Perfluorooctanoic acid (PFOA)
Perfluoro-3-methoxypropanoic acid (PFMPA)	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	Perfluoroheptanoic acid (PFHpA)	Perfluoroundecanoic acid (PFUnA)
Perfluoro-4-methoxybutanoic acid (PFMBA)			
PFAS Analytes Unique to EPA Method 537.1			
N-ethyl perfluorooctanesulfonamidoacetic acid (NETFOSAA)	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	Perfluorotetradecanoic acid (PFTA)	Perfluorotridecanoic acid (PFTDA)
EPA Method 200.7 or Alternate SM 3120 B or ASTM D1976-20			
Lithium			



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Per- and Polyfluoroalkyl Substances (PFAS)

EPA Method 533 ¹ (SPE LC/MS/MS) Location: EPTDS ²			
Analyte	CASRN ³	MRL ⁴	Health Information
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	763051-92-9	0.005 µg/L	No EPA health assessment
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	0.005 µg/L	No EPA health assessment
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	0.003 µg/L	No EPA health assessment
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	0.005 µg/L	No EPA health assessment
4,8-dioxa-3H-perfluorononanoic acid (ADONA) ⁵	919005-14-4	0.003 µg/L	No EPA health assessment

¹ Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry, November 2019

² Entry point to the distribution system

³ Chemical Abstracts Service Registry Number

⁴ Minimum Reporting Level

⁵ 4,8-dioxa-3H-perfluorononanoic acid is the parent acid form of the ammonium salt



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Per- and Polyfluoroalkyl Substances (PFAS)

EPA Method 533 (SPE LC/MS/MS) Location: EPTDS			
Analyte	CASRN	MRL	Health Information
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	0.002 µg/L	No EPA health assessment
hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	13252-13-6	0.005 µg/L	2021 EPA Toxicity Values ¹ : Chronic Reference Dose (RfD) = 0.000003 mg/kg-day Subchronic RfD = 0.00003 mg/kg-day
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	151772-58-6	0.02 µg/L	No EPA health assessment
perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	113507-82-7	0.003 µg/L	No EPA health assessment

¹ Final EPA Toxicity Assessment, 2021; human health subchronic and chronic toxicity values

Per- and Polyfluoroalkyl Substances (PFAS)

EPA Method 533 (SPE LC/MS/MS) Location: EPTDS			
Analyte	CASRN	MRL	Health Information
perfluoro-3-methoxypropanoic acid (PFMPA)	377-73-1	0.004 µg/L	No EPA health assessment
perfluoro-4-methoxybutanoic acid (PFMBA)	863090-89-5	0.003 µg/L	No EPA health assessment
perfluorobutanesulfonic acid (PFBS)	375-73-5	0.003 µg/L	2021 EPA Toxicity Values ¹ : Chronic RfD = 0.0003 mg/kg-day (thyroid) Subchronic RfD = 0.001 mg/kg-day (thyroid)
perfluorobutanoic acid (PFBA)	375-22-4	0.005 µg/L	EPA Integrated Risk Information System (IRIS) assessment in process ²

¹ Final EPA Toxicity Assessment, 2021; human health subchronic and chronic toxicity values

² [PFBA IRIS assessment in process](#)

Per- and Polyfluoroalkyl Substances (PFAS)

EPA Method 533 (SPE LC/MS/MS) Location: EPTDS			
Analyte	CASRN	MRL	Health Information
perfluorodecanoic acid (PFDA)	335-76-2	0.003 µg/L	EPA IRIS assessment in process ¹
perfluorododecanoic acid (PFDoA)	307-55-1	0.003 µg/L	No EPA health assessment
perfluoroheptanesulfonic acid (PFHpS)	375-92-8	0.003 µg/L	No EPA health assessment
perfluoroheptanoic acid (PFHpA)	375-85-9	0.003 µg/L	No EPA health assessment
perfluorohexanesulfonic acid (PFHxS)	355-46-4	0.003 µg/L	ATSDR ² : Minimal Risk Level = 0.00002 mg/kg-day (intermediate duration); drinking water concentrations = 0.517 µg/L (adult) and 0.140 µg/L (child) EPA IRIS assessment in process ³

¹ [PFDA IRIS assessment in process](#)² Agency for Toxic Substances and Disease Registry (ATSDR), 2021: "Toxicological Profile for Perfluoroalkyls"³ [PFHxS IRIS assessment in process](#)

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Per- and Polyfluoroalkyl Substances (PFAS)

EPA Method 533 (SPE LC/MS/MS) Location: EPTDS			
Analyte	CASRN	MRL	Health Information
perfluorohexanoic acid (PFHxA)	307-24-4	0.003 µg/L	EPA IRIS assessment in process ¹
perfluorononanoic acid (PFNA)	375-95-1	0.004 µg/L	ATSDR ² : Minimal Risk Level = 0.000003 mg/kg-day (intermediate duration); drinking water concentrations = 0.078 µg/L (adult) and 0.021 µg/L (child) EPA IRIS assessment in process ³
perfluoropentanesulfonic acid (PFPeS)	2706-91-4	0.004 µg/L	No EPA health assessment
perfluoropentanoic acid (PFPeA)	2706-90-3	0.003 µg/L	No EPA health assessment
perfluoroundecanoic acid (PFUnA)	2058-94-8	0.002 µg/L	No EPA health assessment

¹ [PFHxA IRIS assessment in process](#)² Agency for Toxic Substances and Disease Registry (ATSDR), 2021: "Toxicological Profile for Perfluoroalkyls"³ [PFNA IRIS assessment in process](#)

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Per- and Polyfluoroalkyl Substances (PFAS)

EPA Method 533 (SPE LC/MS/MS)

Location: EPTDS

Analyte	CASRN	MRL	Health Information
perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.004 µg/L	EPA HA ¹ : 0.07 µg/L (chronic); EPA HESD ² : RfD = 0.00002 mg/kg-day Health Canada ³ : MAC = 0.6 µg/L ATSDR ⁴ : Minimal Risk Level = 0.000002 mg/kg-day (intermediate duration); drinking water concentrations = 0.052 µg/L (adult) and 0.014 µg/L (child)
perfluorooctanoic acid (PFOA)	335-67-1	0.004 µg/L	EPA HA ¹ : 0.07 µg/L (chronic); EPA HESD ² : RfD = 0.00002 mg/kg-day; 10 ⁻⁴ Cancer Risk = 50 µg/L Health Canada ³ : MAC = 0.2 µg/L ATSDR ⁴ : Minimal Risk Level = 0.000003 mg/kg-day (intermediate duration); drinking water concentrations = 0.078 µg/L (adult) and 0.021 µg/L (child)

¹ EPA Health Advisory for PFOA and PFOS, 2016; Non-cancer health value; Not federally enforceable

² EPA Health Effects Support Document (HESD), 2016; Not federally enforceable; RfD subject to change based on current [EPA reevaluation](#) of toxicity information for PFOS and PFOA

³ Health Canada Guidelines for Canadian Drinking Water Quality, 2018, Maximum Acceptable Concentration (MAC); Not federally enforceable

⁴ Agency for Toxic Substances and Disease Registry (ATSDR), 2021: "Toxicological Profile for Perfluoroalkyls"



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Per- and Polyfluoroalkyl Substances (PFAS)

Using EPA Method 537.1¹ (LC/MS/MS)

Location: EPTDS

Analyte	CASRN	MRL	Health Information
n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2991-50-6	0.005 µg/L	No EPA health assessment
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2355-31-9	0.006 µg/L	No EPA health assessment
perfluorotetradecanoic acid (PFTA)	376-06-7	0.008 µg/L	No EPA health assessment
perfluorotridecanoic acid (PFTDA)	72629-94-8	0.007 µg/L	No EPA health assessment

¹ Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS), Version 2.0, March 2020



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Lithium (Metal/Pharmaceutical)

EPA Method 200.7¹ (ICP-AES), SM 3120 B², ASTM D1976-20³

Location: EPTDS

Analyte	CASRN	MRL	Health Information
lithium	7439-93-2	9 µg/L	EPA Draft CCL 5 Health Reference Level ⁴ = 10 µg/L; EPA PPRTV ⁵ : p-RfD = 0.002 mg/kg-day (Chronic and Subchronic); lower bound of the therapeutic serum concentration range selected as basis

¹ Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 4.4., 1994

² Standard Methods (SM) 3120 B (2017) or SM Online 3120 B-99 (1999 [Revised December 14, 2020])

³ ASTM International (ASTM) D1976-20, 2020

⁴ Draft CCL 5 Contaminant Information Sheets, 2021; Non-cancer health value; not federally enforceable

⁵ EPA Provisional Peer-Reviewed Toxicity Value (PPRTV), 2008

Information Compendium for Contaminants

- Provides supporting information for the 30 UCMR 5 contaminants
- Used data sources from the Contaminant Candidate List (CCL) program to inform
 - Background and Use
 - Health Effects
 - Occurrence in Water
 - Production, Release, and Usage
 - Persistence and Mobility
- Outlines the contaminant prioritization process
- Summarizes the data sources reviewed
- Includes a comprehensive list of the other contaminants that were considered

The document "Information Compendium for Contaminants for the Final Unregulated Contaminant Monitoring Rule (UCMR 5)" is available in the docket

Frequently Asked Question



Can a PWS use State-required PFAS monitoring results for UCMR 5?

PWSs may be able to conduct PFAS sampling that meets the needs of both State-required and UCMR 5 monitoring, with the understanding that UCMR 5 requirements must be met including:

- PFAS samples must be analyzed by an EPA-approved UCMR 5 laboratory using EPA Method 533 and Method 537.1 to conduct the analysis for the respective PFAS, as required under UCMR 5.
- Sampling must take place during the 2023-2025 UCMR 5 monitoring period and follow UCMR 5 sampling frequency requirements
- State-required MRLs must be equal to or lower than the UCMR 5 MRLs

EPA offers flexibility for PWSs to reschedule their UCMR 5 monitoring, and PWSs may do so to coordinate it with their State-required monitoring. PWSs wishing to conduct “dual purpose” monitoring (i.e., concurrently meeting the State and UCMR 5 needs) may contact their State or EPA, as appropriate, if there are questions about whether both requirements are being met.



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Frequently Asked Question



Will EPA provide materials specific to sampling procedures for PFAS?

The Agency will prepare outreach material for PWSs on PFAS sampling for UCMR 5, including instructions to reduce cross-contamination and demonstrating UCMR 5 sampling procedures. EPA will provide this material in the UCMR 5 Laboratory Manual, SDWARS 5 User Guide, and in future stakeholder meeting materials.



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Frequently Asked Question



What is the approximate cost for a laboratory to analyze one UCMR 5 sample set?

Method Type	Average Analysis Cost per UCMR 5 Sample ¹
25 PFAS using EPA Method 533 (Solid Phase Extraction (SPE) Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS))	\$376
4 PFAS using EPA Method 537.1 Solid Phase Extraction (SPE) Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS))	\$302
1 Metal using EPA Method 200.7 (Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES)) or alternate SM ² or ASTM ³	\$62
Total⁴	\$740

¹ The average analytical cost was determined by averaging estimates provided by four drinking water laboratories. Data can be found in the "Information Collection Request."

² Standard Method (SM) 3120 B or SM 3120 B-99

³ ASTM International (ASTM) D1976-19

⁴ If a PFAS sample is positive, the Field Reagent Blank (FRB) must be analyzed, resulting in higher aggregate analytical costs per sample set. PWSs may incur a cost of up to \$1,333, if the FRB for both EPA Method 533 and 537.1 must be analyzed.

Representative Samples (PWS Options)

Derek Losh, U.S. EPA
Office of Ground Water and Drinking Water
Standards and Risk Management Division
Technical Support Center

Overview

- Ground Water Representative Monitoring Plan (GWRMP) Program
 - Option for systems with ground water sources to reduce monitoring
- Representative Sampling from Wholesaler Connections
 - Option for systems that purchase water with multiple connections from the same wholesaler to reduce monitoring

Ground Water Representative Monitoring Plan (GWRMP) Program

- Applications from PWSs are now being accepted
- PWSs with multiple ground water EPTDSs can sample at representative locations rather than at each EPTDS, with EPA approval
- A representative EPTDS is associated with a ground water well that:
 - Is in close proximity to and draws from the same source as the wells it represents (i.e., same aquifer)
 - Is representative of the highest annual volume and most consistently active wells
 - Will be in use at the scheduled sampling time

The document "Instructions for Preparing a Ground Water Representative Monitoring Plan for the Unregulated Contaminant Monitoring Rule" is available in the docket

GWRMP Program

- Key GWRMP proposal requirements:
 - **Site map** showing the locations of all wells and the proposed representative wells. Generally, represented wells should be located within a mile of the representative well
 - Uniform **contamination susceptibility** among the represented wells and their representative well
 - Historical **ground water quality data** demonstrating similarity among the represented wells and the representative well
 - All of the wells have either the same treatment or no treatment

GWRMP Program

- GWRMPs approved under prior UCMRs
 - May be used for UCMR 5 if there are no significant changes in the configuration of the ground water EPTDSs since prior approval
 - PWS must send a message to UCMR_Sampling_Coordinator@epa.gov to confirm intention to use the previous GWRMP
- Amending GWRMPs
 - Requests for change must also be submitted to UCMR_Sampling_Coordinator@epa.gov
 - If new wells are being added to the plan, an amendment request must be accompanied by the supporting information discussed on the preceding slides

GWRMP Program

- PWSs must prepare proposals for any new GWRMPs and submit them to UCMR_Sampling_Coordinator@epa.gov **six months prior to their scheduled sample collection**
- PWSs scheduled for sample collection in 2023 are encouraged to submit plans by **December 31, 2022**, to allow time for review by EPA and, as appropriate, the State
- For more information, contact UCMR_Sampling_Coordinator@epa.gov
- To participate in the GWRMP program for UCMR 5, a PWS must:
 - Confirm use of previously-approved GWRMP,
 - Propose an amendment to a previously-approved GWRMP, *or*
 - Submit a proposal for new GWRMP

Representative Sampling from Wholesaler Connections

- PWSs that purchase water with multiple connections from the same wholesaler may select one representative connection from that wholesaler
 - Does not need EPA approval
 - Upload your representative connection to SDWARS
 - If selected representative connection is not in service at the time of sample collection, a different representative connection from the same wholesaler must be sampled

Frequently Asked Question



I have a consecutive connection with multiple connections from the same wholesaler. What do I do?

PWSs that purchase water with multiple connections from the same wholesaler may select one representative connection from that wholesaler, as specified in 40 CFR 141.40(a)(3) Table 1, footnote c. The entry point to the distribution system (EPTDS) representative sampling location must be representative of those that receive the highest annual volume. If the connection selected as the representative EPTDS is not available for sampling, the PWS must sample an alternate highest volume representative connection.

Frequently Asked Question



How does a PWS establish a GWRMP for UCMR 5?

There are three ways for a PWS to establish a GWRMP for UCMR 5. All three require the PWS to initiate the process six months prior to the PWS's scheduled sample collection date by sending an email to UCMR_Sampling_Coordinator@epa.gov.

- 1) The PWS may **use a GWRMP from a previous UCMR cycle** by emailing EPA to confirm this intention and that no significant changes have occurred to the ground water EPTDSs since the GWRMP was approved.
- 2) The PWS may **request to modify a previous GWRMP** if significant changes have occurred to the ground water EPTDSs. The PWS must email EPA all appropriate information supporting the changes, which may include a revised site map or historical water quality data, consistent with the criteria outlined in the instructions for preparing a GWRMP (available in the docket).
- 3) The PWS may **submit a proposal for a new GWRMP** by sending an email to EPA listing the proposed representative ground water sampling EPTDSs and containing all appropriate supporting information, consistent with the criteria outlined in the GWRMP instructions.

Break (15 minutes)



Specific PWS and Laboratory Questions about UCMR 5

- Please email specific details that are needed to answer your complex questions
 - Public Water System (PWS) – Specific Questions
 - UCMR5@glec.com
 - Schedule, sampling location, and UCMR 5 questions
 - [UCMR Sampling Coordinator@epa.gov](mailto:UCMR_Sampling_Coordinator@epa.gov)
 - PWS merged with another PWS(s), size category has changed, source water has changed, seasonal sample points
 - Laboratory – Specific Questions
 - [UCMR Lab Approval@epa.gov](mailto:UCMR_Lab_Approval@epa.gov)
 - Laboratory merged with another laboratory, method-specific questions, proficiency testing results

Questions on the Presentation

- Click on “+” next to “Questions” in the control panel (Figure 1) to submit questions/comments
 - Type a question in the box; click send (Figure 2)
- Submit general clarifying questions throughout the webinar
 - Questions will be answered in the question box throughout the presentation
 - Common questions will be answered at the end of each section

Figure 1

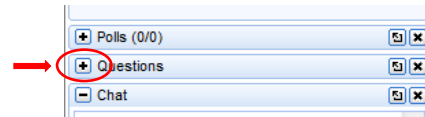
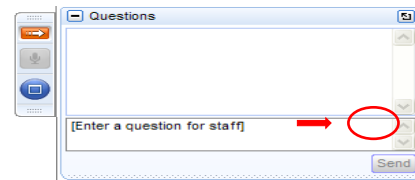


Figure 2



Break
(15 minutes)



Questions and Answers Received in Question Box



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SDWARS and UCMR 5 Reporting Requirements

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Overview

- SDWARS 5
- Central Data Exchange (CDX) account
- PWS workflow (large and small systems)
 - Notification letter and tracking
 - Updating contact/inventory/schedule
- Reporting requirements and data elements
- Timing of reporting
- Reporting State data

SDWARS 5

- Safe Drinking Water Accession and Review System (SDWARS) used by PWSs and EPA-approved UCMR 5 laboratories to report results
- Internet-based electronic reporting system that utilizes a secure access portal, the Central Data Exchange (CDX), to access
 - <https://cdx.epa.gov/>
 - <https://www.epa.gov/dwucmr/reporting-requirements-unregulated-contaminant-monitoring-rule-ucmr-5>
- SDWARS 5 user instructions and trainings for laboratories, PWSs, and States will be made available

CDX Registration

- To register to use the CDX:
 - Go to <https://cdx.epa.gov/preregistration/>
 - Enter the customer retrieval key you received by email (Sender UCMR@epacdx.net) or by physical mailing if no email address was available
 - **All systems** should have received a key; if you lost/did not receive a key, please contact [UCMR Sampling Coordinator@epa.gov](mailto:UCMR_Sampling_Coordinator@epa.gov)
 - Laboratories will receive keys upon receiving EPA approval to support UCMR 5
 - Follow the directions to complete registration
- We recommend you do this as soon as possible
 - For CDX/SDWARS 5 registration issues, please contact the CDX Help Desk at helpdesk@epacdx.net or call 1-888-890-1995

SDWARS Workflow for PWSs – Overview

Before **December 31, 2022** – Pre-Sampling Activities

- Log in to CDX and select SDWARS 5
- Select SDWARS 5 and accept your PWS' UCMR 5 notification letter
- Add/review/edit sample location inventory
- **Confirm/add physical shipping address for sampling kits (not a P.O. Box)¹**
- Add Zip Code(s) served
- **Respond to specific UCMR 5 data elements¹**
- Review sampling schedule
- Nominate additional user(s) for your PWS (optional)

¹ Applies to small PWSs only

SDWARS Workflow for Large PWSs

PWS Home
 Use the tabs at the top of the page to access Inventory, Schedule and Zip Codes.
 Use the person icon in the upper right corner to Nominate User, view the Notification Letter, view the SDWARS 5 Sitemap, go to MyCDX, go to Inbox or Logout.
 Use the Completion Checklist to view your status on completing your reporting requirements. The buttons under Action will allow you to view your Signed Notification Letter, edit Inventory and add Zip Codes.

Notice!
 Announcement for the role PWS: SPM GLEC

ICR#: 202111-2040-003
 OMB#: 2040-0304

PWS ID: 990000018
 PWS Name: Test PWS #8-08
 System Size: large (> 1bd)
 Monitoring Requirements: AM

Dataset	Status	Action
Signed Notification Letter	Is Signed	View
Inventory	Has Data	
Zip Codes	MISSING	Enter

5 Steps

1. Log in to CDX
2. Select SDWARS 5, Accept Notification Letter
3. Add/Review/Edit Inventory
4. Add Zip Code(s)
5. Review/Revise Sampling Schedule

By December 31, 2022

SDWARS Workflow for Small PWSs

PWS Home
 Use the tabs at the top of the page to access Inventory, Schedule/Data Elements, Shipping Address, and Zip Codes.
 Use the person icon in the upper right corner to Nominate User, view the Notification Letter, view the SDWARS 5 Sitemap, go to MyCDX, go to Inbox or Logout.
 Use the Completion Checklist to view your status on completing your reporting requirements. The buttons under Action will allow you to view your Signed Notification Letter, edit Inventory, review Shipping Address, add Zip Codes and input Data Elements.

Notice!
 Announcement for the role PWS: SPM GLEC

ICR#: 202111-2040-003
 OMB#: 2040-0304

PWS ID: 990000011
 PWS Name: Test PWS #8-011
 System Size: < 10,000
 Monitoring Requirements: AM

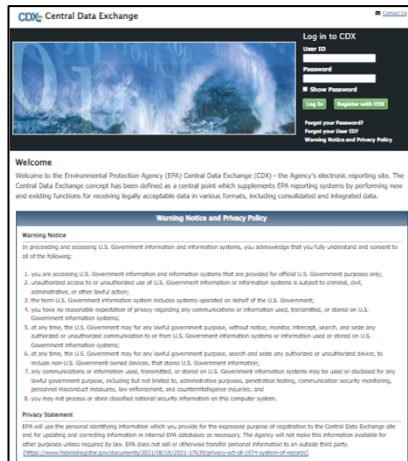
Dataset	Status	Action
Signed Notification Letter	Is Signed	View
Inventory	Has Data	
Shipping Address	Has Data	
Zip Codes	MISSING	Enter
Data Elements	MISSING	View

7 Steps

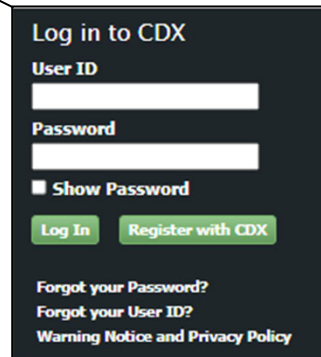
1. Log in to CDX
2. Select SDWARS 5, Accept Notification Letter
3. Add/Review/Edit Inventory
4. Add Shipping Address
5. Add Zip Code(s)
6. Respond to Data Elements
7. Review Sampling Schedule

By December 31, 2022

1. Log in to CDX



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



2. Select SDWARS 5 and Accept Notification Letter

- To read and accept your notification letter, you must select SDWARS 5
 - Your PWS' notification letter should automatically open
- Status of acceptance of notification is tracked in SDWARS 5

2a. Select SDWARS 5

The screenshot shows the EPA Central Data Exchange (CDX) interface. At the top, there's a navigation bar with links: Home, About, Recent Announcements, Terms and Conditions, FAQ, Help, and Virtual Assistant. Below this, the CDX logo and 'Central Data Exchange' text are visible. A user is logged in as JSHUTSON. The main content area has tabs for MyCDX, Inbox, My Profile, Reg Maint, Submission History, and Payment History. The 'Services' table lists two programs: UCMR4 and UCMR5. The 'Role' column for UCMR5 shows 'SDWARS5', which is highlighted with a red box and a red arrow. To the right, there's a 'CDX Service Availability' section and a 'News and Updates' section.

2b. Proceed to Notification Letter

The screenshot shows the EPA Central Data Exchange (CDX) interface with an 'Application Profile Settings' modal open. The modal has three main sections: 'Organization Name' with a dropdown menu showing 'PWS Name' (highlighted in yellow), 'Program Client ID' with a dropdown menu showing 'PWS Identification Number' (highlighted in yellow), and 'Program' with a dropdown menu showing 'UCMR5'. At the bottom of the modal, there are two buttons: 'Proceed' (highlighted with a red box and a red arrow) and 'Cancel'.

Once logged-in, your personal PWS ID and name will appear in those sections, which are marked in yellow above. Click "Proceed" to view Notification Letter.

2c. Read and Accept Notification Letter

• For CDX/SDWARS 5 registration issues, please contact EPA at 1-800-645-1561.
• For general questions about requirements or navigating the system, please contact the UCMR 5 Help Desk at helpdesk@epa.gov or call 1-888-895-1995.

Thank you in advance for your cooperation.

Accept **Cancel**

Notification Letter

» PWS Home / Notification Letter

A PWS user must accept the notification letter.

NOTIFICATION LETTER

RE: Large PWS Notification of the Fifth Unregulated Contaminant Monitoring Rule

Dear Public Water System:

The purpose of this letter is to notify you that your public water system (PWS) is subject to the requirements of the next Unregulated Contaminant Monitoring Rule (UCMR 5), as published on December 27, 2021 (86 FR 73131). UCMR 5 requires certain PWSs to collect drinking water samples for 29 polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs) and lithium during a 12-month period between 2023 and 2025.

The Safe Drinking Water Act (SDWA), as amended in 1996, requires the U.S. Environmental Protection Agency (EPA) to establish criteria for a program to monitor unregulated contaminants in drinking water and to identify contaminants to be monitored every five years. This document is one of the primary sources of information on occurrence and population exposure. EPA uses this information to develop regulatory decisions for contaminants in the public drinking water supply. Under UCMR 5, large community water systems and non-transient, non-community water systems (i.e., those serving more than 10,000 people as of February 1, 2021), including those that purchase all their water, are among the PWSs required to participate. Large PWSs are responsible for collecting drinking water samples, having them analyzed by a UCMR 5 approved laboratory, reporting the results to EPA using the Safe Drinking Water Act and Review System (SDWARS 5), and notifying the public of the results.

What must your PWS complete in SDWARS 5 before December 31, 2022?

UCMR 5 requires you to take the following actions in SDWARS 5 prior to December 31, 2022 to prepare for sampling:

- Read and accept the UCMR 5 Notification Letter.
- Review and, if necessary, update your sample location inventory by adding missing locations, indicating inactive locations or editing basic information about the locations.
- Add the zip code(s) associated with all customers in your service area.
- Review and, if you wish, revise your monitoring schedule assigned by the EPA.

What must your PWS do during UCMR 5 sampling?

Your PWS must ensure that samples are properly collected, packaged and shipped to a UCMR 5 EPA approved laboratory per your established schedule. Your PWS is also responsible for providing the data elements required for each sampling location (e.g., disinfection type, treatment information etc.) in SDWARS 5. Once your results are posted to SDWARS 5 by your EPA approved laboratory, your PWS will have **30 days** to review and act upon these results. If you choose not to review these results in this time frame, they will be automatically approved for public release. After EPA reviews UCMR 5 data inside in EPA's National Contaminant Occurrence Database (NOCOD), community water systems must inform their consumers of UCMR 5 monitoring results in their Consumer Confidence Report (see 40 CFR 141.153(c)(7)). Non-transient, non-community water systems required to monitor for UCMR 5 must inform their consumers of the availability of monitoring results for Tier 3 Public Notice (see 40 CFR 141.207).

Questions?

- For more information about the program, please review the UCMR 5 Website.
- For CDX/SDWARS 5 registration issues, please contact the CDX Help Desk at helpdesk@epa.gov or call 1-888-895-1995.
- For general questions about requirements or navigating SDWARS, please contact the UCMR 5 Message Center at UCMR5@epa.gov or 1-800-645-1561.

Thank you in advance for your cooperation.

Accept **Cancel**

3. Add/Review/Edit Inventory

Large PWS Example

- **Identify/confirm all entry points to your distribution system (EP)**
 - **Option 1:** Select the EP locations used for UCMR 4, as applicable, and review/edit as appropriate
 - **Option 2:** Select the EP locations provided by your State/primacy entity in late 2021 for your PWS, if available, and review/edit as appropriate. This information may be more up to date than UCMR 4 locations (Data Call)
 - **Option 3:** If your PWS did not participate in UCMR 4 and your State/primacy entity did not provide any EP locations on your behalf, you must add your EP locations

3. Load Inventory from UCMR 4 or State/Primacy Entity Large PWS Example

The screenshot shows the EPA Inventory/Schedule page on the left and the Load Inventory modal on the right. A red arrow points to the 'Load Inventory' button at the bottom of the main page. The modal shows a dropdown menu with 'UCMR4' selected and a 'Load Inventory' button at the bottom.

Inventory Page Details:

- Page Title: INVENTORY/SCHEDULE
- Sub-headers: REVIEW DATA, ZIP CODES
- Section: Inventory
- Instructions: Please ensure all required sample locations for UCMR 5 are included in the inventory below. This includes all entry points to the distribution system.
- Active Location? If a location will not be active at any point during sampling (2023-2025), select No from the drop-down menu. You must click Save for the information to be added to the database.
- Click Add New Facility at the bottom of the page to add a new facility and sample point to your inventory. Click the Plus icon on the far-right side of the page to add a sample point to an existing facility. Click the Pencil icon on the far-right side of the page to edit existing inventory. You must click Save for the information to be added to the database.
- To sort inventory, use the individual headers by clicking on them (e.g., Active Location, Facility ID, Facility Name, etc.) or filter for inventory using the Filter search box. To filter, enter a specific identifier (e.g., sample point ID, Facility ID) in the Filter search box or enter a partial identifier (e.g., Searching "ABC" will return all sample point IDs that contain ABC.)
- To download or print the inventory list, use the icons next to the Filter search box.
- Click Load Inventory to view and load inventory for your PWS from UCMR 4 or from state provided data.
- Use the Super PWS search box to view and edit inventory and comments for your downstream PWSs.
- Super PWS:
- 998000018 - Inventory
- Filter:
- Active Location? Fac ID Fac Name Fac Type Water Type SP ID SP Name SP Type
- No data available in table
- Showing 0 to 0 of 0 entries
- Add New Facility Load Inventory

Load Inventory Modal Details:

- Some PWSs will be presented with two options for pre-populating their inventory. You may review both options (if applicable) and select the most accurate. Once you have selected your option you will not be able to return to this page. You may review, add, and edit your entry-point locations using the Inventory page.
- Use the drop-down menu to select the inventory used in the previous UCMR cycle (UCMR 4) (if available) OR inventory provided by your State/Primacy Agency (if available). Then click Load Inventory.
- UCMR4
- Select the inventory that you want to load by checking the box and clicking Load Inventory.
- Facility Type Sample SP Type
- ☒ 11037 - CC 37 CC / MX MX11037 / Consecutive Connection EP
- ☒ 11040 - CC 40 CC / SW SW11049 / Consecutive Connection / Surface Water 49 EP
- ☒ 99001 - TP 901 TP / GU TP901 / Treatment Plant 1 EP
- (SS-PWS-1020b) Load Inventory Close

3. Add/Review/Edit Inventory – Manual Entry Large PWS Example

The screenshot shows the EPA Inventory/Schedule page for facility 998000018. A red arrow points to the 'Add New Facility' button at the bottom left. Another red arrow points to the 'Add' icon (a square with a plus sign) in the right-hand column of the inventory table.

Inventory Page Details:

- Page Title: 998000018 - Inventory
- Filter:
- Active Location? Fac ID Fac Name Fac Type Water Type SP ID SP Name SP Type
- Showing 1 to 3 of 3 entries
- Add New Facility

Inventory Table:

Active Location?	Fac ID	Fac Name	Fac Type	Water Type	SP ID	SP Name	SP Type
<input type="text"/>	11037	CC 37	CC	MX	MX11037	Consecutive Connection	EP
<input type="text"/>	11040	CC 40	CC	SW	SW11049	Consecutive Connection / Surface Water 49	EP
<input type="text"/>	99001	TP 901	TP	GU	TP901	Treatment Plant 1	EP

3. Add/Review/Edit Inventory – Manual Entry

Large PWS Example

Add Facility

You must complete every field marked with an (*). You must click Save 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 (determined by Facility Type)

(SS-PWS-1020a)

Add Sample Point

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

Facility: 11037 - CC 37

Sample Point ID*

Sample Point Name*

Sample Point Type EP - Entry Point to the Distribution System

(SS-PWS-1020b)

- Create a new Facility and Sample Point
- Add a Sample Point to an existing Facility

3. Review/Edit Inventory

Small PWS Example

EPA INVENTORY SCHEDULE/DATA ELEMENTS REVIEW DATA SHIPPING ADDRESSES ZIP CODES

Inventory

> PWS Home / Inventory

Please ensure all required sample locations for UCMR 5 are included in your inventory below. This includes all entry points to the distribution system.

In some cases, your State/Primary Agency provided inventory on your behalf. Please review each sample location below. To edit facility and sample point name click the Pencil Icon on the far-right side of the page. After reviewing your inventory, please select a response under the Correct? drop-down menu. If Active Location?, Fac ID, Fac Type, Water Type, SP ID and/or SP Type needs to be edited, please select No, it is not from the Correct? drop-down menu for a location and select Save. Please contact the UCMR Message Center at UCMR5@glec.com or 1-800-949-1581 for assistance with completing your corrections and/or additions.

Important: If the sampling location information is correct, please select Yes, this is correct from the Correct? drop-down menu and select Save so EPA knows you have reviewed that location.

To sort inventory, use the individual headers by clicking on them (e.g., Active Location, Facility ID, Facility Name, etc.) or filter for inventory using the Filter search box. To filter, enter a specific identifier (e.g., sample point ID, Facility ID) in the Filter search box or enter a partial identifier (e.g., Searching "ABC" will return all values that contain ABC.)

To download or print the inventory list, use the icons next to the Filter search box.

Active Location?	Fac ID	Fac Name	Fac Type	Water Type	SP ID	SP Name	SP Type	Correct?
No	00001	EP/GW 001	TP	GW	SP00001	Sample Point for EP/GW 001	EP	<input type="text"/>
Yes	00002	EP/SW 002	SS	SW	SP00002	Sample Point for EP/SW 002	EP	<input type="text"/>

Showing 1 to 2 of 2 entries

- Identify/confirm all entry points to your distribution system (EP)
- If your PWS does not have pre-populated locations, contact the UCMR Message Center at UCMR5@glec.com or 1-800-949-1581 for assistance with adding locations

3. Review/Edit Inventory Small PWS Example

- Review Inventory

Active Location?	Fac ID	Fac Name	Fac Type	Water Type	SP ID	SP Name	SP Type	Correct?
No	00001	EP/GW 001	TP	GW	SP00001	Sample Point for EP/GW 001	EP	Yes, this is correct
Yes	00002	EP/SW 002	SS	SW	SP00002	Sample Point for EP/SW 002	EP	No, this is not

Showing 1 to 2 of 2 entries

Save

- Edit Inventory

Active Location?	Fac ID	Fac Name	Fac Type	Water Type	SP ID	SP Name	SP Type	Correct?
No	00001	EP/GW 001	TP	GW	SP00001	Sample Point for EP/GW	EP	Yes, this is correct
Yes	00002	EP/SW 002	SS	SW	SP00002	Sample Point for EP/SW 002	EP	No, this is not

Showing 1 to 2 of 2 entries

Save

4. Confirm/Add Physical Shipping Address for Sampling Kits Small PWSs Only

Shipping Addresses

> [PWS Home](#) / Shipping Addresses

Information: Your PWS is required to provide a physical shipping address for the sampling kits (no P.O. Box). In some cases, your State/Primacy Agency provided a list of potential shipping address(es). Please select the correct shipping address below. If a shipping address is not provided below or none are correct, please click **Add Shipping Address**.

An EPA contractor will use the preferred shipping address to ship the sampling kits to you (typically a couple weeks prior to your scheduled sampling month).

To sort addresses, use the individual headers by clicking on them (e.g., Preferred, Attention, Street Line 1, etc) or filter for data using the Filter search box. To filter, enter a specific identifier (e.g., Street Line 1, Suite/Rm/Fir) in the Filter search box or enter a partial identifier (e.g., Searching "ABC" will return all values that contain ABC.)

Show 50 entries

Preferred?	Attention	Street, line 1	Suite/Rm/Fir	Street, line 2	City	State	Zip	Telephone
No data available in table								

Showing 0 to 0 of 0 entries

Add Shipping Address

4. Confirm/Add Physical Shipping Address for Sampling Kits Small PWSs Only

- Not a P.O. Box

5. Add/Edit Zip Code(s) Served

- Click “Add Zip Codes” button
- Pop-up window lets you add Zip Codes

5. Add UCMR 4 Zip Code(s) Served Large PWSs Only

Zip Codes
 > PWS Home / Zip Codes

Information: You are required to add zip code(s) associated with all customers in your service area.
 Click **Add Zip Codes** to add a zip code(s).
 Click **Delete Selected Zip Codes** to remove one or more **selected** zip codes.

To filter, enter a specific zip code in the Filter search box or enter a partial zip code (e.g., Searching "123" will return all zip codes that contain 123.)

To download or print the list of zip codes, use the icons next to the Filter search box.

Use the **Load Zip Codes** button to upload the list of zip codes that were submitted under UCMR 4.

Use the Super PWS search box to manage Zip Codes for your downstream PWSs.

Super PWS:

991000071 - Zip Codes

Add Zip Codes

Show: 50 entries Filter:

☐ Zip Code

Showing 0 to 0 of 0 entries

Delete Selected Zip Codes **Load UCMR4 Zip Codes**

Load Zip Codes from SDWARS4

Information: You are required to add zip code(s) associated with all customers in your service area. Select the zip code(s) from the last cycle (UCMR 4) that are still applicable.

<input checked="" type="checkbox"/>	Zip Code
<input checked="" type="checkbox"/>	20724
<input checked="" type="checkbox"/>	20794
<input checked="" type="checkbox"/>	21012
<input checked="" type="checkbox"/>	21061
<input checked="" type="checkbox"/>	21076
<input checked="" type="checkbox"/>	21108

(SS-PWS-1010a)

Load Zip Codes

6. Select Responses for UCMR 5 Data Elements Small PWSs Only

Filter:

Fac ID	Fac Name	Fac Type	Water Type	SP ID	SP Name	SP Type	SE1	SE2	SE3	SE4
00002	EP/SW 002	SS	SW	SP00002	Sample Point for EP/SW 002	EP	Nov 2020	Feb 2021	May 2021	Aug 2021

Showing 1 to 1 of 1 entries

SDWARS Version 5, release: 1.0.2 (SS-SPWS-1030)

Disinfectant Types
 Treatment Information
 Historical Information for PFAS
 Lithium Detections & Treatment
 Potential PFAS Sources

6. Select Responses for UCMR 5 Data Elements Small PWSs Only

The image displays three screenshots of the EPA UCMR 5 data entry interface for Small PWSs. The first screenshot shows the 'Edit Treatment Types' window, which lists various treatment options such as AGR (Air stripping), BIO (Biological filtration), COCL (Conventional coagulation), etc. The second screenshot shows the 'Edit Disinfectant Types' window, which lists various disinfectant options such as CAGC (Chloramine), CAOF (Chloramine), CAON (Chloramine), etc. The third screenshot shows the 'Edit Potential PFAS Sources' window, which includes a dropdown menu for historical sources of PFAS.

7. Review/Revise Sampling Schedule

- Large PWS schedules
 - EPA initially drafts schedule
 - Partnered State has opportunity to review and modify
 - PWS has opportunity to review and modify
 - Systems must NOT modify their schedules to avoid a suspected vulnerable period
- Small PWS schedules
 - EPA initially drafts schedule
 - Partnered State has opportunity to review and modify

7. Review/Revise Sampling Schedule

Large PWS Example

Schedule

> [PWS Home](#) / [Schedule](#)

i For surface water (SW), ground water under the direct influence of surface water (GU), and mixed locations (MX), sampling should take place for four consecutive quarters over the course of 12 months (for a total of 4 sampling events). These sampling events should occur three months apart. For ground water (GW) locations, sampling should take place twice over the course of 12 months (for a total of 2 sampling events). These sampling events should occur five to seven months apart.

Click the month/year in blue text for Sample Event 1 (SE1) to edit the schedule for that location.



To sort schedule, use the individual headers by clicking on them (e.g., Facility ID, Facility Name, Sample Point ID etc.) or filter for schedule using the Filter search box. To filter, enter a specific identifier (e.g., sample point ID, Facility ID) in the Filter search box or enter a partial identifier (e.g., Searching "ABC" will return all sample point IDs that contain ABC.)

To download or print the schedule, use the icons next to the Filter search box.

Use the Super PWS search box to view and edit schedule and comments for your downstream PWSs.

Super PWS

998000018 - Schedule

Filter:  

Fac ID	Fac Name	Fac Type	Water Type	SP ID	SP Name	SP Type	SE1	SE2	SE3	SE4
11037	CC 37	CC	MX	MX11037	Consecutive Connection	EP	Aug 2020	Nov 2020	Feb 2021	May 2021
11040	CC 40	CC	SW	SW11040	Consecutive Connection / Surface Water 49	EP	Aug 2020	Nov 2020	Feb 2021	May 2021
99001	TP 901	TP	GU	TP901	Treatment Plant 1	EP	Aug 2020	Nov 2020	Feb 2021	May 2021

Showing 1 to 3 of 3 entries

7. Review (Tentative) Sampling Schedule

Small PWS Example

Schedule

> [PWS Home](#) / [Schedule](#)



i For surface water (SW), ground water under the direct influence of surface water (GU), and mixed locations (MX), sampling should take place for four consecutive quarters over the course of 12 months (for a total of 4 sampling events). These sampling events should occur three months apart. For ground water (GW) locations, sampling should take place twice over the course of 12 months (for a total of 2 sampling events). These sampling events should occur five to seven months apart.

You must have EPA approval for any schedule changes, please contact the UCMR Message Center at UCMR5@glec.com or 1-800-949-1581 for assistance.

You are required to respond to five (5) Data Elements. Please select the drop-down menu on the Month/Year schedule for Sampling Event 1 (SE 1) for each location and respond to each Data Element. To select the same response for other SEs for that location, select the Data Element for the SE you want to complete, and a question will prompt you to select a response from another SE. The exclamation point button next to the Filter search box will highlight the SEs where one or more Data Elements is missing.

To sort schedule, use the individual headers by clicking on them (e.g., Facility ID, Facility Name, Sample Point ID etc.) or filter for schedule using the Filter search box. To filter, enter a specific identifier (e.g., sample point ID, Facility ID) in the Filter search box or enter a partial identifier (e.g., Searching "ABC" will return all values that begin with ABC.)

To download or print the schedule, use the icons next to the Filter search box.

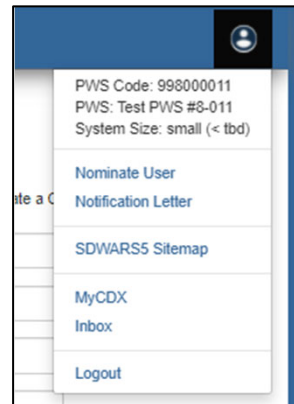
Filter:  

Fac ID	Fac Name	Fac Type	Water Type	SP ID	SP Name	SP Type	SE1	SE2	SE3	SE4
00002	EP/SW 002	SS	SW	SP00002	Sample Point for EP/SW 002	EP	Nov 2020	Feb 2021	May 2021	Aug 2021

Showing 1 to 1 of 1 entries

8. Nominate User for Your PWS (optional)

- You may nominate other individuals to serve as representatives for your PWS using the **Nominate User** function by selecting your account/person icon in the upper right-hand corner
- A new letter will be generated, which you must provide to the nominee for use in establishing their own account



8. Nominate User for Your PWS (optional)

Nominate a PWS User

Use this form to nominate a new user to your PWS. You must complete every field marked with an asterisk (*). You must also Nominate to generate a CDX.

PWS Code*

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 completing this nomination, the nominator attests to the following:

- I am an authorized representative of the public water system (PWS) I am nominating another individual to make and/or report Unregulated Contaminant Monitoring Rule (UCMR) data as required under the 5th Unregulated Contaminant Monitoring Rule (UCMR 5).
- I authorize the nominee to report UCMR data on behalf of the PWS.
- I understand that by nominating this user, I accept full responsibility for their actions when using the Federal Safe Drinking Water Act and/or Federal System (SDWARSS).
- I understand that the nominee will have the right to nominate additional representatives for the PWS.
- I agree with the Federal Safe Drinking Water Act and/or Federal System (SDWARSS) and I agree to abide by the rules and regulations of the SDWARSS.
- I agree to provide the nominee with the necessary information to establish their account.

Privacy Statement

SDWARSS uses the personal identifying information which you provide for the purposes of registration in the Federal Safe Drinking Water Act and/or Federal System (SDWARSS) and for reporting and monitoring UCMR data. SDWARSS will not share this information with any other entity, except as necessary to provide the information to the appropriate federal, state, or local agency. SDWARSS will not use this information for any other purpose.

8. Nominate User for Your PWS (optional)

Nominate a PWS User

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
(TO BE PROVIDED TO NOMINATED CDX USER ONLY)
SENSITIVE

NOMINEE:
January 26, 2022

Contact's Name
Department - PWSID
Address
City, State, Zip

Contact's Name

[Nominator's Name] and U.S. Environmental Protection Agency (EPA) are providing you with the opportunity to report Unregulated Contaminant Monitoring Rule (UCMR) information for EPA and further nominate other individuals.

To obtain access to register on Central Data Exchange (CDX), you will need to enter the following unique customer retrieval key at the CDX registration site:

830d77d4-4187-49dc-80e4-d8d6d4b471ac

Large System Reporting §141.35(c)

- Contact and Zip Code information
 - SDWARS by December 31, 2022
- Sampling location information
 - SDWARS by December 31, 2022
 - Changes after December 31, 2022, must be submitted to UCMR_Sampling_Coordinator@epa.gov and approved by EPA
- Data elements
 - PWSs must report all data elements specified in §141.35(e) Table 1 (e.g., disinfectant type and treatment information) to SDWARS
- Analytical results
 - Uploaded to SDWARS by the PWS' laboratory
 - Reviewed and submitted by the PWS in SDWARS

Small System Reporting §141.35(d)

- Contact and Zip Code information
 - SDWARS by December 31, 2022
- Sampling location information
 - SDWARS by December 31, 2022
- Data elements
 - PWSs must report all data elements specified in §141.35(e) Table 1 on each sample tracking form, in their sampling kit, as appropriate
- Analytical results
 - Uploaded to SDWARS by EPA's contracted laboratory
 - Reviewed by EPA in SDWARS
 - Small PWSs and States will have access to results via SDWARS

Reporting Data Elements §141.35(e)

1. Public Water System Identification (PWSID) Code	15. Analytical Method Code
2. Public Water System Name	16. Extraction Batch Identification Code
3. Public Water System Facility Identification Code	17. Extraction Date
4. Public Water System Facility Name	18. Analysis Batch Identification Code
5. Public Water System Facility Type	19. Analysis Date
6. Water Source Type	20. Sample Analysis Type
7. Sampling Point Identification Code	21. Analytical Result—Sign
8. Sampling Point Name	22. Analytical Result—Measured Value
9. Sampling Point Type Code	23. Additional Value
10. Disinfectant Type <i>(Additional Details)</i>	24. Laboratory Identification Code
11. Treatment Information <i>(Additional Details)</i>	25. Sample Event Code
12. Sample Collection Date	26. Historical Information for Contaminant Detections and Treatment <i>(Additional Details)</i>
13. Sample Identification Code	27. Potential PFAS Sources <i>(Additional Details)</i>
14. Contaminant	

Data elements PWS reports at sample collection

Disinfectant Type - Data Element 10

All of the disinfectants/oxidants that have been added prior to and at the entry point to the distribution system.
Please select all that apply.

PEMB = Permanganate	CAOF = Chloramine (formed with offsite hypochlorite)
HPXB = Hydrogen peroxide	CAON = Chloramine (formed with onsite hypochlorite)
CLGA = Gaseous chlorine	CLDB = Chlorine dioxide
CLOF = Offsite generated hypochlorite (stored as liquid form)	OZON = Ozone
CLON = Onsite generated hypochlorite	ULVL = Ultraviolet light
CAGC = Chloramine (formed with gaseous chlorine)	OTHD = All other types of disinfectant/oxidant
NODU = No disinfectant/oxidant used	

Treatment Information - Data Element 11

Treatment information associated with the sample point. Please select all that apply.

CON = Conventional (non-softening, consisting of at least coagulation/sedimentation basins and filtration)	GAC = Granular activated carbon adsorption (not part of filters in CON, SFN, INF, DFL, or SSF)
SFN = Softening	AIR = Air stripping (packed towers, diffused gas contactors)
RBF = River bank filtration	POB = Pre-oxidation with chlorine (applied before coagulation for CON or SFN plants or before filtration for other filtration plants)
PSD = Pre-sedimentation	MFL = Membrane filtration
INF = In-line filtration	IEX = Ionic exchange
DFL = Direct filtration	DAF = Dissolved air floatation
SSF = Slow sand filtration	CWL = Clear well/finished water storage without aeration
BIO = Biological filtration (operated with an intention of maintaining biological activity within filter)	CWA = Clear well/finished water storage with aeration
UTR = Unfiltered treatment for surface water source	ADS = Aeration in distribution system (localized treatment)
GWD = Groundwater system with disinfection only	OTH = All other types of treatment
PAC = Application of powder activated carbon	
NTU = No treatment used	
DKN = Do not know	

Historical Information for Contaminant Detections and Treatment - Data Element 26

A yes or no answer provided by the PWS for each entry point to the distribution system

Question: Have you tested for the contaminant in your drinking water in the past?

YES = If yes, did you modify your treatment and if so, what types of treatment did you implement?

Select all that apply.

PAC = Application of powder activated carbon

GAC = Granular activated carbon adsorption (not part of filters in CON, SFN, INF, DFL, or SSF)

IEX = Ionic exchange

NRO = Nanofiltration and reverse osmosis

OZN = Ozone

BAC = Biologically active carbon

MFL = Membrane filtration

UVL = Ultraviolet light

OTH = Other

NMT = Not modified after testing

NO = Have never tested for the contaminant

DK = Do not know



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Potential PFAS Sources - Data Element 27

A yes or no answer provided by the PWS for each entry point to the distribution system

Question: Are you aware of any potential current and/or historical sources of PFAS that may have impacted the drinking water sources at your water system?

YES = If yes, select all that apply:

MB = Military base

FT = Firefighting training school

AO = Airport operations

CW = Car wash or industrial launderers

PS = Public safety activities (e.g., fire and rescue services)

WM = Waste management

HW = Hazardous waste collection, treatment, and disposal

UW = Underground injection well

SC = Solid waste collection, combustors, incinerators

MF = Manufacturing

FP = Food packaging

TA = Textile and apparel (e.g., stain- and water-resistant, fiber/thread, carpet, house furnishings, leather)

PP = Paper

CC = Chemical

PR = Plastics and rubber products

MM = Machinery

CE = Computer and electronic products

FM = Fabricated metal products (e.g., nonstick cookware)

PC = Petroleum and coal products

FF = Furniture

OG = Oil and gas production

UT = Utilities (e.g., sewage treatment facilities)

CT = Construction (e.g., wood floor finishing, electrostatic painting)

OT = Other

NO = Not aware of any potential current and/or historical sources

DK = Do not know



Office of Water

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Timing of Reporting

- Following sample collection:
 - **Laboratories** post data to SDWARS **within 90 days** of sample collection
 - **Large PWSs** review and approve the data **within 30 days** of the laboratory posting data. If the PWS has not acted upon the data after 30 days, the data are considered approved and ready for State and EPA review

Future SDWARS 5 Development

- Text file formats are available to laboratories during the laboratory approval process
- Training
 - Webinars for laboratories are held during the laboratory approval process
 - Webinar for PWSs will be held later this year
- Laboratory beta-testing of SDWARS 5
 - Improvements to user interface
 - Practice uploading data

Frequently Asked Question



Why do I need to report Zip Codes for each service area?

EPA will continue to collect U.S. Postal Service Zip Code(s) for UCMR 5, as collected under UCMR 3 and UCMR 4, to support potential assessments of whether or not certain communities are disproportionately impacted by particular drinking water contaminants. The specification for this one-time reporting requirement is established in 40 CFR 141.35(c)(1) and (d)(1) for large and small systems, respectively.

Process for EPA Approval of Laboratories to Support UCMR 5

Paul Grimmett, U.S. EPA
Office of Ground Water and Drinking Water
Standards and Risk Management Division
Technical Support Center

Overview

- Laboratory Approval Program
 - General expectations
 - Laboratory approval procedure
- Laboratory Approval Manual
- Maintaining Approval

For additional information, the document “UCMR 5 Laboratory Approval Manual Version 2.0” is available in the docket

General Expectations

- UCMR 5 Laboratory Approval Program is **OPEN**
- Laboratory Approval Program for UCMR 5 is similar to the process used for previous UCMR cycles
- Only the EPA-approved laboratories can analyze UCMR samples collected at PWSs
 - Approval is by method and by individual laboratory locations
 - A laboratory may apply for approval for any method(s)
- Laboratories need to meet:
 - UCMR 5 laboratory approval program criteria
 - Required equipment criteria
 - Laboratory performance criteria
 - Data reporting criteria (includes use of text file format to report to SDWARS)
- Laboratories must be approved by EPA to support UCMR 5 even if already certified or accredited by a State/primacy entity for a particular method being used in UCMR 5
- UCMR 5 approval is only valid through the UCMR 5 monitoring cycle

Laboratory Approval General Procedure

- Step 1: Request to Participate
- Step 2: Registration
- Step 3: Application Package
- Step 4: EPA Review of Application Package
- Step 5: Proficiency Testing (PT)
- Step 6: Written EPA approval

Step 1 – Request to Participate

- Interested laboratories submit a written request to the [UCMR Lab Approval@epa.gov](mailto:UCMR_Lab_Approval@epa.gov)
- EPA provides registration material
- EPA provides a custom application package based on registration information

Step 2 – Registration

- Complete registration sheet includes:
 - List of the UCMR methods for which the laboratory seeks approval
 - Laboratory information
 - Mailing and shipping address
 - Contact information
- The final opportunity for a laboratory to complete and submit the necessary registration and application information is **August 1, 2022**
- Contact UCMR_Lab_Approval@epa.gov for more information

Step 3 – Application Package

- In response to registration, EPA sends laboratory a copy of the Laboratory Approval Manual with the application package
- Separate application for each method
- Application includes:
 - Proof of current drinking water laboratory certification (for select compliance monitoring methods)
 - Personnel information
 - Quality Assurance (QA) information
 - Information regarding analytical equipment and sample handling procedures
 - Data submission for each method (e.g., Initial Demonstration of Capability (IDC) study, QC sample results, quantification reports)

Step 4 – Review of Application Package

- EPA reviews application package
 - If deficiencies are identified, EPA gives the laboratory an opportunity to make corrective actions and submit new application information
 - If all requested information is present and acceptable, EPA notifies the laboratory that they are eligible to participate in corresponding PT studies

Step 5 – Proficiency Testing (PT)

- EPA provides method-specific PT samples
- EPA held three (3) PT studies prior to the publication of the final rule, held two (2) in early 2022, and anticipates offering up to three (3) more, scheduled for May, August, and November 2022
- Each laboratory is required to:
 - Participate in at least two (2) PT studies for each method for which it seeks approval
 - Pass a PT for each analyte in each method for which the laboratory is seeking approval
 - Successfully report PT data to SDWARS using text file format

Step 6 – Written EPA Approval

- After successful participation in a PT study for a specific method, EPA will send the laboratory a notification letter listing the methods for which approval is granted
- Laboratories who received “pending” approval before the final rule was promulgated are now considered fully approved
- A list of approved laboratories and associated methods are posted at <https://www.epa.gov/dwucmr>

Laboratory Approval Manual

- Procedures for obtaining UCMR approval and procedures for revocation of approval
- QA requirements
- QC requirements
 - MRL verification
 - Initial demonstration of capability
 - Initial calibration
 - Continuing calibration checks
 - Surrogate and internal standard criteria
 - Laboratory reagent blanks (LRBs) and laboratory fortified blanks (LFBs)
 - QC samples
 - Laboratory fortified sample matrix (LFSM) and duplicate (LFSMD)
 - Field blank criteria (if required by the method)
- Sample handling requirements

Criteria for Maintaining Approval

- Adhere to QA/QC measures in the methods, rule language, and the Laboratory Approval Manual
- Post occurrence data and required QC data via SDWARS within the prescribed timeframe
- Respond to inquiries or requests from the Laboratory Approval Coordinator
- Participate in and pass on-site and/or paper audits

Frequently Asked Question



How does EPA determine reporting limits for UCMR analytes?

EPA establishes the minimum reporting level (MRL) using data from multiple laboratories performing “Lowest Concentration Minimum Reporting Level” (LCMRL) studies to identify their capability. The MRL is the minimum quantitation level that, with 95% confidence, can be achieved by capable analysts, by at least 75% of the laboratories nationwide using a specified analytical method. Each single-laboratory LCMRL is the lowest true concentration for which the future recovery is predicted to fall, with high confidence (99%), between 50 and 150% recovery

- Simultaneous application of precision and accuracy
- Established to achieve quality and consistency across all UCMR laboratories, while allowing for appropriate national laboratory capacity
- MRLs are generally established as low as is feasible, typically lower than current health reference levels (HRLs) and health advisories (HAs)
- EPA will consider adjusting MRLs if there is confirmed and recurring evidence that an MRL is unattainable/impractical

Frequently Asked Question



Can laboratories use EPA Method 200.8 instead of EPA Method 200.7 to analyze UCMR 5 samples for lithium?

No. EPA Method 200.8 is not validated for lithium analysis in drinking water and thus cannot be used to meet the requirements of UCMR 5 monitoring.

Frequently Asked Question



When will the request for contract proposals for the small-system sample analyses be announced?

EPA engaged the laboratory community early in the development of UCMR 5, held public meetings, and offered five PT studies. All of these opportunities have been communicated to the laboratories to encourage participation early in the approval process. EPA released the request for proposal on February 17, 2022, with proposals due from laboratories on March 17, 2022. EPA expects demand for laboratory support to increase significantly based on the greater number of PWSs participating in UCMR 5. EPA estimates that the number of participating small water systems will increase from the typical 800 to approximately 6,000. In preparation for this increase, EPA has solicited proposals and will award contracts to laboratories to support small-system monitoring prior to the end of the PT program. As in previous UCMR programs, EPA expects that laboratories awarded contracts by EPA will be required to first be approved to perform all methods.

Public Access to UCMR Data

Melissa Simic, U.S. EPA
Office of Ground Water and Drinking Water
Standards and Risk Management Division
Technical Support Center



Office of Water

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Overview

- NCOD and Data Summary
- Consumer Confidence Reports
- Public Notification Requirements
- Risk Communication Plans



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NCOD and Data Summary Document

- Prior to the start of UCMR 5 sample collection in January 2023, EPA will publish a “Reference Concentration” document to summarize the publicly available health information from EPA resources for the UCMR 5 contaminants
 - EPA will continue to look for ways to improve the document to make sure we are providing stakeholders with the most appropriate information and messaging materials
- After monitoring starts, EPA will update the NCOD and publish a Data Summary approximately quarterly (posted at <https://www.epa.gov/dwucmr>)
 - The Data Summary will summarize the NCOD results at a national level (e.g., the number of PWSs with results above the MRL and/or reference concentration) and provide data field definitions

Public Access to UCMR Results

- Annual Consumer Confidence Reports (CCRs)
 - Required by 40 CFR §141.153(d)(7) for community water systems (CWSs)
 - **Detected unregulated contaminants**, for which monitoring is required: the table(s) must contain the average and range at which the contaminant was detected (i.e., measured \geq the UCMR MRL). The report may include a brief explanation of the reasons for monitoring for unregulated contaminants
 - **Example language:** Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted
 - For additional information: <https://www.epa.gov/ccr>

Public Access to UCMR Results

- Public Notification
 - Required by §141.207 for all PWSs (CWSs and NTNCWSs subject to UCMR)
 - PWSs must notify persons served of the availability of the results no later than 12-months after monitoring results are known
 - Follows Tier 3 public notice §141.204(c), (d)(1), and (d)(3)
 - Special requirement notice must identify a person and the telephone number to contact for information on monitoring results
 - CWSs may include their public notice within their CCRs
 - For additional information: <https://www.epa.gov/dwreginfo/public-notification-rule>

Frequently Asked Question



What efforts will be made to assist with risk communication for PFAS?

1. Information Compendium for Contaminants for UCMR 5

A summary of the contaminant prioritization process and contaminant-specific information (e.g., health effects) that EPA gathered for the UCMR 5 analyte list (<https://www.regulations.gov/document/EPA-HQ-OW-2020-0530-0126>).

2. Reference Concentrations

EPA intends to publish (and routinely update, as new data becomes available) “reference concentrations” on the UCMR website prior to UCMR 5 monitoring (during 2022). The reference concentrations are based on publicly-available health information from EPA sources to provide context around results above the MRL. MRLs are based on the capability of the analytical method and are typically lower than the current health values. This ensures that the occurrence data reported to EPA will support sound decision making, including those cases where new health effects information might lead to lower health values (<https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule>).

3. Template to Communicate Detections

The Agency intends to provide a template for PWSs to consider using in communicating with their customers about the detection of PFAS in drinking water and provide other supporting material as risk-related information becomes available. PWSs should be aware that some States may have requirements for communicating PFAS monitoring results to consumers and/or reporting them to the State.

Questions and Answers Received in Question Box



Questions on the Presentation

- Click on “+” next to “Questions” in the control panel (Figure 1) to submit questions/comments
 - Type a question in the box; click send (Figure 2)
- Submit general clarifying questions throughout the webinar
 - Questions will be answered in the chat box throughout the presentation
 - Common questions will be answered at the end of each section

Figure 1

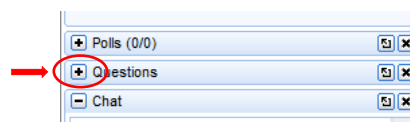
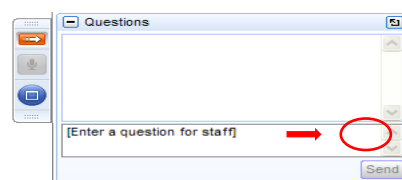


Figure 2



Closing Remarks

Thank you for attending this UCMR 5 webinar



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If You Have Questions Following This Webinar

- **UCMR Homepage and Fact Sheet**
 - <https://www.epa.gov/dwucmr>
 - <https://www.epa.gov/system/files/documents/2022-02/ucmr5-factsheet.pdf>
- **UCMR Message Center**
 - For general questions about requirements or navigating SDWARS, UCMR5@glec.com or 1-800-949-1581
- **CDX Help Desk**
 - For CDX/SDWARS 5 registration issues, helpdesk@epacdx.net or 1-888-890-1995
- **UCMR Sampling Coordinator**
 - UCMR_Sampling_Coordinator@epa.gov
- **Laboratory Approval Program**
 - UCMR_Lab_Approval@epa.gov
- **Meeting materials** were sent to all registered participants
 - If you did not receive a copy, please email UCMRwebinar@cadmusgroup.com and we will send you a copy
- **Contacts**
 - Brenda Bowden: bowden.brenda@epa.gov
 - Melissa Simic: simic.melissa@epa.gov
- **Safe Drinking Water Information**
 - <https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information>

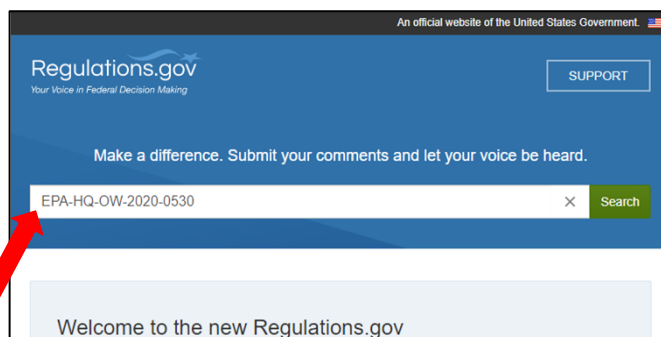


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Accessing the UCMR 5 Docket

Go to <https://www.regulations.gov>

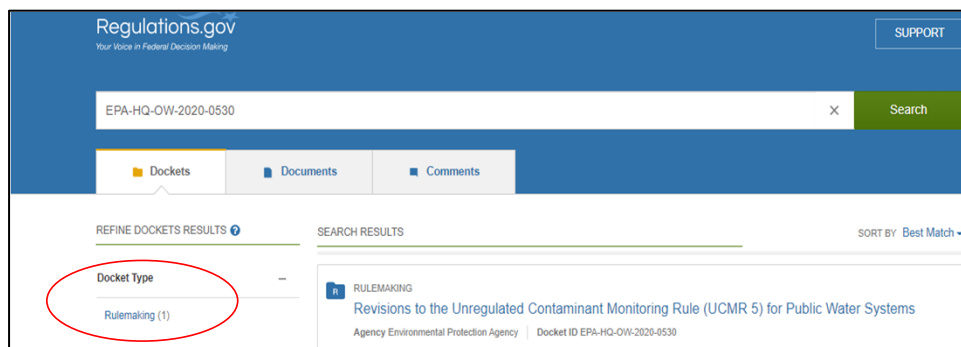


Click **Search**

Enter **Docket ID EPA-HQ-OW-2020-0530**

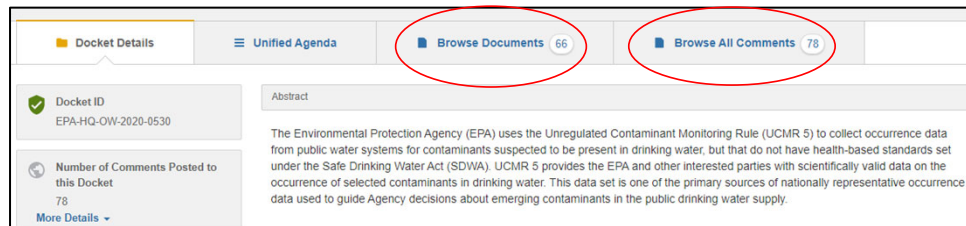
Accessing the UCMR 5 Docket

The UCMR 5 docket should pop up on the next screen



Accessing the UCMR 5 Docket

Browse documents and comments using the tabs



Appendix 1: Abbreviations and Acronyms

Abbreviations and Acronyms

- **µg** – Microgram
- **11Cl-PF3OUdS** – 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid
- **4:2 FTS** – 1H, 1H, 2H, 2H-Perfluorohexane Sulfonic Acid
- **6:2 FTS** – 1H, 1H, 2H, 2H-Perfluorooctane Sulfonic Acid
- **8:2 FTS** – 1H, 1H, 2H, 2H-Perfluorodecane Sulfonic Acid
- **9Cl-PF3ONS** – 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid
- **ADONA** – 4,8-Dioxa-3H-Perfluorononanoic Acid
- **ATSDR** – Agency for Toxic Substances and Disease Registry
- **AWIA** – America's Water Infrastructure Act of 2018
- **CASRN** – Chemical Abstracts Service Registry Number
- **CCL** – Contaminant Candidate List

Abbreviations and Acronyms

- **CDX** – Central Data Exchange
- **CFR** – Code of Federal Regulations
- **CWS** – Community Water System
- **EPA** – Environmental Protection Agency
- **EP/EPTDS** – Entry Point to the Distribution System
- **FR** – Federal Register
- **FRB** – Field Reagent Blank
- **GenX** – Trade Name for a Technology Used to Make High-Performance Fluoropolymers Without the Use of PFOA
- **GWRMPs** – Ground Water Representative Monitoring Plans

Abbreviations and Acronyms

- **HA** – Office of Water Health Advisory
- **Health Canada** – Health Canada Guidelines for Canadian Drinking Water Quality
- **HESD** – Health Effects Support Document
- **HFPO-DA** – Hexafluoropropylene Oxide Dimer Acid
- **HRL** – Health Reference Level
- **ICP-AES** – Inductively Coupled Plasma- Atomic Emission Spectrometry
- **IDC** – Initial Demonstration of Capability
- **IRIS** – Integrated Risk Information System
- **kg** – Kilogram
- **L** – Liter
- **LC/MS/MS** – Liquid Chromatography/Tandem Mass Spectrometry

Abbreviations and Acronyms

- **LCMRL** – Lowest Concentration Minimum Reporting Level
- **LFB** – Laboratory Fortified Blank
- **LFSM/LFSMD** – Laboratory Fortified Sample Matrix/Duplicate
- **LOAEL** – Lowest-Observed-Adverse-Effect Level
- **LRB** - Laboratory Reagent Blank
- **MAC** – Maximum Acceptable Concentration
- **MCLG** – Maximum Contaminant Level Goal
- **mg** – Milligram
- **MRL** – Minimum Reporting Level
- **NCOD** – National Contaminant Occurrence Database
- **NDAA** – National Defense Authorization Act
- **NETFOSAA** – N-Ethyl Perfluorooctanesulfonamidoacetic Acid

Abbreviations and Acronyms

- **NFDHA** – Nonafluoro-3,6-Dioxaheptanoic Acid
- **NMeFOSAA** – N-Methyl Perfluorooctanesulfonamidoacetic Acid
- **NOAEL** – No-Observed-Adverse-Effect Level
- **NPDWR** – National Primary Drinking Water Regulation
- **NTNCWS** – Non-Transient Non-Community Water System
- **OGWDW** – Office of Ground Water and Drinking Water
- **OW** – Office of Water
- **PFAS** – Per- and Polyfluoroalkyl Substances
- **PFBA** – Perfluorobutanoic Acid
- **PFBS** – Perfluorobutanesulfonic Acid
- **PFDA** – Perfluorodecanoic Acid
- **PFDoA** – Perfluorododecanoic Acid

Abbreviations and Acronyms

- **PFEESA** – Perfluoro (2-Ethoxyethane) Sulfonic Acid
- **PFHpA** – Perfluoroheptanoic Acid
- **PFHpS** – Perfluoroheptanesulfonic Acid
- **PFHxA** – Perfluorohexanoic Acid
- **PFHxS** – Perfluorohexanesulfonic Acid
- **PFMBA** – Perfluoro-4-Methoxybutanoic Acid
- **PFMPA** – Perfluoro-3-Methoxypropanoic Acid
- **PFNA** – Perfluorononanoic Acid
- **PFOA** – Perfluorooctanoic Acid
- **PFOS** – Perfluorooctanesulfonic Acid
- **PFPeA** – Perfluoropentanoic Acid

Abbreviations and Acronyms

- **PFPeS** – Perfluoropentanesulfonic Acid
- **PFTA** – Perfluorotetradecanoic Acid
- **PFTTrDA** – Perfluorotridecanoic Acid
- **PFUnA** – Perfluoroundecanoic Acid
- **PPRTV** – Provisional Peer-Reviewed Toxicity Values
- **PT** – Proficiency Testing
- **PWS** – Public Water System
- **PWSID** – Public Water System Identification Code
- **QA** – Quality Assurance
- **QC** – Quality Control

Abbreviations and Acronyms

- **RfD** – Reference Dose
- **SDWA** – Safe Drinking Water Act
- **SDWARS** – Safe Drinking Water Accession and Review System
- **SDWIS/Fed** – Federal Safe Drinking Water Information System
- **SPE** – Solid Phase Extraction
- **TNCWS** – Transient Non-Community Water System
- **UCM** – Unregulated Contaminant Monitoring
- **UCMR** – Unregulated Contaminant Monitoring Rule

Appendix 2: Supplemental Q&A

This appendix provides answers to questions received during the webinar that are not fully covered in the webinar presentation slides and that are relevant to multiple stakeholders. Questions that addressed common topics were grouped. Information and direct links for additional [UCMR 5 Supporting Materials](#) are provided at the end of this appendix.

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Supplemental Q&A

General

What does it mean to *monitor*?

For the purposes of UCMR, monitoring refers to sample collection, shipment and analysis, and reporting of results.

Will there be any financial assistance available for large PWSs to cover monitoring costs (e.g., sample shipping and analyses), such as for those that barely fall into the large size category?

SDWA specifies that EPA will pay for testing and laboratory analysis necessary to carry out UCMR monitoring at PWSs serving 10,000 or fewer people. Large PWSs are responsible for their own costs. EPA does not have statutory authority to fund large PWS monitoring, but PWSs may contact their State to see if such State funds are available to large PWSs.

What health-based drinking water values has EPA published for PFAS?

On June 15, 2022, EPA released four drinking water health advisories for PFAS: interim values for PFOA [0.004 parts per trillion (ppt) (0.000004 µg/L)] and PFOS [0.02 ppt (0.00002 µg/L)], and final values for GenX chemicals [10 ppt (0.01 µg/L)] and PFBS [2,000 ppt (2 µg/L)]. EPA is developing health assessments for five additional PFAS (PFBA, PFNA, PFHxA, PFHxS, and PFDA) and anticipates developing health-based drinking water values as they are completed. Stakeholders may also refer to the [UCMR 5 Data Summary](#) (released quarterly during monitoring) for up-to-date health effects information (health reference levels, health advisories, and risk-related information) about UCMR 5 contaminants. EPA also maintains a [webpage](#) for non-regulatory health-based drinking water levels.

How long does it take the UCMR Message Center (UCMR5@glec.com) to respond to a request?

EPA anticipates that the UCMR Message Center will respond within 1-3 business days. Please contact UCMR_Sampling_Coordinator@epa.gov if you believe the UCMR Message Center is being unresponsive or untimely in addressing your request.

UCMR 5 Applicability to Public Water Systems

Is there a publicly-available list of small PWSs that have been selected for participation in UCMR 5 monitoring?

EPA does not publicly post a list of participating small PWSs. UCMR 5 requires all small PWSs serving between 3,300 and 10,000 people to monitor, subject to the availability of EPA appropriations and sufficient laboratory capacity, and a nationally representative sample of small PWSs serving less than 3,300 people to monitor. To confirm your applicability, please contact UCMR5@glec.com and include your PWSID.

If a PWS participated in a past UCMR monitoring cycle(s), must it participate in UCMR 5?

All large PWSs participated in prior UCMR monitoring and all large PWSs must participate in UCMR 5. Participation by small PWSs varies by cycle; all UCMR cycles are independent of each other, so participation in multiple UCMR cycles is possible.

Public Water System Notification Letters

What does a PWS do if it has not received a UCMR 5 notification letter and has questions about its participation?

Please see presentation slides 32-35 for more information on PWS participation and notifications. If you have not received your notification letter (either through email or physical mailing) but suspect that you are subject to UCMR 5, please contact UCMR5@glec.com and include your PWSID.

Is the small PWS category that serves 3,300 to 10,000 people considered the “medium” PWS category identified on the notification letters?

Yes.

We are a wholesale PWS and received all of the notification letters via email for the PWSs that purchase water from us. Should I forward the emails to them?

Yes. Please forward the notification letters to the PWSs that purchase water from you, and please notify UCMR5@glec.com for EPA records. Each PWS is responsible for its own UCMR 5 monitoring and will need its own SDWARS 5 account to meet their specific UCMR 5 requirements. EPA is aware that some wholesalers take on many of the “responsibilities” for their purchasing PWSs and also have an account for each of their purchasing PWSs. If you have additional questions or concerns on this issue, please contact UCMR5@glec.com.

In the case of small PWSs that received notification letters about their tentative inclusion in UCMR 5, how/when will their participation be confirmed?

EPA or States will primarily rely on PWS notifications via email; notifications will direct these PWSs to SDWARS for more details about their UCMR requirements. When an email address is not available, EPA or States may rely on sending physical letters to the PWS via the U.S. Postal Service. Small PWSs that have been notified about *tentative* inclusion in UCMR 5 will receive their *confirmation* notification at least six months prior to their scheduled sampling year (by July 2022, July 2023, or July 2024 for monitoring in 2023, 2024, and 2025, respectively).

Are there exceptions to PWSs being directly notified about UCMR 5 participation?

Yes. In rare cases, States have elected to manage many aspects of UCMR monitoring by PWSs as part of their voluntary “Partnership Agreement” with EPA. In the case of Arkansas (all PWSs), Minnesota (all PWSs), and New Mexico (small PWSs), the State received the official PWS notification because the State is organizing UCMR 5 sample collection and/or collecting the samples on behalf of the PWSs. In such cases, the State will be coordinating and communicating with their respective PWSs. Please contact your State or UCMR5@glec.com if you have questions about these arrangements.

Sample Collection

Is the PWS responsible for collecting UCMR 5 samples?

Yes. Generally speaking, the PWS (whether large or small) is responsible for sample collection. EPA will not designate a sampler. In the case of the rare exceptions mentioned earlier, some States may take responsibility for sample collection. (In those cases, the State will inform their PWSs of this.) EPA recommends that samplers become familiar with sample collection for UCMR 5 prior to the start of monitoring. EPA will provide sampling instructions and a sampling training video to help PWSs prepare their samplers.

Will sample collection for PFAS analysis require additional protocols or training? If so, will EPA provide this information prior to the start of UCMR 5 monitoring?

EPA is developing a sampling training video to assist with sample collection for UCMR 5 PFAS and lithium analyses. EPA also developed detailed instructions regarding sample collection, packaging, and shipping that will be provided with sampling kits used by small PWSs. EPA will share these instructions with all laboratories that analyze samples for UCMR 5.

Will the laboratory supply the sample-collection materials for the PWS?

Laboratories supporting large PWSs generally provide the necessary sampling kits; large PWSs may wish to confirm that this is the case with their particular laboratory. Small PWSs will receive sampling kits and instructions from the EPA UCMR implementation-support contractor. Please be aware that a few States plan to conduct the sampling for, or in coordination with, their PWSs and may provide the sampling kits and instructions.

If our PWS already treats its drinking water for PFAS, making it unlikely that PFAS would be found in entry-point (EP) samples, do we need to collect a raw water sample too?

No. UCMR 5 does not include any raw water sampling. UCMR is designed to collect occurrence data for treated drinking water, so only sampling at the EP to the PWS's distribution system is required, whether the PWS is treating for PFAS or not.

Have the UCMR 5 small PWS sampling kits and gel packs been tested for PFAS cross-contamination?

Yes. EPA has tested all materials used to support the UCMR 5 sampling at small PWSs and determined that neither the kits nor gel packs represent a significant source of PFAS contamination.

Why are PO Boxes not allowed to be used by small PWSs for their sampling kit shipping address?

A physical address is required by FedEx, the shipping carrier that will be used by the EPA UCMR implementation-support contractor to ship the sampling kits to the small PWSs.

Are there provisions for resampling for invalid results or results suspected of being nonrepresentative?

All PWSs must report the results obtained from the first sample collection for each sample event, except for cases of sampling or laboratory errors. Resampling is not for the purpose of “confirming” the results from a previous sample event, but only to address a sampling or laboratory error.

What are some instances in which a PWS would need to resample?

Resampling is required if the sample or laboratory analysis do not meet the requirements of the analytical methods and UCMR Laboratory Approval Program as outlined in the [UCMR 5 Laboratory Approval Manual](#).

1. Sampling error: if a sample is deemed invalid when received by the laboratory or analysis of a field reagent blank (FRB) indicates contamination occurred during sampling. Examples include: the sample was not received at the required temperature; the FRB was not transferred between the two FRB sample bottles during sample collection; the sample was taken before all treatment was applied
2. Laboratory error: if a sample fails method QC and the sample cannot be reprocessed (i.e., insufficient sample volume remaining or a holding time has been exceeded). Examples include: a laboratory reagent blank (LRB), laboratory fortified blank (LFB), or continuing calibration check (CCC) sample fails QC; QC surrogate recoveries fail in a sample; a laboratory or data audit determines data are otherwise invalid

Sample Design

Is sampling required at an “emergency-only” connection, even though the connection is not used?

No. UCMR does not require emergency sources to be sampled.

Is sampling required at an EP(s) to the distribution system that is used seasonally or for part of the year?

If the EP is ever in operation between January 1, 2023, and December 31, 2025, such as a seasonal EP, it must be sampled for UCMR 5. If the EP does not operate at all from 2023 to 2025, no sampling at the EP is required. Your schedule should be set up according to each EP’s use. Schedules can be made at the sample point level and are very flexible. For assistance with choosing a sampling schedule, contact UCMR5@glec.com.

Why does the UCMR program collect data from both the wholesaler and purchasing PWS, when both meet the criteria for UCMR participation (i.e., retail population served)?

Please see the [UCMR 5 Final Rule](#) and [Response to Comments](#) document for discussion of EPA’s rationale.

Would a PWS with ground water sources that purchases surface water from another PWS be subject to the quarterly monitoring or the semiannual monitoring?

A PWS that uses any surface water is classified as a surface water PWS for their facility type, however the designation for quarterly and semiannual monitoring is determined by the primary water source type at each sampling location (i.e., each EP). SDWARS will automatically identify the sampling frequency for each EP based on the water source type identified for that particular EP. For example, if a particular EP is supplied by both ground water and surface water sources, thus representing a mixed source, it must be identified as such and must be sampled quarterly. If an EP is exclusively supplied by a ground water source (i.e., separated from surface water sources), it must be identified as a ground water EP and must be sampled semiannually. Please contact UCMR5@glec.com for assistance with characterizing sampling locations.

Some PWSs are already treating for PFAS as a result of State regulations. Will this diminish the statistical significance of UCMR 5 results regarding occurrence and co-occurrence of the PFAS contaminants?

The UCMR 5 program was designed to characterize contaminant occurrence in finished drinking water at a national level, recognizing that treatment for PFAS will vary among PWSs. Under UCMR 5, EPA is also collecting qualitative information from PWSs on historical PFAS detections and/or treatment added due to PFAS detections prior to UCMR 5 monitoring. The analytical results and the qualitative information will both be considered in EPA’s assessment of UCMR 5 data.

Is a Ground Water Representative Monitoring Plan (GWRMP) required for all ground water PWSs participating in UCMR?

No. The GWRMP program is an opportunity (not a requirement) to reduce UCMR burden for large PWSs with multiple ground water EPs that can reasonably be represented by a subset of those EPs. For more information, please contact UCMR_Sampling_Coordinator@epa.gov.

CDX (Central Data Exchange) and SDWARS (Safe Drinking Water Accession and Review System)

Can I use an existing CDX account from a prior data reporting activity for UCMR 5?

Yes. When using the Customer Retrieval Key (CRK) for UCMR 5, you can log in to an existing CDX account (such as the one you used for UCMR 4 or other reporting activities).

I am logged in to a CDX account but I do not see UCMR 5/SDWARS 5 anywhere. Why?

The only way to add SDWARS 5 to your CDX account is to enter the UCMR 5 CRK (i.e., one-time password found in the notification email or physical letter sent to your PWS) at <https://cdx.epa.gov/preregistration/>. If you have not received a CRK for UCMR 5, please contact UCMR5@glec.com. If you have used a UCMR 5 CRK and still do not see SDWARS 5 on your account, please contact the CDX Help Desk at helpdesk@epacdx.net or 1-888-890-1995.

Does a State have to request a CRK for access to SDWARS 5?

States were sent a CRK to allow them access to SDWARS 5. Contact UCMR5@glec.com if you need your CRK.

How many users from one PWS are allowed in SDWARS 5?

Each PWS can have multiple users in SDWARS 5. Anyone who wants to receive UCMR 5 notifications about sampling and results needs to have a CDX account with SDWARS 5 access.

If I nominate an additional user for SDWARS 5, will they have access to the same functions?

Yes. All users have the same access and functionalities within SDWARS 5; there is no distinction between users.

Did UCMR 4/SDWARS 4 nominations carry over to SDWARS 5?

No. The SDWARS 4 program has been removed from all CDX accounts. Any CDX account holder can use the UCMR 5 CRK assigned to the PWS to add SDWARS 5 to their CDX account. Once SDWARS 5 has been added to their account, they can nominate an additional user(s) to add SDWARS 5 to their CDX account. Upon nomination, a new CRK(s) will be generated and sent to the additional user(s).

May the sampling schedule shown for my PWS in SDWARS 5 be changed?

Yes. Large PWSs can independently edit their schedule in SDWARS through December 31, 2022. After that, the PWS must contact UCMR_Sampling_Coordinator@epa.gov to request changes. Small PWSs must contact UCMR5@glec.com to request a schedule change. Please see presentation slides 36, 88, and 108-110 for more information on PWS sampling schedules.

Compliance with UCMR 5 requirements is based on the sampling schedule shown in SDWARS 5 (i.e., the original/default schedule or, as appropriate, the modified schedule). Documentation of schedule changes is therefore important.

For some purchasing/consecutive PWSs, the wholesale PWS name (rather than their own name) is listed in SDWARS 5. How can this be fixed?

Information collected from States, SDWIS/Fed, and UCMR 4 was used to populate SDWARS 5. Please review all UCMR 5 information and contact UCMR_Sampling_Coordinator@epa.gov to discuss changes to the PWS name.

If a representative EP is not available/active and we sample an alternate highest volume representative connection, do we request the sample location change in SDWARS 5?

No; however, please add a comment in SDWARS 5 noting that the "Sample was collected from Site [Alternative Representative EP]."

My PWS has a purchased-water-only EP. What do I select for facility type in SDWARS?

Please use CC (consecutive connection) for the purchased-water facility.

Data Elements

When and how should my PWS provide answers to the data elements?

PWSs will initially respond to a subset of the data elements directly in SDWARS 5 by December 31, 2022. Small PWSs will be able to confirm their responses to data elements 10, 11, 26, and 27 on their 'Sample Tracking Form' in the sampling kit, to be filled out by the small PWS at the time of each sample event. Large PWSs will respond to additional data elements in SDWARS 5 once their monitoring begins. The PWS can prepopulate some information from one sample event to the next to allow easier data entry.

If my PWS purchases water, do I need information from the wholesale PWS to answer data elements 10, 11, 26, and 27?

EPA encourages PWSs consult with their wholesaler, as needed, to assist with these questions. When it is impractical to provide a more specific response, you may answer "Do not know."

If my PWS previously tested for one or more of the UCMR 5 contaminants (e.g., the PWS participated in UCMR 3 monitoring for PFAS), and has either not changed treatment or has treatment modification under design but not yet in service, how do I answer data element 26?

If your PWS has tested for one or more UCMR 5 contaminants in the past (including but not limited to PFAS testing during UCMR 3) and has not already made treatment changes to address those contaminants, you will select "YES" for "Have you tested" and then select "NMT = Not modified after testing." Treatment processes should only be cited if they are used at the time of UCMR 5 sample collection. If treatment changes between sample events, the PWS would update their response to data element 26.

How much detail are PWSs required to provide for data element 27 regarding potential PFAS sources (e.g., assessment of a particular aquifer recharge area or watershed)?

EPA is looking for a good-faith effort by PWSs to accurately answer the question on potential historical or current PFAS sources that are known to or could possibly be a source of contamination in the drinking water sources at the PWS. For data element 27, EPA is not asking for a formal, in-depth, source water evaluation. EPA recognizes that responding to data element 27 requires judgement and that some PWSs will have more complete information than others. Information on the current and historical sources of PFAS, even if based on PWS judgement, may help the Agency better identify and evaluate regulatory strategies should the UCMR 5 data indicate that the contaminants occur at levels and frequencies of concern.

Laboratory Reporting

Are laboratories allowed to "qualify" or "flag" UCMR 5 sample results in SDWARS to reflect that QC criteria were not met?

No. Data cannot be "qualified" or otherwise flagged in SDWARS. Results uploaded by laboratories must meet the specified QC criteria outlined in the [UCMR 5 Laboratory Approval Manual](#).

Will data reported by laboratories in SDWARS include field reagent blank (FRB) results with the field sample results?

Yes. Laboratories are required to submit passing FRB data with any "positive" PFAS sample results for EPA Methods 533 and 537.1 (i.e., results at or above the UCMR 5 MRL). SDWARS will not accept field sample data unless it has corresponding passing QC data.

Zip Codes

What is the proper Zip Code format for UCMR 5 (5-digit or ZIP+4)?

Only 5-digit Zip Codes may be reported in SDWARS.

I copied our Zip Code information over from UCMR 4 to UCMR 5. The Zip Code(s) were flagged as “invalid.”

What do I do?

If the Zip Code is correct, you will have to manually override the “invalid” warning in SDWARS. EPA is using a Zip Code list from the U.S. Postal Service to help verify the data entered for Zip Codes. That list may be incomplete, in which case it is appropriate for a PWS to verify a Zip Code(s), via override, when they know that the flagged code(s) is/are valid.

If a PWS has more than one Zip Code, or sells water to another PWS(s), does that PWS input all Zip Codes or just one?

As a one-time UCMR requirement, PWSs must report the U.S. Postal Service Zip Code(s) associated with all retail customers they serve. Wholesale PWSs are only responsible for providing the Zip Code(s) associated with any retail customers they serve.

Laboratory Approval Program

Can a certified/accredited PWS laboratory apply for EPA approval to analyze UCMR 5 samples?

Yes. If a PWS’s internal laboratory is certified/accredited (typically by their State) to analyze drinking water samples for one or more compliance-monitoring parameters, the laboratory is eligible to participate in the UCMR Laboratory Approval Program and may analyze UCMR 5 samples using the specified methods if approved by EPA.

After being approved as a UCMR 5 laboratory, how soon does the UCMR 5 Quality Assurance Project Plan (QAPP) have to be completed?

As outlined in the [UCMR 5 Laboratory Approval Manual](#), laboratories must submit UCMR 5 QAPPs to EPA by December 31, 2022. If a laboratory experiences changes that impact the technical and quality objectives of their existing UCMR 5 QAPP, the QAPP must be revised and resubmitted for approval.

Is the list of approved laboratories for UCMR 5 subject to change?

Yes. EPA maintains an online [list of approved laboratories](#) for UCMR 5, which is updated regularly. Laboratories are approved and added to the list throughout 2022. During UCMR monitoring (2023-2025), EPA may revoke a laboratory’s UCMR 5 approval status if the laboratory does not adhere to QA/QC procedures and criteria or fails to post data to SDWARS in a timely and accurate manner. If EPA revokes approval, or the laboratory otherwise requests to discontinue program participation, the laboratory will be removed from this list.

What if the laboratories we are considering are not approved to analyze all 30 UCMR 5 contaminants? Will we have to use multiple laboratories?

EPA pays for and manages the analysis of UCMR 5 samples from small PWSs; those PWSs do not need to arrange for any laboratory support. Large PWSs are responsible for their own monitoring arrangements (including sample analysis), unless otherwise directed by their State, and can choose the laboratory(ies) that fit their needs (this includes using a single laboratory approved to analyze all 30 contaminants or multiple laboratories). Laboratories approved by EPA to participate in UCMR 5 are permitted to analyze UCMR 5 samples from any State, Territory, or Tribe.

Must large PWSs arrange for their UCMR 5 samples to be analyzed by laboratories located within their State/Region?

EPA offers the flexibility for large PWSs to use any approved laboratory(ies) without regard to location. If your PWS is located in a State that is partnering with EPA to oversee monitoring by large PWSs, your State may specify the use of particular laboratories.

Consumer Confidence Reports (CCRs)

Which UCMR results do PWSs include in the CCR if they don't receive the data before the end of the reporting year? Should they wait until all monitoring data are received to report UCMR results in their CCR and Public Notification (PN)?

For UCMR unregulated contaminants, **community** water systems (CWSs) must report the average and the range of detected contaminants (results at or above the UCMR MRL) [40 CFR 141.153(d)(7)] in their CCR for those UCMR results collected during the previous calendar year (or prior to that point for data not already reported on a CCR). If CWSs receive UCMR results during multiple calendar years, they must include those results in the CCR for each respective calendar year (i.e., they may not wait until they have a complete set of results covering multiple years).

All PWSs are required to issue a Tier 3 PN to customers of the availability of UCMR monitoring results within 12 months after the monitoring results are known [40 CFR 141.207]. **CWSs** can meet this requirement for the Tier 3 PN through their CCR if the timing and delivery requirements are met (i.e., if the CCR will be delivered within 12 months of the UCMR results becoming known) [40 CFR 141.204(d)]. PWSs must also be aware of and comply with any additional State reporting requirements.

Is there any CCR or PN template language or guidance for reporting UCMR results?

EPA's CCR Compliance Help [webpage](#) provides a [reference guide](#) with an example statement that CWSs can use in their CCR to explain to customers why they are monitoring for unregulated contaminants, as well as information on [CCR data reporting units](#) and [best practices](#). EPA has also developed a [Tier 3 PN template](#) for notifying consumers that UCMR results are available under 40 CFR 141.207.

Must CWSs include contaminant sources and health information for UCMR results in the CCR?

Contaminant sources and health information are not required to be included for UCMR results in the CCR [40 CFR 141.153(d)(7)]. EPA strongly encourages CWSs to include an explanation of the significance of results when a health advisory exists (see the [UCMR 5 Data Summary](#), released quarterly during monitoring, for up-to-date health effects information on UCMR 5 contaminants). The CWS, which is ultimately responsible for the CCR, should check with their State (which has primacy responsibility for CCR) to verify if the State requires the CCR to include additional information.

Additional UCMR 5 Supporting Materials

SDWARS 5 Demos for Public Water Systems

SDWARS 5 demos (videos) are available online to help PWSs complete their profiles:

Large PWS Role Walkthrough: <https://youtu.be/2l4oUSGR4Fc>

Small PWS Role Walkthrough: <https://youtu.be/2gacQ4Gle7l>

Laboratories Approved by EPA to Support UCMR 5

<https://www.epa.gov/dwucmr/list-laboratories-approved-epa-fifth-unregulated-contaminant-monitoring-rule-ucmr-5>

March 2022 Webinar Recording

<https://youtu.be/zjGWMfWErOO> (Note: EPA presenters followed the presentation information closely)

Public Docket

<https://www.regulations.gov/docket/EPA-HQ-OW-2020-0530>: A collection of documents, supporting materials, and submitted public comments from the UCMR 5 rulemaking process

Final Rule Preamble (December 27, 2021, 86 FR 73131)

<https://www.regulations.gov/document/EPA-HQ-OW-2020-0530-0125>: *Federal Register* Final Rule Notice describing UCMR 5 contaminants, monitoring design, and requirements

Information Collection Request

<https://www.regulations.gov/document/EPA-HQ-OW-2020-0530-0141>: Full analysis of data collection considerations, including assumptions and sources used in cost and burden estimates

Instructions for Preparing a Ground Water Representative Monitoring Plan (GWRMP)

<https://www.regulations.gov/document/EPA-HQ-OW-2020-0530-0128>: Instructions for creating a GWRMP proposal (optional for PWSs), including the basic information needed to support the justification to reduce the number of UCMR samples collected at ground water EPs

Laboratory Approval Manual Version 2.0

<https://www.regulations.gov/document/EPA-HQ-OW-2020-0530-0129>: Specific information on the UCMR 5 Laboratory Approval Program, including acceptance criteria and sample procedures specific to the analytical methods and results from laboratory LCMRL studies

Response to Public Comments on the Proposal

<https://www.regulations.gov/document/EPA-HQ-OW-2020-0530-0137>: All public comments received on the UCMR 5 Proposed Rule and EPA's responses, organized by topic

Selection of Nationally Representative Public Water Systems for UCMR: 2021 Update

<https://www.regulations.gov/document/EPA-HQ-OW-2020-0530-0127>: A description of the UCMR monitoring tiers, data quality objectives, and statistical approach for EPA's selection of the nationally representative sample of PWSs

All links last accessed on July 15, 2022.