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Fifth Unregulated Contaminant Monitoring Rule

The Safe Drinking Water Act (SDWA) requires that once every five years EPA issue a new list of unregulated contaminants to be monitored by public water systems (PWSs).

NEW The proposed fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on March 11, 2021. UCMR 5, as proposed, would require sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by EPA and consensus organizations. This proposed action would provide EPA, states, and communities with scientifically valid data on the national occurrence of these contaminants in drinking water. The proposed UCMR 5 would provide new data that is critically needed to improve EPA's understanding of the frequency that 29 PFAS are found in the nation's drinking water systems and at what levels. EPA will accept public comment on the proposed UCMR 5 for 60 days, following publication in the Federal Register. EPA will also hold a virtual stakeholder meeting twice during the public comment period.

- [40 CFR \(Code of Federal Regulations, Title 40\) Part 141: Proposal - Revisions to the Unregulated Contaminant Monitoring Rule \(UCMR 5\) for Public Water Systems and Announcement of a Public Meeting \(PDF\) \(27 pp, 440 K, About PDF\)](#)
- [Press Release: EPA Takes Action to Address PFAS in Drinking Water](#)
- [UCMR 5 Fact Sheet](#)
- [Public Stakeholder Meeting \(Webinar\): April 6 and 7, 2021](#)

Proposed UCMR 5 scope, analytical methods and contaminants

Assessment Monitoring

As proposed, all PWSs serving 3,300 or more people, and 800 representative PWSs serving fewer than 3,300 would collect samples for 30 (29 per- and polyfluoroalkyl substances [PFAS] and lithium), during a 12-month period from January 2023 through December 2025.

Proposed Monitoring Design

SDWA was amended by Section 2021 of America's Water Infrastructure Act of 2018 (AWIA). Subject to the availability of appropriations and sufficient laboratory capacity, SDWA now requires that UCMR include all large PWSs

(serving >10,000 people), all PWSs serving between 3,300 and 10,000 people, and a representative sample of PWSs serving fewer than 3,300 people. Under the AWIA provisions, EPA continues to be responsible for all analytical costs associated with monitoring at systems serving 10,000 or fewer.

Table 1. Proposed UCMR 5 Scope

System Size (# of people served)	30 Contaminants
Small Systems (25 – 3,299)	800 randomly selected surface water (SW), ground water under the direct influence of surface water (GWUDI), and ground water (GW) systems
Small Systems (3,300 – 10,000)	All SW, GWUDI, and GW systems
Large Systems (10,001 and over)	All SW, GWUDI, and GW systems

Proposed Contaminants and Analytical Methods

SDWA was amended by Section 7311 of the National Defense Authorization Act (NDAA) for Fiscal Year 2020. NDAA specifies that EPA shall include all PFAS in UCMR 5 for which a drinking water method has been validated, and that are not subject to a national primary drinking water regulation. UCMR 5 includes all 29 PFAS that are within the scope of EPA Methods 533 and 537.1; see Table 2.

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

Table 2. Contaminants, Minimum Reporting Levels, Sampling Locations, and Analytical Methods

Twenty-nine Per- and Polyfluoroalkyl Substances

Contaminant	Chemical Abstract Service Registry Number (CASRN)	Minimum Reporting Level	Sample Point Location¹	Analytical Methods
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	763051-92-9	0.005 µg/L	EPTDS	EPA Method 533
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	0.002 µg/L	EPTDS	EPA Method 533
4,8-dioxa-3H-perfluorononanoic acid (ADONA) ²	919005-14-4	0.003 µg/L	EPTDS	EPA Method 533
hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6	0.005 µg/L	EPTDS	EPA Method 533
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	151772-58-6	0.02 µg/L	EPTDS	EPA Method 533
perfluorobutanoic acid (PFBA)	375-22-4	0.005 µg/L	EPTDS	EPA Method 533
perfluorobutanesulfonic acid (PFBS)	375-73-5	0.003 µg/L	EPTDS	EPA Method 533
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	39108-34-4	0.005 µg/L	EPTDS	EPA Method 533
perfluorodecanoic acid (PFDA)	335-76-2	0.003 µg/L	EPTDS	EPA Method 533
perfluorododecanoic acid (PFDoA)	307-55-1	0.003 µg/L	EPTDS	EPA Method 533

Contaminant	Chemical Abstract Service Registry Number (CASRN)	Minimum Reporting Level	Sample Point Location¹	Analytical Methods
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	113507-82-7	0.003 µg/L	EPTDS	EPA Method 533
perfluoroheptanesulfonic acid (PFHpS)	375-92-8	0.003 µg/L	EPTDS	EPA Method 533
perfluoroheptanoic acid (PFHpA)	375-85-9	0.003 µg/L	EPTDS	EPA Method 533
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	757124-72-4	0.003 µg/L	EPTDS	EPA Method 533
perfluorohexanesulfonic acid (PFHxS)	355-46-4	0.003 µg/L	EPTDS	EPA Method 533
perfluorohexanoic acid (PFHxA)	307-24-4	0.003 µg/L	EPTDS	EPA Method 533
perfluoro-3-methoxypropanoic acid (PFMPA)	377-73-1	0.004 µg/L	EPTDS	EPA Method 533
perfluoro-4-methoxybutanoic acid (PFMBA)	863090-89-5	0.003 µg/L	EPTDS	EPA Method 533
perfluorononanoic acid (PFNA)	375-95-1	0.004 µg/L	EPTDS	EPA Method 533
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	27619-97-2	0.005 µg/L	EPTDS	EPA Method 533

Contaminant	Chemical Abstract Service Registry Number (CASRN)	Minimum Reporting Level	Sample Point Location¹	Analytical Methods
perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.004 µg/L	EPTDS	EPA Method 533
perfluorooctanoic acid (PFOA)	335-67-1	0.004 µg/L	EPTDS	EPA Method 533
perfluoropentanoic acid (PFPeA)	2706-90-3	0.003 µg/L	EPTDS	EPA Method 533
perfluoropentanesulfonic acid (PFPeS)	2706-91-4	0.004 µg/L	EPTDS	EPA Method 533
Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.002 µg/L	EPTDS	EPA Method 533
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2991-50-6	0.005 µg/L	EPTDS	EPA Method 537.1
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2355-31-9	0.006 µg/L	EPTDS	EPA Method 537.1
perfluorotetradecanoic acid (PFTA)	376-06-7	0.008 µg/L	EPTDS	EPA Method 537.1
perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.007 µg/L	EPTDS	EPA Method 537.1

One Metal

Contaminant	Chemical Abstract Service Registry Number (CASRN)	Minimum Reporting Level	Sample Point Location ¹	Analytical Methods
Lithium	7439-93-2	9 µg/L	EPTDS	EPA Method 200.7; SM 3120 B (2017); SM 3120 B-99 (1999); ASTM D1976-20

Notes

1. Sampling Locations - Entry points to the distribution system (EPTDS)
2. Although the abbreviation used is ADONA (indicating the ammonium salt), 4,8-dioxa-3H-perfluorononanoic acid is the parent acid

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