

U.S. Environmental Protection Agency Information Collection Request

Title: Information Collection Request Renewal for the Final Unregulated Contaminant Monitoring Rule (UCMR 5)

OMB Control Number: 2040-0304

EPA ICR Number: 2683.03

Abstract: Section 1445(a)(2) of the Safe Drinking Water Act (SDWA) requires that once every five years, beginning in 1999, the United States Environmental Protection Agency (EPA) issue a new list of priority unregulated contaminants in drinking water to be monitored by public water systems (PWSs).

Information collected under the program informs the EPA decision making regarding whether or not to regulate particular contaminants in drinking water. SDWA requires that the EPA vary the frequency and schedule for the monitoring program based on the number of people served, the source of supply, and the contaminants likely to be found. SDWA, as amended by America's Water Infrastructure Act of 2018 (AWIA) (Public Law 115-270), specifies that, subject to the availability of appropriations for such purpose and sufficient laboratory capacity, the EPA's UCMR program must require all systems serving between 3,300 and 10,000 people to monitor, and ensure that only a nationally representative sample of systems serving between 25 and 3,299 people are required to monitor. The program continues to require all systems serving a population larger than 10,000 people to monitor. The original Information Collection Request (ICR) for UCMR 5 noted that if the EPA does not receive the appropriations needed for monitoring all of these systems in a given year, the EPA will reduce the number of systems serving 25 to 10,000 people that will be asked to perform monitoring. Thus far, the EPA has received the appropriations necessary for the first 2 years of sample collection and analysis, and the agency anticipates that it will have the funding needed to complete UCMR 5 monitoring as planned. SDWA, as amended by the National Defense Authorization Act for Fiscal Year 2020 (NDAA) (Public Law 116-92), specifies that the EPA shall include all PFAS in UCMR 5 for which a drinking water method has been validated by the Administrator, and that are not subject to a national primary drinking water regulation. SDWA also requires the EPA to enter the monitoring data into the publicly available National Drinking Water Contaminant Occurrence Database (NCOD).

The EPA published the first Unregulated Contaminant Monitoring Rule (UCMR 1) in 1999 (64 FR 50556). Subsequent rules were published as follows: UCMR 2 in 2007 (72 FR 367); UCMR 3 in 2012 (77 FR 26072); UCMR 4 in 2016 (81 FR 92666); and UCMR 5 in 2021 (86 FR 73131). Each

built on the established structure of the previous UCMRs. In developing the final UCMR 5, the EPA considered input the agency received during the public comment period. This ICR renewal document was developed based on the scope of the final UCMR 5.

The 5-year UCMR 5 period spans 2022—2026. Preparations (by the EPA, States, laboratories, and PWSs) took place in 2022. UCMR 5 sample collection began in 2023 and continues through 2025. Reporting of results will conclude in 2026.

The original ICR for UCMR 5 addressed the 3-year period of 2022-2024. The applicable 3-year period for this particular ICR (*i.e.*, the ICR renewal) is 2025—2027. The ICR renewal period includes the last two years of the 5-year UCMR 5 period, which involves the last scheduled year of UCMR sample collection (2025) and the last two years of reporting results (2025-2026). There are no UCMR 5 costs associated with the third ICR renewal year (2027). Therefore, this ICR renewal will have substantially lower cost figures relative to the original (2022-2024) ICR.

For convenience, and to comply with Executive Order 12866, this renewal addresses the required 3- ICR period (2025-2027) but also includes estimates of implementation burden and cost that cover the entire 5-year UCMR 5 period (2022-2026). The latter estimates are attached as Appendix B to this ICR renewal. Many of the exhibits throughout the body of this ICR renewal (3-year figures) have corresponding exhibits in Appendix B (5-year figures), as noted in the exhibit titles.

The final UCMR 5 rule identifies three analytical methods to support PWS monitoring for 29 per- and polyfluoroalkyl substances (PFAS) and one metal/pharmaceutical (lithium).

An estimated 5,947 PWSs serving between 25 and 10,000 people (hereafter referred to as small PWSs), will conduct monitoring for the 29 PFAS plus lithium over the course of UCMR 5 (3,484 small PWSs served by ground water and 2,463 small PWSs served by surface water or ground water under the direct influence of surface water sources), subject to the availability of appropriations.

All PWSs serving more than 10,000 people (hereafter referred to as large PWSs) will conduct monitoring for the 29 PFAS plus lithium over the course of UCMR 5 regardless of whether or not the EPA receives necessary appropriations to collect information from all systems serving 3,300 to 10,000 people. This includes “very large” systems (*i.e.*, those serving more than 100,000 people).

UCMR 5 includes Assessment Monitoring for “List 1” contaminants.¹ UCMR 5 does not include a Screening Survey (for “List 2” contaminants) or Pre-Screen Testing (for “List 3” contaminants).

¹ Transient non-community water systems (TNCWSs) are excluded from Assessment Monitoring under UCMR 5, consistent with the typical UCMR approach.

Selected PWSs are required to collect samples for the unregulated contaminants during a continuous 12-month period during the sampling timeframe. Sampling will take place quarterly for PWSs that rely on surface water and ground water under the direct influence of surface water (a total of four sampling events), and at 6-month intervals for PWSs that rely on ground water (a total of two sampling events).

The EPA expects that approximately one-third of the selected PWSs will monitor during each of the three sample collection years (2023—2025); thus, approximately one-third of the PWSs are expected to collect samples in 2025 (*i.e.*, during this ICR renewal period).

Respondents to UCMR 5 potentially include approximately 5,947 small PWSs; 4,364 large and very large PWSs; and 56 states and primacy agencies (referred to collectively as “states”); for an estimated 10,367 respondents. The frequency of response varies across respondents and years.

Small PWSs sample an average of 2.8 times per PWS (*i.e.*, number of responses per PWS) across the UCMR 5 ICR renewal period. The estimated burden per response for small PWSs is 2.4 hours. Large PWSs and very large PWSs sample and report an average of 3.2 and 3.7 times per PWS, respectively, across the ICR renewal period. The estimated burden per response for large and very large PWSs, respectively, are 7.0 and 8.8 hours.

States incur only labor costs associated with UCMR 5 implementation. State activities are determined through individual, voluntary Partnership Agreements with the EPA. The EPA assumed state UCMR 5 participation comparable to that in UCMR 4. States incur 2.0 responses over the 3-year ICR renewal period related to coordination with the EPA and PWSs, with an estimated burden per response of 98.4 hours. In aggregate, during the ICR renewal period, the average response (*i.e.*, responses from PWSs and states) is associated with a burden of 6.1 hours, with a labor plus non-labor cost of \$1,608 per response.

The annualized per respondent burden hours and costs for the ICR renewal period are: small PWSs – 2.2 hours (or \$87) for labor; large PWSs – 7.5 hours (or \$290) for labor and \$2,681 for analytical costs; very large PWSs – 10.7 hours (or \$409) for labor and \$8,212 for analytical costs; and states – 98.4 hours (or \$5,713) for labor. Annualized burden and cost per respondent (for PWSs and states) over the ICR renewal period of 2025-2027 is 6.1 hours, with a labor plus non-labor cost of \$1,613 per respondent based on the participation by 800 systems serving 25 to 3,299 people and all PWSs serving 3,300 or more people.

The EPA estimates the total average national cost of this action will be \$21 million per year over the 5-year effective period of the final rule (2022—2026). All of these costs are associated with burden subject to the Paperwork Reduction Act (PRA). Total burden is not expected to exceed 322,000 hours or \$104 million over the 5-year period, as detailed in Exhibit B-4.

The annualized burden to the EPA for UCMR 5 program activities during the ICR renewal years (2025-2027) is 12,480 hours, with an annual labor cost of \$1.1 million. The EPA's annualized non-labor costs are \$4.7 million. The EPA's non-labor costs are primarily attributed to the cost of sample analysis for small PWSs (sample analysis represents approximately 91% of non-labor cost).

This ICR renewal (along with the original ICR) serves as the Economic Analysis for the UCMR final rule, as required by Executive Order 12866. The EPA's estimates are based on executing the full monitoring plan for small systems (*i.e.*, including all systems serving 3,300 to 10,000 people and a representative group of 800 smaller systems). As such, those estimates represent an upper bound. If the EPA does not receive the necessary appropriations in one or more of the collections years – and thus collects data from fewer small systems – the actual costs would be lower than those estimated here.

SUPPORTING STATEMENT A

1. NEED AND AUTHORITY FOR THE COLLECTION

Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.

The EPA's primary authority for this program is SDWA Section 1445(a)(2), which requires the agency to implement a "Monitoring Program for Unregulated Contaminants." See the Abstract section for further background and see Appendix A for the applicable statutory text.

2. PRACTICAL UTILITY/USERS OF THE DATA

Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

The UCMR 5 data support the Administrator's determination of whether to regulate particular contaminants through the Regulatory Determination process. When a positive determination is made through that process, UCMR data also support regulation development. If the contaminant has significant occurrence and health effects, the EPA may use the results to: support an exposure assessment; establish the baseline for health effects and economic analyses; analyze contaminant co-occurrence; and evaluate treatment technologies, including contaminant source management. The results can suggest that contaminant occurrence is significant enough to initiate research on health effects and treatment technologies. Finally, the data can guide future source water protection efforts.

The EPA Administrator Regan issued a directive to all the EPA staff to incorporate environmental justice into the agency's work, including regulatory activities, such as integrating EJ considerations into the regulatory development processes and considering regulatory options to maximize benefits to communities that "continue to suffer from disproportionately high pollution levels and the resulting adverse health and environmental impacts." In keeping

with this directive, and consistent with AWIA, the EPA has expanded UCMR 5 to include all PWSs serving 3,300 to 10,000 people, subject to the availability of appropriations and laboratory capacity. The expansion in the number of participating PWSs will provide a more comprehensive assessment of contaminant occurrence data from small and rural communities, including disadvantaged communities.

This action will provide the EPA and other interested parties with scientifically valid data on the national occurrence data of selected contaminants in drinking water. By developing a national characterization of unregulated contaminants that may pose health risks via drinking water from PWSs, UCMR furthers the protection of public health for all citizens. The expanded monitoring scope reflected in UCMR 5 (*i.e.*, including all PWSs serving 3,300 to 10,000 people) will better support state and regional analyses and determination of potential EJ issues that need to be addressed, and support potential assessments of whether or not certain communities are disproportionately impacted by particular drinking water contaminants.

The EPA-approved laboratories post the results from sample analyses to the EPA's electronic data reporting system. Large PWSs review the information posted by the laboratory(ies) that support them and submit the approved data to the state and the EPA, also via the electronic data reporting system. Results for small PWSs are directly reported to the EPA via the data reporting system by the laboratories contracted by the EPA, and are reviewed by the EPA on behalf of the small PWSs. The data collected through the UCMR program are stored in the NCOD to facilitate analysis and review of contaminant occurrence. Each participating PWS is responsible for maintaining records of their analytical results.

The primary user of the information collected under this ICR renewal is the EPA's Office of Water (OW). Other users of this information could include the following:

- Primacy agencies, which include state regulators, Indian Tribes, and, in some instances, the EPA Regions.
- PWS managers.
- Staff from other EPA programs (such as the Office of Superfund Remediation and Technology Innovation; the Office of Resource Conservation and Recovery; the Office of Enforcement and Compliance Assurance; the Office of Pesticide Programs; and the Office of Research and Development).
- Federal Emergency Management Administration.
- Centers for Disease Control and Prevention.
- Military bases.
- Rural Development Administration/Farmers Home Administration.
- Department of Interior.
- Department of Housing and Urban Development.
- United States Army Corps of Engineers.
- White House Task Forces.
- American Water Works Association.

- Association of Metropolitan Water Agencies.
- National Rural Water Association.
- National Association of Water Companies.
- Association of State Drinking Water Administrators (ASDWA).
- Natural Resources Defense Council.
- Consumers Federation of America.
- Small Business Administration (SBA).
- Other environmental and industry groups.
- News organizations.
- Private industries.
- Individuals.

3. USE OF TECHNOLOGY

Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

Laboratories report analytical results and associated data elements to the EPA's electronic data reporting system. Large PWSs must ensure that their laboratory posts the data in the electronic data reporting system. The PWS then has the opportunity to review, approve, and submit the data to the state and the EPA via the electronic data reporting system. Laboratories have 90 days from sample collection to report analytical results and required data elements. PWSs have 30 days from the laboratory's posting to review and approve the reported results. After this, if the PWS has not taken action, the data are considered approved and final for review by the EPA. Electronic reporting provides significant collection efficiencies and reduces the possibility of data input error. This approach has worked well in prior UCMRs.

The UCMR data are maintained and analyzed through NCOD, as described in the abstract of this document. Data collected under UCMR are used to support the EPA's regulatory determinations and, as appropriate, regulation development. The public receives information regarding UCMR monitoring results through the Consumer Confidence Reports (CCRs) and can access data through the NCOD.

The EPA conducts ongoing data analysis, which includes checks for anomalies in the data that may be related to data entry or laboratory errors.

4. EFFORTS TO IDENTIFY DUPLICATION

Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

The data required by UCMR are not available from any other source and are not duplicative of information otherwise accessible to the EPA. Under the 1996 Amendments to SDWA, Congress established a risk-based approach for determining which contaminants would become subject to drinking water standards. SDWA includes the provision that the EPA require monitoring, every five years, of priority unregulated contaminants to determine their occurrence in drinking water systems; this requirement is met by the UCMR program.

5. MINIMIZING BURDEN ON SMALL BUSINESSES AND SMALL ENTITIES

If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

Note: The text below (all of section 5) is the same Small Business Regulatory Enforcement Fairness Act analysis summary that is provided in the preamble to the rule. The Regulatory Flexibility Act (RFA) analysis is based on the entire 5-year UCMR implementation period of 2022—2026, rather than the 3-year ICR renewal period of 2025—2027.

For purposes of assessing the impacts of this rule on small entities, the EPA considers small entities to be PWSs serving between 25 and 10,000 people. As required by the RFA, the EPA proposed using this alternative definition in the *Federal Register* (63 FR 7606, February 13, 1998), sought public comment, consulted with the Small Business Administration (SBA), and finalized the alternative definition in the CCR rulemaking (63 FR 44512, August 19, 1998). As stated in that document, the alternative definition applies to this regulation.

The evaluation of the overall impact on small systems, summarized in the preceding discussion, is further described as follows. The EPA analyzes the impacts for publicly- and privately-owned water systems separately, due to the different economic characteristics of these ownership types, such as different rate structures and profit goals. However, for both publicly- and privately-owned systems, the EPA uses the "revenue test," which compares annual system costs attributed to the rule to the system's annual revenues. The EPA used median revenue data from the 2006 CWS Survey for public and private water systems. The revenue figures were updated to 2019 dollars and escalated by 3% to account for inflation. The EPA assumes that the distribution of the sample of participating small systems will reflect the proportions of publicly- and privately-owned systems in the national inventory. The estimated distribution of the representative sample, categorized by ownership type, source water, and system size, is presented in Exhibit 1.

Exhibit 1: Number of Publicly- and Privately-Owned Small Systems Subject to UCMR 5 (5-year period of 2022—2026)

System Size (# of people served)	Publicly-Owned	Privately-Owned	Total ¹
Ground Water			
500 and under	42	126	168
501 to 3,300	320	121	441
3,301 to 10,000	2,334	541	2,875
Subtotal Ground Water	2,696	788	3,484
Surface Water (and Ground Water Under the Direct Influence of Surface Water)			
500 and under	9	11	20
501 to 3,300	126	45	171
3,301 to 10,000	1,762	510	2,272
Subtotal Surface Water	1,897	566	2,463
Total of Small Water Systems	4,593	1,354	5,947

¹ PWS counts were adjusted to display whole numbers in each size category.

The basis for the UCMR 5 RFA certification is as follows: for the 5,947 small water systems that the EPA anticipates will be affected, per the planned monitoring, the average annual cost for complying with this final rule represents an average of 0.02% of system revenues. The average yearly cost to small systems to comply with UCMR 5 over the 5-year period of 2022—2026, is approximately \$0.3 million. The EPA anticipates that approximately one third of the 5,947 small PWSs will collect samples in each of three years (2023, 2024, and 2025).

PWS costs are attributed to the labor required for reading about UCMR 5 requirements, monitoring, reporting, and record keeping. The estimated average annual burden across the 5-year UCMR 5 implementation period of 2022—2026 is 1.3 hours at \$52 per small system. By assuming all costs for laboratory analyses, shipping, and quality control for small entities, the EPA incurs the entirety of the non-labor costs associated with UCMR 5 small system monitoring, or 96% of total small system testing costs. Exhibits 2 and 3 of this document present the estimated economic impacts in the form of a revenue test for publicly- and privately-owned systems.

Exhibit 2:UCMR 5 Relative Cost Analysis for Small Publicly-Owned Systems (5-year UCMR 5 period of 2022—2026)

System Size (# of people served)	Annual Number of Systems Impacted ¹	Annualized Hours per System	Annualized Cost per System	SBREFA Criteria-Revenue Test ²
Ground Water Systems				
500 and under	8	1.0	\$40.65	0.09%
501 to 3,300	64	1.1	\$43.37	0.02%
3,301 to 10,000	467	1.3	\$49.92	0.01%
Surface Water (and Ground Water Under the Direct Influence of Surface Water) Systems				
500 and under	2	1.4	\$54.39	0.07%
501 to 3,300	25	1.4	\$56.19	0.02%
3,301 to 10,000	353	1.5	\$57.39	0.004%

¹ PWS counts were adjusted to display as whole numbers in each size category. Includes the publicly-owned portion of small systems subject to UCMR 5.

² Costs are presented as a percentage of median annual revenue in each size category.

Exhibit 3: UCMR 5 Relative Cost Analysis for Small Privately-Owned Systems (5-year UCMR 5 period of 2022—2026)

System Size (# of people served)	Annual Number of Systems Impacted ¹	Annualized Hours per System	Annualized Cost per System	SBREFA Criteria-Revenue Test ²
Ground Water Systems				
500 and under	25	1.0	\$40.65	0.48%
501 to 3,300	24	1.1	\$43.37	0.03%
3,301 to 10,000	108	1.3	\$49.92	0.004%
Surface Water (and Ground Water Under the Direct Influence of Surface Water) Systems				
500 and under	2	1.4	\$54.39	0.11%
501 to 3,300	9	1.4	\$56.19	0.02%
3,301 to 10,000	102	1.5	\$57.39	0.004%

¹ PWS counts were adjusted to display as whole numbers in each size category. Includes the privately-owned portion of small systems subject to UCMR 5.

² Costs are presented as a percentage of median annual revenue in each size category.

Up to 9.4 percent of all small systems (*i.e.*, up to 5,947 small PWSs serving 25 to 10,000 people) will participate in UCMR 5. The EPA has determined that participating small systems will

experience an average impact of 0.02 percent of revenues. This accounts for small PWSs familiarizing themselves with the regulatory requirements; reading sampling instructions; traveling to the sampling location; collecting and shipping the samples; and maintaining their records. The 5,947 small PWSs are comprised of all 5,147 systems serving between 3,300 and 10,000 people, and the representative group of 800 systems serving between 25 and 3,299 people; the remainder of small systems will not participate in UCMR 5 monitoring and will not be impacted.

The agency certifies that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the EPA believes that the impact of concern is any significant adverse economic impact on small entities, and that an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise a positive economic effect on the small entities subject to the rule. Although this final rule will not have a significant economic impact on a substantial number of small entities, the EPA has attempted to reduce impacts by assuming all costs for analyses of the samples and for shipping the samples from small systems to laboratories contracted by the EPA to analyze the UCMR 5 samples (the cost of shipping is included in the cost of each analytical method). **The EPA has historically set aside \$2.0 million each year from the Drinking Water State Revolving Fund (DWSRF) with its authority to use DWSRF monies for the purposes of implementing this provision of SDWA. The EPA anticipates drawing on these and additional funds, if available, to implement the plan and carry out the expanded UCMR monitoring approach outlined in AWIA.** Thus, the costs to these small systems will be modest and limited to the labor associated with collecting a sample and preparing it for shipping.

We have therefore concluded that this action will have no significant regulatory burden for all directly regulated small entities.

6. CONSEQUENCES OF LESS FREQUENT COLLECTION

Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

The EPA considered a wide range of alternatives for frequency of collection that could still allow the agency to meet its statutory requirements and overall objectives. Less frequent data collection would affect the integrity of the data and result in insufficient data to fulfill the needs envisioned by the 1996 SDWA Amendments, including support of the Administrator's regulatory determinations and drinking water regulation development.

Monitoring frequencies account for statutory requirements, which specify that monitoring be varied based on the number of people served by a PWS, contaminants likely to be found, and source of water supply. The monitoring frequency design also considers that the number of people served affects exposure to contaminants and considers resources available to undertake monitoring activity. The collection frequencies in this rule are discussed further in section 12(c)

of this ICR renewal document. Monitoring frequencies have been carefully devised based on the following factors:

- Data quality needed for a representative sample;
- Precision and accuracy needed from the representative sample;
- Number of people served by the PWS;
- Source of the supply (*e.g.*, surface water or ground water);
- Likelihood of finding contaminants; and
- Temporal variability in occurrence.

The timeline for monitoring and an overview of the PWSs required to monitor under UCMR 5 can be found in the Abstract of this ICR renewal document. More detailed information on monitoring schedules can be found in section 12(c) of this ICR renewal document.

The EPA used a statistical design (documented in the EPA's "Selection of Nationally Representative Public Water Systems for the Unregulated Contaminant Monitoring Rule: 2021 Update") to select its UCMR 5 nationally-representative sample of 800 small PWSs serving between 25 and 3,299 people, and the final rule specifies a census of PWSs serving 3,300 or more people for Assessment Monitoring. The combination of a nationally representative sample of small PWSs serving between 25 and 3,299 people and a census of PWSs serving 3,300 or more people provides a powerful tool for assessing contaminant occurrence in PWSs.

The representative set of 800 small PWSs are distributed among different size categories, but weighted by population served, to ensure that the sample can provide estimates of exposure. The sample size of 800 small PWSs assumes that:

1. The sample set is random;
2. The sample set approximates a normal distribution of the universe of PWSs; and,
3. The presence of a contaminant can be determined in each PWS with certainty.

Examination and analysis of current occurrence data show that many contaminants that are currently regulated, or being considered for regulation, occur in a fraction of PWSs on a *national* basis. For many contaminants, low occurrence nationally does not necessarily correlate to a low occurrence regionally. Even a small percentage of PWSs with detections can translate into a significant population affected.

7. GENERAL GUIDELINES

Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

This ICR renewal document was completed in accordance with the October 2009 version of "EPA's Guide to Writing Information Collection Requests Under the Paperwork Reduction Act of 1995" (hereafter, the "ICR Handbook"). The ICR Handbook was prepared by the EPA's Office of Environmental Information, Collection Strategies Division. The ICR Handbook provides the most

current instructions for ICR preparation to ensure compliance with the 1995 Paperwork Reduction Act Amendments and OMB's implementing guidelines.

The EPA took an approach to UCMR 5 that minimizes burden on the respondents. This collection complies with all OMB guidelines for information collection activities. Specifically, the respondents are not required to:

- Prepare a written response to a collection of information in fewer than 30 days after receipt of a request.
- Submit more than an original and two copies of any document.
- Retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years.
- Participate in a statistical survey that is not designed to produce data that can be generalized to the universe of the study.
- Use a statistical data classification that has not been reviewed and approved by OMB.
- Receive a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use.
- Submit proprietary, trade secret, or other confidential information unless the EPA can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

8. PUBLIC COMMENT AND CONSULTATIONS

8a. Public Comment

If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the Agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the Agency in response to these comments. Specifically address comments received on cost and hour burden.

This ICR renewal document supports the first *FR* notice which requests public comment and proposes renewal of the currently approved UCMR 5 ICR (OMB Control No. 2040-0304). The original ICR covered the period of 2022-2024.

Following the agency's publication of the proposed UCMR 5 rule, the EPA received comments from numerous organizations and individuals. Substantive comments focused on the contaminants selected for monitoring, reporting requirements, sampling frequency, minimum reporting levels (MRLs), and costs. The EPA reviewed each comment and considered the implications of each change requested by commenters. The final UCMR 5 approach is consistent with the proposed UCMR 5 and includes maintaining the proposed list of contaminants and the proposed monitoring schedule. After publication of the proposed rule and draft ICR, the Office of Management and Budget (OMB) received comments from several

stakeholders suggesting that the burden and cost associated with UCMR 5 reporting had not been properly estimated. The EPA reviewed the estimates and concluded that they are accurate. The estimate methodology is consistent with that used in past UCMR cycles, and with other recent drinking water rules that require a similar data collection effort.

The reporting required in UCMR 5 will provide the EPA with contaminant occurrence information that will help inform the regulatory decision-making process. Participating PWSs are required to report some information (including sampling location and inventory information) prior to collecting UCMR samples. The burden for reporting this information is included in the PWS reporting burden. PWSs are also expected to record some additional information when collecting samples. The EPA estimated that PWSs would need 0.5 hours per sampling point to travel to sampling locations, collect the samples, and record any additional information. The burden associated with collecting this type of information is captured in this ICR renewal under Respondent Burden Hours and Labor Cost (section 12) and Agency Cost (section 14) for large and small PWSs. Based on public comments encouraging the EPA to reduce the data collection burden, the EPA elected not to require the reporting of “Direct Potable Reuse Water Information.” The EPA concluded that very few PWSs use direct potable reuse as a source of water and that information on that topic would not substantially inform regulatory determinations for lithium. By collecting “Historical Information for Contaminant Detections and Treatment” through UCMR 5, the EPA is gathering information from PWSs on changes in drinking water treatment technologies and known sources of contaminant(s). Such information will inform considerations related to PFAS compliance monitoring, treatment, and/or potential future regulatory determinations. Knowledge of historical treatment modifications made by PWSs will help the agency evaluate UCMR 5 results and provide useful information on techniques to reduce the levels of those contaminants in drinking water.

The EPA received comments on collection of information about “Potential PFAS Sources.” The agency’s intent is to collect high-level information that may aid future source evaluations. Consistent with a commenter’s recommendation, the new information will be considered with that from previous monitoring efforts (including UCMR). The EPA provided additional rationale for its information collection (including describing how the information could impact regulatory decision making and risk-management strategies) in the “Response to Comments on the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) Proposal,” available in the UCMR 5 public docket under Docket ID No. EPA-HQ-OW-2020-0530. The EPA acknowledges the data collected will have some limitations but believes that the collection of the information is still valuable. In addition, the EPA notes the modest burden associated with the collection.

The EPA received several comments suggesting that PWSs be permitted to submit occurrence data collected under state-based monitoring, in lieu of conducting UCMR 5 monitoring, to reduce the monitoring burden. In those cases where the monitoring required by a state is aligned with the requirements of UCMR 5, PWSs may be able to conduct PFAS monitoring that meets the needs of their state and UCMR 5, with the understanding that UCMR 5 requirements

must be met. This includes the requirement that PFAS samples be analyzed by a UCMR 5-approved laboratory using Method 533 and Method 537.1. The 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 the EPA, as appropriate, if there are questions about whether the state and UCMR 5 requirements are being met. The estimates in this document have not been reduced to account for this state coordinated effort.

The final UCMR 5 maintains the proposed sample frequency (*i.e.*, four sample events for surface water systems, two sample events for ground water systems). The EPA concluded that less frequent data collection would affect the integrity of the data and result in insufficient data to fulfill the needs envisioned by the 1996 SDWA amendments, particularly with regards to supporting the Administrator’s regulatory determinations and drinking water regulation development. The EPA’s assessment of sampling frequency using UCMR 3 and UCMR 4 data shows that for both surface water and ground water systems, there are numerous cases where occurrence is notably different between sample events (see Appendix 2 in “Response to Comments on the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) Proposal”). The EPA notes that the agency allows large ground water systems the opportunity to reduce monitoring burden by using approved representative entry points (§141.351(3)). Representative monitoring plans will result in fewer samples and thus time and cost savings to the PWS. Consecutive systems with multiple connections from a particular wholesaler are also permitted to choose one entry point as representative, thus reducing burden. Additional rationale can be found in the *Federal Register* notice for UCMR 5.

The final UCMR 5 maintains the proposed timeframe (*i.e.*, “within 90 days from the sample collection date”) for laboratories to post and approve analytical results in the EPA’s electronic data reporting system and the proposed timeframe (*i.e.*, “30 days from when the laboratory posts the data to the EPA’s electronic data reporting system”) for PWSs to review, approve, and submit data to the state and the EPA. The EPA has observed that many laboratories are routinely posting data to SDWARS within 90 days of sample collection and that many large PWSs are approving and submitting data within 30 days of their laboratory posting the data. Judging by reporting for 2020 monitoring under UCMR 4 (81 FR 92666, December 20, 2016), more than 75% of laboratories posted and approved data within 90 days, and more than 85% of large PWSs who chose to act on their data, did so within 30 days of the laboratory posting it. During UCMR 3 and UCMR 4, less than half of large PWSs chose to actively review and approve their data, as opposed to letting the results default to “approved” status after the review period. Those systems will not be impacted by the revised timeframe for PWS data review for UCMR 5. See also Appendix 4 in “Response to Comments on the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) Proposal.”

To comply with the 1995 Amendments to the Paperwork Reduction Act, the EPA is seeking public comment on this ICR renewal. To comment on the EPA’s need for this information, the

accuracy of the provided burden estimates, and any suggested approaches for minimizing respondent burden, the EPA has established a public docket for UCMR 5, which includes a new phase for this ICR renewal, under Docket ID No. EPA-HQ-OW-2020-0530. The public can submit any comments related to the ICR renewal for this action to the EPA and OMB.

8b. Consultations

Describe efforts to consult with persons outside the Agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported. Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years - even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

The EPA's Office of Ground Water and Drinking Water (OGWDW) incorporated early stakeholder involvement in the UCMR regulatory development process. In the late 1990s, the EPA held meetings for the design and development of both the Candidate Contaminant List (CCL) and UCMR programs. Stakeholders who provided comments concerning the development of the UCMR program included PWSs, states, industry, and other organizations. Seventeen meetings were held concerning UCMR program development. A description of public involvement activities related to UCMR is provided in the September 17, 1999, UCMR 1 Final Rule at 64 FR 50556. Stakeholder meeting feedback and public comment input were likewise considered for UCMR 2, UCMR 3, UCMR 4, and UCMR 5.

Specific to the development of UCMR 5, the EPA held three public stakeholder meetings. The first meeting, focused on drinking water methods for priority unregulated contaminants, and was held on June 6, 2018, in Cincinnati, Ohio. Participants included representatives from state agencies, laboratories, PWSs, environmental organizations and drinking water associations. Meeting topics included an overview of the regulatory process (CCL, UCMR and Regulatory Determination), and drinking water methods under development, particularly for CCL contaminants. The EPA held a second stakeholder meeting on July 16, 2019, also in Cincinnati, Ohio. Attendees representing state agencies, laboratories, PWSs, Tribes, environmental organizations and drinking water associations participated in the meeting via webinar and in person. Meeting topics included the anticipated impacts of the America's Water Infrastructure Act (AWIA) of 2018, which amended SDWA (to include all small systems serving over 3,300—10,000 people in UCMR5, pending sufficient laboratory capacity and appropriations); analytical methods and contaminants being considered by the EPA; potential sampling design; the laboratory approval process; and other possible aspects of the UCMR 5 approach. The EPA held a third public stakeholder meeting via webinar on April 6 and 7, 2021 to discuss the proposed rule.

9. PAYMENTS OR GIFTS TO RESPONDENTS

Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts to respondents are included in any of the information collection requirements outlined in this ICR renewal.

10. ASSURANCE OF CONFIDENTIALITY

Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or Agency policy. If the collection requires a systems of records notice (SORN) or privacy impact assessment (PIA), those should be cited and described here.

This information collection does not require respondents to disclose confidential information.

11. JUSTIFICATION FOR SENSITIVE QUESTIONS

Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the Agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

No questions of a sensitive nature are included in any of the information collection requirements outlined in this ICR renewal.

12. RESPONDENT BURDEN HOURS & LABOR COSTS

Provide estimates of the hour burden of the collection of information. The statement should:

- *Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Generally, estimates should not include burden hours for customary and usual business practices.*
 - *If this request for approval covers more than one form, provide separate hour burden estimates for each form and the aggregate the hour burdens.*
 - *Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included as O&M costs under non-labor costs covered under question 13.*
-

12a. Respondents/NAICS Codes

Data associated with this ICR renewal will be collected and maintained by participating PWSs. States, Territories, and Tribes with primacy to administer the regulatory program for PWSs under SDWA (herein after referred to as “states” for simplicity) can choose to participate in UCMR 5 implementation through a Partnership Agreement with the EPA. These primacy agencies will sometimes collect samples and maintain records. The North American Industry Classification System (NAICS) code for privately-owned PWSs is 221310. The NAICS code for

municipal PWS operators and state agencies that include drinking water programs is 924110 (Administration of Air and Water Resources and Solid Waste Management Programs).

12b. Information Requested

This ICR renewal summarizes the data items and respondent activities associated with UCMR 5.

A discussion of data and other information that are part of the reporting and record keeping requirements for PWSs is found in section 12b (a) of this ICR renewal document. The requirements for states are discussed in section 12b (b) of this ICR renewal document.

12b (a) PWS Reporting and Record Keeping

The *Code of Federal Regulations* (CFR) at 40 CFR 141.35 requires PWSs that are subject to the UCMR requirements to report monitoring results for the unregulated contaminants listed in 40 CFR 141.40 to the EPA (see Exhibit 4 for the UCMR 5 contaminant list).

Exhibit 4: UCMR 5 Analytes

Twenty-nine PFAS	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	perfluoroheptanesulfonic acid (PFHpS)
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	perfluoroheptanoic acid (PFHpA)
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	perfluorohexanesulfonic acid (PFHxS)
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	perfluorohexanoic acid (PFHxA)
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	perfluorononanoic acid (PFNA)
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	perfluorooctanesulfonic acid (PFOS)
hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	perfluorooctanoic acid (PFOA)
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	perfluoropentanesulfonic acid (PFPeS)
perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	perfluoropentanoic acid (PFPeA)
perfluoro-3-methoxypropanoic acid (PFMPA)	perfluoroundecanoic acid (PFUnA)
perfluoro-4-methoxybutanoic acid (PFMBA)	n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)
perfluorobutanesulfonic acid (PFBS)	n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)
perfluorobutanoic acid (PFBA)	perfluorotetradecanoic acid (PFTA)
perfluorodecanoic acid (PFDA)	perfluorotridecanoic acid (PFTTrDA)
perfluorododecanoic acid (PFDoA)	

Twenty-nine PFAS	
One Metal/Pharmaceutical	
Lithium	

Exhibit 5 summarizes the information that PWSs must report to the EPA. All PWSs must electronically report that information with their sample results.

Exhibit 5: UCMR 5 Reporting Requirements

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

12b (b) State Reporting and Record Keeping

UCMR 5 is a direct-implementation rule (*i.e.*, implementation led by the EPA); therefore, states are not required to report to the EPA. Implementation activities for each state are identified and determined through voluntary Partnership Agreements with the EPA. If participating in a Partnership Agreement, states voluntarily review and revise initial State Monitoring Plans (SMPs), notify PWSs of their UCMR responsibilities, and provide the EPA with a list of the PWSs notified. These particular state activities were completed prior to this ICR renewal period. To recognize the state activities in 2025, this analysis is based on 1.0 additional state responses, encompassing all communication and coordination activities with the EPA and PWSs.

12c. Respondent Activities

Respondents include both PWSs and states. PWS and state activities are discussed in sections 12c (a) and 12c (b) of this ICR renewal document, respectively. The collection schedule is discussed in section 12c (c).

12c (a) PWS Activities

To comply with the requirements in this regulation, PWSs conduct the following activities:

- Read regulations and/or letter from the state or the EPA that outline requirements;
- Monitor or provide monitoring assistance (*e.g.*, sample collection and shipping);
- Report and maintain records; and
- Report monitoring results to the public.

Each of these activities is discussed in more detail below.

Read Regulations and/or State Letter: All PWSs participating in UCMR monitoring read the UCMR regulations and/or a state-issued guidance letter during the year in which their monitoring occurs. Small PWSs can rely on summarized information from the state or the EPA for information pertaining to the regulation, rather than reading the regulation, because of the more limited scope of their responsibilities.

Monitoring or Monitoring Assistance: Monitoring activities that are considered in the PWS cost and burden estimates include receiving sampling kits from the laboratory, reading sampling instructions, traveling to the sampling location, and collecting and shipping the sample.

As noted earlier, PWSs that rely on surface water and ground water under the direct influence of surface water will sample quarterly (four sampling events), and PWSs that rely on ground water will sample twice (at 6-month intervals). All sample collection will take place during a continuous 12-month period during the sampling timeframe. Sample collection for the UCMR 5 contaminants takes place at the entry point to the distribution system (EPTDS).

Large ground water PWSs with multiple EPTDSs are only required to sample at representative sampling locations for each ground water source, as long as those sites have been approved by the EPA or the state. PWSs that purchase water with multiple connections from the same wholesaler are permitted to monitor from one representative connection from that wholesaler. PWSs must choose a sampling location from among the higher annual volume EPTDS connections. If the connection selected as the representative EPTDS is not available for sampling, an alternate representative connection must be sampled.

Reporting and Record Keeping: Activities related to these reporting requirements include:

- *Reporting Prior to Monitoring-* All PWSs implemented the following “reporting prior to

monitoring” during the previous ICR period (2022-2024).

Contact and Zip Code information: Small and large PWSs were required to report contact information to the EPA. This information includes the name, affiliation, mailing address, phone number, and email address for the PWS Technical Contact and PWS Official (*i.e.*, the official spokesperson for a PWS’s UCMR activities). Information was submitted to the EPA’s electronic data reporting system within a specified timeframe after rule promulgation. Small PWSs may have received specific written requests. As with recent UCMR cycles, UCMR 5 required that PWSs report the U.S. Postal Service Zip Code(s) for all areas being served water by the PWS.

Sampling location and inventory information: PWSs were required to provide sampling location(s) and to associate each source water location with its entry point location(s) prior to sampling. For each sampling location or each approved representative sampling location, PWSs were required to submit: PWS Identification (PWSID) Code; PWS Name; PWS Facility Identification Code; PWS Facility Name; PWS Facility Type, Water Source Type; Sampling Point Identification Code; Sampling Point Name; and Sampling Point Type Code.

Representative sampling plan proposal: Some PWSs that use ground water as a source and have multiple EPTDSs can monitor at representative sampling location(s), rather than at each EPTDS. To qualify, these ground water PWSs (or source water PWSs with ground water sources) must have either the same treatment, or no treatment, at all of their well sources, and they must have an EPTDS for each well within a well field (resulting in multiple EPTDSs from the same source, such as an aquifer). PWSs meeting these criteria may submit a proposal (if such a proposal has not been previously approved). The proposal must demonstrate that any EPTDS selected as representative of multiple wells was associated with an individual well that draws from the same aquifer as the multiple wells (*i.e.*, those being represented). The representative well must be one of the higher annual volume and more consistently active wells in the representative array. If that representative well is not in use at the scheduled sampling time, an alternative representative well must be sampled.

Representative intakes from wholesaler: PWSs that purchase water with multiple connections from the same wholesaler could monitor from one representative connection from that wholesaler. The representative EPTDS must be a location within the purchaser’s water system. PWSs must choose a sampling location from among the higher annual volume EPTDS connections. If the connection selected as the representative EPTDS is not available for sampling, an alternate representative connection must be sampled.

- *Reporting Monitoring Results*

Small PWSs: Participating small PWSs are required to record PWS and sample location information on the sampling forms and bottles that are sent to them by the UCMR Sampling Coordinator. The schedule for submitting this information is specified in the instructions sent to the PWS. Analytical results for small PWSs are directly reported via the EPA's electronic data reporting system by the laboratories contracted by the EPA within 90 days of sample collection. The EPA is responsible for reviewing analytical results in the data reporting system on behalf of the small PWS. Small PWSs may also review their analytical results via the EPA's data reporting system.

Large PWSs: Laboratories will post the analytical results to the EPA's electronic data reporting system within 90 days of sample collection. Large PWSs must ensure that their laboratory meets this requirement, and those PWSs have an opportunity to review, approve, and submit the data to the state and the EPA via the electronic data reporting system within 30 days from when the laboratory posts the data along with the associated data elements. Consistent with prior UCMR cycles, if the PWS has not taken action within their allotted period, the data are considered approved and final for review by the EPA.

- *Record Keeping*

40 CFR 141.33 requires PWSs to maintain records of chemical monitoring data for 10 years. No changes were made to those record keeping requirements.

Reporting to the Public: Section 1445(a)(2)(E) of SDWA requires notification of the results of the UCMR program to be made available to those served by the PWS. Community water systems (CWSs) are required to notify their users of the detection of any contaminants (including unregulated contaminants) in their Consumer Confidence Reports (CCRs), pursuant to 40 CFR §141.153(d)(1)(ii), published in 63 FR 44512 on August 19, 1998. UCMR monitoring and reporting violations for all PWSs (including CWSs and non-transient non-community water systems (NTNCWSs)) are reportable under the Public Notification Rule (65 FR 25982, May 4, 2000). No changes were made to these reporting requirements.

12c (b) State Activities

For UCMR 1, the EPA originally estimated state burden and costs using a State Resource Model (documented in the "Resource Analysis Computer Program for State Drinking Water Agencies"). That model was designed by the EPA in coordination with Association of State Drinking Water Administrators (ASDWA) and required specific input for a list of activities and variables related to state operation of the UCMR drinking water program (*e.g.*, number of PWSs affected, estimates of violation rates, etc.). Since its original publication in 1993, ASDWA updated and improved the resource model. The EPA used the updated resource model as documented in: "Insufficient Resources for State Drinking Water Programs Threaten Public Health: An Analysis of State Drinking Water Programs' Resources and Needs" (December 2013), to estimate

resources that states may need to support implementation of UCMR 5. Assumptions that were applied in using this resource assessment tool are described in section 12d of this ICR renewal document. The EPA assumed that state participation will closely reflect that which occurred during UCMR 4. Therefore, model estimates were adjusted to account for actual levels of prior state participation.

Since UCMR is a direct implementation rule, specifics of each state's role are delineated in Partnership Agreements between the states and the EPA. Voluntary state activities include coordination, data management and support, program implementation, and training/overhead. Though some states may choose to conduct sampling for their PWSs, this activity is not part of the Partnership Agreement and is optional. Burden for sampling is currently attributed to PWSs. If states choose to conduct sample collection for PWSs, burden would be similar to that estimated for PWSs (and shifted from the PWS to the state) and would not impact the overall ICR renewal burden estimate.

State Coordination with the EPA: State activities that involve coordination with the EPA include coordination and development of a Partnership Agreement, review of and response to the EPA's proposed SMP, review of PWS proposals for representative ground water sampling locations, and general ongoing coordination.

Review of SMPs was one of the first UCMR activities to take place at the state level. Each state received a proposed SMP from the EPA, which listed all PWSs that the EPA anticipated would conduct Assessment Monitoring, including small PWSs that were statistically selected as part of the nationally-representative sample, and all large PWSs meeting applicability criteria. For PWSs that are part of the representative sample, the EPA also generated a list of potential replacement PWSs for states to select from. If a state identified small PWSs on the original proposed SMP that it determined were not appropriate for participation in UCMR (*e.g.*, if PWSs are inactive, or sell all of their water and do not have their own retail customers), the state could propose other small PWSs from the EPA's alternate list to replace the ineligible PWSs. The SMPs also specified the year and months during which PWSs were anticipated to monitor. States were given the option to modify these schedules. These UCMR 5 activities were completed by states in the previous ICR period, so these activities are not applicable to the current ICR renewal period.

The EPA assumed that some PWSs that use ground water as a source of water would submit a proposal for monitoring at representative sample location(s), rather than monitoring at every EPTDS. State involvement in the review of these proposals was determined in the Partnership Agreement process.

The EPA also recognizes that it will be necessary for states to maintain ongoing communications with the EPA regarding UCMR requirements. For example, states may need clarification and guidance on a specific requirement of the regulation. These ongoing communication activities

are included in estimated burden for 2025, the final scheduled year of sample collection under UCMR 5.

Data Management and Support: Though there are no state data management and support activities included in UCMR, the EPA recognizes that many states update their databases to accommodate the revised UCMR data elements. Activities likely include data management and general record keeping.

Program Implementation: Program implementation activities for each state can include developing and sending notification and guidance letters to PWSs, data review, ongoing PWS support, and enforcement.

Following review and finalization of SMPs, partnering states prepared a notification letter that described PWS sample collection schedules and requirements under the regulation. These states sent notification to each participating PWS and send the list of these notified PWSs to the EPA. The EPA assumed that PWSs would periodically call states asking for clarification and guidance about UCMR requirements. States can elect to review monitoring results, in part, to determine whether a PWS has met its monitoring and reporting requirements.

State Staff Training and Overhead: The EPA assumes that technical staff would participate in training to assist them in understanding the regulation, their roles and responsibilities, and to allow the state to better provide technical assistance to PWSs. General overhead costs, such as clerical and managerial needs, are allocated to the UCMR staff requirements in ASDWA's estimates of state resource needs, which allocates support staff needs as a percentage of professional staff needs. See section 12d of this ICR renewal document, for further discussion of model assumptions.

12c (c) Collection Schedule

PWSs will be required to collect samples during a continuous 12-month period during the sampling timeframe. Sampling for surface water and ground water under the direct influence of surface water systems will take place quarterly (for a total of four sampling events), and for ground water systems sampling occurs at 6-month intervals (five to seven months apart for a total of two sampling events). Sample collection for the UCMR 5 contaminants will take place at the EPTDS.

The UCMR 5 applicability date (February 1, 2021) represents an internal milestone used by the EPA to determine if a PWS is included in the UCMR program and whether it will be treated as small (*i.e.*, serving 25 to 10,000 people) or large (*i.e.*, serving more than 10,000 people). It does not represent a date by which respondents needed to take any action. The determination of whether a PWS is required to monitor under UCMR 5 is based on the type of system (*e.g.*, CWS, NTNCWS, etc.) and its retail population served, as indicated by the Safe Drinking Water Information System Federal Reporting Services (SDWIS/Fed) inventory on February 1, 2021.

SDWIS/Fed can be accessed at <https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information-system-sdwis-federal-reporting>.

The 5-year UCMR 5 cycle spans January 2022 through December 2026, with preparations in 2022, sample collection between January 1, 2023, and December 31, 2025, and completion of data reporting in 2026. By early 2022, the EPA notified all small CWSs and NTNCWSs serving between 3,300 and 10,000 people and a representative group of 800 smaller systems of their anticipated requirement to monitor. The EPA confirms and schedules that monitoring by July 1 preceding each collection year (*i.e.*, by July 1, 2022 for 2023 sampling; by July 1, 2023 for 2024 sampling; and by July 1, 2024 for 2025 sampling) based on confirmation that the agency has received necessary appropriations to support its plan. The EPA schedules and coordinates small system monitoring and works closely with partnering states. SMPs provided an opportunity for states to review and revise the initial sampling schedules that the EPA proposes.

Large PWS schedules (year and months of sample collection) were initially be determined by the EPA in conjunction with the states; these PWSs have an opportunity to modify this schedule for planning purposes or other reasons (*e.g.*, to conduct sample collection during the months the system or the state believes the PWS is most vulnerable, because of budget constraints, if a sampling location will be closed during the scheduled month of sample collection, etc.).

Exhibits 6 and 7 illustrate the timeline of general UCMR activities and PWS sample collection activities, respectively.

Exhibit 6: Timeline of UCMR 5 Activities

2022	2023	2024	2025	2026
<p>Pre-sampling Activity by EPA</p> <ul style="list-style-type: none"> • Manage Laboratory Approval Program • Organize Partnership Agreements and State Monitoring Plans • Begin PWS SDWARS registration/inventory • Review GWRMP submittals • Conduct outreach/trainings 	<p>← Sampling Period →</p> <p>EPA Implementation Activities</p> <ul style="list-style-type: none"> • Provide compliance assistance • Implement small system sample collection • Post data quarterly to NCOD <p>PWS Sample Collection; Laboratory Analysis; Reporting</p> <ul style="list-style-type: none"> • All large systems serving more than 10,000 people; • All small systems serving between 3,300 and 10,000 people; • 800 small systems serving between 25 and 3,299 people 			<p>Post-sampling Activity</p> <p>PWSs, Laboratories</p> <ul style="list-style-type: none"> • Complete resampling, as needed • Conclude data reporting <p>EPA</p> <ul style="list-style-type: none"> • Complete upload of UCMR 5 data to NCOD

Exhibit 7: UCMR 5 Sampling Activity Timeline for Cost and Burden Estimations

<i>UCMR 5 – 2022 – 2026</i>				
2022	2023	2024	2025	2026
<i>Original ICR Years</i>			<i>ICR Renewal Years</i>	
No UCMR sample collection	Assessment Monitoring ¹			No UCMR sample collection
	~ 1/3 of PWSs	~ 1/3 of PWSs	~ 1/3 of PWSs	

¹The following assumptions, based on the specifications in UCMR 5, were used to estimate cost and burden:

- All Assessment Monitoring PWSs will conduct sampling evenly across January 2023–December 2025 (*i.e.*, one-third in each of the three consecutive periods).
- Approximately two-thirds of PWSs conducted sample collection in the previous ICR years of 2023 and 2024, and approximately one-third of PWSs will conduct sample collection in 2025 (*i.e.*, during the ICR renewal years of 2025–2027).

12d. Respondent Burden Hours and Labor Costs

Specific assumptions used in estimating PWS labor burden and cost, as well as non-labor costs, are discussed in sections 12d (a)(i) and 12d (a)(ii), respectively. A summary of the cost estimates is provided in section 12d (a)(iii) of this ICR renewal document. The estimated burden and cost to states is discussed in section 12d (b), the estimated respondent universe and total burden and cost are discussed in section 12d (c) and reasons for change in burden are discussed in section 12d (d).

The EPA used the following sources of PWS information to develop cost and burden estimates:

- *Inventory Data:* CWS and NTNCWS inventory was based on a Fiscal Year 2018, inventory extract from the Safe Drinking Water Information System Federal Reporting Services (SDWIS/Fed).
- *EPTDS Data:* All EPTDS data were from UCMR 4 sampling points.

12d (a)(i) Estimating Burden and Labor Costs

The general timing of monitoring was discussed in the abstract of this document. The UCMR program affects approximately 10,311 PWSs, roughly two-thirds of which conducted sample collection in 2023 and 2024. Exhibit 8 presents the estimated numbers of regulated PWSs expected to participate. Exhibit 7 presents the timeline for the PWS monitoring activities.

While developing the cost estimates for UCMR 4, some public commenters suggested that the EPA underestimated PWS burden. In response to these comments, the EPA reviewed the UCMR burden estimates against burden estimates used in recently published drinking water rules. In all aspects of burden assumptions (*e.g.*, time allotted for reading rule requirements, sampling reporting, etc.), the UCMR estimates were on par with, or more conservative (*i.e.*, higher) than estimates made for other drinking water regulations. For UCMR 5, the EPA re-examined all cost estimates and assumptions to ensure that the most recently available data were used. All PWS burden estimates represent average burden hours, which include surface water and ground water under the direct influence of surface water PWSs that may have very few sampling points, and thus lower sampling burden, as well as those PWSs with higher numbers of sampling points that would therefore have greater sampling activity labor burden. A PWS's burden is primarily incurred during its one year of required UCMR sample collection. However, in compliance with the requirements of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), these cost and burden estimates are presented as an average over the applicable 3-year ICR renewal period. Small PWSs have the lowest burden because these PWSs receive a great deal of direct assistance from the EPA and/or their state.

Exhibit 8: Systems Expected to Participate in UCMR 5 Monitoring

System Size (# of people served)	National Sample Assessment Monitoring	Estimated # of Systems per Size Category
Small Systems		
25 – 3,299	800 randomly selected systems	800
3,300 – 10,000	All systems (5,147)	5,147
Large Systems		

System Size (# of people served)	National Sample Assessment Monitoring	Estimated # of Systems per Size Category
10,001 and over	All systems (4,364)	4,364
Estimated	10,311	10,311

The PWS labor burden consists of three primary activities: (1) reading the regulations and/or state guidance letter; (2) monitoring or monitoring assistance; and (3) reporting and record keeping.

Hourly labor rates (including overhead) are taken from the Bureau of Labor Statistics (BLS), National Occupational Employment and Wage Estimates, United States, BLS SOC Code 51-8031, "Local Government - Water and Liquid Waste Treatment Plant and System Operators," May 2019 data (published in March 2020), <http://stats.bls.gov/oes/current/oes518031.htm>. The local government Occupational Employment Statistics (OES) Designation of \$24.28 was multiplied by a loading rate of 1.6 to account for benefits to remain consistent with the estimates used by the ICR renewal for the drinking water regulations (in progress). The resulting hourly wage rate for all PWSs was estimated to be \$39.

12d (a)(i)(a) Reading the Regulations and/or Guidance Letter

The EPA assumed that PWSs read the regulations and/or a state-issued guidance letter during the year in which PWSs monitor. Approximately one-third of PWSs will therefore read the regulations or a state-issued guidance letter in 2025. Small PWSs can rely on the state and the EPA for information pertaining to their requirements, rather than reading the regulation; the EPA assumed small PWSs will spend one hour, on average, reading the letter or guidance. The EPA assumed that PWSs serving more than 10,000 people read the regulation and information from the state, requiring on average four hours. National costs are estimated by multiplying the average burden hours by the average PWS labor rate, times the number of PWSs affected. Small PWSs serving between 25 and 3,299 people were selected to monitor for the contaminants. All small water systems serving between 3,300 and 10,000 people, large, and very large PWSs are expected to monitor for the contaminants.

12d (a)(i)(b) Monitoring Burden

Exhibit 7 provides an illustration of the timeline for PWS sampling activity. For Assessment Monitoring, the EPA assumed that each PWS will incur an estimated burden of 0.5 hours per sampling point to collect samples for analysis. The EPA assumed that PWSs will not be able to collect all samples at the same time or at the same locations.

The monitoring burden for Assessment Monitoring includes receipt of monitoring kit, reading laboratory instructions, travel time to collect samples and collection and shipping of samples. It is calculated by: (hour burden per sampling point) times (number of sampling points) times

(number of PWSs) times (number of sample events per year). This estimate is an average. Some PWSs need less than 0.5 hours per sampling point to collect a sample, while other PWSs need more time. Many ground water PWSs realize savings in their sampling burden as a result of utilizing representative sample points. Sampling burden accounts for the estimated reduction in entry points where these PWSs will sample (as described in section 12d (b) of this ICR renewal document). Certain PWSs that purchase all of their water from a single wholesaler, and that have more than one connection to that wholesaler, may elect to sample from only one EPTDS. Because this cost savings has not been factored into the cost estimates, the sampling costs are conservative.

12d (a)(i)(c) Reporting and Record Keeping

PWSs were required to report specific information prior to monitoring and are required to report some information with their monitoring results.

- *Reporting Prior to Sample collection:* As with the reading burden (described above, in section 12d (a)(ii) all initial reporting prior to UCMR 5 sample collection (including proposals for representative sample points) is complete, and not part of the applicable ICR renewal period of 2025-2027. This information is included in Appendix B.

Small PWSs: The EPA assumed that small PWSs would send contact and sampling point information prior to sample collection. The EPA estimated this one-time reporting burden would take PWSs two hours.

Large Surface Water (and Ground Water Under the Direct Influence of Surface Water) PWSs: The EPA assumed that large surface water and ground water under the direct influence of surface water PWSs would send contact and sampling point information prior to sample collection. The EPA allotted a one-time reporting burden of six hours.

Large Ground Water PWSs: The EPA assumed that large ground water PWSs would send contact and sampling point information, which required a one-time burden of six hours. An additional eight hours were allotted to some ground water PWSs to account for compilation and submission of ground water representative sampling locations proposals. Since it was unlikely that all PWSs will submit these proposals, the EPA conservatively assumed that half of ground water PWSs serving 10,001 to 100,000 people will compile and submit this proposal; the EPA assumed that all ground water PWSs serving more than 100,000 people will submit these proposals.

- *Reporting Monitoring Results:*

Small PWSs: Small PWSs can review their UCMR monitoring results in the EPA's electronic data reporting system but are not required to do so. Some PWSs may

not review sample results at all, while others may review the sample results in detail. As a conservative assumption, the EPA estimated that it will take each small PWS 0.5 hours per sampling event for data review.

Large PWSs: Large PWSs are expected to review, approve, and submit the data to the state and the EPA via the electronic data reporting system. The EPA estimated that it will take these PWSs two hours per sampling event for data review and submission.

12d (a)(i)(d) Public Notification

The CCR rule requires that CWSs notify their consumers of the detection of any unregulated contaminants in their annual CCR reports (63 FR 44512, August 19, 1998). The Public Notification Rule requires that CWSs and NTNCWSs report any failure to conduct UCMR monitoring (65 FR 25982, May 4, 2000). No additional public notification is required by UCMR.

12d (a)(ii) Estimating Non-labor Costs

Under UCMR, small PWSs only incur labor costs. By design of the rule, the EPA will assume all costs for analyses of the samples and for shipping the samples from small systems to laboratories contracted by the EPA to analyze UCMR 5 samples (the cost of shipping is now included in the estimated cost of each analytical method). The laboratory analysis and shipping cost estimates described here are the basis for the EPA and large PWS non-labor costs. Estimates of laboratory analytical costs associated with the analysis of each sample are presented in this section. The EPA estimates are based on consultations with national drinking water laboratories.

Exhibit 9 shows the analytical costs per sample.

Exhibit 9: Assessment Monitoring Analytical Costs

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
Total	\$740

¹ The average analytical cost for Assessment Monitoring was determined by averaging estimates provided by four drinking water laboratories. If a PFAS sample is positive, the Field Reagent Blank must be analyzed, resulting in higher per sample analytical costs. PWS may incur a cost of up to \$1,333.

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

³ ASTM International (ASTM) D1976-19

UCMR 5 specifies that all samples be collected at EPTDSs. Some large PWSs that use ground water sources and have multiple EPTDSs may be able to realize significant savings by sampling

representative sample point(s) rather than sampling each EPTDS. PWSs must meet certain PWS configuration criteria, submit a proposal regarding representative sample points and receive approval from the EPA or the state. Labor related to submission and coordination of these proposals is discussed in section 12d (a)(iii) of this ICR renewal document. The EPA took this into account by using the EPTDSs sample points from UCMR 4.

PWSs that purchase all of their water from a wholesale PWS, and that have more than one intake from that wholesaler may collect EPTDS samples from a representative intake. The representative site must be one of the higher annual volume EPTDS connections. The EPA did not attempt to estimate the number of PWSs that would take advantage of this allowance. Thus, the cost estimates presented in this ICR renewal are conservative.

Total laboratory and shipping fees were estimated per required sampling location, per sampling event, as follows: (number of PWSs) x (number of sampling events per year) x (number of sampling points per PWS) x (method and shipping costs).

12d (a)(iii) Summary of Labor and Non-labor Costs to PWSs

Exhibit 10a displays a summary of labor and non-labor costs, by year, for the 3-year ICR renewal period. Analogous information presenting estimated costs over the 5-year UCMR 5 implementation period is provided in Exhibit B-1a, in Appendix B. Small PWSs incur labor costs only. Large PWSs incur both labor and non-labor costs.

The total nationwide cost to PWSs for implementing the UCMR program over the 3-year ICR renewal period is \$15.9 million. Large and very large PWSs incur about 97% of the total PWS cost (or \$15.4 million). Annual cost per small PWSs for UCMR implementation over the 3-year ICR renewal period is \$87 per PWS, all attributed to labor. Annual cost per large PWSs is \$290 for labor plus \$2,681 for analytical (non-labor) costs, with very large PWSs costs of \$409 for labor plus \$8,212 for analytical (non-labor) costs. Exhibits 7 and 8 illustrate the number of participating PWSs and timing of sample collection. Per-PWS labor burden and costs are presented in Exhibit 10b. Analogous information for the 5-year implementation period is provided in Exhibit B-1b, in Appendix B. "Response" is defined as each required reporting event for a PWS. All labor and non-labor costs associated with a reporting event (reading the regulations, monitoring, and reporting) are included in the per-response cost estimate.

EXHIBIT 10A: YEARLY COST TO SYSTEMS BY PWS SIZE AND BY TYPE OF COST (2025—2027)
(CORRESPONDS WITH EXHIBIT B-1A)

Cost Description	2025	2026	2027	Total ¹
SMALL PWSs (sample serving between 25 and 10,000 people)				
Labor Costs				
Reading and Initial Reporting	\$231,029	\$0	\$0	\$231,029
Sample Collection	\$177,663	\$0	\$0	\$177,663
Reporting of Results	\$108,904	\$0	\$0	\$108,904
Non-Labor Costs (Laboratory Analysis and Shipping (paid for by EPA))	\$0	\$0	\$0	\$0
Subtotal – Small PWSs	\$517,596	\$0	\$0	\$517,596
LARGE PWSs (serving 10,001 to 100,000 people)				
Labor Costs				
Reading and Initial Reporting	\$589,169	\$0	\$0	\$589,169
Sample Collection	\$222,909	\$0	\$0	\$222,909
Reporting of Results	\$326,634	\$0	\$0	\$326,634
Non-Labor Costs (Laboratory Analysis and Shipping)	\$10,533,787	\$0	\$0	\$10,533,787
Subtotal – Large PWSs	\$11,672,499	\$0	\$0	\$11,672,499
VERY LARGE PWSs (serving greater than 100,000 people)				
Labor Costs				
Reading and Initial Reporting	\$63,122	\$0	\$0	\$63,122
Sample Collection	\$74,441	\$0	\$0	\$74,441
Reporting of Results	\$40,551	\$0	\$0	\$40,551
Non-Labor Costs (Laboratory Analysis and Shipping)	\$3,572,223	\$0	\$0	\$3,572,223
Subtotal – Very Large PWSs	\$3,750,338	\$0	\$0	\$3,750,338
ALL PWSs				
Total Labor for All Systems	\$1,834,423	\$0	\$0	\$1,834,423
Total Non-Labor for All Systems	\$14,106,010	\$0	\$0	\$14,106,010
Total Labor and Non-Labor for All PWSs	\$15,940,433	\$0	\$0	\$15,940,433

¹ Totals may not equal the sum of components due to rounding.

**Exhibit 10B: Per System (Respondent) and Per Response UCMR Costs (2025—2027)
(corresponds with Exhibit B-1b)**

Burden / Cost	Total over 2025—2027			Annualized over 2025—2027		
	Small PWSs	Large PWSs	Very Large PWSs	Small PWSs	Large PWSs	Very Large PWSs
PER RESPONDENT:						
Labor Cost	\$261	\$869	\$1,228	\$87	\$290	\$409
Non-Labor Cost	\$0	\$8,043	\$24,636	\$0	\$2,681	\$8,212
Burden (labor hours)	6.7	22.4	32.1	2.2	7.5	10.7
PER RESPONSE:						
Number Responses per Respondent	2.8	3.2	3.7	0.9	1.1	1.2
Labor Cost per Response	\$92	\$271	\$336	\$31	\$90	\$112
Non-Labor Cost per Response	\$0	\$2,506	\$6,740	\$0	\$835	\$2,247
Burden (labor hours) per Response	2.4	7.0	8.8	0.8	2.3	2.9

12d (b) Estimating the Burden and Cost to States

Since the UCMR is a direct implementation rule, individual state costs largely depend on the degree to which they volunteer to assist the EPA (as specified in their Partnership Agreement). The EPA assumed that states incur only labor costs, because no capital investments are expected for UCMR 5. Because states are involved in a variety of UCMR implementation and oversight activities but have few defined responses, burden estimates are based on yearly activities. Thus, for “per response” estimates, states have an average of 1.0 response per year of the UCMR 5 cycle.

The EPA used updated estimates from ASDWA’s “Insufficient Resources for State Drinking Water Programs Threaten Public Health: An Analysis of State Drinking Water Programs’ Resources and Needs” to estimate state burden and cost for the implementation and oversight of UCMR 5. The EPA reviewed the estimates used by ASDWA for various aspects of drinking water program implementation activities and used professional judgement and experience from prior UCMR cycles to determine which activities apply to assisting with UCMR 5. Assumptions include:

- One full-time equivalent (FTE) is equivalent to 2,080 hours per year; this is the same as was estimated in UCMR 4.

- States will need one supervisor per seven technical FTEs, and one support staff for every 20 technical FTEs.
- Wage rate information for states from the BLS was used since these rates are more recent than the rates used by ASDWA. This same source of information for the wage rate was used for the ICR renewals for current drinking water regulations. Wage rate information was updated using the most recently available data, and was calculated as follows:
 - o The state labor rate of \$37.47 was multiplied by a loading rate of 1.6 to account for benefits. The wage rate was then escalated to 2020 dollars using the Employment Cost Index for wages and salaries in trade, transport, and utilities for March 2019 and March 2020. The index value is 137.4 for March 2019 and 141.9 for March 2020; accessed <http://www.bls.gov/news.release/eci.t09.htm> on 5/12/19. State Employee wage rates from National Occupational Employment and Wage Estimates, United States, BLS SOC Code 19-2041, "State Government - Environmental Scientists and Specialists, Including Health," hourly mean wage rate (<http://stats.bls.gov/oes/current/oes192041.htm>). The average estimated wage rate for states is \$58.05.

The model included state resource needs for different aspects of the Phase II/V and nitrate regulations. The EPA needed to isolate the UCMR costs from the aggregated costs. Based on professional judgment regarding the relative magnitude of the UCMR program, the EPA assumed that:

- ASDWA's estimates of hours include the following activities for implementation of the chemical program: setting up sample collection schedules for PWSs; notifying PWSs of requirements; reviewing data and information submitted to the state; determining compliance; assigning violations; commencing enforcement actions; and data entry, record keeping, and reporting to the EPA. ASDWA also included hours for running a waiver program. The estimates also assumed most states have a state-wide waiver and that most systems have individual use or susceptibility waivers for some analytes. The EPA used the same labor estimates as a base in order to provide a conservative estimate for UCMR 5 activities. Under UCMR 5, states are anticipated to: assist PWSs with sample collection schedules; notify PWSs of requirements; and possibly review data. The EPA's estimates allotted states 10.75 hours per small PWS, and 13.25 hours per large PWS to help implement the UCMR program. The EPA assumed that during the first and last year of the 5-year UCMR period (2022 and 2026), when there are no sample collection activities, UCMR represents 1% of the bundled program resource needs (although the costs for 2022—2024 are not relevant to the current, 2025—2027 ICR renewal estimations); during the three years when sample collection is conducted, UCMR represents 3% of the bundled program resource needs.

- ASDWA’s model includes time for state staff training on database use; inventory updates; responses to data queries (*e.g.*, producing monthly violation reports for program staff); quarterly reporting and record keeping; and QC of data entered for compliance oversight. ASDWA assumed one FTE per year for small and very small states, 1.75 FTEs for medium states, five FTEs for large states, and six FTEs for very large states. For UCMR, the EPA assumed that states will use this time to review PWS data. In some instances, states may enter and track UCMR data in their own database systems.
- The EPA estimated that states needed 20 hours in 2022 (*i.e.*, during the original UCMR 5 ICR period) to read and understand UCMR 5. No effort or costs associated with reading and understanding UCMR 5 are expected in the 2025-2027 period of this ICR renewal.
- The EPA estimated that states needed 0.15 FTEs in 2022 to develop Partnership Agreements with the EPA. This estimate assumed that two FTEs would devote three weeks in the first year of UCMR 5 to complete this task. No effort or costs associated with this task are expected in the 2025 – 2027 period of this ICR renewal.
- ASDWA provided estimates for PWS training and technical assistance with estimates ranging from 0.67 hours per PWS to two hours per PWS, based on population served. For UCMR 5, states were allotted one hour per PWS for technical assistance for all three sample collection years (including the scheduled 2025 collection year that falls within this ICR renewal period). This accounts for states writing monitoring schedule letters to PWSs and providing other technical assistance during monitoring years.
- ASDWA estimated that states will need to train technical staff on new rule requirements, noting that 11 hours were needed per technical FTE for three new rules. This training was completed in 2022 (*i.e.*, during the original ICR period) and is not addressed in this renewal.

Some of the state labor estimates depend on the size of the state. Exhibit 11 shows the number of states in each size category. The EPA further refined the labor burden estimates by taking the level of state participation under UCMR 4 into consideration. The EPA reviewed key areas of state participation under UCMR 4 including: review and revision to the SMPs; assisting the EPA with updates to information for large PWSs; two separate sets of PWS notifications; and compliance assistance. Based on prior UCMR activities, 86% of states typically participated in their optional UCMR activities. Burden estimates generated from the ASDWA estimates were multiplied by this “percent participation in UCMR 4” to approximate state costs at expected participation levels under UCMR 5.

Exhibit 11: Number of States in Each Size Category (State Resource Model Assumptions)

Size Category	Number of States
Very Small	10
Small	11
Medium	23
Large	10
Very Large	2
<i>Total</i>	56

The EPA estimates that the annualized burden over the three ICR renewal years (2025—2027) for 56 states to implement UCMR is 5,511 hours (or 98 hours per state per year), with an annualized cost of \$319,937 (or \$5,713 per state per year). See Exhibits 12a and 12b for a summary of estimated state burden and costs (analogous 5-year information for 2022—2026 provided in Exhibits B-2a and B-2b, in Appendix B).

Exhibit 12A: Yearly Cost and Burden to States for Implementation of UCMR 5 (2025—2027)¹ (corresponds with Exhibit B-2a)

Burden / Cost	2025	2026	2027	Total ²	Annualized Cost
Costs to all States for labor related to UCMR implementation and oversight					
	\$884,979	\$74,833	\$0	\$959,812	\$319,937
Labor burden for all States for UCMR implementation and oversight (number of hours)					
	15,245	1,289	0	16,534	5,511

¹ All costs are attributed to labor and are estimated over the period 2025—2027.

² Totals may not equal the sum of components due to rounding.

Exhibit 12B: Per State (Respondent) and Per Response UCMR 5 Costs (2025—2027) (corresponds with Exhibit B-2b)

Burden / Cost	Total over 2025—2027	Annualized Cost over 2025—2027
PER RESPONDENT:		
Labor Cost	\$17,140	\$5,713
Non-Labor Cost	\$0	\$0
Burden (labor hours)	295.3	98.4
PER RESPONSE:		
Number of Responses per Respondent ¹	2.0	0.7
Labor Cost per Response	\$5,713	\$1,904
Non-Labor Cost per Response	\$0	\$0
Burden (labor hours) per Response	98.4	32.8

¹ States have 1 response per year of the UCMR 5 cycle (*i.e.*, 2025 and 2026 of this ICR renewal period) since there are no specific cyclical state reporting requirements under the UCMR program.

12(d) (c) Estimating the Respondent Universe and Total Burden and Costs

The abstract of this ICR renewal document describes the general timing of monitoring. Exhibit 8 presents the estimated numbers of regulated PWSs affected by UCMR 5, and Exhibit 7 presents the timeline in which the PWS sample collection activities are expected to take place. The frequency of responses for PWSs is described in section 12c.

Exhibit 13 summarizes national hours and costs for UCMR 5 during the ICR renewal period. Analogous information for the entire 5-year UCMR 5 period is presented in Exhibit B-4 in Appendix B. The total labor and non-labor costs are presented for each category of respondent. The total labor burden to small PWSs is 13,324 hours, with a cost of \$517,596. The total labor burden to large PWSs is 29,312 hours, with a labor cost of \$1.14 million, and non-labor costs for analysis and shipping of \$10.5 million. Very large PWSs have a total labor burden for the ICR renewal period of 4,656 hours, with labor and non-labor costs of \$178,115 and \$3.6 million, respectively. The total burden to states over the 3-year ICR renewal period is 16,534 hours, with a labor cost of \$1.0 million. The EPA anticipates that states will not incur any significant non-labor costs. The EPA's total burden over the same timeframe is 37,440 hours, with labor costs of \$3.3 million, and non-labor costs of \$14.1 million.

**Exhibit 13: UCMR 5 National Cost Summary for the ICR renewal period (2025—2027)
(corresponds with Exhibit B-4)**

Type of Cost	2025	2026	2027	Total ¹	Annualized Cost
Small PWSs					
Labor Cost	\$517,596	\$0	\$0	\$517,596	\$172,532
Non-Labor Cost	\$0	\$0	\$0	\$0	\$0
Total Small PWS Cost	\$517,596	\$0	\$0	\$517,596	\$172,532
Large PWSs					
Labor Cost	\$1,138,712	\$0	\$0	\$1,138,712	\$379,571
Non-Labor Cost	\$10,533,787	\$0	\$0	\$10,533,787	\$3,511,262
Total Large PWS Cost	\$11,672,499	\$0	\$0	\$11,672,499	\$3,890,833
Very Large PWSs					
Labor Cost	\$178,115	\$0	\$0	\$178,115	\$59,372
Non-Labor Cost	\$3,572,223	\$0	\$0	\$3,572,223	\$1,190,741
Total Very Large PWS Cost	\$3,750,338	\$0	\$0	\$3,750,338	\$1,250,113
States					
Labor Cost	\$884,979	\$74,833	\$0	\$959,812	\$319,937
Non-Labor Cost	\$0	\$0	\$0	\$0	\$0
Total State Cost	\$884,979	\$74,833	\$0	\$959,812	\$319,937
EPA					
Labor Cost	\$2,226,432	\$1,113,216	\$0	\$3,339,648	\$1,113,216

Type of Cost	2025	2026	2027	Total ¹	Annualized Cost
Non-Labor Cost	\$13,557,840	\$510,000	\$0	\$14,067,840	\$4,689,280
Total EPA Cost	\$15,784,272	\$1,623,216	\$0	\$17,407,488	\$5,802,496
National Total					
Total with EPA	\$32,609,683	\$1,698,049	\$0	\$34,307,733	\$11,435,911
Total without EPA	\$16,825,412	\$74,833	\$0	\$16,900,245	\$5,633,415
Total Burden (hours) for All Responses ²					
Small PWSs	13,323.6	0.0	\$0	13,323.6	4,441.2
Large PWSs	29,312.0	0.0	\$0	29,312.0	9,770.7
Very Large PWSs	4,655.9	0.0	\$0	4,655.9	1,552.0
States	15,244.9	1,289.1	\$0	16,534.0	5,511.3
EPA	24,960.0	12,480.0	\$0	37,440.0	12,480.0
Total with EPA	87,496.4	13,769.1	\$0	101,265.5	33,755.2
Total without EPA	62,536.4	1,289.1	\$0	63,825.5	21,275.2

¹ Totals may not equal the sum of components due to rounding.

² Although the EPA is not considered a respondent to UCMR, agency burden is shown here to illustrate the national costs of the program. National totals are shown with and without the EPA costs.

13. RESPONDENT CAPITAL AND O&M COSTS

Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected on the burden worksheet).

The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life) and (b) a total operation and maintenance and purchase of services component. The estimates should consider costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling, and testing equipment; and record storage facilities. If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collections services should be a part of this cost burden estimate.

Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.

See cost descriptions in section 12.

14. AGENCY COSTS

Provide estimates of annualized costs to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such

as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.

14a. Agency Activities

The EPA Headquarters and Regional offices are responsible for oversight of state PWS programs and direct implementation of UCMR. The EPA implementation activities are categorized into three major categories: regulatory support activities; program oversight and data analysis; and small PWS testing program, which are described in 14a (a-c).

14a (a) Regulatory Support Activities

Regulatory support activities include laboratory approval; quality assurance/quality control (QA/QC); and technical support to participating PWSs, such as providing guidance documents and responding to questions.

Laboratory Approval and QA/QC Activities: The EPA incurs various costs related to laboratory approval and laboratory QA/QC, including the following activities:

- *Laboratory Approval Program and Proficiency Testing (PT)* – The EPA assessed whether laboratories met the required equipment, laboratory performance and data reporting criteria. The EPA registered and evaluated laboratories based on applications submitted by the laboratories. Interested laboratories then participated in the UCMR 5 PT program. The EPA conducted these laboratory assessments during 2022.
- *QC audits of contract laboratories* – The EPA may conduct on-site or remote Quality Control (QC) audits for each of the approved laboratories, not expected more than annually, during each UCMR 5 sample collection year (January 2023 through December 2025).

Technical Support and Guidance Document Development: The EPA developed and distributed technical guidance for laboratories supporting UCMR 5 during the previous ICR period. Additional technical support is not expected during the current ICR renewal period.

14a (b) National and Regional Oversight, and Data Analysis

The EPA's UCMR program activities (conducted by the EPA Headquarters or its Regional offices) included data analysis, program management, and implementation assistance to states. Exhibit 6 in section 12c illustrates the timeline for UCMR implementation activities.

14a (c) Costs for Small System Testing Program

Implementation of UCMR monitoring at small PWSs accounts for the largest portion of the EPA costs for the UCMR program. Prior to sample collection, the EPA activities for logistical support of the small PWS testing program include coordination of small PWS testing and provision of sampling kits.

During this ICR renewal period, the EPA funds the sample kit preparation, sample shipping fees, and analysis costs.

14b. Agency Burden and Labor Cost

The EPA incurs burden and costs related to UCMR implementation activities including: regulatory support activities; national and regional oversight and data analysis; and management of all aspects of the small PWS testing program. These activities are described in detail in section 14a of this ICR renewal document. Labor and contractual costs are estimated using the federal government general schedule (GS) pay scale; assuming a labor level of GS 13, step 5, and taken from the Maryland/District of Columbia rate schedule for January 2020 (see the U.S. Office of Personnel Management website: <http://www.opm.gov>). With these assumptions, labor and contractor rates were based on a 2,080-hour work year, with a \$185,536 annual salary, or \$89.20 per hour, which includes 60% overhead. Additional cost assumptions are described in sections 14b (a-d) of this ICR renewal document. Cost and burden estimates are presented in Exhibits 14a and 14b, respectively.

14b (a) Regulatory Support Activities

Regulatory support activities include the labor and non-labor costs for the laboratory approval process and QA/QC activities; and general technical support and guidance documents. Cost and burden assumptions for these activities are as follows:

Laboratory Approvals and QA/QC Activities: The EPA incurs various labor or contractor costs related to laboratory PT/approvals; laboratory QA/QC; and the electronic data reporting system as follows:

- The laboratory approval program (*i.e.*, the PT component) cost the EPA approximately \$0.25 million in 2022 to prepare for the beginning of monitoring. These costs are also included in Appendix B.
- QC audits of contract laboratories occur throughout active UCMR monitoring. Labor (hours) for each audit includes: a 3-day site inspection (for two individuals); one full-day travel for two individuals (assume two half days); and three days of report writing (for one individual), which includes review and response to laboratory comments. Travel costs for two individuals include: round trip flight, three nights hotel stay, two full day food per diem, and two days at the proportional meals rate from the 2019 federal rate for the Continental U.S. (from the U.S. Government Services Administration website: <http://www.gsa.gov>). Also included is rental of one car for both travelers. Within the period of this ICR renewal, the EPA estimates that one of these QC audits will take place (in 2025), at an estimated cost of \$10,188.
- The EPA estimated that the electronic data reporting system will cost \$720,000 in total for three-year ICR renewal period (or \$240,000 per ICR year). Cost estimates are based on costs realized by the EPA for prior similar activities.

14b (b) National and Regional Oversight and Data Analysis

The EPA activities include data analysis, management oversight and support at both the regional and national level for assistance to states with UCMR implementation. During the core period of UCMR 5 activity, the EPA estimates that it will dedicate 12 FTEs each year to program oversight and data analysis, based on experience with prior UCMR cycles. These activities are estimated as labor cost and burden to the EPA (see the corresponding description of these activities in section 14a (b) of this ICR renewal document). These activities will cost the EPA an estimated \$3.3 million in total over the 3-year ICR renewal period.

14b (c) Costs for Small System Testing Program

The EPA provides extensive logistical support for the small PWS testing program. This activity includes costs for contractual labor, sampling supplies, and shipping costs, and is estimated to cost the EPA \$490 per sampling event per sampling site, based on actual historical costs incurred during UCMR 4 for this same activity. These activities, plus analytical and shipping fees are estimated to cost the EPA \$12.9 million in total over the three-year ICR renewal period. See section 12d of this ICR renewal document, for assumptions regarding applicable laboratory fees for individual methods. Total costs that the EPA incurs for the small PWS testing program were calculated by multiplying the laboratory and shipping fees by: (number of PWSs) times (number of sampling events per PWS) times (number of sampling points per PWS).

14b (d) Estimated EPA Cost and Burden

The EPA estimates that the agency cost for the UCMR 5 program during the ICR renewal period of 2025—2027 is \$17.4 million; (with annualized cost over the ICR renewal period of \$5.8 million). The EPA costs for UCMR implementation are shown in Exhibit 14a; annualized labor and non-labor costs, as well as small PWS testing program costs are shown in Exhibit 14b. Appendix B, Exhibits B-3a and B-3b provide analogous information over the 5-year UCMR 5 implementation period.

**Exhibit 14A: Yearly Cost to the EPA for UCMR Implementation by Type of Cost (2025—2027)¹
(corresponds with Exhibit B-3a)**

Cost Description	2025	2026	2027	Total ²	Annualized Cost
Regulatory Support Activities: laboratory PT; QC audits; electronic data reporting system; technical support and guidance document development					
Laboratory PT	\$0	\$0	\$0	\$0	\$0
QC Audits	\$20,375	\$0	\$0	\$20,375	\$6,792
Electronic Data Reporting System	\$360,000	\$360,000	\$0	\$720,000	\$240,000
Technical Support	\$300,000	\$150,000	\$0	\$450,000	\$150,000
Subtotal – Regulatory Support	\$680,375	\$510,000	\$0	\$1,190,375	\$396,792
National and Regional Oversight and Data Analysis: UCMR management oversight; review and evaluation of data from all UCMR monitoring					
	\$2,226,432	\$1,113,216	\$0	\$3,339,648	\$1,113,216
Small PWS Testing: implementation coordination; and analytical and shipping costs for small PWS testing for Assessment Monitoring					
Implementation Coordination	\$4,481,822	\$0	\$0	\$4,481,822	\$1,493,941
Fees for Analysis and shipping – standard sample	\$8,395,642	\$0	\$0	\$8,395,642	\$2,798,547
Subtotal – Small PWS Testing	\$12,877,465	\$0	\$0	\$12,877,465	\$4,292,488
TOTAL	\$15,784,272	\$1,623,216	\$0	\$17,407,488	\$5,802,496

¹ The EPA costs were estimated over the period 2025—2027.

² Totals may not equal the sum of components due to rounding.

**Exhibit 14B: Summary of the EPA Burden and Costs for UCMR Implementation (2025—2027)
(corresponds with Exhibit B-3b)**

Burden / Cost	Annualized Cost over 3-year ICR Renewal Period ¹
Labor Cost	\$1,113,216
Non-Labor Cost	\$4,689,280
Total Cost to the EPA for UCMR Implementation	\$5,802,496
Burden (labor hours)	12,480

¹Totals may not equal the sum of components due to rounding.

14c. Agency Non-Labor Costs

See cost description in section 14b.

15. REASONS FOR CHANGE IN BURDEN

Explain the reasons for any program changes or adjustments reported in the burden or capital/O&M cost estimates.

Compared to the original ICR, this ICR renewal reflects an overall decrease of 81,579 hours in the total estimated respondent burden. The reasons that respondents to this ICR renewal incur a different burden than those responding to the original ICR include:

- Fewer PWSs participating during the current ICR renewal period. Only one third of PWSs monitor for UCMR 5 contaminants in the ICR renewal; two thirds PWSs already monitored (in the original ICR period of 2022-2024).
- The schedule of activities for PWSs differs. Some initial activities were conducted by all PWSs prior to monitoring (*i.e.*, during the original ICR period), including reporting prior to monitoring. These activities do not take place during the ICR renewal period. See Section 12c Respondent Activities for detailed explanations.
- The schedule of activities differs for participating states and the EPA. Management and support activities for states and the EPA vary with the UCMR 5 monitoring schedule. Both states and the EPA have different burdens during this ICR renewal period. See Section 12c for State Activities and Section 14 for Agency Activities for further details.

16) PUBLICATION OF DATA

For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

See section 3 for details on data analysis and availability.

17) DISPLAY OF EXPIRATION DATE

If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

Not applicable for this ICR renewal.

18) CERTIFICATION STATEMENT

Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions."

This information collection complies with all provisions of the Certification for Paperwork Reduction Act Submissions. The EPA does not request an exception to the certification of this ICR renewal.

BURDEN STATEMENT

Small PWSs participating in UCMR 5 monitoring are expected to sample an average of 2.8 times per PWS (*i.e.*, number of responses per PWS) across the ICR renewal period. The burden per response for small PWSs is 2.4 hours. Large PWSs and very large PWSs are expected to sample and report an average of 3.2 and 3.7 times per PWS, respectively, across the ICR renewal period. The estimated burden per response for large and very large PWSs is 7.0 and 8.8 hours, respectively. States are projected to incur 2.0 responses over the 3-year ICR renewal period related to coordination with the EPA and PWSs, with a burden per response of 98.4 hours. In aggregate during the ICR renewal period, the average response (*e.g.*, responses from PWS and states) is associated with a burden of 6.1 hours, with a labor plus non-labor cost of \$1,608 per response.

The annualized per-respondent burden hours and costs for the ICR renewal period are: small PWSs – 2.2 hours at \$87 for labor; large PWSs – 7.5 hours at \$290 for labor, and \$2,681 for analytical costs; very large PWSs – 10.7 hours at \$409 for labor, and \$8,212 for analytical costs; and states – 98 hours at \$5,713 for labor. Annualized burden and cost per respondent (for PWSs and states) is 6 hours, with a labor plus non-labor cost of \$1,613 per respondent.

The annualized burden to the EPA for UCMR 5 program activities during the ICR renewal years is 12,480 hours, with an annual labor cost of \$1.1. The EPA's annualized non-labor costs are \$4.7 million. Non-labor costs are primarily attributed to the cost of sample testing for small PWSs (testing is 91.5% of non-labor costs).

Exhibit 15 presents per-respondent and per-response burden and costs over the UCMR 5 ICR renewal period of 2025—2027 (analogous information for the 2022—2026 UCMR 5 implementation period is provided in Exhibit B-5, Appendix B). This exhibit also presents average annual burden and costs.

Exhibit 15: UCMR 5 Per Respondent Burden and Cost Summary for the ICR Renewal Period (2025—2027) (corresponds with Exhibit B-5)

Burden (hours)/ Cost (dollars)	Small PWSs	Large PWSs	Very Large PWSs	States	EPA	National Average with EPA ¹	National Average without EPA
3-Year Total per Respondent							
Total # of Responses Per Respondent	2.8	3.2	3.7	2.0	n/a	n/a	3.0
Labor Cost Per Respondent	\$261	\$869	\$1,228	\$17,140	\$3,339,648	\$1,756	\$800
Non-Labor Cost Per Respondent	\$0	\$8,043	\$24,636	\$0	\$14,067,840	\$8,063	\$4,038
Total Cost (Labor plus Non-Labor)	\$261	\$8,913	\$25,864	\$17,140	\$17,407,488	\$9,819	\$4,838
Total Cost Per Response	\$92	\$2,777	\$7,076	\$5,713	n/a	n/a	\$1,608
Total Burden Per Respondent (hr)	6.7	22.4	32.1	295.3	37440.0	29.0	18.3
Total Burden Per Response (hr)	2.4	7.0	8.8	98.4	n/a	n/a	6.1
Average Annual per Respondent							
Ave. # of Responses Per Respondent	0.9	1.1	1.2	1.0	n/a	n/a	1.0
Labor Cost Per Respondent	\$87	\$290	\$409	\$5,713	\$1,113,216	\$585	\$267
Non-Labor Cost Per Respondent	\$0	\$2,681	\$8,212	\$0	\$4,689,280	\$2,688	\$1,346
Ave. Cost (Labor plus Non-Labor)	\$87	\$2,971	\$8,621	\$5,713	\$5,802,496	\$3,273	\$1,613
Ave. Cost Per Response	\$31	\$926	\$2,359	\$5,713	n/a	n/a	\$536
Ave. Burden Per Respondent (hr)	2.2	7.5	10.7	98.4	12,480.0	9.7	6.1
Ave. Burden Per Response (hr)	0.8	2.3	2.9	32.8	n/a	n/a	2.0

¹ National average burden and costs differ greatly between the state respondents and the various PWS respondents. This should be taken into consideration when looking at the national average with or without the EPA.

Burden means the total time, effort, or financial resources expended by people to generate, maintain, retain, or disclose or provide information to or for a federal agency. This includes the time needed to: review instructions; develop, acquire, install and utilize technology and systems for the purposes of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able

to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

To comment on the EPA's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, the EPA established a public docket for this ICR renewal. Docket ID Number EPA-HQ-OW-2020-0530, is available for public viewing at <http://www.regulations.gov>. This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room was closed to public visitors on March 31, 2020, to reduce the risk of transmitting COVID-19. Our Docket Center staff will continue to provide remote customer service via email, phone, and webform. We encourage the public to submit comments via <https://www.regulations.gov>, as there is a temporary suspension of mail delivery to the EPA, and no hand deliveries are currently accepted. For further information on the EPA Docket Center services and the current status, please visit us online at <https://www.epa.gov/dockets>.

ATTACHMENTS**1 SURVEY OBJECTIVES, KEY VARIABLES, AND OTHER PRELIMINARIES***1(a) Survey Objectives*

As part of its responsibilities under this information collection, the EPA identifies and selects a sample of small PWSs that is representative of small PWSs nationwide. The selected sample of PWSs participates in UCMR. The representativeness of this sample of PWSs is critical to the UCMR program because the drinking water contaminant occurrence data collected by the PWSs is used to: estimate national occurrence and exposure; establish a baseline for health effects and economic analyses; and provide information for regulatory determinations and, as appropriate, regulatory development.

1(b) Key Variables

Key variables associated with selecting a nationally representative sample of small PWSs include: PWS size, source water type and geographical location.

1(c) Statistical Approach

Section 1445(a)(2) of SDWA (as amended in 1996 and 2018) requires that UCMR includes only a representative sample of PWSs serving between 25 and 3,299 people. In addition to satisfying statutory requirements, selection of a sample of PWSs for participation in UCMR allows for significant national costs savings, as compared to monitoring by all PWSs. To estimate national occurrence and exposure, the primary objective of the UCMR program, the representative sample of PWSs must allow the EPA to collect high-quality data about contaminant occurrence. The small-system data collection, coupled with data collection from all systems serving more than 10,000 people under this action, will provide scientifically valid data on the national occurrence of 29 PFAS and lithium in drinking water.

1(d) Feasibility

The EPA anticipates that the survey (the statistical sample) objectives are achievable given the following considerations.

- High PWS response/participation rates (>95%) during UCMR 1, UCMR 2, UCMR 3, and UCMR 4 give the EPA confidence that equivalent or better participation rates can be achieved during UCMR 5.
- The statistical approach to this data collection requires only a fraction of small PWSs to conduct monitoring, resulting in much smaller cost and burden at the national level than would be incurred if all small PWSs monitored. Small PWSs that are selected for UCMR 5 monitoring incur only a few hours of labor burden. The EPA funds all laboratory fees and shipping costs related to small PWS testing.

2 SURVEY DESIGN

2(a) Target Population and Coverage

Per SDWA, the PWSs described in this document are the target population for the UCMR 5 monitoring.

2(b) Sample Design

2(b)(i) Sampling Frame

The EPA developed the sample frame for the statistical selection of UCMR PWSs, including the system PWSID Code, name, source water category, and population-served data for each UCMR-eligible PWS. Initial data were pulled from the EPA's Safe Drinking Water Information System (SDWIS/Fed) inventory database and were adjusted to account for known anomalies in population and inventory reporting (for example, how wholesalers report their population data).

2(b)(ii) Sample Size

UCMR 5 monitoring will be conducted by all PWSs serving 3,300 or more people and a representative sample of smaller PWSs, subject to the availability of appropriations.

2(b)(iii) Stratification Variables

In developing the nationally-representative sample of 800 small systems, the EPA considers factors such as population served, water source, and geographic location. The sample of PWSs is stratified by population served (PWS size), allocating samples proportionately to each state by PWS size and then by water source type. Other provisions, presented below, ensure broad geographic coverage.

2(b)(iv) Sampling Method

To satisfy the specifications of SDWA section 1445(a)(2)(A), the representative sample of PWSs accounts for different PWS sizes, sources of water supply, and geographic location (*e.g.*, states). The sample was stratified by water source type (*i.e.*, ground water or surface water and ground water under the direct influence of surface water) and by PWS size category (*i.e.*, serves 25 to 500 people, 501 to 3,300 people, etc.). This stratification allowed the EPA to account for different exposure risks of contaminant occurrence that could be related to the vulnerability differences between surface water and ground water sources and differing technical, management, and/or financial capacity that can vary across PWS sizes.

With contaminant exposure assessment as a primary goal, PWSs were selected in proportion to the population served. This population-weighted allocation leads to statistically valid estimates of national exposure. To ensure the sample provides equity across states for involvement in UCMR, the EPA included at least two PWSs from each state. This additional PWS selection

requirement provides allocation across all the states and Territories to account for differences in spatial vulnerability and contaminant occurrence, and to ensure equity in participation. Small tribal PWSs across the EPA Regions were grouped into a single category (equivalent to a “state”) for the representative sample.

2(b)(v) Multi-Stage Sampling

Because PWS status can change over time, the EPA also selected “alternate” PWSs that fit the size/source water strata of the originally selected PWS. Through an interactive review process with the states, PWSs that no longer meet eligibility criteria (for example, if they are in a different size category than when originally selected, have become inactive, or do not have a retail customer base) were replaced by an alternate PWS that meets the stratification criteria.

2(c) Precision Requirements

2(c)(i) Precision Targets

The representative sample of PWSs was selected so that the data collected yield accurate and precise estimates of national contaminant occurrence (the fraction of PWSs at which a contaminant occurs) and exposure (the fraction of people exposed to a contaminant). For estimates of exposure fractions, the EPA specified a margin of error of $\pm 1\%$ with 99% confidence, when the estimated exposure fraction is 1%. That is, if the estimated exposure fraction is 1%, the EPA will be able to state with 99% confidence that the true exposure fraction is between 0% and 2%. Because there are uncertainties and sources of variation in this and other such sampling programs, statistical sampling theory used to derive levels of accuracy and precision may not account for all of these sources of variation. Hence, the high confidence level, low allowable error, and consequent large sample size should help ensure adequate data to meet the objectives of the UCMR program.

2(c)(ii) Non-sampling error

For those PWSs selected to conduct UCMR monitoring, response is a requirement. As with any regulation, some non-compliance can be expected. However, high compliance levels (>95%) during prior UCMR monitoring (attributable to extensive outreach and compliance assistance) give the EPA confidence that the same or better compliance levels can be achieved during UCMR 5. The EPA plans to continue outreach and compliance assistance efforts as needed.

2(d) Questionnaire Design

No questionnaires are anticipated for UCMR 5. Analytical results for contaminant occurrence are reported directly by the laboratories to the EPA’s electronic data reporting system.

3 PRETESTS AND PILOT TESTS

For UCMR 5, the EPA applied the same statistical concepts that were used to select the nationally-representative sample of small PWSs for UCMR 1, UCMR 2, UCMR 3, and UCMR 4.

Please see “Selection of Nationally Representative Public Water Systems for the Unregulated Contaminant Monitoring Rule: 2021 Update” for a description of the statistical approach for the EPA’s selection of the nationally representative sample, available in the UCMR 5 public docket under Docket ID No. EPA-HQ-OW-2020-0530. Historically, more than 99% of small PWSs completed their required monitoring, and more than 95% of large PWSs completed their required monitoring and reporting.

Prior to sample collection, the EPA tests the logistical support activities for the small PWS testing program including testing the temperature stability of the sampling kits, durability of materials, background levels of contaminants in materials, readability of sampling instruction, and streamlining the coordination of small PWS testing.

4 COLLECTION METHODS AND FOLLOW-UP

4(a) Collection Methods

Large PWSs are required to submit their data (posted to the EPA's electronic data reporting system by their laboratories) to the EPA. Monitoring data for the small PWSs are submitted directly to the EPA's electronic data reporting system by the laboratories conducting the analyses (under contract to the EPA).

4(b) Survey Response and Follow-up

High compliance levels (>95%) during prior UCMRs give the EPA confidence that equivalent or better levels can be achieved during UCMR 5. The EPA continues outreach and compliance assistance efforts as needed. Each small PWS works with a UCMR Sampling Coordinator and has minimal reporting requirements and one-on-one compliance assistance.

5 ANALYZING AND REPORTING SURVEY RESULTS

5(a) Data Preparation

After laboratories post UCMR 5 monitoring results to the EPA's electronic data reporting system, the data are initially reviewed automatically by the electronic data reporting system using specific QA/QC assessment screens, then by the EPA and states (as desired) before placing the data in the NCOD for public access.

The EPA takes the following efforts to reduce data problems and increase the dependability and quality of the occurrence data. The EPA’s electronic data reporting system and QA/QC assessments screen for the use of inappropriate measurement units and other improper data. Additional automated QC functions are in place to identify possible data quality issues such as duplicate data submissions and incomplete data. All samples are collected by knowledgeable PWS staff and analytical results are generated by laboratories that are approved for UCMR 5

drinking water analysis. Electronic data submission also avoids potential re-keying errors. As part of the data QA/QC procedures, all edits or changes made to the data are documented.

5(b) Analysis

For UCMR 1, UCMR 2, UCMR 3, and UCMR 4, the EPA developed a two-stage analytical approach for the evaluation of the national occurrence of contaminants. The EPA will use the same two-tier approach to analyze the data for UCMR 5.

Stage 1 provides a straightforward evaluation of occurrence for simple and conservative assessments of contaminant occurrence. The Stage 1 analysis of the UCMR data consists of non-parametric, unweighted counts and simple descriptive statistics of analytical results for each of the contaminants. These occurrence analyses are conducted at the sample level, PWS level, and population-served level. For each contaminant, occurrence measures include the number and percent of samples with analytical detections and the minimum, median, maximum, and 99th percentile values of those detections. PWS-level occurrence measures include the number and percent of PWSs with one or more analytical detections and the number and percent of PWSs with two or more analytical detections of a given contaminant. Population-served occurrence measures include: the number and percent of population served by PWSs with one or more analytical detections, and the number and percent of population served by PWSs with two or more analytical detections of a given contaminant. Similar measures may also be conducted for each EPTDS for each PWS. Since these contaminant- and PWS- level occurrence measures are based on raw occurrence data (that have not been adjusted for population-weighting and sampling), they are less accurate representations of national occurrence than occurrence measures based on adjusted occurrence data.

Based on the findings of the Stage 1 analysis, the EPA can select contaminant(s) for which more detailed and sophisticated statistical evaluations – the Stage 2 analysis – may be warranted as a next step to generate national probability estimates of contaminant occurrence and exposure. Specifically, the modeling and estimation of PWS mean contaminant concentrations may be desired. The Stage 2 analysis uses a Bayesian-based hierarchical model to estimate the percent (and number) of PWSs with a mean contaminant concentration above any specified concentration threshold. The Bayesian-based Hierarchical Model also provides quantified error of estimation and enables estimates of mean contaminant concentrations below the MRL. This statistical model was used to generate the contaminant occurrence estimates for 60 regulated contaminants for the first Six-Year Review of National Primary Drinking Water Regulations, an approach that underwent peer review.

5(c) Reporting Results

After final review and formatting, the data collected through this ICR renewal will be made available to the public through the NCOD, as was done with the data collected for UCMR 1, UCMR 2, UCMR 3, and UCMR 4. The analytical results from UCMR 5 monitoring will support

regulatory determinations and, as appropriate, regulation development. For contaminants with significant occurrence and health effects, the EPA expects to use the results: to support an exposure assessment; to establish the baseline for health effects and economic analyses; to analyze contaminant co-occurrence; and to evaluate treatment technology, including contaminant source management. Further, the results may suggest that the occurrence of certain contaminants may be significant enough to initiate research on health effects and treatment technology. Finally, the data may guide future source water protection efforts.

ACRONYMS

ASDWA	Association of State Drinking Water Administrators
ASTM	American Society for Testing Materials
AWIA	America's Water Infrastructure Act of 2018
BLS	United States Bureau of Labor Statistics
CCL	Contaminant Candidate List
CCR	Consumer Confidence Report
CFR	<i>Code of Federal Regulations</i>
CWS	Community Water System
EPA	United States Environmental Protection Agency
EPTDS	Entry Point to the Distribution System
FR	<i>Federal Register</i>
FTE	Full-Time Equivalent
GS	General Schedule
ICP-AES	Inductively Coupled Plasma – Atomic Emission Spectrometry
ICR	Information Collection Request
LC-MS/MS	Liquid Chromatography – Tandem Mass Spectrometry
MRL	Minimum Reporting Level
NAICS	North American Industry Classification System
NCOD	National Drinking Water Contaminant Occurrence Database
NDAA	National Defense Authorization Act for Fiscal Year 2020
NTNCWS	Non-Transient Non-Community Water System
OES	Occupational Employment Statistics
OGWDW	Office of Ground Water and Drinking Water
OMB	Office of Management and Budget
OW	Office of Water
PFAS	Per- and Polyfluoroalkyl Substances
PT	Proficiency Testing
PWS	Public Water System
PWSID	Public Water System Identification
QA	Quality Assurance
QC	Quality Control
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
SBA	Small Business Administration
SDWA	Safe Drinking Water Act
SDWIS/Fed	Safe Drinking Water Information System Federal Reporting Services
SIC	Standard Industrial Classification
SM	Standard Methods
SMP	State Monitoring Plan
SPE	Solid Phase Extraction
TNCWS	Transient Non-Community Water System
UCMR	Unregulated Contaminant Monitoring Rule

APPENDICES

APPENDIX A: Relevant Authorities in SDWA 1996, 2018 and 2019 Amendments

SECTION 1412(B)(1) IDENTIFICATION OF CONTAMINANTS FOR LISTING:

(A) GENERAL AUTHORITY – The Administrator shall, in accordance with the procedures established by this subsection, publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for a contaminant (other than a contaminant referred to in paragraph (2) for which a national primary drinking water regulation has been promulgated as of the date of enactment of the Safe Drinking Water Act Amendments of 1996) if the Administrator determines that

- (i) the contaminant may have an adverse effect on the health of persons;
- (ii) the contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and
- (iii) in the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems.

(B) REGULATION OF UNREGULATED CONTAMINANTS–

(i) LISTING OF CONTAMINANTS FOR CONSIDERATION–

(I) Not later than 18 months after the date of enactment of the Safe Drinking Water Act Amendments of 1996 and every 5 years thereafter, the Administrator, after consultation with the scientific community, including the Science Advisory Board, after notice and opportunity for public comment, and after considering the occurrence data base established under section 1445(g), shall publish a list of contaminants which, at the time of publication, are not subject to any proposed or promulgated national primary drinking water regulation, which are known or anticipated to occur in public water systems, and which may require regulation under this title.

(II) The unregulated contaminants considered under subclause (i) shall include, but not be limited to, substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, and substances registered as pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act.

(III) The Administrator's decision whether or not to select an unregulated contaminant for a list under this clause shall not be subject to judicial review.

(ii) DETERMINATION TO REGULATE–

(I) Not later than 5 years after the date of enactment of the Safe Drinking Water Act Amendments of 1996, and every 5 years thereafter, the Administrator shall, after notice of the preliminary determination and

opportunity for public comment, for not fewer than 5 contaminants included on the list published under clause (i), make determinations of whether or not to regulate such contaminants.

(II) A determination to regulate a contaminant shall be based on findings that the criteria of clauses (i), (ii), and (iii) of subparagraph (A) are satisfied. Such findings shall be based on the best available public health information, including the occurrence data base established under section 1445(g).

(III) The Administrator may make a determination to regulate a contaminant that does not appear on a list under clause (i) if the determination to regulate is made pursuant to subclause (II).

(IV) A determination under this clause not to regulate a contaminant shall be considered final agency action and subject to judicial review.

(iii) REVIEW – Each document setting forth the determination for a contaminant under clause (ii) shall be available for public comment at such time as the determination is published.

(C) PRIORITIES – In selecting unregulated contaminants for consideration under subparagraph (B), the Administrator shall select contaminants that present the greatest public health concern. The Administrator, in making such selection, shall take into consideration, among other factors of public health concern, the effect of such contaminants upon subgroups that comprise a meaningful portion of the general population (such as infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations) that are identifiable as being at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population.

(D) URGENT THREATS TO PUBLIC HEALTH – The Administrator may promulgate an interim national primary drinking water regulation for a contaminant without making a determination for the contaminant under paragraph (4)(C), or completing the analysis under paragraph (3)(C), to address an urgent threat to public health as determined by the Administrator after consultation with and written response to any comments provided by the Secretary of Health and Human Services, acting through the director of the Centers for Disease Control and Prevention or the director of the National Institutes of Health. A determination for any contaminant in accordance with paragraph (4)(C) subject to an interim regulation under this subparagraph shall be issued, and a completed analysis meeting the requirements of paragraph (3)(C) shall be published, not later than 3 years after the date on which the regulation is promulgated and the regulation shall be repromulgated, or revised if appropriate, not later than 5 years after that date.

(E) REGULATION – For each contaminant that the Administrator determines to regulate under subparagraph (B), the Administrator shall publish maximum contaminant level goals and promulgate, by rule, national primary drinking water regulations under this

subsection. The Administrator shall propose the maximum contaminant level goal and national primary drinking water regulation for a contaminant not later than 24 months after the determination to regulate under subparagraph (B), and may publish such proposed regulation concurrent with the determination to regulate. The Administrator shall publish a maximum contaminant level goal and promulgate a national primary drinking water regulation within 18 months after the proposal thereof. The Administrator, by notice in the Federal Register, may extend the deadline for such promulgation for up to 9 months.

(F) HEALTH ADVISORIES AND OTHER ACTIONS – The Administrator may publish health advisories (which are not regulations) or take other appropriate actions for contaminants not subject to any national primary drinking water regulation.

Section 1412(b)(4) GOALS AND STANDARDS:

(A) MAXIMUM CONTAMINANT LEVEL GOALS – Each maximum contaminant level goal established under this subsection shall be set at the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety.

(B) MAXIMUM CONTAMINANT LEVELS – Except as provided in paragraphs (5) and (6), each national primary drinking water regulation for a contaminant for which a maximum contaminant level goal is established under this subsection shall specify a maximum contaminant level for such contaminant which is as close to the maximum contaminant level goal as is feasible.

(C) DETERMINATION – At the time the Administrator proposes a national primary drinking water regulation under this paragraph, the Administrator shall publish a determination as to whether the benefits of the maximum contaminant level justify, or do not justify, the costs based on the analysis conducted under paragraph (3)(C).

(D) DEFINITION OF FEASIBLE – For the purposes of this subsection, the term “feasible” means feasible with the use of the best technology, treatment techniques and other means which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration). For the purpose of this paragraph, granular activated carbon is feasible for the control of synthetic organic chemicals, and any technology, treatment technique, or other means found to be the best available for the control of synthetic organic chemicals must be at least as effective in controlling synthetic organic chemicals as granular activated carbon.

(E) FEASIBLE TECHNOLOGIES

(i) IN GENERAL – Each national primary drinking water regulation which establishes a maximum contaminant level shall list the technology, treatment techniques, and other means which the Administrator finds to be feasible for purposes of meeting such maximum contaminant level, but a regulation under this subsection shall not require that any specified technology, treatment

technique, or other means be used for purposes of meeting such maximum contaminant level.

(ii) LIST OF TECHNOLOGIES FOR SMALL SYSTEMS – The Administrator shall include in the list any technology, treatment technique, or other means that is affordable, as determined by the Administrator in consultation with the states, for small public water systems serving

(I) a population of 10,000 or fewer but more than 3,300;

(II) a population of 3,300 or fewer but more than 500; and

(III) a population of 500 or fewer but more than 25;

and that achieves compliance with the maximum contaminant level or treatment technique, including packaged or modular systems and point-of-entry or point-of-use treatment units. Point-of-entry and point-of-use treatment units shall be owned, controlled and maintained by the public water system or by a person under contract with the public water system to ensure proper operation and maintenance and compliance with the maximum contaminant level or treatment technique and equipped with mechanical warnings to ensure that customers are automatically notified of operational problems. The Administrator shall not include in the list any point-of-use treatment technology, treatment technique, or other means to achieve compliance with a maximum contaminant level or treatment technique requirement for a microbial contaminant (or an indicator of a microbial contaminant). If the American National Standards Institute has issued product standards applicable to a specific type of point-of-entry or point-of-use treatment unit, individual units of that type shall not be accepted for compliance with a maximum contaminant level or treatment technique requirement unless they are independently certified in accordance with such standards. In listing any technology, treatment technique, or other means pursuant to this clause, the Administrator shall consider the quality of the source water to be treated.

(iii) LIST OF TECHNOLOGIES THAT ACHIEVE COMPLIANCE – Except as provided in clause (v), not later than 2 years after the date of enactment of this clause and after consultation with the states, the Administrator shall issue a list of technologies that achieve compliance with the maximum contaminant level or treatment technique for each category of public water systems described in subclauses (I), (II), and (III) of clause (ii) for each national primary drinking water regulation promulgated prior to the date of enactment of this paragraph.

(iv) ADDITIONAL TECHNOLOGIES – The Administrator may, at any time after a national primary drinking water regulation has been promulgated, supplement the list of technologies describing additional or new or innovative treatment technologies that meet the requirements of this paragraph for categories of small public water systems described in subclauses (I), (II), and (III) of clause (ii) that are subject to the regulation.

(v) TECHNOLOGIES THAT MEET SURFACE WATER TREATMENT RULE – Within one year after the date of enactment of this clause, the Administrator shall list technologies that meet the Surface Water Treatment Rule for each category of public water systems described in subclauses (I), (II), and (III) of clause (ii).

Section 1445(a) Provision of Information to Administrator; Monitoring Program for Unregulated Contaminants

(1)(A) Every person who is subject to any requirement of this title or who is a grantee, shall establish and maintain such records, make such reports, conduct such monitoring, and provide such information as the Administrator may reasonably require by regulation to assist the Administrator in establishing regulations under this title, in determining whether such person has acted or is acting in compliance with this title, in administering any program of financial assistance under this title, in evaluating the health risks of unregulated contaminants, or in advising the public of such risks. In requiring a public water system to monitor under this subsection, the Administrator may take into consideration the system size and the contaminants likely to be found in the system's drinking water.

(B) Every person who is subject to a national primary drinking water regulation under section 1412 shall provide such information as the Administrator may reasonably require, after consultation with the state in which such person is located if such state has primary enforcement responsibility for public water systems, on a case-by-case basis, to determine whether such person has acted or is acting in compliance with this title.

(C) Every person who is subject to a national primary drinking water regulation under section 1412 shall provide such information as the Administrator may reasonably require to assist the Administrator in establishing regulations under section 1412 of this title, after consultation with states and suppliers of water. The Administrator may not require under this subparagraph the installation of treatment equipment or process changes, the testing of treatment technology, or the analysis or processing of monitoring samples, except where the Administrator provides the funding for such activities. Before exercising this authority, the Administrator shall first seek to obtain the information by voluntary submission.

(D) The Administrator shall not later than 2 years after the date of enactment of this subparagraph, after consultation with public health experts, representatives of the general public, and officials of state and local governments, review the monitoring requirements for not fewer than 12 contaminants identified by the Administrator, and promulgate any necessary modifications.

(2) MONITORING PROGRAM FOR UNREGULATED CONTAMINANTS

(A) ESTABLISHMENT – The Administrator shall promulgate regulations establishing the criteria for a monitoring program for unregulated contaminants. The regulations shall

require monitoring of drinking water supplied by public water systems and shall vary the frequency and schedule for monitoring requirements for systems based on the number of persons served by the system, the source of supply, and the contaminants likely to be found, ensuring that only a representative sample of systems serving 10,000 persons or fewer are required to monitor.

(B) MONITORING PROGRAM FOR CERTAIN UNREGULATED CONTAMINANTS

(i) INITIAL LIST – Not later than 3 years after the date of enactment of the Safe Drinking Water Act Amendments of 1996 and every 5 years thereafter, the Administrator shall issue a list pursuant to subparagraph (A) of not more than 30 unregulated contaminants to be monitored by public water systems and to be included in the national drinking water occurrence data base maintained pursuant to subsection (g).

(ii) GOVERNORS' PETITION – The Administrator shall include among the list of contaminants for which monitoring is required under this paragraph each contaminant recommended in a petition signed by the Governor of each of 7 or more states, unless the Administrator determines that the action would prevent the listing of other contaminants of a higher public health concern.

(C) MONITORING PLAN FOR SMALL AND MEDIUM SYSTEMS

(i) IN GENERAL – Based on the regulations promulgated by the Administrator, each state may develop a representative monitoring plan to assess the occurrence of unregulated contaminants in public water systems that serve a population of 10,000 or fewer in that state. The plan shall require monitoring for systems representative of different sizes, types, and geographic locations in the state.

(ii) GRANTS FOR SMALL SYSTEM COSTS – From funds reserved under section 1452(o) or appropriated under subparagraph (H), the Administrator shall pay the reasonable cost of such testing and laboratory analysis as are necessary to carry out monitoring under the plan.

(D) MONITORING RESULTS – Each public water system that conducts monitoring of unregulated contaminants pursuant to this paragraph shall provide the results of the monitoring to the primary enforcement authority for the system.

(E) NOTIFICATION – Notification of the availability of the results of monitoring programs required under paragraph (2)(A) shall be given to the persons served by the system.

(F) WAIVER OF MONITORING REQUIREMENT – The Administrator shall waive the requirement for monitoring for a contaminant under this paragraph in a state, if the state demonstrates that the criteria for listing the contaminant do not apply in that state.

(G) ANALYTICAL METHODS – The state may use screening methods approved by the Administrator under subsection (i) in lieu of monitoring for particular contaminants under this paragraph.

(H) Authorization of Appropriations – There are authorized to be appropriated to carry out this paragraph \$10,000,000 for each of the fiscal years 2019 through 2021.

1445(g) OCCURRENCE DATA BASE

(1) IN GENERAL – Not later than 3 years after the date of enactment of the Safe Drinking Water Act Amendments of 1996, the Administrator shall assemble and maintain a national drinking water contaminant occurrence data base, using information on the occurrence of both regulated and unregulated contaminants in public water systems obtained under subsection (a)(1)(A) or subsection (a)(2) and reliable information from other public and private sources.

(2) PUBLIC INPUT – In establishing the occurrence data base, the Administrator shall solicit recommendations from the Science Advisory Board, the states, and other interested parties concerning the development and maintenance of a national drinking water contaminant occurrence data base, including such issues as the structure and design of the data base, data input parameters and requirements, and the use and interpretation of data.

(3) USE – The data shall be used by the Administrator in making determinations under section 1412(b)(1) with respect to the occurrence of a contaminant in drinking water at a level of public health concern.

(4) PUBLIC RECOMMENDATIONS – The Administrator shall periodically solicit recommendations from the appropriate officials of the National Academy of Sciences and the states, and any person may submit recommendations to the Administrator, with respect to contaminants that should be included in the national drinking water contaminant occurrence data base, including recommendations with respect to additional unregulated contaminants that should be listed under subsection (a)(2). Any recommendation submitted under this clause shall be accompanied by reasonable documentation that–

(A) the contaminant occurs or is likely to occur in drinking water; and

(B) the contaminant poses a risk to public health.

(5) PUBLIC AVAILABILITY – The information from the data base shall be available to the public in readily accessible form.

(6) REGULATED CONTAMINANTS – With respect to each contaminant for which a national primary drinking water regulation has been established, the data base shall include information on the detection of the contaminant at a quantifiable level in public water systems (including detection of the contaminant at levels not constituting a violation of the maximum contaminant level for the contaminant).

(7) UNREGULATED CONTAMINANTS – With respect to contaminants for which a national primary drinking water regulation has not been established, the data base shall include

- (A) monitoring information collected by public water systems that serve a population of more than 10,000, as required by the Administrator under subsection (a);
- (B) monitoring information collected from a representative sampling of public water systems that serve a population of 10,000 or fewer;
- (C) if applicable, monitoring information collected by public water systems pursuant to subsection (j) that is not duplicative of monitoring information included in the data base under subparagraph (B) or (D); and
- (D) other reliable and appropriate monitoring information on the occurrence of the contaminants in public water systems that is available to the Administrator.

1445(i) SCREENING METHODS

The Administrator shall review new analytical methods to screen for regulated contaminants and may approve such methods as are more accurate or cost-effective than established reference methods for use in compliance monitoring.

[42 U.S.C. 300j-4]

1445 (j) MONITORING BY CERTAIN SYSTEMS

(1) IN GENERAL.—Notwithstanding subsection (a)(2)(A), the Administrator shall, subject to the availability of appropriations for such purpose—

- (A) require public water systems serving between 3,300 and 10,000 persons to monitor for unregulated contaminants in accordance with this section; and
- (B) ensure that only a representative sample of public water systems serving fewer than 3,300 persons are required to monitor.

(2) EFFECTIVE DATE.—Paragraph (1) shall take effect 3 years after the date of enactment of this subsection.

(3) LIMITATION.—Paragraph (1) shall take effect unless the Administrator determines that there is not sufficient laboratory capacity to accommodate the analysis necessary to carry out monitoring required under such paragraph.

(4) LIMITATION ON ENFORCEMENT.—The Administrator may not enforce a requirement to monitor pursuant to paragraph (1) with respect to any public water system serving fewer than 3,300 persons, including by subjecting such a public water system to any civil penalty.

(5) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$15,000,000 in each fiscal year for which monitoring is required to be carried out under this subsection for the Administrator to pay the reasonable cost of such testing and laboratory analysis as are necessary to carry out monitoring required under this subsection.

National Defense Authorization Act for Fiscal Year 2020 (NDAA) (Public Law 116-92)

SEC. 7311. MONITORING AND DETECTION.

(a) MONITORING PROGRAM FOR UNREGULATED CONTAMINANTS.—

(1) IN GENERAL.—The Administrator shall include each substance described in paragraph (2) in the fifth publication of the list of unregulated contaminants to be monitored under section 1445(a)(2)(B)(i) of the Safe Drinking Water Act (42 U.S.C. 300j–4(a)(2)(B)(i)).

(2) SUBSTANCES DESCRIBED.—The substances referred to in paragraph (1) are perfluoroalkyl and polyfluoroalkyl substances and classes of perfluoroalkyl and polyfluoroalkyl substances— (A) for which a method to measure the level in drinking water has been validated by the Administrator; and (B) that are not subject to a national primary drinking water regulation.

(3) EXCEPTION.—The perfluoroalkyl and polyfluoroalkyl substances and classes of perfluoroalkyl and polyfluoroalkyl substances included in the list of unregulated contaminants to be monitored under section 1445(a)(2)(B)(i) of the Safe Drinking Water Act (42 U.S.C. 300j–4(a)(2)(B)(i)) under paragraph (1) shall not count towards the limit of 30 unregulated contaminants to be monitored by public water systems under that section.

APPENDIX B: Burden and Cost Exhibits for the 5-Year UCMR 5 Period of 2022—2026
Exhibit B-1a: Yearly Cost to Systems, by PWS Size and by Type of Cost (2022—2026)
 (corresponds with Exhibit 10a)

Cost Description	2022	2023	2024	2025	2026	Total ¹	Annualized Cost
SMALL PWSs (serving between 25 and 10,000 people)							
Labor Costs							
Reading and Initial Reporting	\$0	\$231,029	\$231,029	\$231,029	\$0	\$693,087	\$138,617
Sample Collection	\$0	\$177,663	\$177,663	\$177,663	\$0	\$532,989	\$106,598
Reporting of Results	\$0	\$108,904	\$108,904	\$108,904	\$0	\$326,712	\$65,342
Non-Labor Costs (Laboratory Analysis and Shipping (paid for by EPA))	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal – Small PWSs	\$0	\$517,596	\$517,596	\$517,596	\$0	\$1,552,788	\$310,558
LARGE PWSs (serving 10,001 to 100,000 people)							
Labor Costs							
Reading and Initial Reporting	\$0	\$589,169	\$589,169	\$589,169	\$0	\$1,767,506	\$353,501
Sample Collection	\$0	\$222,909	\$222,909	\$222,909	\$0	\$668,727	\$133,745
Reporting of Results	\$0	\$326,634	\$326,634	\$326,634	\$0	\$979,902	\$195,980
Non-Labor Costs (Laboratory Analysis and Shipping)	\$0	\$10,533,787	\$10,533,787	\$10,533,787	\$0	\$31,601,361	\$6,320,272
Subtotal – Large PWSs	\$0	\$11,672,499	\$11,672,499	\$11,672,499	\$0	\$35,017,496	\$7,003,499
VERY LARGE PWSs (serving greater than 100,000 people)							
Labor Costs							
Reading and Initial Reporting	\$0	\$63,122	\$63,122	\$63,122	\$0	\$189,367	\$37,873
Sample Collection	\$0	\$74,441	\$74,441	\$74,441	\$0	\$223,323	\$44,665
Reporting of Results	\$0	\$40,551	\$40,551	\$40,551	\$0	\$121,654	\$24,331
Non-Labor Costs (Laboratory Analysis and Shipping)	\$0	\$3,572,223	\$3,572,223	\$3,572,223	\$0	\$10,716,669	\$2,143,334
Subtotal – Very Large PWSs	\$0	\$3,750,338	\$3,750,338	\$3,750,338	\$0	\$11,251,014	\$2,250,203
ALL PWSs							

Cost Description	2022	2023	2024	2025	2026	Total¹	Annualized Cost
Total Labor for All PWSs	\$0	\$1,834,423	\$1,834,423	\$1,834,423	\$0	\$5,503,268	\$1,100,654
Total Non-Labor for All PWSs	\$0	\$14,106,010	\$14,106,010	\$14,106,010	\$0	\$42,318,030	\$8,463,606
Total Labor and Non-Labor for All PWSs	\$0	\$15,940,433	\$15,940,433	\$15,940,433	\$0	\$47,821,298	\$9,564,260

¹Totals may not equal the sum of components due to rounding.

**Exhibit B-1b: Per System (Respondent) and Per Response UCMR 5 Costs (2022—2026)
(corresponds with Exhibit 10b)**

Burden / Cost	Total over 2022—2026			Annualized Cost over 2022—2026		
	Small PWSs	Large PWSs	Very Large PWSs	Small PWSs	Large PWSs	Very Large PWSs
PER RESPONDENT:						
Labor Cost	\$261	\$869	\$1,228	\$52	\$174	\$246
Non-Labor Cost	\$0	\$8,043	\$24,636	\$0	\$1,609	\$4,927
Burden (labor hours)	6.7	22.4	32.1	1.3	4.5	6.4
PER RESPONSE:						
Number Responses per Respondent	2.8	3.2	3.7	0.6	0.6	0.7
Labor Cost per Response	\$92	\$271	\$336	\$18	\$54	\$67
Non-Labor Cost per Response	\$0	\$2,506	\$6,740	\$0	\$501	\$1,348
Burden (labor hours) per Response	2.4	7.0	8.8	0.5	1.4	1.8

**Exhibit B-2a: Yearly Cost and Burden to States for Implementation of UCMR 5 (2022—2026)¹
(corresponds with Exhibit 12a)**

Cost/ Burden	2022	2023	2024	2025	2026	Total ²	Annualized Cost
Costs to all States for labor related to UCMR implementation and oversight							
	\$1,180,421	\$884,979	\$884,979	\$884,979	\$74,833	\$3,910,191	\$782,038
Labor burden for all States for UCMR implementation and oversight (number of hours)							
	20,334	15,245	15,245	15,245	1,289	67,358	13,472

¹ All costs are attributed to labor and are estimated over the period 2022—2026.

² Totals may not equal sum of components due to rounding.

**Exhibit B-2b: Per State (Respondent) and Per Response UCMR 5 Costs (2022—2026)
(corresponds with Exhibit 12b)**

Burden / Cost	Total over 2022—2026	Annual Cost over 2022—2026
PER RESPONDENT:		
Labor Cost	\$69,825	\$13,965
Non-Labor Cost	\$0	\$0
Burden (labor hours)	1,202.8	240.6
PER RESPONSE:		
Number Responses per Respondent ¹	3.0	1.0
Labor Cost per Response	\$13,965	\$4,655
Non-Labor Cost per Response	\$0	\$0
Burden (labor hours) per Response	240.6	80.2

¹ States have one response per year over the three sample collection years, since there are no specific cyclical state reporting requirements under the UCMR program.

Exhibit B-3a: Yearly Cost to the EPA for UCMR 5 Implementation, by Type of Cost (2022—2026)¹ (corresponds with Exhibit 14a)

Cost Description	2022	2023	2024	2025	2026	Total ²	Annualized Cost
Regulatory Support Activities: laboratory PT; QC audits; electronic data reporting system; and technical support, guidance document development							
Lab PT	\$245,975	\$0	\$0	\$0	\$0	\$245,975	\$49,195
QC Audits	\$20,375	\$40,750	\$40,750	\$20,375	\$0	\$122,251	\$24,450
Electronic Data Reporting System	\$360,000	\$360,000	\$360,000	\$360,000	\$360,000	\$1,800,000	\$360,000
Technical Support	\$422,987	\$363,339	\$300,000	\$300,000	\$150,000	\$1,536,326	\$307,265
Subtotal – Regulatory Support	\$1,049,338	\$764,089	\$700,750	\$680,375	\$510,000	\$3,704,553	\$740,911
National and Regional Oversight and Data Analysis: UCMR management oversight; review and evaluation of data from all UCMR monitoring							
	\$2,226,432	\$2,226,432	\$2,226,432	\$2,226,432	\$1,113,216	\$10,018,944	\$2,003,789
Small PWS Testing: implementation coordination; and analytical and shipping costs for small PWS testing							

Cost Description	2022	2023	2024	2025	2026	Total ²	Annualized Cost
Implementation Coordination	\$0	\$4,481,822	\$4,481,822	\$4,481,822	\$0	\$13,445,467	\$2,689,093
Fees for Analysis and shipping	\$0	\$8,395,642	\$8,395,642	\$8,395,642	\$0	\$25,186,927	\$5,037,385
Subtotal – Small PWS Testing	\$0	\$12,877,465	\$12,877,465	\$12,877,465	\$0	\$38,632,394	\$7,726,479
TOTAL	\$3,275,770	\$15,867,986	\$15,804,647	\$15,784,272	\$1,623,216	\$52,355,891	\$10,471,178

¹ EPA costs are estimated over the period 2022–2026.

² Totals may not equal sum of components due to rounding.

Exhibit B-3b: Summary of the EPA Burden and Costs for UCMR 5 Implementation (2022–2026) (corresponds with Exhibit 14b)

Burden / Cost	Annualized Cost over 5-Year UCMR Period (2022–2026)
Labor Cost	\$2,003,789
Non-Labor Cost	\$8,467,389
Total Cost to EPA for UCMR Implementation	\$10,471,178
Burden (labor hours)	22,464

Exhibit B-4: National Cost Summary for UCMR 5 Implementation (2022—2026) (corresponds with Exhibit 13)

Type of Cost	2022	2023	2024	2025	2026	Total ¹	Annual-ized Cost
Small PWSs							
Labor Cost	\$0	\$517,596	\$517,596	\$517,596	\$0	\$1,552,788	\$310,558
Non-Labor Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Small PWS Cost	\$0	\$517,596	\$517,596	\$517,596	\$0	\$1,552,788	\$310,558
Large PWSs							
Labor Cost	\$0	\$1,138,712	\$1,138,712	\$1,138,712	\$0	\$3,416,136	\$683,227
Non-Labor Cost	\$0	\$10,533,787	\$10,533,787	\$10,533,787	\$0	\$31,601,361	\$6,320,272
Total Large PWS Cost	\$0	\$11,672,499	\$11,672,499	\$11,672,499	\$0	\$35,017,496	\$7,003,499
Very Large PWSs							
Labor Cost	\$0	\$178,115	\$178,115	\$178,115	\$0	\$534,345	\$106,869
Non-Labor Cost	\$0	\$3,572,223	\$3,572,223	\$3,572,223	\$0	\$10,716,669	\$2,143,334
Total Very Large PWS Cost	\$0	\$3,750,338	\$3,750,338	\$3,750,338	\$0	\$11,251,014	\$2,250,203
States							
Labor Cost	\$1,180,421	\$884,979	\$884,979	\$884,979	\$74,833	\$3,910,191	\$782,038
Non-Labor Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total State Cost	\$1,180,421	\$884,979	\$884,979	\$884,979	\$74,833	\$3,910,191	\$782,038
EPA							

Type of Cost	2022	2023	2024	2025	2026	Total ¹	Annual-ized Cost
Labor Cost	\$2,226,432	\$2,226,432	\$2,226,432	\$2,226,432	\$1,113,216	\$10,018,944	\$2,003,789
Non-Labor Cost	\$1,049,338	\$13,641,554	\$13,578,215	\$13,557,840	\$510,000	\$42,336,947	\$8,467,389
Total EPA Cost	\$3,275,770	\$15,867,986	\$15,804,647	\$15,784,272	\$1,623,216	\$52,355,891	\$10,471,178
National Total							
Total with EPA	\$4,456,191	\$32,693,397	\$32,630,059	\$32,609,683	\$1,698,049	\$104,087,380	\$20,817,476
Total without EPA	\$1,180,421	\$16,825,412	\$16,825,412	\$16,825,412	\$74,833	\$51,731,489	\$10,346,298
Total Burden (hours) for All Responses²							
Small PWSs	0.0	13,323.6	13,323.6	13,323.6	0.0	39,970.9	7,994.2
Large PWSs	0.0	29,312.0	29,312.0	29,312.0	0.0	87,935.9	17,587.2
Very Large PWSs	0.0	4,655.9	4,655.9	4,655.9	0.0	13,967.6	2,793.5
States	20,334.3	15,244.9	15,244.9	15,244.9	1,289.1	67,358.1	13,471.6
EPA	24,960.0	24,960.0	24,960.0	24,960.0	12,480.0	112,320.0	22,464.0
Total with EPA	45,294.3	87,496.4	87,496.4	87,496.4	13,769.1	321,552.5	64,310.5
Total without EPA	20,334.3	62,536.4	62,536.4	62,536.4	1,289.1	209,232.5	41,846.5

¹ Totals may not equal the sum of components due to rounding.

² Although the EPA is not considered a respondent to UCMR, agency burden is shown here to illustrate the national costs of the program. National totals are shown with and without the EPA costs.

Exhibit B-5: UCMR 5 Per Respondent Burden and Cost Summary (2022—2026) (corresponds with Exhibit 15)

Burden (hours)/ Cost (dollars)	Small PWSs	Large PWSs	Very Large PWSs	States	EPA	National Average with EPA ¹	National Average without EPA
5-Year Total per Respondent							
Total # of Responses Per Respondent	2.8	3.2	3.7	5.0	n/a	n/a	3.0
Labor Cost Per Respondent	\$261	\$869	\$1,228	\$69,825	\$10,018,944	\$1,874	\$908
Non-Labor Cost Per Respondent	\$0	\$8,043	\$24,636	\$0	\$42,336,947	\$8,165	\$4,082
Total Cost (Labor plus Non-Labor)	\$261	\$8,913	\$25,864	\$69,825	\$52,355,891	\$10,039	\$4,990
Total Cost Per Response	\$92	\$2,777	\$7,076	\$13,965	n/a	n/a	\$1,653
Total Burden Per Respondent (hr)	6.7	22.4	32.1	1,202.8	112,320.0	31.0	20.2
Total Burden Per Response (hr)	2.4	7.0	8.8	240.6	n/a	n/a	6.7
Average Annual per Respondent							
Ave. # of Responses Per Respondent	0.6	0.6	0.7	1.0	n/a	n/a	0.6
Labor Cost Per Respondent	\$52	\$174	\$246	\$13,965	\$2,003,789	\$375	\$182
Non-Labor Cost Per Respondent	\$0	\$1,609	\$4,927	\$0	\$8,467,389	\$1,633	\$816
Ave. Cost (Labor plus Non-Labor)	\$52	\$1,783	\$5,173	\$13,965	\$10,471,178	\$2,008	\$998
Ave. Cost Per Response	\$18	\$555	\$1,415	\$13,965	n/a	n/a	\$331
Ave. Burden Per Respondent (hr)	1.3	4.5	6.4	240.6	22,464.0	6.2	4.0
Ave. Burden Per Response (hr)	0.5	1.4	1.8	48.1	n/a	n/a	1.3

¹ National average burden and costs differ greatly between the state respondents and the various PWS respondents. This should be taken into consideration when looking at the national average with or without the EPA.