Information Collection Request for the Unregulated Contaminant Monitoring Regulation (UCMR 3)

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LIST OF EXHIBITS

ACRONYMS

ASDWA	Association of State Drinking Water Administrators
CCL	Contaminant Candidate List
CCR	Consumer Confidence Report
CFR	Code of Federal Regulations
CWS	Community Water System
DBP	Disinfection Byproduct
DBPR	Stage 2 Disinfection Byproducts Rule
DSMRT	Distribution System Maximum Residence Time
EPA	Environmental Protection Agency
EPTDS	Entry Point to the Distribution System
FR	Federal Register
FTE	Full Time Equivalent
GS	General Schedule
GWUDI	Ground Water Under the Direct Influence of Surface Water
ICR	Information Collection Request
LCMRL	Lowest Concentration Minimum Reporting Level
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MRL	Minimum Reporting Level
NAICS	North American Industry Classification System
NCOD	National Contaminant Occurrence Database
NPDWR	National Primary Drinking Water Regulation
NTNCWS	Non-Transient Non-Community Water System
OMB	Office of Management and Budget
OW	Office of Water
PA	Partnership Agreement
PT	Proficiency Testing
PWS	Public Water System
PWSID	Public Water System Identification
QA/QC	Quality Assurance/Quality Control
RFA	Regulatory Flexibility Act
SBA	Small Business Administration
SDWA	Safe Drinking Water Act
SRF	State Revolving Fund
TNCWS	Transient Non-Community Water System
UCMR	Unregulated Contaminant Monitoring Regulation

— PART A OF THE SUPPORTING STATEMENT —

1 IDENTIFICATION OF THE INFORMATION COLLECTION

1(a) Title and Number of the Information Collection

Title: Information Collection Request for UCMR 3

OMB Control Number: 2040-0270

EPA Tracking Number: 2192.04

1(b) Short Characterization

Section 1445(a)(2) of the 1996 amendments to 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 no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). SDWA requires that EPA vary the frequency and schedule for monitoring based on the number of persons served, the source of supply, and the contaminants likely to be found. It requires that EPA only include a representative sample of systems serving 10,000 or fewer people. SDWA also requires EPA to enter the monitoring data into the National Drinking Water Contaminant Occurrence Database (NCOD).

EPA published the first cycle of the Unregulated Contaminant Monitoring Regulation (UCMR 1) for PWSs on September 17, 1999 (64 FR 50556). Several supplemental rules established analytical methods, and provided clarifications and refinements to the initial rule (March 2, 2000 (65 FR 11372), January 11, 2001 (66 FR 2273), and October 29, 2002 (67 FR 65888))[1]. UCMR 1 established a three-tiered approach for monitoring contaminants based on the availability of analytical methods and contaminant properties.

The second cycle (UCMR 2) was published in the Federal Register on January 4, 2007 and built on the established structure of UCMR 1 while making some changes to the rule design. The primary changes to UCMR 1 included: redesign of the Screening Survey for List 2 contaminants to increase the statistical strength of the sampling results by incorporating additional systems; updates to the lists of contaminants to be monitored and the analytical

1 Additional technical corrections to the rule, as well as adjustments to the initial reporting process, were published including: May 16, 2001 (66 FR 27215); September 4, 2001 (66 FR 46221); and March 12, 2002 (67 FR 11043). In total, these rules and revisions constitute "UCMR 1".

methods approved to conduct that monitoring; revisions to the data elements required to be reported; and some revisions to the implementation of the monitoring program to reflect lessons learned during UCMR 1. A systematic procedure for the determination of a Minimum Reporting Level (MRL) was also included.

The third cycle (UCMR 3) builds on the established structure of UCMR 1 and UCMR 2, and proposes some changes to improve the rule design. EPA revised the contaminant list and sampling design for the third cycle (UCMR 3). Hereafter, references to what EPA or regulated entities "will do" or "must do" presume that the rule is published as proposed.

UCMR 3 monitoring will take place from 2013 through 2015. The applicable Information Collection Request (ICR) period is 2012-2014. Estimates of implementation burden and cost over the entire five-year UCMR cycle of 2012-2016 are attached as Appendix B to this ICR.

Assessment Monitoring (List 1), the largest tier of the three UCMR monitoring components, will be conducted from January 2013 through December 2015 by 800 systems serving 10,000 or fewer (hereafter referred to as small systems), and by all systems serving 10,001 and over, for 28 List 1 contaminants.[2] Under Assessment Monitoring, contaminants for which standard analytical methods are available are monitored to assess national occurrence in drinking water. It is assumed for this cost estimation that one-third of systems will monitor each year.

There are currently no contaminants included for Screening Survey (List 2) for UCMR 3; therefore no systems will be selected for UCMR 3.

Pre-Screen Testing (List 3) for two contaminants will also be conducted during January 2013 through December 2015. EPA will select 800 small, undisinfected ground water wells that may be vulnerable to contamination. This sample of small systems may include non-transient non-community water systems (NTNCWSs) and transient non-community water systems (TNCWSs), and will include only wells from small systems that serve 1,000 or fewer customers. Small systems will not be subject to more than one component of UCMR 3 monitoring.

Respondents to UCMR 3 will include 1,600 small systems (800 for Assessment Monitoring, and 800 for the Pre-Screen Testing), the 4,191 large and very large systems, and the 56 States and primacy agents (referred to collectively as "States" for simplicity in this document), for a total of 5,847 respondents. The frequency of response varies across respondents and years.

Small systems selected for UCMR 3 monitoring will sample an average of 1.5 times per system (*i.e.*, number of responses per system) across the three-year ICR period of 2012 through 2014. The estimated burden per response for small systems is 3.0 hours. Large systems (those

2 Transient non-community water systems and those systems that sell *all* of their water to another PWS are excluded from Assessment Monitoring.

serving 10,001 to 100,000 people) and very large systems (those serving more than 100,000 people) will sample and report an average of 2.7 and 3.7 times per system, respectively, across the three-year ICR period of 2012-2014. The estimated burden per response for large and very large systems, respectively are 6.1 and 6.3 hours.

EPA expects that States will incur only labor costs associated with UCMR 3 implementation. State activities are determined through their individual Partnership Agreements with EPA. To estimate State burden, it was assumed that State participation levels would reflect the participation levels which occurred in UCMR 1 and UCMR 2. States are assumed to incur 3.0 responses over the three-year ICR period related to coordination with EPA and systems, with an average burden per response of 184 hours. In aggregate, during the ICR period of 2012-2014, the average response (*e.g.*, responses from systems and States) is associated with a burden of 8.3 hours, with a labor plus non-labor cost of $2,714 per response.

The annual average per respondent burden hours and costs for the ICR period of 2012-2014 are: small systems — 1.5 hour burden at $34 for labor; large systems — 5.6 hours at $170 for labor, and $2,381 for analytical costs; very large systems — 7.7 hours at $295 for labor, and $5,460 for analytical costs; and States — 233.4 hours at $13,992 for labor. Annual average burden and cost per respondent (including both systems and States) is estimated to be 8.3 hours, with a labor plus non-labor cost of $1,952 per respondent (note that small systems do not pay for testing costs, so they only incur labor costs).

The Agency estimates the annual burden to EPA for proposed UCMR program activities during the ICR years of 2012-2014 to be approximately 8,008 hours, at an annual labor cost of $0.62 million. EPA's annual non-labor costs are estimated to be $2.9 million. EPA's non-labor costs are primarily attributed to the cost of sample analysis for small systems (sample analysis represents approximately 88 percent of non-labor cost).

2 NEED FOR AND USE OF THE COLLECTION

2(a) Need/Authority for the Collection

The information collected under this action is required by EPA to carry out its regulatory development responsibilities under SDWA section 1445(a)(2), Monitoring Program for Unregulated Contaminants. This section, as amended in 1996, requires that once every 5 years, the Agency issue a new list of no more than 30 contaminants to be monitored, and procedures for placement of the monitoring data in NCOD. EPA's program must also include a nationally "representative sample of systems serving 10,000 or fewer persons" that will be required to monitor, and a frequency and schedule for monitoring.

Section 1412(b)(4) of SDWA, as amended in 1996, requires EPA to promulgate maximum contaminant level goals (MCLGs) and promulgate National Primary Drinking Water Regulations (NPDWRs) for contaminants that: may have adverse human health effects; are known to or anticipated to occur in systems; or, in the opinion of the Administrator, present an opportunity for reducing health risks. The NPDWRs specify maximum contaminant levels (MCLs) or treatment techniques for drinking water contaminants (42 USC 300g-1). An MCL must be set as close to the MCLG as possible. NPDWRs apply to systems (42 USC 300f(1)(A)). Section 1412(b)(1) requires the Agency to develop a list of unregulated contaminants for regulatory consideration (*i.e.*, the candidate contaminant list (CCL)), to issue regulations that establish criteria for listing contaminants, and to carry out the UCMR Program.

Section 1445(a)(1) of SDWA requires each PWS to "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 him in establishing regulations, [or] ... in evaluating the health risks of unregulated contaminants ...". This section authorizes EPA to require systems to monitor, provide the Agency with these data, and to maintain records of this information.

In addition, section 1401(1)(d) of the SDWA 1996 Amendments defines NPDWRs to include "criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels including accepted methods for quality control and testing procedures ...". This section authorizes EPA to require systems and laboratories to use Agency-approved methods and quality assurance criteria for collecting and analyzing water samples.

The sections from the SDWA 1996 Amendments, discussed above, are included as Appendix A of this document, in order by section number.

2(b) Practical Utility/Users of the Data

The UCMR 3 data will support: the development and interactive evolution of the CCL; the Administrator's determination of whether to regulate a contaminant; and regulation development. In addition, if the contaminant has significant occurrence and health effects, EPA will use the results: as part of an exposure assessment; for establishing the baseline for health effects and economic analyses; for contaminant co-occurrence analysis; and for treatment technology evaluation, 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.

Each PWS will maintain system level records of the analytical results of this monitoring. EPA-approved laboratories will report these results to EPA's electronic data reporting system. PWSs will review the information posted by the laboratory and submit the approved data to the State and EPA, via the electronic reporting system. The data collected through the UCMR program is stored in the NCOD to facilitate analysis and review of contaminant occurrence.

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

- Primacy agencies, which include State regulators, Indian Tribes, and, in some instances, EPA Regional Administrators
- PWS managers
- Staff from other EPA programs (such as Comprehensive Environmental Response, Compensation, and Liability Act; the Resource Conservation and Recovery Act; and the Office of Enforcement and Compliance Assurance)
- 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

- Other environmental and industry groups
- News organizations
- Private industries
- Individuals

3 NON-DUPLICATION, CONSULTATIONS AND OTHER COLLECTION CRITERIA

3(a) Non-duplication

The data required by UCMR are not available from any other source and are not duplicative of information otherwise accessible to EPA. With public health protection as its top priority, EPA drew upon several different sources in developing the UCMR 3 contaminant list. EPA used a stepwise contaminant identification prioritization process for UCMR 3. As a first step, EPA reviewed the recently promulgated Contaminant Candidate List (CCL 3) and the "pre-CCL" contaminants considered in the development of CCL 3. (Under the CCL 3 process, the Agency considered the best available data on health effects and occurrence, and evaluated 7,500 unregulated contaminants; the final CCL 3 was comprised of 104 chemicals or chemical groups, and 12 microbiological contaminants.) EPA used CCL 3, along with additional sources of information about emerging contaminants of concern, to establish an initial list of approximately 150 potential UCMR 3 contaminants. EPA then narrowed that list by eliminating contaminants for which methods would not be ready in time for UCMR 3 monitoring. An EPA and State working group further considered this narrowed list and used health effects data and other critical endpoints to arrive at the proposed list of 30 UCMR 3 analytes.

3(b) Public Notice Required Prior to ICR Submission to OMB

To comply with the 1995 Amendments to the Paperwork Reduction Act, EPA is seeking public comment on this ICR. To comment on the Agency'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, EPA has established a public docket for UCMR 3, which includes this ICR, under Docket ID No. EPA-HQ-OW-2009-0090**.** The public can submit any comments related to the ICR for this proposed action to EPA and the Office of Management and Budget (OMB).

3(c) Consultations

EPA's Office of Ground Water and Drinking Water (OGWDW) incorporated stakeholder involvement early in the regulatory development process. In the late 1990s, EPA held meetings for the design and development of both the CCL and UCMR programs. Stakeholders who provided comments concerning the development of the UCMR program include PWSs, States, industry, and other organizations. A total of seventeen meetings were held specifically

concerning UCMR development. A description of public involvement activities related to UCMR are provided in the September 1999, UCMR Final Rule *Federal Register* at 64 FR 50556. A stakeholder meeting was also held for development of UCMR 2 in Washington DC on October 29, 2003. State agencies, federal agencies, laboratories, PWSs, and drinking water associations discussed: the rationale for selecting a new list of contaminants; analytical methods to be used in measuring these contaminants; sampling design, particularly for the Screening Survey monitoring; procedure for determining the lowest concentration minimum reporting levels (LCMRLs); validation of laboratory performance at or below the minimum reporting level (MRL); revisions to data elements; and other proposed revisions based on lessons learned during implementation of UCMR 1.

A UCMR 3 stakeholder meeting was held on April 7, 2010, in Washington, DC. There were 22 attendees, representing State agencies, laboratories, PWSs, environmental groups, and drinking water associations. The presentations and discussions included the following: status of UCMR 2; rationale for developing a new list of potential contaminants; analytical methods that could be used in measuring these contaminants; sampling design; procedure for determining MRLs; laboratory approval; and other potential revisions based on lessons learned during implementation of UCMR 1 and UCMR 2.

3(d) Effects of Less Frequent Collection

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

Monitoring frequencies were determined based on statutory requirements, which specify that monitoring be varied based on the number of people served by a system, contaminants likely to be found, and source of supply. The monitoring frequency design also considers that the number of people served affects exposure to contaminants, as well as the resources available to undertake monitoring activity. The collection frequencies in this rule are discussed further in section 4(b), Part A of this ICR 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 system;
- source of the supply (*e.g.*, surface water or ground water);
- likelihood of finding contaminants; and
- temporal variability in occurrence.

Assessment Monitoring will be conducted from January 2013 through December 2015 by all large systems (those systems serving 10,001 to 100,000 people) and very large systems (those systems serving more than 100,000 people), and by a nationally representative sample of 800 small PWSs (those serving 10,000 people or fewer). Pre-Screen Testing will be conducted from January 2013 through December 2015 by a sample of 800 undisinfected ground water wells from small systems serving 1,000 or fewer people. Samples will be collected from entry points to the distribution system (EPTDSs) for all contaminants. In addition, samples for the four metals and chlorate under Assessment Monitoring will be collected from the DSMRT. As specified in the proposed rule, ground water systems with multiple EPTDSs will only be required to sample at representative sampling locations for each ground water source, as long as those sites have been approved.

Sampling locations[3] fed by ground water will be collected twice during the monitoring year (i.e., 12-month monitoring cycle), and locations fed by surface water or ground water under the direct influence of surface water (GWUDI) will be collected four times during the monitoring year. Multiple samples during a year are necessary to capture the temporal variability in contaminant occurrence to support an adequate characterization of potential exposure. The required sampling frequencies help provide the quality and quantity of data that will be statistically necessary for regulatory determinations. The Agency will schedule the year and months of system monitoring. PWSs will have the option of changing their schedules by coordinating a new schedule with EPA.

EPA is maintaining the same statistical design established under UCMR 1 for its UCMR 3 national representative sample of 800 small systems and continuing with a census of large systems for Assessment Monitoring. EPA believes that the combination of a nationally representative sample of small systems and a census of large systems provides a powerful tool for assessing contaminant occurrence in PWSs; this is the most effective and accurate survey approach. A sample of 800 PWSs from the universe of over 63,000 small systems will provide a confidence level of 99 percent with an allowable error of ±1 percent. The set of representative PWSs are distributed among different size categories, but weighted by population served, to ensure that the sample can provide estimates of exposure.

EPA has selected this design to ensure the quality of the results. EPA considered larger sample frames because of the many uncertainties involved, but the sample size of 800 was deemed adequate to meet the needs for the national estimate. Smaller sample sizes (*i.e.*, fewer systems monitored) were also considered, but rejected. Some population surveys with continuous variables use a lower level of confidence (95 percent) and/or a larger allowable error. However, the larger possible error is not considered acceptable for this program. Examination and analysis of current occurrence data show that many contaminants that are currently regulated, or being

3Ground water systems are required to sample only two times per year because they generally show less seasonal fluctuation than surface water or GWUDI systems. Rule language regarding sampling schedule/frequency ensures that both surface and ground water systems collect at least one of their samples during the most vulnerable period, which the rule specifies by default to be May - July.

considered for regulation occur in 1 percent or less of systems on a *national* basis. For many contaminants, a 1 percent occurrence nationally translates into a substantially larger occurrence regionally. Also, even a small percentage of systems with detections can translate into a significant population affected. With a greater margin of error, and the resultant smaller sample size, such occurrence might be missed entirely. Also, it is necessary for EPA to make some judgments about the occurrence of contaminants in relation to source waters and different size categories of systems. Many statutes and current regulations differentiate implementation requirements based on system size or water source. While combining sampling results from the representative sample of small systems with that from all large systems provides increased power in the total sample, EPA must be able to evaluate occurrence, and possible regulatory options, related to the small systems. SDWA and many current rules focus on burden reduction for small systems when feasible. Also, there are many other uncertainties and sources of variance in such a sample program. For example, all contaminants have censored distributions (*i.e.*, "less than detection level" analytical results) and there are a myriad of factors that affect variability and vulnerability of ground water systems. It remains unclear how normal sampling theory accommodates these. Hence, the high confidence level, low allowable error, and larger sample size should help to ensure adequate data to meet the objectives of the UCMR program.

Screening Surveys were conducted under both UCMR 1 and UCMR 2 to help assess contaminant occurrence. There is no "Screening Survey" component to the UCMR 3 program because there are currently no contaminants on List 2; all UCMR 3 contaminants were deemed appropriate for List 1 or List 3.

The objectives of Pre-Screen Testing are to: obtain occurrence information to support regulatory determination of enterovirus and norovirus; gain a better understanding of pathogen indicator and viral co-occurrence; and gain more exposure/health risk information on viruses and indicators. The sample of systems selected to monitor for Pre-Screen Testing is a targeted sample consisting of wells that EPA has determined are most vulnerable to the List 3 contaminants. The wells will be selected from areas of karst or fractured bedrock. The sample size of 800 undisinfected ground water wells will include CWSs, NTNCWSs, and TNCWSs, which ensures that sample results are representative of different types of water systems.

Since it is possible that certain contaminants are not likely to be found in a particular State, UCMR includes a provision for waivers for large systems on a State-wide, chemical-specific basis. However, for small systems, waivers will not be considered because eliminating small systems from the nationally representative sample would compromise the data quality and consistency requirements of a representative sample. The representative sample must provide adequate information on both the presence and absence of contaminants for the systems sampled. Furthermore, since EPA will pay for this testing, there is no significant burden on these small systems.

3(e) General Guidelines

This ICR has been completed in accordance with the November 2005 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 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.

EPA is taking an approach that minimizes burden on the respondents. In addition, this collection complies with all OMB guidelines for information collection activities. Specifically, the respondents are not required to:

- Report information to EPA more than quarterly.
- 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 EPA can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

3(f) Confidentiality

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

3(g) Sensitive Questions

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

4 RESPONDENTS AND THE INFORMATION

4(a) Respondents and NAICS/SIC Codes

Data associated with this ICR are collected and maintained by PWSs. States, Territories, and Tribes with primacy to administer the regulatory program for PWSs under SDWA may participate in UCMR 3 implementation through a Partnership Agreement (PA). These primacy agencies may sometimes conduct monitoring and maintain records. The North American Industry Classification System (NAICS) code for PWSs is 22131. The NAICS code for State agencies that include drinking water programs are classified as 92411 (Administration of Air and Water Resources and Solid Waste Management Programs) or 92312 (Administration of Public Health Programs).

4(b) Information Requested

This ICR summarizes the data items and respondent activities associated with UCMR 3.

4(b)(i) Data Items

A discussion of data and information that are part of the reporting and record keeping requirements for systems is found below in section 4(b)(i)(a), Part A of this ICR document. The requirements for States are discussed below in section 4(b)(i)(b), Part A of this ICR document.

4(b)(i)(a) Public Water System Reporting and Record Keeping

Section 141.35 requires PWSs that are subject to the UCMR requirements to report monitoring results for the 30 contaminants listed in §141.40 to EPA (see Exhibit 1 for the contaminant list). The proposed rule adds codes for the chlorine residual treatment information that is required to be reported by all PWSs.

Exhibit 1: Proposed UCMR 3 Contaminant Lists	
Assessment Monitoring (List 1)	
17-ß-estradiol	chlorodifluoromethane (HCFC-22)
17-α-ethynylestradiol (ethinyl estradiol)	bromochloromethane (Halon 1011)
estriol	1,4-dioxane
equilin	vanadium
estrone	molybdenum
testosterone	cobalt
4-androstene-3,17-dione	strontium
1,2,3-trichloropropane	chlorate
1,3-butadiene	perfluorooctane sulfonic acid (PFOS)
chloromethane (methyl chloride)	perfluorooctanoic acid (PFOA)
1,1-dichloroethane	perfluorononanoic acid (PFNA)
n-propylbenzene	perfluorohexane sulfonic acid (PFHxS)
bromomethane (methyl bromide)	perfluoroheptanoic acid (PFHpA)
sec-butylbenzene	perfluorobutanesulfonic acid (PFBS)
Pre-Screen Testing (List 3)	
enteroviruses	noroviruses

The proposed action also modifies the reporting requirements to make reported results more useful for sound scientific analyses of the occurrence of unregulated contaminants. The 15 required data elements are listed in Exhibit 2. All systems must electronically report all 15 data elements with their Assessment Monitoring and Pre-Screen Testing samples. All systems participating in UCMR monitoring must inform EPA of any changes to data elements 1 through 6, if applicable.

Exhibit 2: UCMR 3 Reporting Requirements	
1. Public Water System Identification (PWSID) Code	9. Contaminant
2. Public Water System Facility Identification Code	10. Analytical Method Code
3. Water Source Type	11. Sample Analysis Type
4. Sampling Point Identification Code and Zip Code	12. Analytical Results – Sign
5. Sampling Point Type Identification Code	13. Analytical Result – Value
6. Disinfectant Type	14. Laboratory Identification Code
7. Sample Collection Date	15. Sample Event Code
8. Sample Identification Code	

4(b)(i)(b) State Reporting and Record Keeping

As was true for UCMR 1 and UCMR 2, the UCMR 3 proposed regulation will be a direct implementation rule, and therefore States will not be required to report to EPA. Implementation activities for each State will be identified and determined through PAs with EPA. If participating in a PA, States will at a minimum be reviewing and revising Initial State Monitoring Plans, notifying systems of their UCMR responsibilities, and providing EPA with a list of the systems notified. Because States have no specified reporting cycle, it is assumed that States have 1.0 response per year, encompassing all communication and coordination activities with EPA and systems.

4(b)(ii) Respondent Activities

Respondents include both PWSs and States. PWS and State activities are discussed below in sections 4(b)(ii)(a) and 4(b)(ii)(b), respectively (Part A of this ICR document).

4(b)(ii)(a) Public Water System Activities

To comply with the requirements in this regulation, systems are expected to conduct the following activities:

- read regulations and/or letter from State or EPA which outline requirements;
- monitor or provide monitoring assistance (*e.g.*, sample collection and shipping);
- report and maintain records; and
- report to the public.

Each of these activities is discussed in more detail below.

Read Regulations/State Letter: All PWSs participating in UCMR monitoring are assumed to read the UCMR regulations and/or a State-issued guidance letter during the year in which their monitoring will occur. Small PWSs can rely on summarized information from the State or EPA for information pertaining to the regulation, rather than reading the regulation.

Monitoring or Monitoring Assistance: Monitoring activities that are considered in the system cost and burden estimates include receiving sampling kits from the laboratory, reading sampling instructions, and collecting and shipping the sample. Assessment Monitoring and Pre-Screen Testing are scheduled to occur from January 2013 through December 2015 for 30 contaminants. Because an equal percentage of systems are assumed to monitor during each consecutive 12-month period, two-thirds of systems required to conduct Assessment Monitoring and Pre-Screen Testing will monitor during the ICR period of 2012-2014, however, the last group of systems will monitor in 2015, which is outside of the time period covered by this ICR. To provide a comprehensive cost estimate for the proposed rule, Appendix B provides monitoring costs for the entire monitoring period of 2013-2015.

For Assessment Monitoring, surface water (and GWUDI) sampling points will be monitored four times during the applicable year of monitoring, and ground water sampling points will be monitored twice during the applicable year of monitoring. Monitoring will be conducted at EPTDSs. Large ground water systems with multiple EPTDSs will only be required to sample at representative sampling locations for each ground water source, as long as those sites have been approved by EPA or the State. In addition, samples for the four metals and chlorate under Assessment Monitoring will be collected from the DSMRT. For Pre-Screen Testing, two samples will be collected from wells during one 12-month monitoring period during 2013-2015.

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

- *Reporting Prior to Monitoring*

  Contact information: As under UCMR 1 and UCMR 2, large systems are required to report contact information to EPA. This information includes the name, affiliation, mailing address, phone number, facsimile number, and e-mail address for the PWS Technical Contact and PWS Official (*i.e.*, the official spokesperson for a PWS's UCMR activities). Information must be submitted to EPA's electronic data reporting system within a specified time frame after rule promulgation. Small systems must provide this information in response to a specific written request that they will receive from EPA.

  Sampling location information: Prior to sampling, large PWSs must also provide inventory information related to each applicable sampling location. For each sampling location or each approved representative sampling location, large PWSs must submit: PWS identification (PWSID) code; PWS facility identification code;

sampling point identification code and zip code; sampling point type identification code; sampling location water type.

Representative EPTDS proposal: Some systems that use ground water as a source and have multiple EPTDSs may monitor at representative entry point(s), rather than at each EPTDS. To qualify, these ground water systems 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). Systems meeting these criteria can submit a proposal to EPA or the State. The proposal must demonstrate that any EPTDS selected as representative of the ground water supplied from multiple wells be 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 producing 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.

- *Reporting Monitoring Results*

  Small systems: As under UCMR 2, small systems are only required to record system 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 system.

  Large systems: UCMR 3 specifies that laboratories must post the analytical results and associated data elements to EPA's electronic data reporting system within 60 days of sample collection. Under UCMR 1 and UCMR 2, results were to be reported to EPA's data system within 120 days. This time period made it difficult to ensure compliance with monitoring schedules. The shorter reporting period will help ensure that scheduled monitoring is conducted. Large systems also must ensure that their laboratory meets this requirement, and that systems review, approve, and submit the data to the State and EPA via the electronic reporting system within 30 days from when the laboratory posts the data. After 30 days from the laboratory's posting, if the PWS has not taken action, the data are considered approved and final for EPA review.

- *Record Keeping*

  Section 141.33 requires systems to maintain records of chemical monitoring data for 10 years. No changes are being made to those record keeping requirements.

Reporting to the Public: SDWA section 1445(a)(2)(E) requires notification of the results of the UCMR program to be made available to those served by the system. CWSs are required to

notify their users of the detection of any contaminants (including unregulated contaminants) in their Consumer Confidence Reports (CCRs), pursuant to §141.153(d)(3)(iv), published in the *Federal Register* (63 FR 44512 (August 19, 1998)). Monitoring and reporting violations for all systems (CWSs, NTNCWSs, and TNCWSs) will be reportable under the Public Notification Rule (64 FR 25964 (May 13, 1999)). No changes are being made to these reporting requirements.

4(b)(ii)(b) State Activities

For UCMR 1, EPA estimated State burdens and costs using the 1993 State Resource Model (documented in the "Resource Analysis Computer Program for State Drinking Water Agencies"). That model was designed by EPA in coordination with 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 systems affected, estimates of violation rates, etc.). Since that time, EPA and ASDWA have worked together to update and improve the previous version of the resource model. EPA used the updated resource model (the "2001 ASDWA Drinking Water Program Resource Needs Self Assessment", as documented in: "Public Health Protection Threatened by Inadequate Resources for State Drinking Water Programs - An Analysis of State Drinking Water Program Resources, Needs, and Barriers"; ASDWA, April 2003) to estimate resources that States may need for the oversight and implementation of UCMR 3. Assumptions that were applied in using this resource assessment tool are described in section 6(b), Part A of this ICR document. EPA assumes that State participation will closely reflect that which occurred during UCMR 2. 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 will be delineated in PAs between the States and EPA. However, in response to the regulation, EPA anticipates that State activities will generally include EPA coordination activities/PAs, data management and support, program implementation, and training/overhead. Though some States may choose to conduct sampling for their systems, this activity is not part of the PA agreement and is optional for States. Burden for sampling is currently attributed to systems only. If States choose to conduct monitoring for systems, burden would be similar to that estimated for systems.

State Coordination with EPA/PAs: State activities that involve coordination with EPA include coordination and drafting of a PA, review of and response to EPA's proposed State Monitoring Plan, review of PWS proposals for representative EPTDSs, and general ongoing coordination.

Review of State Monitoring Plans will be one of the first UCMR activities to take place at the State level. Each State will receive a proposed initial State Monitoring Plan from EPA. This plan will list all systems that will be required to conduct Assessment Monitoring and Pre-Screen Testing, including small and large systems that were statistically selected as a sample, and those large systems subject to the rule by meeting applicability criteria. For systems that are part of the sample, EPA will also generate a list to provide similar replacement systems for

States to select from, for those systems that may not have been correctly specified in the initial plan. If a State identifies systems on the original proposed State Monitoring Plan that it determines are not appropriate for the representative sample (*e.g.*, if systems are inactive, or sell all of their water and do not have their own retail customers), the State can propose an alternative plan by selecting other systems from EPA's alternate list to replace the ineligible systems. The State Monitoring Plans will also specify the year and months during which regulated systems will monitor. States will have the option to modify these schedules.

Some systems that use ground water as a source of water are expected to submit a proposal for monitoring at representative entry point(s), rather than monitor at every EPTDS. State involvement in the review of these proposals will be determined in the PA process.

EPA also recognizes that it will be necessary for States to maintain ongoing communications with EPA regarding the requirements of UCMR. An example of this would be instances when States need clarification and guidance regarding a specific requirement of the regulation.

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

Program Implementation: Program implementation activities for each State may include notification and guidance letter to systems, data review, ongoing system support, and enforcement.

Following review and finalization of State Monitoring Plans, participating States will prepare a notification letter that describes system monitoring schedules and requirements under the regulation. These States will send notification to each applicable system and send the list of these notified systems to EPA. It is also likely that States will receive telephone calls from water systems asking for clarification and guidance pertaining to the requirements of UCMR. States may choose to review monitoring results, in part to determine whether a system has met its monitoring and reporting requirements.

State Staff Training and Overhead: Technical staff members are assumed to participate in rule-specific training designed to assist them in understanding the regulation, their roles and responsibilities, and to allow the State to better provide technical assistance to the systems. In addition, general overhead costs, such as clerical and managerial needs, are allocated to the UCMR staff requirements in the standard State Resource Model, which allocates support staff needs as a percentage of professional staff needs. See section 6(b), Part A of this ICR document, for further discussion of model assumptions.

5 INFORMATION COLLECTED–AGENCY ACTIVITIES, COLLECTION METHODOLOGY, AND INFORMATION MANAGEMENT

5(a) Agency Activities

EPA Headquarters and Regional offices will be responsible for oversight of State PWS programs, and processing and analysis of the UCMR data. EPA implementation activities are categorized, as follows, into three major categories: regulatory support activities; program oversight and data analysis; and small system testing program, which are described below, in 5(a)(i)-(iii).

5(a)(i) Regulatory Support Activities

Regulatory support activities include: laboratory approval and quality assurance/quality control; and technical support to PWSs, such as guidance documents.

Laboratory Approval and Quality Assurance/Quality Control (QA/QC) Activities: EPA anticipates incurring various costs related to laboratory approvals and laboratory quality assurance and control, including the following activities:

- *Laboratory approvals/Proficiency Testing (PT) program* - EPA will assess whether laboratories meet the required equipment, laboratory performance, and data reporting criteria. EPA will register and evaluate laboratories based on the applications. Selected laboratories will then participate in the UCMR 3 PT program. EPA plans to conduct these laboratory assessments during 2012.

- *QC audits of contract laboratories* - EPA expects to conduct QC audits at each of the approved laboratories during each year of UCMR 3 monitoring (January 2013 through December 2015).

- *Analytical standards provision and coordination* - EPA will coordinate and distribute specialized analytical standards to participating laboratories.

Technical Support/Guidance Document Development: Technical support and guidance document includes developing and distributing guidance for laboratory calculations and background information about the health effects (*e.g.*, fact sheets) of the UCMR 3 contaminants.

5(a)(ii) National and Regional Oversight/Data Analysis

EPA's UCMR program activities include data analysis, management oversight, and implementation assistance to States. These are key management and oversight activities that must be conducted by EPA Headquarters or its Regional offices. Exhibit 3, below, illustrates the timeline for UCMR implementation activities. EPA will develop its PAs with States and the State Monitoring Plans prior to January 2013, when monitoring will begin.

Exhibit 3: Proposed Timeline of UCMR 3 Activities

<table>
<tr><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th></tr>
<tr><td rowspan="4">EPA lab approval program begins

EPA/State PAs and state monitoring plans developed (including Nat. Rep. sample, and Ground Water systems for List 3)

Inform PWSs/ establish monitoring plans</td><td></td><td></td><td></td><td rowspan="4">Complete reporting and analysis of data</td></tr>
<tr><td colspan="3">Assessment Monitoring
List 1 Contaminants
All systems serving more than 10,000; 800 systems serving 10,000 or fewer</td></tr>
<tr><td colspan="3">Pre-Screen Testing
List 3 Contaminants
800 non-disinfecting ground water wells from systems serving 1,000 or fewer</td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

5(a)(iii) Costs for Small System Testing Program

EPA expects that implementation of the small system testing program will be the largest portion of Agency costs for the UCMR program. Prior to monitoring, EPA activities for logistical support of the small system testing program will include coordination of small system testing and provision of testing supplies.

The single largest cost to EPA for implementation of UCMR is for small system sample analyses. During the ICR period of 2012-2014, EPA will pay for the analytical and shipping costs for small systems in the national representative sample for two-thirds of Assessment Monitoring and Pre-Screen Testing (the monitoring period of January through December 2015

falls outside of the ICR period). EPA also expects to conduct some QC activities that will not be required of the large systems. Specifically, EPA plans to send duplicates of 10 percent of small system samples to a separate laboratory for analysis. The quality control duplicates are intended to provide standard, real time, QC checks among the different contract laboratories.

5(b) Information Collection Methodology and Management

As under UCMR 2, UCMR 3 continues to specify that laboratories must report the analytical results and associated data elements to EPA's electronic data reporting system. Large systems must ensure that their laboratory posts the data in EPA's electronic data reporting system, and must review, approve, and submit the data to the State and EPA via the EPA electronic reporting system. UCMR 3 shortens the amount of time allotted for reporting and review to ensure timely compliance with monitoring and reporting. Laboratories now have 60 days rather than 120 days from sample collection to report. Systems have 30 days (rather than 60 days) from the laboratory's posting to review and approve the reported results. After this, if the PWS has not taken action, the data will be considered approved and final for EPA review. Electronic reporting provides significant collection efficiencies, and reduces the possibility of data input error.

The UCMR data will be maintained and analyzed through NCOD. The data collected under UCMR will be used for regulation development, to analyze the significance of occurrence and health effects, and to support the critical Agency function of program oversight. The public will receive information regarding UCMR monitoring results through the CCRs, and will be able to access data through the NCOD. In addition, systems that fail to monitor for unregulated contaminants will be required to notify the public of their failure to monitor.

EPA plans to conduct ongoing data analysis which will include checks for anomalies in the data that may be related to data entry or laboratory errors. Data quality review and analysis includes: continuous analysis of laboratory results, review of all program data, and NCOD review.

5(c) Small Entity Flexibility

Note: The following Small Business Regulatory Enforcement Fairness Act analysis summary is the same as that provided in the preamble to the proposed rule. The Regulatory Flexibility Act analysis is based on the entire five-year UCMR implementation period of 2012-2016, rather the three-year ICR period of 2012-2014.

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking

requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

The RFA provides default definitions for each type of small entity. Small entities are defined as: (1) a small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any "not-for-profit enterprise which is independently owned and operated and is not dominant in its field." However, the RFA also authorizes an agency to use alternative definitions for each category of small entity, "which are appropriate to the activities of the agency" after proposing the alternative definition(s) in the Federal Register and taking comment (5 U.S.C. 601(3) - (5)). In addition, to establish an alternative small business definition, agencies must consult with SBA's Chief Counsel for Advocacy.

For purposes of assessing the impacts of today's proposed rule on small entities, EPA considered small entities to be PWSs serving 10,000 or fewer people, because this is the system size specified in SDWA as requiring special consideration with respect to small system flexibility. As required by the RFA, EPA proposed using this alternative definition in the Federal Register, (63 FR 7605, February 13, 1998), requested public comment, consulted with the SBA, and finalized the alternative definition in the Consumer Confidence Reports rulemaking, (63 FR 44511, August 19, 1998). As stated in that Final rule, the alternative definition would be applied to this regulation as well.

After considering the economic impacts of today's proposed rule on small entities, EPA has determined that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by this proposed rule are PWSs serving 10,000 or fewer people. EPA has determined that the small entities subject to the requirements of this proposed rule are a subset of the small PWSs (those serving 10,000 or fewer people). The Agency has determined that 1,600 small PWSs (across Assessment Monitoring and Pre-Screen Testing), or approximately 3 percent of small systems, will experience an impact of less than 0.4 percent of revenues; the remainder of small systems will not be impacted.

Although this proposed rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. To ensure that this proposed rule will not have a significant economic impact on a substantial number of small entities, EPA will assume all costs for analyses of the samples and for shipping the samples from these systems to the laboratories contracted by EPA to analyze UCMR 3 samples. EPA has set aside $2.0 million each year from the State Revolving Fund (SRF) with its authority to use SRF monies for the purposes of implementing this provision of SDWA. Thus, the costs to these small systems will be limited to the labor hours associated with collecting a sample and preparing it for shipping.

The Agency continues to be interested in the potential impacts of the proposed rule on small entities and welcomes comments on issues related to such impacts.

The evaluation of the overall impact on small systems, summarized in the preceding discussion, is further described as follows. EPA analyzed the impacts for privately-owned and publicly-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, EPA used the "revenue test," which compares annual system costs attributed to the rule to the system's annual revenues. Median revenue data from the 2006 Community Water System Survey were used for public and private water systems. 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 4.

Exhibit 4: Number of Publicly- and Privately-Owned Small Systems Subject to UCMR 3

System Size	Publicly-Owned	Privately-Owned	Total
Ground Water			
500 and under	126	378	504
501 to 3,300	477	182	659
3,301 to 10,000	207	48	255
Subtotal GW	***810***	***608***	***1,418***
Surface Water (and GWUDI)			
500 and under	2	3	5
501 to 3,300	35	13	48
3,301 to 10,000	100	29	129
Subtotal SW	***137***	***45***	***182***
Total of Small Water Systems	***947***	***653***	***1,600***

The basis for the UCMR 3 RFA certification for this proposed rule is as follows: for the 1,600 small water systems that will be affected, the average annual costs for complying with this rule represent less than 0.4 percent of system revenues (the highest estimated percentage is for

ground water systems serving 500 or fewer people, at 0.38 percent of its median revenue). Exhibit 5 presents the yearly costs to small systems, and to EPA for the small system sampling program, along with an illustration of system participation for each year of the UCMR 3 program.

Exhibit 5: EPA and Systems Costs for Implementation of UCMR 3 at Small Systems

Cost Description	*2012*	*2013*	*2014*	*2015*	*2016*	*Total*
Costs to EPA for Small System Program (including Assessment Monitoring, and Pre-Screen Testing)						
	$0	$3,943,827	$3,943,827	$3,943,827	$0	$11,831,480
Costs to Small Systems (including Assessment Monitoring, and Pre-Screen Testing):						
	$0	$81,707	$81,707	$81,707	$0	$245,120
Total Costs to EPA and Small Systems for UCMR 3						
	$0	**$4,025,533**	**$4,025,533**	**$4,025,533**	**$0**	**$12,076,599**
System Monitoring Activity Timeline:[1]						
Assessment Monitoring		1/3 PWSs Sample	1/3 PWSs Sample	1/3 PWSs Sample		800
Pre-Screen Testing		1/3 PWSs Sample	1/3 PWSs Sample	1/3 PWSs Sample		800

[1] Total number of systems is 1,600. No small system conducts more than one type of monitoring study.

System costs are attributed to the labor required for reading about their requirements, monitoring, reporting, and record keeping. The estimated average annual burden across the five-year UCMR 3 implementation period of 2012-2016 is estimated to be 1.3 hours at $31 per small system. Average annual cost, in all cases, is less than 0.4 percent of system revenues. As required by the SDWA, the Agency specifically structured the rule to avoid significantly affecting small entities by assuming all costs for laboratory analyses, shipping, and quality control for small entities. As a result, EPA incurs the entirety of the non-labor costs associated with UCMR 3 small system monitoring, or 98 percent of total small system testing costs. Exhibits 6 and 7 present the estimated economic impacts in the form of a revenue test for publicly- and privately-owned systems.

Exhibit 6: UCMR 3 Relative Cost Analysis for Small Publicly-Owned Systems (2012-2016)

System Size	Annual Number of Systems Impacted	Average Annual Hours per System (2012-2016)	Average Annual Cost per System (2012-2016)	Revenue Test [1]
Ground Water Systems				
500 and under	25	1.1	$22.63	0.07%
501 to 3,300	96	1.2	$26.84	0.02%
3,301 to 10,000	41	1.7	$43.71	0.01%
Surface Water (and GWUDI) Systems				
500 and under	1	1.8	$38.06	0.07%
501 to 3,300	7	1.9	$41.99	0.02%
3,301 to 10,000	20	2.0	$51.02	0.005%

1 The Revenue Test was used to evaluate the economic impact of an information collection on small government entities (e.g., publicly-owned systems); costs are presented as a percentage of median annual revenue in each size category.

Exhibit 7: UCMR 3 Relative Cost Analysis for Small Privately-Owned Systems (2012-2016)				
System Size	**Annual Number of Systems Impacted**	**Average Annual Hours per System (2012-2016)**	**Average Annual Cost per System (2012-2016)**	**Revenue Test [1]**
Ground Water Systems				
500 and under	76	1.1	$22.63	0.38%
501 to 3,300	36	1.2	$26.84	0.02%
3,301 to 10,000	10	1.7	$43.71	0.004%
Surface Water (and GWUDI) Systems				
500 and under	1	1.8	$38.06	0.11%
501 to 3,300	3	1.9	$41.99	0.02%
3,301 to 10,000	6	2.0	$51.02	0.005%

[1] The "Revenue Test" was used to evaluate the economic impact of an information collection on small private entities (e.g., privately-owned systems); costs are presented as a percentage of median annual revenue in each size category.

5(d) Collection Schedule

EPA is proposing to use the same monitoring frequency as that used under UCMR 1 and 2 for Assessment Monitoring because the Agency believes that the frequency is sufficient to gather necessary information on occurrence of unregulated contaminants, without significantly burdening small systems. Assessment Monitoring and Pre-Screen Testing activities are expected to occur from January 2013 through December 2015.

For Assessment Monitoring, surface water or GWUDI systems will collect four samples as follows: systems will select either the first, second, or third month of a quarter and sample in that same month of each of four consecutive quarters to ensure that one of those sampling events occurs during the vulnerable time. Ground water systems will collect samples two times in a year as follows: systems will sample during one month of the vulnerable time (typically May through July) and during one month, five to seven months earlier or later. For Pre-Screen Testing, small systems will collect two samples at selected undisinfected ground water wells for enteroviruses and noroviruses on the same schedule as for ground water systems under Assessment Monitoring. Small systems must also allow the collection of samples for *E. coli*, Coliphage, *Enterococci*, and aerobic spores. Small systems will be selected for no more than one component of UCMR monitoring. UCMR activities that occur after the year 2014 are not included in this

ICR analysis. However, Appendix B contains estimations for the five-year UCMR 3 program, 2012-2016. Exhibits 3 and 9 illustrate the timeline of general UCMR activities, and system monitoring activities, respectively.

6 ESTIMATING THE BURDEN AND COST OF THE COLLECTION

This section describes the respondent burden and cost for activities under UCMR 3. The burden and cost estimates for PWSs are shown in section 6(a), burden and costs to States are shown in section 6(b), and the Agency's burden and cost estimates are shown in section 6(c) (all in Part A of this ICR document).

This ICR focuses only on the cost of the UCMR data collection over the years 2012-2014. Cost tables that are presented in this section have analogous tables in Appendix B, which present costs for the entire monitoring cycle (2012-2016).

There are two primary categories of costs associated with UCMR: (1) labor costs, such as program implementation, sample collection, record keeping, reporting, and data analysis; and (2) non-labor costs, such as laboratory fees for analyses of samples, shipping charges, and contractor costs. The majority of costs are directly attributed to monitoring activities and the fees for laboratory analytical services. Assessment Monitoring targets a list of 28 contaminants and the Pre-Screen Testing targets 2 contaminants.

EPA is committed to accurately characterizing the burden and costs of rules it promulgates. In the development of various drinking water program rule ICRs, EPA has developed a consistent set of assumptions to use in calculations. These have been developed and utilized in other drinking water program evaluations. Pertinent to the UCMR ICR are the standard assumptions for labor rates, system inventory numbers (the number of water systems in the various size categories by primary water source), the number of sampling points for each system, and analytical services. The sources and assumptions used in estimating costs and burdens are described below.

6(a) Estimating Burden and Cost to Public Water Systems

Specific assumptions used in estimating system labor burden and cost, as well as non-labor costs are discussed in sections 6(a)(i) and 6(a)(ii), respectively (Part A of this ICR document). A summary of the costs estimates is provided in section 6(a)(iii), Part A of this ICR document.

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

- Inventory Data: CWS and NTNCWS inventory was based on a June 6, 2010 inventory extract from SDWIS/Fed.

- EPTDS Data: All EPTDS data were taken from the 2006 CWSS (EPA, forthcoming).

- DSMRT Data: The number of DSMRT samples per system was estimated by taking the average number of treatment plants per system from the 2006 CWSS. As a conservative measure, the average number of CWS treatment plants were also used to represent the number of NTNCWS treatment plants (*i.e.*, it is likely that NTNCWSs have fewer treatment plants than CWSs, and thus lower actual costs for DSMRT sampling than estimated).

6(a)(i) Estimating Burden and Labor Costs

Assessment Monitoring will be conducted from January 2013 through December 2015 by 800 systems serving 10,000 or fewer people, and all systems serving 10,001 and over. Pre-Screen Testing will be conducted from January 2013 through December 2015 by 800 systems serving 1,000 or fewer people. It is assumed for this cost estimation that one-third of systems will conduct Assessment Monitoring and Pre-Screen Testing each monitoring year. The UCMR program will affect approximately 5,791 systems, two-thirds of which will conduct monitoring during the ICR years of 2012-2014. One-third of systems will conduct monitoring in January-December of 2015. Exhibit 8 below presents the estimated numbers of regulated systems to participate. Exhibit 9 presents the time line in which the system monitoring activities will take place.

Exhibit 8: Systems to Participate in UCMR 3 Monitoring			
System Size	**Assessment Monitoring for 28 List 1 Chemicals** *National Sample*	**Pre-Screen Testing for 2 List 3 Microbials[1]**	**TOTAL[2]**
Small Systems			
25 – 10,000	800 randomly selected systems	800 selected undisinfected ground water wells at PWSs serving 1,000 or fewer	~1,600
Large Systems			
10,001 and over	All (~4,191)	0	~4,191
TOTAL	**~4,991**	**800**	**~5,791**

[1] Sampling for List 3 contaminants to be conducted at 800 undisinfected wells at systems serving 1,000 or fewer customers.

[2] Total for small systems is additive because these systems would only be selected for one component of UCMR 3 sampling.

Exhibit 9: UCMR 3 Sampling Activity Time Line for Cost and Burden Estimations				
UCMR 3 – 2012 - 2016				
2012	*2013*	*2014*	*2015*	*2016*
Designated ICR Years				
No UCMR Monitoring Activity	Assessment Monitoring[1]			No UCMR Monitoring Activity
	~ 1/3 of systems sample	~ 1/3 of systems sample	~ 1/3 of systems sample	
	Pre-Screen Testing			
	~ 1/3 of systems sample	~ 1/3 of systems sample	~ 1/3 of systems sample	

[1] The following assumptions, based on the proposed UCMR 3, were used to estimate cost and burden:

- All Assessment Monitoring and Pre-Screen Testing systems will conduct sampling evenly across January 2013-December 2015 (i.e., one-third in each of the 3 consecutive 12-month periods).
- Systems will conduct monitoring during the ICR years of 2013-2014; however, the last group of systems to conduct Assessment Monitoring and Pre-Screen Testing will monitor in January-December of 2015.

The water system labor burden consists of three primary activities: (1) reading the regulations or State guidance letter; (2) monitoring or monitoring assistance; and (3) reporting and record keeping. Hourly labor rates (including overhead) vary by system size and are taken from the 2006 CWSS. Estimated hourly rates range from $21 per hour for staff in water systems serving 500 or fewer people to $38 per hour for systems serving more than 100,000 people (see Exhibit 10 for details).

Exhibit 10: Labor Rates Applied for Public Water Systems

System Size	Labor Rate[1]
500 and under	$21.24
501 to 3,300	$22.34
3,301 to 10,000	$25.36
10,001 to 50,000	$30.90
50,001 to 100,000	$32.95
100,001 and over	$38.30

[1] PWS hourly labor rates (including overhead) are taken from the 2006 CWSS. All rates represent that for both ground water and surface water/GWUDI systems. Wage rates are converted to 2010 dollars using the Employment Cost Index for wages and salaries in trade, transport, and utilities for 2006, and in utilities for December 2009; accessed http://www.bls.gov on April 14, 2010.

6(a)(i)(a) Reading the Regulations/Guidance Letter

For each required UCMR tier (Assessment Monitoring or Pre-Screen Testing), systems are assumed to read the regulations and/or a State-issued guidance letter during the year in which systems will monitor (2013-2015). Small systems can rely on the State and EPA for information pertaining to their requirements, rather than reading the regulation; and are expected to spend 1 hour, on average, reading the letter or guidance. Systems serving more than 10,000 people are assumed to read both the regulation and information from the State, requiring on average 4 hours. National costs are estimated by multiplying the average burden hours by the average system labor rate, times the number of systems affected. This reading burden is assumed for each UCMR component. All systems will only be selected for one component of UCMR. Thus, reading burden would be 1 hour for any one small system and 4 hours for large and very large systems.

6(a)(i)(b) Monitoring Burden

For Assessment Monitoring, it is assumed that all participating systems will collect samples during January 2013 through December 2015, with approximately one-third of systems involved during each of the 3 consecutive 12-month periods. In addition, the last group of systems (or approximately one-third of systems) will monitor outside of the applicable ICR period of 2012-2014, and will conduct their monitoring January through December 2015. See Exhibit 9, above, for an illustration of the time line for system sampling activity. For both Assessment Monitoring and Pre-Screen Testing, EPA assumes that each system will incur an estimated burden of 0.5 hours per sampling point to collect chemical samples for analysis. This monitoring burden includes receipt of monitoring kit, reading laboratory instructions, and collection and shipping of samples. It is calculated by: (hour burden per sampling point) times (number of sampling points) times (number of systems) times (number of sample events per year). Many ground water systems may realize savings in their sampling burden as a result of the allowance for representative EPTDSs. Thus, sampling burden is calculated to account for the estimated reduction in entry points where these systems will sample (as described below in section 6(a)(ii), Part A of this ICR document).

6(a)(i)(c) Reporting and Record Keeping

Under UCMR 3, regulated systems are required to report specific information prior to monitoring, and with their monitoring results.

- *Reporting Prior to Monitoring*

  Small systems: EPA assumes that small systems will only need to send and confirm contact information prior to monitoring. These systems are allotted a one-time reporting burden of 2 hours.

  Large surface water (and GWUDI) systems: EPA assumes that large surface water/GWUDI systems will be sending contact and sampling point information, and are allotted a one-time reporting burden of 6 hours.

  Large ground water systems: EPA assumes that large ground water systems will be sending contact and sampling point information, which will require a one-time burden of 6 hours. An additional 8 hours are allotted to some ground water systems to account for compilation and submission of representative EPTDS proposal. Since it is unlikely that all systems will submit these proposals, EPA conservatively assumes that half of ground water systems serving 10,001 to 100,000 people would compile and submit this proposal; and assumes that all ground water systems serving more than 100,000 people would do so.

- *Reporting with Monitoring Results*

  Small systems: Small systems can choose whether to review their UCMR monitoring results. Because EPA is paying for and coordinating laboratory analyses, small systems are not required to review and approve their analytical results. Some systems may choose not to review at all, while others may review in detail. However, as a conservative assumption, small systems are each allotted 0.5 hours per sampling period for data review.

  Large systems: Large systems must review, approve, and submit the data to the State and EPA via the EPA electronic reporting system. These systems are allotted 2 hours per sampling period for this activity.

6(a)(i)(d) Public Notification

Systems are required to notify their users of the detection of any unregulated chemicals. Specifically, UCMR monitoring results will be reported by CWSs through the CCRs (63 FR 44512 (August 19, 1998)). CWSs, NTNCWSs, and TNCWSs must report any failure to monitor for unregulated contaminants required through UCMR under the Public Notification Rule (64 FR 25964 (May 13, 1999)). Therefore, no additional public notification burden is assumed under UCMR.

6(a)(ii) Estimating Non-labor Costs

Under UCMR, small systems will only incur labor costs. By design of the rule, EPA assumes all laboratory and shipping costs for systems in the national representative sample of small systems. Thus, the laboratory fee and shipping cost estimates described here are the basis for EPA and large system non-labor costs.

The most significant cost associated with the implementation of UCMR is the cost of laboratory services for contaminant analysis. Estimates of laboratory analytical costs associated with the analysis of each sample are presented below. These methods will not coincide with other compliance monitoring. EPA estimates of laboratory fees are based on consultations with national drinking water laboratories and costs of analytical methods similar to those that will be used for UCMR 3. For systems serving 10,000 or fewer people, EPA will pay for the costs for shipping and laboratory analysis.

Assessment Monitoring (List 1):

GC/MS (for 1 contaminant)	$161.67
GC/MS (for 9 contaminants)	$171.67
Chlorate (for 1 contaminant)	$33.33
LC/MS/MS (for 7 hormones)	$491.67
ICP/MS (for 4 metals)	$69.33
ICP/MS (for 6 PFCs)	$391.67
TOTAL	$1,319.33

Pre-Screen Testing (List 3):

EPA Methods (for 2 viruses, and indicators)	$1,650
TOTAL	$1,650

UCMR 3 specifies that all samples be collected at EPTDSs. Some large systems that use ground water sources and have multiple EPTDSs may be able to realize significant savings by sampling representative entry point(s) rather than at each EPTDS. Systems can do this if: they meet certain system configuration criteria; submit a proposal regarding representative entry points; and receive approval from EPA or the State. Labor related to submission and coordination of these proposals is discussed above in section 6(a)(i)(c), Part A of this ICR document. To account for the savings on laboratory fees that will be realized by large ground water systems, EPA assumed that approximately 75 percent of the current EPTDSs will be sampled at systems serving 10,001 to 100,000 people, and at ground water systems that serve more than 100,000 people 50 percent of EPTDSs will be sampled.

In addition to EPTDS samples, systems that are required to conduct Assessment Monitoring are also required to collect samples for four metals and chlorate at the DSMRT. If systems do not disinfect their water and have not determined a DSMRT for compliance with the Disinfection By-Products Rule, samples must be collected from a location that best represents maximum residence time in the distribution system. EPA assumed that systems have one DSMRT per treatment plant. The number of treatment plants was multiplied by the number of sampling events and includes 10 percent QA samples for the small systems.

Shipping fees were calculated per required sample. It is assumed that, for each sampling point, a package of empty sample bottles is shipped via ground transportation to the system; estimated at $17 per package. Following sample collection, the system sends the package with full bottles via overnight air back to the laboratory. To estimate the cost of this overnight shipment, EPA applied the approximate cost of shipping a 25 pound package across an average number of shipping zones at $80. Thus, shipping cost for a large PWS is estimated at $97 per sample (again, small system laboratory and shipping costs are paid for by EPA). Shipping costs were estimated based on pricing information posted on: http://www.fedex.com/ and http://www.ups.com/; accessed May 2010.

Total laboratory and shipping fees were estimated per required sampling location (accounting for both the representative EPTDS allowance, and the additional DSMRT samples, as described above), per sampling event, as follows: (number of systems) times (number of periods per year) times (number of sampling points per system) times (method and shipping costs).

6(a)(iii) Summary of Labor and Non-labor Costs to Public Water Systems

Exhibit 11a displays a summary of labor and non-labor costs, by year, for the three-year ICR period. As previously discussed, the UCMR 3 cycle is 2012-2016, and the ICR period of 2012-2014 coincides with the first three years of program implementation. One year of monitoring, January through December 2015 is outside of the ICR period. Analogous information presenting estimated costs over the five-year UCMR 3 implementation period is provided in Exhibit B-1a, in Appendix B. Small systems incur labor costs only. Large systems will incur both labor and non-labor costs, as they are responsible for analytical costs.

The nationwide cost to systems for implementing the total UCMR program over the three-year ICR period of 2012-2014 is estimated to be $36.1 million. Large and very large systems are expected to incur about 99 percent of the total system cost, $36.0 million. Annual cost per small system for UCMR implementation over the three-year ICR period is estimated to be $34 per system, all attributed to labor. Annual cost per large system is estimated to be $170 for labor plus $2,381 for analytical (non-labor) costs; with very large systems costs of $295 for labor plus $5,460 for analytical (non-labor) costs. Exhibits 8 and 9 illustrate numbers of systems participating and timing of monitoring. Per system labor burdens and costs for the UCMR program are presented in Exhibit 11b. In addition, this exhibit presents a summary of burden and cost per response. Analogous information for the five-year implementation period is provided in Exhibit B-1b, in Appendix B. “Response” is defined as each required reporting event for a system. 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 11a: Yearly Cost to Systems, by System Size and by Type of Cost (2012-2014) *(corresponds to Exhibit B-1a)*				
Cost Description	**2012**	**2013**	**2014**	**Total**
SMALL SYSTEMS (standard sample serving 10,000 or fewer people)				
Labor Costs				
Reading and Initial Reporting	$0	$36,338	$36,338	$72,676
Monitoring	$0	$31,773	$31,773	$63,546
Reporting of Results	$0	$13,596	$13,596	$27,191
Non-Labor Costs (Laboratory Analysis and Shipping (paid for by EPA))				
	$0	$0	$0	$0
Subtotal – Small Systems	**$0**	**$81,707**	**$81,707**	**$163,413**
LARGE SYSTEMS (serving 10,001 to 100,000 people)				
Labor Costs				
Reading and Initial Reporting	$0	$454,279	$454,279	$908,558
Monitoring	$0	$258,264	$258,264	$516,528
Reporting of Results	$0	$253,244	$253,244	$506,487
Non-Labor Costs (Laboratory Analysis and Shipping)				
	$0	$13,504,932	$13,504,932	$27,009,864
Subtotal – Large Systems	**$0**	**$14,470,719**	**$14,470,719**	**$28,941,437**
VERY LARGE SYSTEMS (serving greater than 100,000 people)				
Labor Costs				
Reading and Initial Reporting	$0	$59,085	$59,085	$118,169
Monitoring	$0	$83,637	$83,637	$167,273
Reporting of Results	$0	$38,505	$38,505	$77,009
Non-Labor Costs (Laboratory Analysis and Shipping)				
	$0	$3,537,633	$3,537,633	6,715,266
Subtotal – Very Large Systems	**$0**	**$3,538,859**	**$3,538,859**	**$7,077,718**
ALL SYSTEMS				
Total Labor for All Systems	$0	$1,228,719	$1,228,719	$2,457,439
Total Non-Labor for All Systems	$0	$16,862,565	$16,862,565	$33,725,130
Total Labor and Non-Labor for All Systems	**$0**	**$18,091,284**	**$18,091,284**	**$36,182,568**

Exhibit 11b: Per System (Respondent) and Per Response UCMR Costs (2012-2014) *(corresponds with Exhibit B-1b)*						
Burden / Cost	**Total over 2012-2014**			**Annual Average over 2012-2014**		
	Small Systems	Large Systems	Very Large Systems	Small Systems	Large Systems	Very Large Systems
PER RESPONDENT:						
Labor Cost	$102	$511	$884	$34	$170	$295
Non-Labor Cost	$0	$7,144	$16,379	$0	$2,381	$5,460
Burden (labor hours)	4.4	16.4	23.1	1.5	5.5	7.7
PER RESPONSE:						
Number Responses per Respondent	1.5	2.7	3.7	0.5	0.9	1.2
Labor Cost per Response	$69	$190	$240	$23	$63	$80
Non-Labor Cost per Response	$0	$2,663	$4,453	$0	$888	$1,484
Burden (labor hours) per Response	3.0	6.1	6.3	1.0	2.0	2.1

6(b) Estimating the Burden and Cost to States

Since UCMR is a direct implementation rule, individual State costs will largely depend on specifications in their PA. EPA assumed that States will incur only labor costs, because no capital investments are expected for this third cycle of the program. Because States will be 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 are assumed to have an average of 1.0 response per year.

EPA used the "2001 ASDWA Drinking Water Program Resource Needs Self Assessment" to estimate State burden and cost for the implementation and oversight of UCMR 3. This assessment tool (or model) was developed by ASDWA to assist States in estimating the resources needed to implement their Statewide drinking water programs (in both full-time equivalent staff (FTEs) and dollars). In 2000, the United States General Accounting Office had used a previous version of this model to estimate nationwide drinking water program needs for Congress. The tool was later updated and improved based on comments from 27 States. To make the model easier to use, ASDWA established suggested salary and benefit ranges (*i.e.*, default values), resource needs for the various NPDWRs, and other key variables.

EPA used the defaults values (or average values within a default range) that were provided in the model to estimate the national burden and cost for State UCMR 3 activities. Defaults included:

- one FTE is equivalent to 1,800 hours per year; overhead and holidays, sick leave, etc. are accounted for in default loading of base salaries;

- professional and support staff salaries vary for different sized States (very small, small, medium, large, very large); and

- suggested ranges of FTEs for the implementation of the Phase II/V, Arsenic, and UCMR programs (*i.e.*, the relevant subsection of the model).

Understandably, the model had bundled the State resource needs for Phase II/V, Arsenic, and UCMR, because of the inherent overlap and similarities in the programs. However, because these programs were bundled, EPA needed to "extract" the UCMR costs from the aggregated costs. Based on best professional estimates and consultations with staff from three State drinking water programs (California, Connecticut, and Nebraska) regarding the relative magnitude of the UCMR program, EPA assumed that:

- during the first and last year of the five-year UCMR cycle (2012 and 2016), when there are no monitoring activities, UCMR represents 1 percent of the bundled program resource needs (although the costs for 2016 are not relevant to the current ICR estimations for 2012-2014);

- during the three years (2013-2015) when Assessment Monitoring and Pre-Screen Testing are being conducted, UCMR represents three percent of the bundled program resource needs (although the costs for 2015 are not relevant to the current ICR estimations for 2012-2014).

EPA ran the model for each of the State size categories that were based on the number of systems for which States have drinking water program oversight responsibilities. To estimate nationwide costs, the size-specific "per State" estimates that are generated by the model were then multiplied by the number of States in each size category, as shown in Exhibit 12.

EPA further refined the model estimates by taking the level of State participation under UCMR 2 into consideration. EPA reviewed key areas of State participation under UCMR 2, including: review and revision to the State Monitoring Plans; assisting EPA with updates to information for large systems; two separate sets of system notifications; and compliance assistance. Based on levels of involvement in each of these UCMR activities, States typically participated in between 50 and 100 percent of their optional UCMR activities. However, some States chose not to participate at all. Burden estimates generated from the resource model were

multiplied by this "percent participation in UCMR 2" to approximate State costs at expected participation levels under UCMR 3.

Exhibit 12: 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
Total	56

EPA estimates that the average annual burden over the 3 ICR years (2012-2014) for 56 States to implement UCMR will be 13,069 hours (or 233 hours per State per year), with an average annual cost (labor only) of $783,534 (or $13,992 per State per year). See Exhibits 13a and 13b for a summary of estimated State burdens and costs (analogous five-year information for 2012-2016 provided in Exhibits B-2a and B-2b, in Appendix B).

Exhibit 13a: Yearly Cost and Burden to States for Implementation of UCMR 3 (2012-2014)[1] *(corresponds with Exhibit B-2a)*					
Cost/Burden	**2012**	**2013**	**2014**	**Total**	**Annual Average**
Costs to All States for labor related to UCMR implementation and oversight					
	$331,538	$994,614	$1,024,452	$2,350,603	$783,534
Labor burden for all States for UCMR implementation and oversight (number of hours)					
	13,342	13,625	12,238	39,205	13,068

[1] All costs are attributed to labor and are estimated over the period 2012-2014.

Exhibit 13b: Per State (Respondent) and Per Response UCMR 3 Costs (2012-2014) *(corresponds with Exhibit B-2b)*		
Burden / Cost	**Total over 2012-2014**	**Annual Average over 2012-2014**
PER RESPONDENT:		
Labor Cost	$41,976	$13,992
Non-Labor Cost	$0	$0
Burden (labor hours)	700.2	233.4
PER RESPONSE:		

Exhibit 13b: Per State (Respondent) and Per Response UCMR 3 Costs (2012-2014) *(corresponds with Exhibit B-2b)*		
Burden / Cost	**Total over 2012-2014**	**Annual Average over 2012-2014**
Number Responses per Respondent[1]	3.0	1.0
Labor Cost per Response	$13,992	$4,664
Non-Labor Cost per Response	$0	$0
Burden (labor hours) per Response	184	61.3

[1] States are assumed to have 1 response per year, since there are no specific cyclical State reporting requirements under the UCMR program.

6(c) Estimating Agency Burden and Cost

EPA will incur UCMR-related burden and costs related to UCMR implementation activities, including: regulatory support activities; national and regional oversight and data analysis; and the small system testing program. These activities are described in detail in section 5(a), Part A of this ICR 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 during the first quarter of 2010 (see the U.S. Office of Personnel Management website: www.opm.gov). With these assumptions, labor and contractor rates were based on a 2,080 hour work year, with a $81,723 annual salary plus 60 percent overhead, or $62.86 per hour. Additional cost assumptions are described below in sections 6(c)(i)-(iii), Part A of this ICR document. Cost and burden estimates are presented in Exhibits 14a and 14b, respectively.

6(c)(i) Regulatory Support Activities

Regulatory support activities include the labor and non-labor costs for 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: EPA anticipates incurring various labor or contractor costs related to the laboratory PT/approvals; laboratory QA/QC; and provision of analytical standards, as follows:

- Laboratory approval (PT program) is estimated to cost EPA $231,855 prior to the beginning of monitoring, in 2012. Cost estimates from best professional judgment are based on costs realized by the Agency for prior similar activities for UCMR 2. A three percent inflation rate was added to the costs of UCMR 2 to estimate the costs for UCMR 3.

- QC Audits of contract laboratories to occur throughout active UCMR monitoring. Labor (hours) for each trip includes: a 3-day site inspection (for 2 individuals); 1 full-day travel for 2 individuals (assume 2 half days); and 3 days of report writing (for 1 individual), which includes review and response to laboratory comments. Travel costs for 2 individuals include: $500 round trip flight, 3 nights hotel stay, 2 full day food per diem, and 2 days at the proportional meals rate from the 2010 Federal rate for the Continental U.S. (from the U.S. Government Services Administration website: http://www.gsa.gov/Portal/gsa/ep/home.do?tabId=0). Also included is $150 for rental of one car for both travelers. It is estimated that these QC audits will take place 4 times each year, at an estimated $8,699.68 per trip.

- Analytical standards provision and coordination is estimated to cost EPA $600,713 total for three ICR years (or $200,238 per ICR year). Cost estimates from best professional judgment are based on costs realized by the Agency for prior similar activities, and inflated by three percent each year.

  Technical Support/Guidance Document Development: These activities are estimated to cost EPA $175,630 total over the ICR period including: costs for developing and distributing guidance for laboratories that will participate in UCMR 3 testing; health effects fact sheets; and other pertinent guidance related to UCMR 3 implementation. These activities are expected to take place in 2012 and 2013. Cost estimates from best professional judgment are based on costs realized by the Agency for prior similar activities. For UCMR 3, a three percent inflation rate was added to the costs of UCMR 2.

6(c)(ii) National and Regional Oversight and Data Analysis

EPA activities will 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 3 activity, EPA estimates that it will dedicate 5.5 FTEs each year to program oversight and data analysis. These activities are estimated as labor cost and burden to the Agency (see the corresponding description of these activities in section 5(a)(ii), Part A of this ICR document). These activities are estimated to cost EPA $2.2 million in total over the three-year ICR period.

6(c)(iii) Costs for Small System Testing Program

EPA will provide logistical support for the small system testing program. This activity includes costs for contractual labor and sampling supplies, and is estimated at $400 per sampling event per sampling site, based on actual costs incurred during UCMR 1 for this same activity. These activities are estimated to cost EPA $2.2 million in total over the three ICR years.

The single largest cost to EPA for implementation of UCMR is for small system sample analyses. EPA will pay small system sample analyses and shipping for Assessment Monitoring and Pre-Screen Testing. EPA will also pay for quality control duplicates for 10 percent of all samples.

EPA assumes that, for each sampling point, a package of empty sample bottles is shipped via ground transportation to the system; estimated at $17 per package. Following sample collection, the system sends the package with full bottles via overnight air back to the laboratory. To estimate the cost of this overnight shipment, EPA applied the approximate cost of shipping a 25 pound package across an average number of shipping zones at $80. Thus, shipping cost for a large PWS is estimated at $97 per sample. Small system sampling includes the cost for one extra ground trip, for sending the empty bottles from the laboratory to the sampling coordinator, so that the sampling kit can be reused. Thus, shipping cost for a small PWS is estimated at $114 per sample.

These analytical and shipping fees are estimated to cost EPA $7.9 million in total over the three ICR years for Assessment Monitoring and Pre-Screen Testing. See section 6(a)(ii), Part A of this ICR document, for assumptions regarding applicable laboratory fees for individual methods. Total costs that EPA will incur for the small system testing program were calculated by multiplying the laboratory and shipping fees by: (number of systems) times (number of sampling periods per year (including an additional 10 percent QA samples)) times (number of sampling points per system).

6(c)(iv) Estimated Agency Cost and Burden

The EPA cost for the UCMR 3 program during the ICR period of 2012-2014 is estimated to be $11.2 million; (with annual average cost over the ICR period of $3.7 million). EPA costs for UCMR implementation are shown in Exhibit 14a; average annual labor and non-labor costs, as well as small system testing program costs are shown in Exhibit 14b. Appendix B, Exhibits B-3a and B-3b provide analogous information over the five-year UCMR 3 implementation period.

Exhibit 14a: Yearly Cost to EPA for UCMR Implementation, by Type of Cost (2012-2014) [1]
(corresponds with Exhibit B-3a)

Cost Description	2012	2013	2014	Total	Annual Average
Regulatory Support Activities: laboratory proficiency testing; QC audits; analytical standards provision; and technical support, guidance document development					
Lab PT	$231,855	$0	$0	$231,855	$77,285
QC Audits	$17,399	$34,799	$34,799	$86,997	$28,999
Analytical Standards	$115,927	$238,811	$245,975	$600,713	$200,238
Technical Support	$115,927	$59,703	$0	$175,630	$58,543
Subtotal – Regulatory Support	**$481,108**	**$333,313**	**$280,774**	**$1,095,195**	**$365,065**
National and Regional Oversight and Data Analysis: UCMR management oversight; review and evaluation of data from Assessment Monitoring					
	$442,499	**$884,998**	**$884,998**	**$2,212,496**	**$737,499**
Small System Testing: implementation coordination; and analytical and shipping costs for small system testing for both Assessment Monitoring and Screening Surveys					
Implementation Coordination	$0	$1,081,021	$1,081,021	$2,162,043	$720,681
Fees for Analysis and shipping – standard sample	$0	$2,862,805	$2,862,805	$5,725,610	$1,908,538
Subtotal – Small System Testing	**$0**	**$3,943,827**	**$3,943,827**	**$7,887,653**	**$2,629,218**
TOTAL	**$923,607**	**$5,162,138**	**$5,109,599**	**$11,195,344**	**$3,731,781**

[1] Agency costs are estimated over the period 2012-2014.

Exhibit 14b: Summary of EPA Burdens and Costs for UCMR Implementation (2012-2014) *(corresponds with Exhibit B-3b)*

Burden / Cost	Annual Average Cost over Three-year ICR Period of 2012-2014
Labor Cost	$737,499
Non-Labor Cost	$2,994,283
Total Cost to EPA for UCMR Implementation	**$3,731,781**
Burden (labor hours)	9,533

6(d) Estimating the Respondent Universe and Total Burden and Costs

For the UCMR 3 cycle of 2012-2015, the universe of respondents includes 5,791 PWS respondents comprised of CWSs, NTNCWSs, and TNCWSs (which do not sell all of their water to other water systems) as well as 56 State respondents. Assessment Monitoring will be conducted by 800 systems serving 10,000 or fewer people, plus all 4,191 systems that serve more than 10,000 people. Pre-Screen Testing monitoring will be conducted by 800 undisinfected ground water wells from systems serving 1,000 or fewer customers. As described previously, PWS sampling is conducted four times during the monitoring year for surface water/GWUDI sampling locations, and twice for ground water sampling locations (i.e., frequency of response depends on water source) for Assessment Monitoring. Systems conducing Pre-Screen Testing will monitor twice during the 2013-2015 monitoring period. States will be involved in a variety of UCMR implementation and oversight activities, but have few defined responses; thus, States are assumed to have an average of 1.0 response per year.

Exhibit 15 summarizes national hours and costs for UCMR 3 during the ICR period of 2012-2014. Analogous information for the entire five-year UCMR 3 cycle of 2012-2016 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 the sample of small systems is 7,091 hours, with a cost of $163,413 (small systems only incur labor costs, EPA pays for all laboratory fees and shipping costs). The total labor burden to large systems is 61,852 hours, with a labor cost of $1.9 million, and non-labor costs for analysis and shipping of $27.0 million. Very large systems are estimated to have a total labor burden for the ICR period of 9,463 hours, with a labor and non-labor costs of $0.4 million and $6.7 million, respectively. The total burden to States over the three-year ICR period is 39,205 hours, with a labor cost of $2.4 million. EPA anticipates that States will not incur any significant non-labor costs. The EPA total burden over the same time frame is 28,600 hours, with labor costs of $2.2 million, and non-labor costs of $9.0 million.

Exhibit 15: UCMR 3 National Cost Summary for the ICR period (2012-2014)
(corresponds with Exhibit B-4)

Type of Cost	**2012**	**2013**	**2014**	**TOTAL**
Small Systems				
Labor Cost	$0	$81,707	$81,707	**$163,413**
Non-Labor Cost	$0	$0	$0	**$0**
Total Small System Cost	**$0**	**$81,707**	**$81,707**	**$163,413**
Large Systems				
Labor Cost	$0	$965,787	$965,787	**$1,931,574**
Non-Labor Cost	$0	$13,504,932	$13,504,932	**$27,009,864**
Total Large System Cost	**$0**	**$14,470,719**	**$14,470,719**	**$28,941,437**

Exhibit 15: UCMR 3 National Cost Summary for the ICR period (2012-2014)
(corresponds with Exhibit B-4)

Type of Cost	2012	2013	2014	TOTAL
Very Large Systems				
Labor Cost	$0	$181,226	$181,226	**$362,452**
Non-Labor Cost	$0	$3,357,633	$3,357,633	**$6,715,266**
Total Very Large System Cost	**0**	**$3,538,849**	**$3,538,849**	**$7,077,718**
States				
Labor Cost	$331,538	$994,614	$1,024,452	**$2,350,603**
Non-Labor Cost	$0	$0	$0	**$0**
Total State Cost	**$331,538**	**$994,614**	**$1,024,452**	**$2,350,603**
EPA				
Labor Cost	$442,499	$884,998	$884,998	**$2,212,496**
Non-Labor Cost	$481,108	$4,277,139	$4,224,600	**$8,982,848**
Total EPA Cost	**$923,607**	**$5,162,138**	**$5,109,599**	**$11,195,344**
National Total				
Total with EPA	**$1,255,145**	**$24,248,035**	**$24,225,335**	**$49,728,516**
Total without EPA	**$331,538**	**$19,085,898**	**$19,115,736**	**$38,533,172**
Total Burden (hours) for All Responses				
Small Systems	0	3,545	3,545	7,091
Large Systems	0	30,926	30,926	61,852
Very Large Systems	0	4,732	4,732	9,463
States	13,342	13,625	12,238	39,205
EPA	5,720	11,440	11,440	28,600
Total with EPA	**19,062**	**64,268**	**62,881**	**146,211**
Total without EPA	**13,342**	**52,828**	**51,441**	**117,611**

[1] Although EPA is not considered a respondent to the UCMR regulations, Agency burdens are shown here to illustrate the national costs of the program. National totals are shown with and without the Agency costs.

6(e) Reasons for Change in Burden

This ICR builds upon the ICR developed for UCMR 2, entitled: *Information Collection Request for UCMR 2, ICR Number 2192.03, OMB Control No. 2040-0270*. After the UCMR 1 program was established in 1999, subsequent UCMR cost and burden estimates were incorporated into the larger Chem/Rads ICR. However, the UCMR 2 ICR, and subsequent UCMR ICRs will be developed and tracked separately from the Chem/Rads ICR, because the Chem/Rads ICR is a "renewal" ICR, whereas the UCMR program is, per SDWA, a program that must change every five years.

The reasons that respondents to UCMR 3 will incur a different burden than those responding to UCMR 2 include:

- UCMR 3 establishes a new list of 30 priority contaminants, including 28 chemicals using six EPA-developed analytical methods, and four equivalent consensus organization-developed methods, and two viruses using one analytical method. The cost for sample analysis is different than for UCMR 2. EPA plans to have laboratories under EPA contract to conduct sample analysis for the two viruses using one analytical method (see Exhibit 1 in section 4(b)(i), Part A of this ICR document).

- UCMR 3 does not exclude systems that purchase all of their water from monitoring. Because of this change, more large and very large systems are expected to monitor for UCMR 3 than for UCMR 2 (see Exhibit 8 in section 6(a)(i), Part A of this ICR document).

- Samples for the four metals and chlorate (under Assessment Monitoring) for all systems will be collected at the DSMRT in addition to the required EPTDS locations (see explanation in section 4(b)(ii), Part A of this ICR document).

- UCMR 3 includes monitoring for Pre-Screen Testing instead of a Screening Survey (see section 1(b) for a description of Pre-Screen Testing).

- TNCWSs are no longer excluded from UCMR monitoring, and may be selected to conduct Pre-Screen Testing (see section 1(b) for a description of Pre-Screen Testing).

6(f) Burden Statement

Small systems (those serving 10,000 or fewer) that are selected for UCMR 3 monitoring will sample an average of 1.5 times per system (*i.e.*, number of responses per system) across the three-year ICR period of 2012-2014. The average burden per response for small systems is estimated to be 3.0 hours. Large systems (those serving 10,001 to 100,000) and very large

systems (those serving more than 100,000) will sample and report an average of 2.7 and 3.7 times per system, respectively, across the three-year ICR period of 2012-2014. The average burden per response for large and very large systems is estimated to be 6.1 and 6.3 hours, respectively. States are assumed to incur 3.0 responses over the three-year ICR period related to coordination with EPA and systems, with an average burden per response of 184 hours. In aggregate during the ICR period of 2012-2014, the average response (*e.g.*, responses from systems and States) is associated with a burden of 8.3 hours, with a labor plus non-labor cost of $2,714 per response.

The annual average per respondent burden hours and costs for the ICR period of 2012-2014 are: small systems – 1.5 hour burden at $34 for labor; large systems – 5.5 hours at $170 for labor, and $2,381 for analytical costs; very large systems –7.7 hours at $295 for labor, and $5,460 for analytical costs; and States – 233 hours at $13,992 for labor. Annual average burden and cost per respondent (including systems and States) is estimated to be 6.7 hours, with a labor plus non-labor cost of $2,197 per respondent (note that small systems do not pay for testing costs, so they only incur labor costs).

The Agency estimates the annual burden to EPA for proposed UCMR program activities during the ICR years of 2012-2014 to be 9,533 hours, at an annual labor cost of $0.7 million. EPA's annual non-labor costs are estimated to be $3.0 million. Non-labor costs are primarily attributed to the cost of sample testing for small systems (testing is 88 percent of non-labor costs).

Exhibit 16 presents per respondent and per response burdens and costs over the UCMR ICR period of 2012-2014 (analogous information for the 2012-2016 UCMR 3 implementation period is provided in Exhibit B-5, Appendix B). This Exhibit also presents average annual burdens and costs.

Exhibit 16: UCMR 3 Per Respondent Burden and Cost Summary for the ICR Period (2012-2014) (corresponds with Exhibit B-5)

Burden (hours)/ Cost (dollars)	Small Systems	Large Systems	Very Large Systems	States	EPA	**National Average with EPA[1]**	**National Average without EPA**
Three-Year Total per Respondent							
Total # of Responses Per Respondent	1.5	2.7	3.7	3.0	n/a	n/a	**2.4**
Labor Cost Per Respondent	$102	$511	$884	$41,975	$2,212,496	**$1,201**	**$822**
Non-Labor Cost Per Respondent	$0	$7,144	$16,379	$0	$8,982,848	**$7,303**	**$5,768**
Total Cost (Labor plus Non-Labor)	*$102*	*$7,654*	*$17,263*	*$41,975*	*$11,195,344*	***$8,504***	***$6,590***
Total Cost Per Response	$69	$2,853	$4,693	$13,992	n/a	**n/a**	**$2,714**
Total Burden Per Respondent	4.4	16.4	23.1	700.1	28,599	**25.0**	**20.1**
Total Burden Per Response	3.0	6.1	6.3	184.0	n/a	**n/a**	**8.3**
Average Annual per Respondent							
Ave. # of Responses Per Respondent	0.5	0.9	1.2	1.0	n/a	**n/a**	**0.8**
Labor Cost Per Respondent	$34	$170	$295	$13,992	$737,499	**$400**	**$274**
Non-Labor Cost Per Respondent	$0	$2,381	$5,460	$0	$2,994,283	**$2,434**	**$1,923**
Ave. Cost (Labor plus Non-Labor)	*$34*	*$2,551*	*$5,754*	*$13,992*	*$3,731,781*	***$2,835***	***$2,197***
Ave. Cost Per Response	$23	$951	$1,564	$4,664	n/a	**n/a**	**$905**
Ave. Burden Per Respondent	1.5	5.5	7.7	233.4	9,533	**8.3**	**6.7**
Ave. Burden Per Response	1.0	2.0	2.1	61.3	n/a	**n/a**	**2.8**

[1] National average burdens and costs differ greatly between the State respondents and the various system respondents. This should be taken into consideration when looking at the national average with or without EPA.

Burden means the total time, effort, or financial resources expended by persons 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 EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

To comment on the Agency'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, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OW-2009-0009, which is available for online viewing at www.regulations.gov, or in person viewing at the Water Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Avenue, NW, Washington, D.C. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Water Docket is (202) 566-2426. An electronic version of the public docket is available at 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 to 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. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OW-2009-0009 and OMB Control Number 2040-0270 in any correspondence.

— PART B OF THE SUPPORTING STATEMENT —

1 SURVEY OBJECTIVES, KEY VARIABLES, AND OTHER PRELIMINARIES

1(a) Survey Objectives

The primary objective of the statistical methods applied in this information collection is for EPA to identify and select a sample of PWSs that is representative of PWSs nationwide. The selected sample of PWSs will conduct monitoring of contaminants identified by the UCMR program. The representativeness of this sample of systems is critical to the UCMR program because the drinking water contaminant occurrence data collected by the PWSs will be used to: estimate national occurrence and exposure, establish a baseline for health effects and economic analyses, and provide information for regulatory determinations.

1(b) Key Variables

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

1(c) Statistical Approach

Section 1445(a)(2) of SDWA (as amended in 1996) requires that the UCMR program include only a representative sample of systems serving 10,000 or fewer people. In addition to satisfying statutory requirements, selection of a sample of systems 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 UCMR program objective, the representative sample of PWSs must allow EPA to collect high quality data about contaminant occurrence.

1(d) Feasibility

EPA anticipates that the survey (the statistical sample) objectives are achievable given the existing time and resource constraints.

- High PWS response/participation rates (>95%) during UCMR 1 and 2 have given EPA confidence that equivalent or better can be achieved during UCMR 3.

- The statistical approach to this data collection requires only a fraction of small systems to conduct monitoring, resulting in much smaller cost and burden at the national level than would be incurred if all systems monitored. Small systems that are selected for UCMR 3 monitoring will incur only a few hours of labor burden. EPA will pay for all laboratory fees and shipping costs related to small system testing.

- The survey results will be completed in time to inform the corresponding cycle of CCL regulatory determinations.

2 SURVEY DESIGN

2(a) Target Population and Coverage

PWSs are the target population for UCMR monitoring. PWSs that sell all of their water to other system(s) are not subject to UCMR 3. All other PWSs that serve more than 10,000 people will be subject to the Assessment Monitoring component of UCMR 3 monitoring. Eligible small PWSs (serving 10,000 or fewer people) will only be required to conduct UCMR 3 monitoring if they are part of the statistical selection for Assessment Monitoring, or if they have been selected to monitor for Pre-Screen Testing, as described below. Small PWSs will only be selected to monitor for either Assessment Monitoring or Pre-Screen Testing, not both.

2(b) Sample Design

2(b)(i) Sampling Frame

EPA will develop the sample frame for the statistical selection of UCMR systems, including the system PWSID, name, source water category, and population-served data for each UCMR-eligible PWS. Initial data will be pulled from EPA's Safe Drinking Water Information System (SDWIS/FED) inventory database, and will be 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 3 monitoring will include: Assessment Monitoring conducted by all PWSs serving more than 10,000 people (“large” PWSs), and 800 representative PWSs serving 10,000

or fewer people ("small" PWSs); and Pre-Screen Testing conducted by 800 undisinfected ground water wells from systems serving 1,000 or fewer people.

2(b)(iii) Stratification Variables

In developing the representative sample, EPA consider factors such as population served, water source, and geographic location. The sample PWSs will be stratified by population served (system size), allocating samples proportionately to each State by system 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 systems will account for different system sizes, sources of water supply, and geographic location (e.g., States). The sample will be stratified by water source type (i.e., ground or surface water) and by system size category (i.e., serves 25 to 500 people, 501 to 3,300 people, etc.). This stratification allows EPA to account for different exposure risks of contaminant occurrence that may be related to the vulnerability differences between surface and ground water sources and differing management and financial capacity that can vary across system sizes.

With contaminant exposure assessment as a primary goal, systems will be selected in proportion to the population served, as was generally done under UCMR 1 and UCMR 2. This population-weighted allocation leads to statistically valid estimates of national exposure. To ensure the sample provides equity across States for involvement in the UCMR, EPA will include at least two systems from each State. This additional PWS selection requirement will provide 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 water systems across the EPA Regions are grouped into a single category (equivalent to a "State") for the representative sample.

2(b)(v) Multi-Stage Sampling

Because PWS status often changes over time, EPA will also select "alternate" systems that fit the size/source water strata of the originally selected system. Through an interactive review process with the States, systems that no longer meet eligibility criteria (for example, if they are in a different size category than when originally selected, have become inactive, or sell all of their water) will be replaced by an alternate system that meets the stratification criteria.

2(c) Precision Requirements

2(c)(i) Precision Targets

The representative sample of PWSs must be selected so that the data collected yield accurate and precise estimates of national contaminant occurrence (the fraction of systems in which a contaminant occurs) and exposure (the fraction of people exposed to a contaminant). For estimates of exposure fractions, EPA will allow a margin of error of ± 1% with 99% confidence, when the estimated exposure fraction is 1%. That is, if the estimated exposure fraction is 1%, 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 required to conduct UCMR monitoring, response is a requirement. As with any regulation, some non-compliance can be expected. However, high compliance levels (>95%) during UCMR 1 and 2 (attributable to extensive outreach and compliance assistance) give EPA confidence that the same or better can be achieved during UCMR 3. EPA plans to continue outreach and compliance assistance efforts, as needed.

2(d) Questionnaire Design

No questionnaires will be used for the UCMR. Analytical results for contaminant occurrence will be electronically reported directly by the laboratories to EPA's electronic reporting system.

3 PRETESTS AND PILOT TESTS

For UCMR 3, EPA will apply the same basic statistical methods that were used for the UCMR 1 and UCMR 2 national representative sample of small systems. Following sample adjustments made through communications with States, >99% of the final sample of small systems (and >95% of large systems) completed their required monitoring and reporting.

4 COLLECTION METHODS AND FOLLOW-UP

4(a) Collection Methods

Large PWSs (those serving more than 10,000 people) are required to submit their data through EPA's electronic data reporting system. Small PWSs (those serving 10,000 or fewer people) will be working directly with an EPA-appointed UCMR Sampling Coordinator, and monitoring data from the small PWSs will be submitted directly to EPA's electronic reporting system by the laboratories conducting the analyses.

4(b) Survey Response and Follow-up

High compliance levels (>95%) during UCMR 1 and 2 have given EPA confidence that equivalent or better levels can be achieved during UCMR 3. EPA plans to continue outreach and compliance assistance efforts, as needed. Each small system will be working with a UCMR Sampling Coordinator, and will have minimal reporting requirements and one-on-one compliance assistance.

Lessons learned during UCMR 1 and UCMR 2 helped refine several UCMR 3 requirements. Reporting deadlines have been more clearly defined for UCMR 3. Laboratories now have 60 days, rather than 120 days to electronically report sample results, and systems have 30 days to review, approve, and report data. With the previous turn-around times, it was sometimes difficult to ensure compliance with established monitoring schedules; these new, turnaround times will reduce the chance of scheduled monitoring being missed or delayed. In addition, sampling frequency requirements have been refined, and now require that sampling schedules be adjusted based on sample point availability.

5 ANALYZING AND REPORTING SURVEY RESULTS

5(a) Data Preparation

After PWSs or their laboratories post their UCMR 3 monitoring results and required data elements to EPA's electronic reporting system, EPA allows a specified time for quality control review by the PWSs, States, and the Agency before placing the data in the NCOD for public access.

Data problems may occur, but the following efforts will be taken by EPA to reduce problems and increase the dependability and quality of the occurrence data. The UCMR

electronic data reporting system and EPA QA/QC assessments will screen for the use of inappropriate measurement units and other improper data. In addition, EPA plans to have other automated QC functions in place to identify possible data quality issues such as duplicate data submissions, and data completeness. All samples will be collected by trained PWS staff and analytical results will be generated by laboratories that are approved for UCMR 3 drinking water analysis. Electronic data submission also avoids potential re-keying errors. Therefore, some assumptions are made regarding the general quality of the raw data that will be received. As part of the data QA/QC procedures, all edits or changes made to the data will be documented.

5(b) Analysis

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

The first stage of analysis, 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, system level and population-served level. For each contaminant, occurrence measures include the number and percent of samples for each contaminant with analytical detections, and the minimum, median, maximum, and 99th percentile values of those detections. System-level occurrence measures include the number and percent of systems with one or more analytical detections, and the number and percent of systems with two or more analytical detections of a given contaminant. Population-served occurrence measures include: the number and percent of population served by systems with one or more analytical detections, and the number and percent of population served by systems with two or more analytical detections of a given contaminant. Similar measures may also be conducted for each entry point to the distribution system for each system. Since these contaminant and system 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, 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 system mean contaminant concentrations may be desired. The Stage 2 analysis uses a Bayesian-based hierarchical model to estimate the percent (and number) of systems 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 NPDWRs, for which it underwent a peer review.

5(c) Reporting Results

After final review, formatting, and analysis of the data collected through this ICR, the data will be made available to the public through the NCOD, as is being done with the data collected and analyzed for UCMR 1 and UCMR 2. A full report, including detailed descriptions of the occurrence analysis approach; data characteristics (including data quality and limitations); analytical methodology; and analytical results, will be provided to the public and posted on the UCMR 3 website once complete. The analytical results and report will provide support for regulatory determinations for the drinking water CCL.

APPENDICES

APPENDIX A: Relevant Authorities in the SDWA 1996 Amendments

Section 1401 For purposes of this title:

(1) The term "primary drinking water regulation" means a regulation which-

(A) applies to public water systems;

(B) specifies contaminants which, in the judgment of the Administrator, may have any adverse effect on the health of persons;

(C) specifies for each such contaminant either–

(i) a maximum contaminant level, if, in the judgment of the Administrator, it is economically or technologically feasible to ascertain the level of such contaminant in water in public water systems, or

(ii) if, in the judgment of the Administrator, it is not economically or technologically feasible to ascertain the level of such contaminant sufficient to satisfy the requirements of section 1412; and

(D) contains criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including accepted methods for quality control and testing procedures to ensure compliance with such levels and to ensure proper operation and maintenance of the system, and requirements as to (i) the minimum quality of water which may be taken into the system and (ii) siting for new facilities for public water systems. At any time after promulgation of a regulation referred to in this paragraph, the Administrator may add equally effective quality control and testing procedures by guidance published in the Federal Register. Such procedures shall be treated as an alternative for public water systems to the quality control and testing procedures listed in the regulation.

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 of 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 a 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 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)(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 1997 through 2003.

(d) SCREENING METHODS – Section 1445 (42 U.S.C. 300j_4) is amended by adding the following after subsection (h):

(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.

(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; and

(C) other reliable and appropriate monitoring information on the occurrence of the contaminants in public water systems that is available to the Administrator.

APPENDIX B: Burden and Cost Exhibits for the Five-Year UCMR 3 Cycle of 2012-2016

Exhibit B-1a: Yearly Cost to Systems, by System Size and by Type of Cost (2012-2016) *(corresponds to Exhibit 11a)*						
Cost Description	***2012***	***2013***	***2014***	***2015***	***2016***	***Total***
SMALL SYSTEMS (serving 10,000 or fewer people)						
Labor Costs						
Reading and Initial Reporting	$0	$36,338	$36,338	$36,338	$0	$109,014
Monitoring	$0	$31,773	$31,773	$31,773	$0	$95,319
Reporting of Results	$0	$13,596	$13,596	$13,596	$0	$40,787
Non-Labor Costs (Laboratory Analysis and Shipping (paid for by EPA))						
	$0	$0	$0	$0	$0	$0
Subtotal – Small Systems	***$0***	***$81,707***	***$81,707***	***$81,707***	***$0***	***$245,120***
LARGE SYSTEMS (serving 10,001 to 100,000 people)						
Labor Costs						
Reading and Initial Reporting	$0	$454,279	$454,279	$454,279	$0	$1,362,837
Monitoring	$0	$258,264	$258,264	$258,264	$0	$774,793
Reporting of Results	$0	$253,244	$253,244	$253,244	$0	$759,731
Non-Labor Costs (Laboratory Analysis and Shipping)						
	$0	$13,504,932	$13,504,932	$13,504,932	$0	$40,514,795
Subtotal – Large Systems	***$0***	***$14,470,719***	***$14,470,719***	***$14,470,719***	***$0***	***$43,412,156***
VERY LARGE SYSTEMS (serving greater than 100,000 people)						
Labor Costs						
Reading and Initial Reporting	$0	$59,085	$59,085	$59,085	$0	$177,254
Monitoring	$0	$83,637	$83,637	$83,637	$0	$250,910
Reporting of Results	$0	$38,505	$38,505	$38,505	$0	$115,514
Non-Labor Costs (Laboratory Analysis and Shipping)						
	$0	$3,357,633	$3,357,633	$3,357,633	$0	$10,072,899
Subtotal – Very Large Systems	***$0***	***$3,538,859***	***$3,538,859***	***$3,538,859***	***$0***	***$10,616,577***
ALL SYSTEMS						
Total Labor for All Systems	$0	$1,228,719	$1,228,719	$1,225,524	$0	$3,686,158
Total Non-Labor for All Systems	$0	$16,862,565	$16,862,565	$16,862,565	$0	$50,587,694
Total Labor and Non-Labor for All Systems	**$0**	**$18,091,284**	**$18,091,284**	**$18,091,284**	**$0**	**$54,273,852**

Exhibit B-1b: Per System (Respondent) and Per Response UCMR 3 Costs (2012-2016) ***(corresponds with Exhibit 11b)***

Burden / Cost	Total over 2012-2016			Annual Average over 2012-2016		
	Small Systems	Large Systems	Very Large Systems	Small Systems	Large Systems	Very Large Systems
PER RESPONDENT:						
Labor Cost	$92	$460	$796	$31	$153	$265
Non-Labor Cost	$0	$6,429	$14,741	$0	$2,143	$4,914
Burden (labor hours)	4.0	14.7	20.8	1.3	4.9	6.9
PER RESPONSE:						
Number Responses per Respondent	2.2	3.2	3.7	0.7	1.1	1.2
Labor Cost per Response	$69	$238	$361	$23	$79	$120
Non-Labor Cost per Response	$0	$3,329	$6,680	$0	$1,110	$2,227
Burden (labor hours) per Response	3.0	7.6	9.4	1.0	2.5	3.1

Exhibit B-2a: Yearly Cost and Burden to States for Implementation of UCMR 3 (2012-2016)[1] ***(corresponds with Exhibit 13a)***

Cost/ Burden	2012	2013	2014	2015	2016	Total	Annual Average
Costs to All States for labor related to UCMR implementation and oversight							
	$331,538	$994,614	$1,024,452	$1,055,186	$362,280	$3,768,069	$753,614
Labor burden for all States for UCMR implementation and oversight (number of hours)							
	13,342	13,625	12,238	6,202	6,108	51,515	10,303

[1] All costs are attributed to labor and are estimated over the period 2012-2016.

Exhibit B-2b: Per State (Respondent) and Per Response UCMR 3 Costs (2012-2016) *(corresponds with Exhibit 13b)*		
Burden / Cost	**Total over 2012-2016**	**Annual Average over 2012-2016**
PER RESPONDENT:		
Labor Cost	$67,285	$13,457
Non-Labor Cost	$0	$0
Burden (labor hours)	920	184
PER RESPONSE:		
Number Responses per Respondent[1]	5.0	1.0
Labor Cost per Response	$13,457	$2,691
Non-Labor Cost per Response	$0	$0
Burden (labor hours) per Response	184	37

[1] States are assumed to have 1 response per year, since there are no specific cyclical State reporting requirements under the UCMR program.

Exhibit B-3a: Yearly Cost to EPA for UCMR 3 Implementation, by Type of Cost (2012-2016) [1] *(corresponds with Exhibit 14a)*							
Cost Description	**2012**	**2013**	**2014**	**2015**	**2016**	**Total**	**Average**
Regulatory Support Activities: laboratory proficiency testing; QC audits; analytical standards provision; and technical support, guidance document development							
Lab PT	$231,855	$0	$0	$0	$0	$231,855	$46,371
QC Audits	$17,399	$34,799	$34,799	$17,399	$0	$104,396	$20,879
Analytical Standards	$115,927	$238,811	$245,975	$253,354	$0	$854,067	$170,813
Technical Support	$115,927	$59,703	$0	$0	$0	$175,630	$35,126
Subtotal – Regulatory Support	**$481,108**	**$333,313**	**$280,774**	**$270,753**	**$0**	**$1,365,948**	**$273,190**
National and Regional Oversight and Data Analysis: UCMR management oversight; review and evaluation of data from Assessment Monitoring							
	$442,499	**$884,998**	**$884,998**	**$884,998**	**$0**	**$3,079,494**	**$619,499**
Small System Testing: implementation coordination; and analytical and shipping costs for small system testing for both Assessment Monitoring and Screening Surveys							
Implementation Coordination	$0	$1,081,021	$1,081,021	$1,081,021	$0	$3,243,064	$648,613
Fees for Analysis and shipping	$0	$2,862,805	$2,862,805	$2,862,805	$0	$8,588,416	$11,717,683
Subtotal – Small System Testing	**$0**	**$3,943,827**	**$3,943,827**	**$3,943,827**	**$0**	**$11,831,480**	**$2,366,296**

Exhibit B-3a: Yearly Cost to EPA for UCMR 3 Implementation, by Type of Cost (2012-2016) [1] *(corresponds with Exhibit 14a)*

Cost Description	2012	2013	2014	2015	2016	Total	Average
TOTAL	**$923,607**	**$5,162,138**	**$5,109,599**	**$5,099,578**	**$0**	**$16,294,922**	**$3,258,984**

[1] Agency costs are estimated over the period 2012-2016.

Exhibit B-3b: Summary of EPA Burdens and Costs for UCMR 3 Implementation (2012-2016) *(corresponds with Exhibit 14b)*

Burden / Cost	Annual Average Cost over Five-Year UCMR Period (2012-2016)
Labor Cost	$619,499
Non-Labor Cost	$2,639,486
Total Cost to EPA for UCMR Implementation	**$3,258,985**
Burden (labor hours)	8,008

Exhibit B-4: National Cost Summary for UCMR 3 Implementation *(2012-2016) (corresponds with Exhibit 15)*

Type of Cost	2012	2013	2014	2015	2016	TOTAL
Small Systems						
Labor Cost	$0	$81,707	$81,707	$81,707	$0	$245,120
Non-Labor Cost	$0	$0	$0	$0	$0	$0
Total Small System Cost	**$0**	**$81,707**	**$81,707**	**$81,707**	**$0**	**$245,120**
Large Systems						
Labor Cost	$0	$965,787	$965,787	$965,787	$0	$2,897,360
Non-Labor Cost	$0	$13,504,932	$13,504,932	$13,504,932	$0	$40,514,795
Total Large System Cost	**$0**	**$14,470,719**	**$14,470,719**	**$14,470,719**	**$0**	**$43,412,156**
Very Large Systems						
Labor Cost	$0	$181,226	$181,226	$181,226	$0	$543,678
Non-Labor Cost	$0	$3,357,633	$3,357,633	$3,357,633	$0	$10,072,899
Total Very Large System Cost	**$0**	**$3,538,859**	**$3,538,859**	**$3,538,859**	**$0**	**$10,616,577**
States						
Labor Cost	$331,538	$994,614	$1,024,452	$1,055,186	$362,280	$3,768,069
Non-Labor Cost	0	0	0	0	0	0

Exhibit B-4: National Cost Summary for UCMR 3 Implementation *(2012-2016)*
(corresponds with Exhibit 15)

Type of Cost	2012	2013	2014	2015	2016	TOTAL
Total State Cost	**$331,538**	**$994,614**	**$1,024,452**	**$1,055,186**	**$362,280**	**$3,768,069**
EPA						
Labor Cost	$442,499	$884,998	$884,998	$884,998	$0	$3,097,494
Non-Labor Cost	$481,108	$4,277,139	$4,224,600	$4,214,580	$0	$13,197,428
Total EPA Cost	**$923,608**	**$5,162,138**	**$5,109,599**	**$5,099,578**	**$0**	**$16,294,922**
National Total						
Total with EPA	**$1,255,145**	**$24,248,035**	**$24,225,335**	**$24,246,048**	**$362,280**	**$74,336,844**
Total without EPA	**$331,538**	**$19,085,898**	**$19,115,736**	**$19,146,470**	**$362,280**	**$58,041,922**
Total Burden (hours) for All Responses						
Small Systems	0	3,545	3,545	3,545	0	10,636
Large Systems	0	30,926	30,926	30,926	0	92,777
Very Large Systems	0	4,732	4,732	4,732	0	14,195
States	13,342	13,625	12,238	6,202	6,108	51,515
EPA	5,720	11,440	11,440	11,440	0	40,040
Total with EPA	**19,062**	**64,268**	**62,881**	**56,845**	**6,108**	**209,164**
Total without EPA	**13,342**	**52,828**	**51,441**	**45,405**	**6,108**	**169,124**

[1] Although EPA is not considered a respondent to the UCMR regulations, Agency burdens are shown here to illustrate the national costs of the program. National totals are shown with and without the Agency costs.

Exhibit B-5: UCMR 3 Per Respondent Burden and Cost Summary (2012-2016)
(corresponds with Exhibit 16)

Burden (hours)/ Cost (dollars)	Small Systems	Large Systems	Very Large Systems	States	EPA	National Average with EPA[1]	National Average without EPA
Five-Year Total per Respondent							
Total # of Responses Per Respondent	2.2	3.2	3.7	5.0	n/a	**n/a**	**3.0**
Labor Cost Per Respondent	$153	$766	$1,326	$67,287	$3,097,494	**$1,804**	**$1,275**
Non-Labor Cost Per Respondent	n/a	$10,715	$24,568	n/a	$13,197,428	**$10,907**	**$8,652**

Exhibit B-5: UCMR 3 Per Respondent Burden and Cost Summary (2012-2016)
(corresponds with Exhibit 16)

Burden (hours)/ Cost (dollars)	Small Systems	Large Systems	Very Large Systems	States	**EPA**	**National Average with EPA[1]**	**National Average without EPA**
Total Cost (Labor plus Non-Labor)	*$153*	*$11,482*	*$25,894*	*$67,287*	*$16,294,922*	***$12,711***	***$9,927***
Total Cost Per Response	$69	$3,567	$7,040	$13,457	n/a	**n/a**	**$3,312**
Total Burden Per Respondent	6.6	24.5	34.6	919.9	40040.0	**35.8**	**28.9**
Total Burden Per Response	3.0	3.2	3.7	184.0	n/a	**n/a**	**9.7**
Average Annual per Respondent							
Ave. # of Responses Per Respondent	0.4	0.6	0.7	1.0	n/a	**n/a**	**0.6**
Labor Cost Per Respondent	$31	$153	$265	$13,457	$619,499	**$361**	**$255**
Non-Labor Cost Per Respondent	n/a	$2,143	$4,914	n/a	$2,639,486	**$2,181**	**$1,730**
Ave. Cost (Labor plus Non-Labor)	*$31*	*$2,296*	*$5,179*	*$13,457*	*$3,258,984*	***$2,542***	***$1,985***
Ave. Cost Per Response	$14	$713	$1,408	$2,691	n/a	**n/a**	**$662**
Ave. Burden Per Respondent	1.3	4.9	6.9	184.0	8008.0	**7.2**	**5.8**
Ave. Burden Per Response	0.6	0.6	0.7	36.8	n/a	**n/a**	**1.9**

[1] National average burdens and costs differ greatly between the State respondents and the various system respondents. This should be taken into consideration when looking at the national average with or without EPA.