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**Information Collection Request for  
Contaminant Occurrence Data  
in Support of the EPA's Fourth Six-Year Review of  
National Primary Drinking Water Regulations**

*Updated by:*

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## TABLE OF CONTENTS

1	IDENTIFICATION OF THE INFORMATION COLLECTION.....	1
	1(a) Title and Number of the Information Collection.....	1
	1(b) Short Characterization.....	1
2	NEED FOR AND USE OF THE COLLECTION.....	3
	2(a) Need/Authority for the Collection.....	3
	2(b) Practical Utility/Users of the Data.....	3
3	NON-DUPLICATION, CONSULTATIONS AND OTHER COLLECTION CRITERIA.....	5
	3(a) Non-duplication.....	5
	3(b) Public Notice Required Prior to ICR Submission to OMB.....	5
	3(c) Consultations.....	5
	3(d) Effects of Less Frequent Collection.....	6
	3(e) General Guidelines.....	6
	3(f) Confidentiality.....	6
	3(g) Sensitive Questions.....	6
4	RESPONDENTS AND THE INFORMATION.....	7
	4(a) Respondents and NAICS/SIC Codes.....	7
	4(b) Information Requested.....	7
	4(b)(i) Data Items.....	7
	4(b)(ii) Respondent Activities.....	11
5	INFORMATION COLLECTED—AGENCY ACTIVITIES, COLLECTION METHODOLOGY, AND INFORMATION MANAGEMENT.....	13
	5(a) Agency Activities.....	13
	5(b) Collection Methodology and Management.....	15
	5(c) Small Entity Flexibility.....	17
	5(d) Collection Schedule.....	18
6	ESTIMATING THE BURDEN AND COST OF THE COLLECTION.....	19
	6(a) Estimating Respondent Burden.....	20
	6(b) Estimating Respondent Costs.....	21
	6(c) Estimating Agency Burden and Costs.....	21
	6(c)(i) Agency Burden.....	22
	6(c)(ii) Agency Cost.....	23
	6(d) Estimating the Respondent Universe and Total Burden and Costs.....	24
	6(e) Bottom Line Burden Hours and Cost Tables.....	24
	6(f) Reasons for Change in Burden.....	25
	6(g) Burden Statement.....	25
	APPENDICES.....	27
	Appendix A: Detailed Burden and Cost for States.....	28
	Appendix B: Detailed Burden and Cost for the EPA.....	32

## LIST OF EXHIBITS

Exhibit 4-1: Occurrence Data to Be Requested.....	8
Exhibit 4-2: Requested Data Categories.....	9
Exhibit 6-1: Average Annual State Burden and Costs.....	21
Exhibit 6-2: Annual the EPA Burden and Costs.....	23
Exhibit 6-3: Bottom Line Burden and Costs.....	24
Exhibit A-1. Estimated State Burden for Occurrence Data Submission.....	28
Exhibit A-2: Estimated 2019 Salaries and Overhead Costs from ASDWA State Resource Model .....	31
Exhibit B-1: Estimated Burden and Labor Costs to the EPA for Occurrence Data Collection and Analysis.....	32

## ACRONYMS

AMWA	Association of Metropolitan Water Agencies
AWWA	American Water Works Association
ASDWA	Association of State Drinking Water Administrators
CFR	Code of Federal Regulations
DQO	Data Quality Objective
DBPR	Disinfectants and Disinfection Byproducts Rule
EPA	U.S. Environmental Protection Agency
FBRR	Filter Backwash Recycling Rule
FR	<i>Federal Register</i>
GWR	Ground Water Rule
ICR	Information Collection Request
IESWTR	Interim Enhanced Surface Water Treatment Rule
MCL	Maximum Contaminant Level
mg/L	Milligrams per Liter
NAICS	North American Industry Classification System
NCOD	National Contaminant Occurrence Database
NPDWR	National Primary Drinking Water Regulation
O&M	Operation and Maintenance
OMB	Office of Management and Budget
PRA	Paperwork Reduction Act
PWS	Public Water System
PWSID	Public Water System Identification Number
PWSS	Public Water System Supervision
QA/QC	Quality Assurance/Quality Control
RFA	Regulatory Flexibility Act
SBA	Small Business Administration
SBREFA	Small Business Regulatory Enforcement Fairness Act
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule

# **1 IDENTIFICATION OF THE INFORMATION COLLECTION**

## **1(a) Title and Number of the Information Collection**

Title: Information Collection Request for Contaminant Occurrence Data in Support of EPA's Fourth Six-Year Review of National Primary Drinking Water Regulations

OMB Control Number: 2040-NEW

EPA ICR No.: 2574.01

## **1(b) Short Characterization**

The Safe Drinking Water Act (SDWA), as amended in 1996, requires that the U.S. Environmental Protection Agency (EPA) review existing national primary drinking water regulations (NPDWRs) no less often than every six years and, if appropriate, revise them. The EPA completed its third Six-Year Review cycle in December 2016 and published the review results on January 11, 2017 (82 FR 3518). During the third Six-Year Review, the EPA performed a review of chemical, microbial, and radiological contaminants or indicators, along with treatment technique data from 88 NPDWRs, which were promulgated prior to August 2008. The occurrence assessments conducted for the third Six-Year Review were based on compliance monitoring data collected from 2006 to 2011 and voluntarily submitted by states<sup>1</sup> and other primacy agencies under Information Collection Request (ICR) Number 2231.02 (OMB Control Number 2040-0275).

The EPA is issuing this new Information Collection Request (ICR), ICR Number 2574.01, as a one-time request for states to voluntarily submit NPDWR compliance monitoring data collected between 2012 and 2019. To comply with the 1995 Amendments to the Paperwork Reduction Act (PRA), this ICR estimates the potential cost to states for data submission for the fourth Six-Year Review.

With this ICR, the EPA's Office of Water is requesting that states submit compliance monitoring data (occurrence data and treatment technique data) for public water systems (PWSs) to support the Agency's fourth Six-Year Review. The EPA plans to request monitoring data collected between January 2012 and December 2019, during the implementation of NPDWRs promulgated prior to 2015. This review cycle, hereafter referred to as Six-Year Review 4, encompasses the review process cycle of 2016-2022. Through the Six-Year Review process, The EPA reviews existing NPDWRs and evaluates whether potential revisions are appropriate to

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<sup>1</sup>

<sup>2</sup>In the remainder of this document, the terms "state" or "states" refers to primacy agencies in states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an eligible Indian tribe.

maintain or improve the health of those persons served by PWSs. These compliance monitoring records (including all results for analytical detections and non-detections) and other compliance summaries provide the data needed to conduct statistical estimates of national occurrence of each regulated contaminant and are used to evaluate regulation effectiveness. The review of this data will support the EPA's consideration of whether revisions to existing regulations are appropriate. In addition, SDWA section 1445(g) requires the EPA to maintain a national drinking water contaminant occurrence database (*i.e.*, the National Contaminant Occurrence Database (NCOD)) using occurrence data for both regulated and unregulated contaminants in PWSs. Thus, through this data collection, The EPA will also be fulfilling some of the SDWA requirements as they relate to national occurrence data.

States can upload data using a designated, secure system. After receiving the data, The EPA will conduct the necessary data review, editing, and quality assurance/quality control (QA/QC) across all state datasets to allow uniform assessments across all the datasets, and subsequent data management and analysis, to provide an overview of occurrence estimates at the national level. Upon request, the EPA will provide states with the edited data and/or the log of the edits that were applied to the data prior to the posting and storage of data in the NCOD. Following final QA/QC of the data, a summary of the data will be made available to the public through NCOD and/or other appropriate mechanisms.

Although these data submissions are not required of the state agencies, the EPA is required to conduct this ICR analysis because more than nine non-federal entities will be asked to respond to these data requests. Because this is a request for voluntary submission of data (not submission of data required by a regulation), this ICR will remain separate from the Public Water System Supervision (PWSS) Program ICR, which includes burden and cost estimates for many other administrative and implementation activities and information collection requirements under the SDWA.

The total annual burden and costs to the 56 potential state respondents associated with this ICR is estimated to be 765 hours and \$43,021 per year over the 3-year ICR or 13.7 hours and \$768 per year per state. All respondent costs are for labor activities associated with the time it takes to read and understand the request for compliance monitoring data, compile and submit existing data in an electronic format, and respond to questions regarding these data. Note that these costs are for labor; there are no capital costs associated with the activities covered by this ICR. Estimated burden and labor cost vary across states, depending on their current data storage system (*e.g.*, State Drinking Water Information System/State version (SDWIS/State) vs. proprietary data systems) and expected participation levels. No burden to PWSs is associated with this data collection.

Over the period covered by this ICR the EPA is expected to incur an average annual cost of \$408,763 for labor associated with this program, including: extracting or downloading state data; initial data screenings, and conversion to uniform structures; communicating and coordinating with states; and data management and analysis.

## **2 NEED FOR AND USE OF THE COLLECTION**

### **2(a) Need/Authority for the Collection**

Through the Six-Year Review process, the EPA reviews existing NPDWRs and evaluates whether potential revisions are appropriate to maintain or improve the health of those persons served by public water systems. Section 1412(b)(9) of the SDWA states: "The Administrator shall, not less often than every 6 years, review and revise, as appropriate, each national primary drinking water regulation promulgated under this title. Any revision of a national primary drinking water regulation shall be promulgated in accordance with this section, except that each revision shall maintain, or provide for greater, protection of the health of persons." Compliance monitoring data provide information critical to these assessments. Without an understanding of where and at what levels these contaminants are occurring in public drinking water, The EPA cannot assess the risk to public health and whether potential revisions are likely to maintain or improve public health protection. In addition, other compliance data can help in evaluating the effectiveness of current regulations.

Section 1445(g)(1) requires the EPA to "assemble and maintain a national drinking water contaminant occurrence data base [*sic*], using information on the occurrence of both regulated and unregulated contaminants in public water systems..." Section 1445(g)(6) requires that for regulated contaminants, the database (*i.e.*, NCOD) include "information on the detection of the contaminant at a quantifiable level in public water systems." This includes levels that are less than or equal to the maximum contaminant level (MCL) for a specific contaminant. Prior to the establishment of NCOD, only data related to MCL violations were being stored on a national-level.

### **2(b) Practical Utility/Users of the Data**

This ICR supports the collection of compliance monitoring data (contaminant occurrence data and treatment technique information) collected between January 2012 to December 2019, during the implementation of NPDWRs promulgated prior to 2015. A list of the occurrence data to be requested is provided as Exhibit 4-1. The occurrence data will be used to derive detailed statistical estimates of national occurrence of these regulated contaminants. The EPA's specific goal in evaluating contaminant occurrence is to estimate the national number of PWSs at which the individual regulated contaminants occur at levels of health concern and/or the feasible level of measurement, and to evaluate the number of people exposed to these levels. This information, in conjunction with other contaminant-specific analyses conducted as part of the Six-Year Review (e.g., health assessment, technology, implementation issues, etc.), will provide the EPA with information to determine whether or not it is appropriate to consider revisions to a regulation to maintain or provide for greater protection of human health. The monitoring data (including compliance summaries) will provide the EPA with information to evaluate regulation effectiveness.

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

- Primacy agencies, which include state regulators, Indian Tribes, and, in some instances, the EPA's Regional Administrators
- PWS managers
- Staff from other EPA programs
- 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
- U.S. Army Corps of Engineers
- White House task forces
- American Water Works Association (AWWA)
- Association of Metropolitan Water Agencies (AMWA)
- 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 EPA has made an effort to ensure that data collection activities associated with this ICR are not duplicative. Though these monitoring data have already been collected by states to comply with existing regulations and/or to investigate state and local contamination concerns, this information has not been collected and analyzed at the national-level. This data request only targets the transmittal of *existing* electronic data from states to the EPA. Thus, the final compilation and analysis of this information is not unnecessarily duplicative of information otherwise available to the EPA.

In addition, the State Drinking Water Information System/Federal (SDWIS/FED) contains some inventory-related data elements that the EPA is requesting be submitted with each data record. As discussed in Section 4(b), the EPA will give states the option of reporting all requested data elements or having the Agency access inventory data from SDWIS/FED based on the federal public water system identification (PWSID) number.

#### **3(b) Public Notice Required Prior to ICR Submission to the Office of Management and Budget (OMB)**

Three comments were received during the EPA's first ICR *Federal Register* notice's 60-day comment period (83 FR 50361, October 5, 2018). The Office of Ground Water and Water determined that none of the public comment affected the proposed information collection for the fourth Six-Year Review. The commenters included a member of the public requesting the EPA to reduce the Maximum Contaminant Level for fluoride related to the EPA's third Six-Year Review revision efforts, a member of the public using the docket for political opinion on matters unrelated to the ICR, and a non-profit group providing their support for the proposal of the ICR and the EPA's fourth Six-Year Review.

#### **3(c) Consultations**

The EPA first consulted with stakeholders regarding the Six-Year Review process during its development of a protocol during 1999 and 2000. A summary of the deliberative process and initial approach to occurrence analysis can be found in the docket for the EPA's final announcement of the Six-Year Review process on July 18, 2003, entitled: "National Primary Drinking Water Regulations; Announcement of Completion of the EPA's Review of Existing Drinking Water Standards" (68 FR 42908).

To prepare for Six-Year Review 4, the EPA used information from the previous Six-Year Review process, in addition to consulting with the Association of State Drinking Water

Administrators (ASDWA) through email correspondence in June 2018 about burden estimates. Based on this consultation, EPA has updated Texas from a state that is likely to use SDWIS/State to a state that is likely to use a combination of proprietary software and SDWIS/State to store data. EPA has updated the burden hours for Texas to reflect this new information.

### **3(d) Effects of Less Frequent Collection**

The EPA is required by the SDWA to conduct a Six-Year Review of existing NPDWRs. The information requested under this ICR is being collected on a one-time basis for the Six-Year Review 4 to meet the SDWA statutory requirements.

### **3(e) General Guidelines**

Activities undertaken in support of this collection will not exceed any of the parameters set out in 5 CFR 1320.5(d)(2).

### **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 state drinking water agencies. The North American Industry Classification System (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). There will be no burden included for water systems, because systems will not be asked to collect, submit, or review new data, and will not be affected by the states' efforts for the data submission.

### **4(b) Information Requested**

This ICR covers reporting activities that will take place in response to a specific EPA data call-in (for existing monitoring/occurrence data) to state drinking water programs. Though this is not a requirement, the ICR is necessary to estimate reporting burden and costs to the states. This ICR summarizes the data items and respondent activities associated with the reporting effort. All data being called-in are historic (*i.e.*, data already exist); no states or PWSs will be required to collect any new data. Further, no recordkeeping burden will be imposed on the states as a result of this request (*i.e.*, states are already required to maintain these records as part of NPDWRs).

#### **4(b)(i) Data Items**

The EPA is requesting that states voluntarily submit compliance monitoring data and treatment technique information collected by PWSs during January 2012 through December 2019 for the occurrence data listed in Exhibit 4-1. This request only includes existing data that the states have already stored in electronic format. The requested data include analytical detections and non-detections for routine compliance monitoring samples (including repeat and confirmation samples) and other compliance summaries, as well as any special study sampling results that states choose to submit.

Note that although this data collection is not a requirement, certain parameters are essential for the EPA to uphold high standards of data quality and analytical integrity. The EPA has identified the data categories (see Exhibit 4-2) that the Agency will request that states provide with their data results. In general, these data elements are based on those used for the third Six-Year Review. Although some of the inventory-related data elements listed in Exhibit 4-2 are available from SDWIS/FED, compliance monitoring data stored and maintained by states typically include most, if not all, of those data elements. The EPA expects that it would be a greater burden for states to remove specific, otherwise available data elements from their compliance monitoring records than to simply submit complete compliance monitoring datasets "as is." However, for states that elect to submit a subset of data, the EPA has identified essential data categories that the Agency needs to most effectively evaluate the occurrence data. If states elect to submit their data with only these data categories, the EPA will use the PWSID number to

acquire additional system-specific data from SDWIS/FED, and appropriate supplemental information, where needed.

The compliance data collected for the Total Coliform Rule, Revised Total Coliform Rule, Ground Water Rule, Surface Water Treatment Rules, Long Term 1 and 2 Enhanced Surface Water Treatment Rule (LT1 and LT2), Stage 1 and 2 Disinfectants and Disinfection Byproducts Rule (DBPRs) and Filter Backwash Recycling Rule (FBRR) will be evaluated to determine regulation effectiveness.

<b>Exhibit 4-: Occurrence Data to Be Requested</b>		
<i>Chemical Contaminants (Phase I, II, IIB, and V Rules; Arsenic Rule; Lead and Copper Rule)</i>		
Acrylamide	1,1-Dichloroethylene	Methoxychlor
Alachlor	cis-1,2-Dichloroethylene	Monochlorobenzene (Chlorobenzene)
Antimony	trans-1,2-Dichloroethylene	Nitrate (as N)
Arsenic	Dichloromethane (Methylene chloride)	Nitrite (as N)
Asbestos	1,2-Dichloropropane	Oxamyl (Vydate)
Atrazine	Di(2-ethylhexyl) adipate (DEHA)	Pentachlorophenol
Barium	Di(2-ethylhexyl) phthalate (DEHP)	Picloram
Benzene	Dinoseb	Polychlorinated biphenyls (PCBs)
Benzo[a]pyrene	Diquat	Selenium
Beryllium	Endothall	Simazine
Cadmium	Endrin	Styrene
Carbofuran	Epichlorohydrin	2,3,7,8-TCDD (Dioxin)
Carbon tetrachloride	Ethylbenzene	Tetrachloroethylene
Chlordane	Ethylene dibromide (EDB)	Thallium
Chromium (total)	Fluoride	Toluene
Copper	Glyphosate	Toxaphene
Cyanide	Heptachlor	2,4,5-TP (Silvex)
2,4-D	Heptachlor epoxide	1,2,4-Trichlorobenzene
Dalapon	Hexachlorobenzene	1,1,1-Trichloroethane
1,2-Dibromo-3-chloropropane (DBCP)	Hexachlorocyclopentadiene	1,1,2-Trichloroethane
1,2-Dichlorobenzene (o-Dichlorobenzene)	Lead	Trichloroethylene
1,4-Dichlorobenzene (p-Dichlorobenzene)	Lindane	Vinyl chloride
1,2-Dichloroethane (Ethylene dichloride)	Mercury (inorganic)	Xylenes (total)
<i>Radiological Contaminants</i>		
Combined Radium-226/228; and Radium-226 & Radium-228 (if available)	Gross beta	Tritium
	Iodine-131	Uranium

<b>Exhibit 4-: Occurrence Data to Be Requested</b>		
Gross alpha	Strontium-90	
<b>Total Coliform Rule (TCR) and Revised Total Coliform Rule (RTCR)</b>		
Total coliforms (TC)	Fecal coliforms	<i>Escherichia coli (E. coli)</i>
<b>Disinfectants and Disinfection Byproducts Rules (DBPRs)</b>		
Total Trihalomethanes (TTHMs):	Haloacetic Acids (HAA5):	Bromate
Chloroform	Monochloroacetic acid	Chlorite
Bromodichloromethane	Dichloroacetic acid	Chlorine
Dibromochloromethane	Trichloroacetic acid	Chloramines
Bromoform	Bromoacetic acid	Chlorine dioxide
	Dibromoacetic acid	
<b>Ground Water Rule (GWR)</b>		
<i>Escherichia coli (E. coli)</i>	Enterococci	Coliphage
<b>Surface Water Treatment Rules (SWTRs)</b>		
Chlorine	<i>Cryptosporidium</i>	Heterotrophic Plate Count (HPC)
Chloramines	<i>Giardia lamblia</i>	
<b>Filter Backwash Recycling Rule (FBRR)</b>		
No specific occurrence data collected; see Exhibit 4- for data elements for FBRR		

<b>Exhibit 4-2: Requested Data Categories</b>	
<b>Data Category</b>	<b>Description</b>
<b>System-Specific Information</b>	
Public Water System Identification Number (PWSID)	The code used to identify each PWS. The code begins with the standard 2-character postal state abbreviation or Region code; the remaining 7 numbers are unique to each PWS in the state.
System Name	Name of the PWS.
Federal Public Water System Type Code	A code to identify whether a system is: <ul style="list-style-type: none"> <li>• Community Water System;</li> <li>• Non-transient Non-community Water System; or</li> <li>• Transient Non-community Water System.</li> </ul>
Population Served	Highest average daily number of people served by a PWS, when in operation.
Federal Source Water Type	Type of water at the source. Source water type can be: <ul style="list-style-type: none"> <li>• Ground water; or</li> <li>• Surface water; or</li> <li>• Ground water under the direct influence of surface water (GWUDI). (<b>Note:</b> Some states may not distinguish GWUDI from surface water sources. In those states, a GWUDI source should be reported as a surface water source type.)</li> </ul>
<b>Treatment Information</b>	
Water System Facility	System facility data, including: treatment plant identification number, treatment plant information, treatment unit process/objectives, facility flow, treatment train (train or flow of water through treatment units within the treatment plant).
Filtration Type	Information relating to system filtration, including: filtration status, types of filtration (e.g., unfiltered, conventional filtration, and other permitted values).

<b>Exhibit 4-2: Requested Data Categories</b>	
<b>Data Category</b>	<b>Description</b>
Treatment Technique Information	Information pertaining to treatment processes. Types of treatment technique information including: disinfectants used and their doses for primary and secondary disinfection, coagulant/coagulant aid type and dose, disinfectant concentration, disinfection profile/bench mark data, log of viral inactivation/removal, contact time, contact value, pH, temperature.
Filter Backwash Information	Information about filter backwash that is returned to the treatment plant influent (e.g., information on: recycle/schematic status, alternative return location, corrective action requirements, and recycle flows and frequency).
<b>Sample-Specific Information</b>	
Sampling Point Identification Code	A sampling point identifier established by the state, unique within each applicable facility, for each applicable sampling location (e.g., entry point to the distribution system). This information enables occurrence assessments that address intra-system variability.
Sample Identification Number	Identifier assigned by state or the laboratory that uniquely identifies a sample.
Sample Collection Date	Date the sample is collected, including month, day, and year.
Sample Type	Indicates why the sample is being collected (e.g., compliance, routine, repeat, confirmation, additional routine samples, duplicate, special, special duplicate, etc.).
Sample Analysis Type Code	Code for type of water sample collected. <ul style="list-style-type: none"> <li>• Raw (Untreated) water sample</li> <li>• Finished (Treated) water sample</li> </ul> <p style="margin-left: 40px;">For lead and copper only:</p> <ul style="list-style-type: none"> <li>• Source</li> <li>• Tap</li> </ul> <p><i>For TCR Repeats only; indicator of sampling location relative to sample point where positive sample was originally collected:</i></p> <ul style="list-style-type: none"> <li>• Upstream</li> <li>• Downstream</li> <li>• Original</li> </ul>
Contaminant	Contaminant name, 4-digit SDWIS contaminant identification number, or Chemical Abstracts Service (CAS) Registry Number for which the sample is being analyzed.
Sample Analytical Result - Sign	The sign indicates whether the sample analytical result was: <ul style="list-style-type: none"> <li>• (&lt;) "less than" means the contaminant was not detected or was detected at a level "less than" the minimum reporting level (MRL).</li> <li>• (=) "equal to" means the contaminant was detected at a level "equal to" the value reported in "Sample Analytical Result - Value."</li> <li>• (+) "positive result" (<i>For RTCR data, only positive E. coli result sign to be included.</i>)</li> </ul>
Sample Analytical Result - Value	Actual numeric (decimal) value of the analysis for the chemical results, or the MRL if the analytical result is less than the contaminant's MRL. <p><i>(For the TCR and RTCR, TC and E. coli will indicate presence/absence, and positive E. coli will have numeric results.)</i></p>

<b>Exhibit 4-2: Requested Data Categories</b>	
<b>Data Category</b>	<b>Description</b>
Sample Analytical Result - Unit of Measure	Unit of measurement for the analytical results reported (usually expressed in either µg/L or mg/L for chemicals; or pCi/l or mrem/yr for radiological contaminants). <i>(Not required for TCR and RTCR data)</i>
Sample Analytical Method Number	The EPA identification number of the analytical method used to analyze the sample for a given contaminant.
Minimum Reporting Level (MRL) - Value	MRL refers to the lowest concentration of an analyte that may be reported. <i>(Not required for TCR and RTCR data)</i>
MRL - Unit of Measure	Unit of measure to express the concentration value of a contaminant's MRL. <i>(Not required for TCR and RTCR data)</i>
Source Water Monitoring Information	Total organic carbon (TOC), including percent TOC removal, TOC removal summary, pH, alkalinity, monitoring data entered as individual results or included in DBP (or monthly operating report (MOR)) summary records, alternative compliance criteria, results from round 2 monitoring under LT2 ESWTR (including <i>Cryptosporidium</i> , <i>E. coli</i> , turbidity, or state-approved alternate indicators).
Sample Summary Reports	Sample summaries for DBPRs, SWTRs, GWR corrective actions, and the Lead and Copper Rule (LCR) associated with analytical result records. Values used for compliance determination [e.g., turbidity (combined effluent/individual effluent), disinfectant residual levels in treatment plant and distribution system, treatment technique information, HPC, etc.]

#### **4(b)(ii) Respondent Activities**

Potential respondents to this information collection are assumed to include 56 state drinking water agencies listed in Exhibit A-1 in Appendix A. Activities needed to respond to the information collection include reading and understanding the EPA's request, compiling and submitting the requested drinking water contaminant data in electronic format, and communication and coordination with the EPA. No recordkeeping requirements are associated with this information collection request. Each of these respondent activities is described in more detail below.

##### **Reading/Understanding the EPA's Request**

The EPA will send a letter to 56 states that explains the purpose of the data collection, the specific information The EPA is requesting, and the procedure for submitting these data.

##### **Compiling and Submitting Monitoring Data**

The EPA is asking states to compile and submit data that have already been collected from water systems, and which already exist in electronic format. The EPA is not expecting states or water systems to collect new data in response to this reporting request or to enter hard copy data into an electronic format. All data will be submitted using security protocol to a designated, secure system.

To facilitate the consistency and quality of data across states, the EPA will ask states to: provide a brief description of the basic format and structure of each dataset, and definitions of all data elements, column/row headings, codes, acronyms, etc., used in each dataset; submit the data in a format with each analytical result occupying a discrete row accompanied by the system inventory and sample-specific data items (*i.e.*, those listed in Exhibit 4-2 in section 4(b)(i)); and submit the data in a the EPA-compatible file format, such as Dbase (.dbf), Access tables (.mdb or .accdb), comma or tab delimited files (.csv or .txt), or Excel (.xls or .xlsx). It is expected that the data from states using or are planning to use SDWIS/State will more closely match the needed data formats and elements, and thus are assumed to have less burden for submissions than non-SDWIS States. To ease this burden, the EPA will provide extraction scripts to use with the SDWIS/State database. However, all states will have the option of submitting data as is; thus, the assumption of higher burden for non-SDWIS states is a conservative (highest possible cost) assumption. If states submit only the minimum data element information, the EPA will extract the additional inventory information from SDWIS/FED, and appropriate supplemental information, where needed, based on the PWSID number.

This SDWIS/FED system offers the public and agency capability to query the Safe Drinking Water Information System (SDWIS) Fed Data Warehouse via report filters and various reporting options. Data management plays a critical role in helping states and EPA to protect public health. The term "states" refers to any entity with primacy under the Safe Drinking Water Act (SDWA) to implement and enforce national drinking water regulations. States supervise the public water systems within their jurisdictions to ensure that each system meets state and EPA standards for safe drinking water. The Safe Drinking Water Act requires states to report drinking water information (for example, the system's inventory), periodically to EPA. This information is maintained in a federal database, the SDWIS Fed Data Warehouse.

States report the following information to EPA:

- Basic information about each public water system, including:
  - the system's name
  - ID number
  - city or county served
  - number of people served
  - type of system (residential, transient, non-transient)
  - whether the system operates year-round or seasonally
  - characteristics of the system's source(s) of water
- Violation information for each public water system, including whether the system has:
  - failed to follow established monitoring and reporting schedules
  - failed to comply with mandated treatment techniques
  - violated any Maximum Contaminant Levels (MCLs)



- failed to communicate required information to their customers

Enforcement information, including actions states or EPA have taken to ensure that a public water system returns to compliance if it is in violation of a drinking water regulation

The EPA also assumes that some states will choose not to submit data at this time; such states are assumed to incur no burden related to this data request beyond the initial reading of the request.

### **Follow-up with the EPA**

Based on the EPA's experience with occurrence information provided by states for previous Six-Year Reviews, the EPA expects that it may need to contact some states' data management staff to address questions regarding the data quality such as possibly incorrect units of measurement, outlier values, incorrect, missing, or undefined data elements, or other possible data problems. This follow-up may be minimal or may not be needed for those states that provide their data in the requested format with an explanation of their codes, headers, etc. It is assumed that these communications and confirmations will be handled primarily through telephone and e-mail.

## **5 INFORMATION COLLECTED AGENCY ACTIVITIES, COLLECTION METHODOLOGY, AND INFORMATION MANAGEMENT**

### **5(a) Agency Activities**

The EPA's Headquarters will conduct the following activities associated with the collection of regulated monitoring data:

- Extract or download data;
- Initial data screening/conversion to uniform structures;
- Communicate and coordinate with states; and
- Data management and analysis, including
  - Quality assurance/quality control and review/edit data;
  - Data analysis and report of findings; and
  - Recordkeeping.

Each of these activities is discussed in more detail below.

#### **Extract or Download Data**

The EPA's data extraction/downloading activities will depend to some degree on the type of data system used in each state, and on the level of state participation. The EPA assumes that data from states that use or are planning to use SDWIS/State will most closely reflect the data elements and format being requested due to the use of the provided database extraction scripts. Data from states using other databases are more likely to differ from the requested format. In cases where states do not provide all of the requested data, the EPA will, where possible, extract the needed additional inventory information from SDWIS/FED, and appropriate supplemental information, where needed. The EPA assumed that it will take longer to extract or download all needed information for non-SDWIS states. All states, regardless of type of data system, will submit their data using security protocol to a designated, secure system.

#### **Initial Data Screening/Conversion to Uniform Structures**

Each dataset will be reviewed to determine if it contains the appropriate contaminants, basic data elements, and definitions of any special (state-specific) codes needed to conduct a consistent analysis for this study. The dataset structure will be assessed and converted, if needed, into an appropriate structure, with each analytical result occupying a discrete row accompanied by the sample-specific data items. Data formatting work will be done using Microsoft® Access with the aid of specialized programs written in Visual Basic.

## **Communication and Coordination with States**

Based on the EPA's experience with data submitted in response to Six-Year Review 3, the EPA will need to communicate and coordinate with states to assist with successful data submission, to resolve data editing and QA/QC issues, and to address any other dataset questions that the EPA or the state may have.

## **Data Management and Analysis**

Data management and analysis includes: quality assurance/quality control and data review/editing; data analysis and report of findings; and recordkeeping. These activities take place after the initial state datasets have been made uniform, and the datasets have been combined to be analyzed on a per contaminant basis (versus a per state basis).

*Quality Assurance/Quality Control and Review/Editing of Data:* An important objective regarding the data to be called-in and subsequently used for the Six-Year Review 4 contaminant occurrence analyses is development of a consistent and repeatable data management approach. Consistent data editing and QA/QC assessments (e.g., identification of obvious incorrect units, outliers, duplicate entries, etc.), across all state data received, will allow the individual state datasets to be aggregated and jointly evaluated, to provide an overview of national occurrence patterns for individual contaminants.

Uniform, detailed QA/QC assessments will be conducted on the state compliance monitoring datasets. The only data requested and used will be from state drinking water programs (*i.e.*, official compliance monitoring data from the regulated drinking water program). All compliance monitoring samples are collected by trained PWS staff and analytical results are generated by laboratories that are certified for drinking water programs. Therefore, some assumptions are made regarding the general quality of the raw compliance monitoring data received from the states. Data problems will certainly exist, but efforts will be taken to reduce the problems and increase the dependability and quality of the state occurrence data used in these analyses.

The number of systems with compliance monitoring data in each state will be checked against total system inventory numbers from SDWIS/FED, and other more appropriate supplemental information, where needed. The number of analytical records per system (per contaminant) will also be evaluated to assess completeness of the submitted analytical records. Contaminant-specific analytical values are also assessed as part of the QA/QC review. For example, the assessment of the range of all analytical values for a specific contaminant supports identification of possible analytical unit errors or the presence of outliers. Identified errors that do not have straight-forward solutions will be addressed through consultations with state data management staff to ensure consistent and appropriate interpretations. Once data quality issues are resolved, each dataset will be converted into a consistent format. As part of the data QA/QC procedures, all edits or changes made to the raw monitoring data will be documented.

*Data Analysis and Report of Findings:* For the previous two Six-Year Reviews, the EPA developed and used a data management and two-staged analytical approach to assess data

representativeness and to analyze the compliance monitoring data submitted by states. This approach will also be used for the fourth Six-Year Review for the chemical, radiological, and microbiological contaminants. States' compliance monitoring data will be assessed and compiled into a dataset that is indicative of national occurrence. The national dataset will be analyzed using a two-staged analytical approach. The "Stage 1" analysis provides simple, non-parametric estimates of the percent of PWSs (and the total population served by those PWSs) with at least one analytical result exceeding specific threshold values. The "Stage 2" analysis estimates long-term mean concentrations of contaminants in all systems (and the corresponding affected populations) nationwide above levels of regulatory interest. A national contaminant occurrence report will then be prepared that describes the national contaminant occurrence dataset compiled, the data management procedures conducted to develop the national dataset, and the statistical analytical methods employed (using the national dataset) to generate national estimates of regulated contaminant occurrence in public drinking water systems.

The compliance summaries collected for the Total Coliform Rule, Revised Total Coliform Rule, Ground Water Rule, Surface Water Treatment Rules, Long Term 1 and 2 Enhanced Surface Water Treatment Rule (LT1 and LT2), Stage 1 and 2 Disinfectants and Disinfection Byproducts Rule (DBPRs) and Filter Backwash Recycling Rule (FBRR) will be evaluated to determine regulation effectiveness.

*Recordkeeping:* The EPA will store and track the original raw (before QA/QC) datasets that it receives from states, final datasets used for the Six-Year Review 4 analyses, and logs of all data QA/QC and editing conducted on the original datasets. After final review, formatting, and analysis of the data collected through this ICR, a summary of the data will be made available to the public through the NCOD, as was done with the data collected and analyzed for the Six-Year Review 3.

## **5(b) Collection Methodology and Management**

Through the Six-Year Review process, the EPA reviews and assesses risks to human health posed by existing drinking water contaminants. The collection of the occurrence data, and the quantity, coverage, representativeness, treatment techniques and management of the data collected pursuant to this ICR is an important component of the planned Six-Year Review 4 process.

The EPA considered developing a nationally representative probabilistic survey in lieu of requesting data from all states. The EPA assessed numerous survey designs that were intended to meet different data quality objectives (DQOs) and found no single design that would allow the Agency to acquire a nationally representative aggregation of compliance monitoring data and treatment technique information for all NPDWRs in an efficient or reasonable manner.<sup>2</sup> The potential problems associated with survey design are explained in more detail as follows:

- The significant within- and between-system variance differences likely present when considering all the regulated contaminants would result in a wide range of confidence

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<sup>2</sup> A list of these contaminants is provided in Exhibit 4-1 in section 4(b)(i).

intervals and precision terms based on the surveyed systems' data. Conversely, to design a single survey so that the individual contaminant with the most variable occurrence data still meets minimum DQOs would require a survey that included tens of thousands of systems.

- A survey would require data requests either directly from thousands of individual systems (requesting submission of six years of historic compliance monitoring data); or from states (to extract the system-level data for each of the systems selected in the survey). Further, the EPA would expect an increased non-response rate if data were requested directly from systems.
- Based on the EPA's experience working with the states that submitted complete compliance monitoring datasets for the previous two Six-Year Reviews, The EPA anticipates that the burden on the states may be smaller when simply requesting all data records, as compared to requesting dozens or hundreds of specific records for select individual PWSs.
- Monitoring schedules can vary across contaminants and across systems, and can be quarterly, annual, triennial, or every nine years. Actual contaminant-specific sampling frequencies are unknown and are, therefore, difficult to address in any survey design. (Different sampling frequencies are attributed to waiver programs and historical results showing contaminant occurrence (or lack of occurrence).

An alternative to a single survey for all NPDWRs would be multiple surveys for groups of related contaminants as well as treatment techniques. The EPA, however, anticipates that the burden for the EPA, the states, and/or systems may be significant for designing, implementing, and managing multiple surveys.

The information described in the previous sections will be collected by the EPA and made available to the public upon request, as required by the Freedom of Information Act (40 CFR, Chapter 1, Part 2). A summary of the data, after a complete and thorough QA/QC review, will be available to the public through the EPA's NCOD.

As with Six-Year Review 3, for Six-Year Review 4, all states are being asked to submit their data through a secure system at EPA's National Computer Center. The system offers a high level of data security and capacity for large amounts of data, hence, the EPA anticipates that most, if not all, states will have computer/Internet resources that will allow them to submit datasets electronically.

Regarding dataset file formats, the EPA will request that non-SDWIS/State users submit their datasets in one of the following the EPA-compatible file formats: Dbase (.dbf); Access tables (.mdb or .accdb); comma or tab delimited files (such as .csv or .txt), or; Excel (.xls or .xlsx). In addition, the EPA's preferred dataset structure is for the data to be formatted with each analytical result occupying a discrete row, accompanied by the system inventory and sample-specific data items listed above in 4(b)(i). The EPA will also request that non-SDWIS/State users provide: a brief description of the basic format and structure of each

dataset; and definitions of all data elements, column/row headings, codes, acronyms, etc., used in each dataset. The EPA expects that this information will reduce the amount of time needed for questions and clarification later. States have the option of submitting the requested data "as is," by simply copying the compliance monitoring records in whatever structure or condition they are currently stored in and submitting that copy of the electronic data to the EPA. If states only submit the minimum data element information, the EPA will extract the additional inventory information from SDWIS/FED, based on the PWSID number.

Other communications and confirmations (regarding dataset follow-up questions with state data management staff, etc.) will be primarily handled through telephone and e-mail.

### **5(c) Small Entity Flexibility**

Since only state drinking water agencies will be asked to submit existing electronic data to the EPA, no small entities, and specifically no small PWSs, will incur burden as a result of this data request.

### **5(d) Collection Schedule**

The EPA is issuing this ICR as a one-time data request from the states for regulated monitoring data for 2012-2019. States will be asked to respond to this request in 2020. Data analysis is expected to continue through 2022, when the EPA plans to release its final review results for Six-Year Review 4.

## 6 ESTIMATING THE BURDEN AND COST OF THE COLLECTION

This section describes the estimated average annual burden and costs for the information collection activities in support of Six-Year Review 4. For this data submission, PWSs have no burden and costs; this is discussed further in Section 6(a). The burden and cost estimates for state drinking water primacy agencies are discussed in detail in Section 6(b). The EPA's burden and cost estimates are outlined in Section 6(c).

To estimate the costs, the EPA made assumptions about the burden associated with activities that would likely be needed to fulfill the request. To the extent possible, assumptions were based on similar activities for past data collections. The EPA emphasizes that the per-respondent estimates represent the average burden and cost over the 3-year period covered by this ICR (2020-2022). Some respondents may incur higher costs, and some will fall below the average. Summary burden and cost estimates for states and the EPA are provided in Exhibits 6-1 and 6-2. Detailed estimation tables for states and the EPA are provided in Appendices A and B, respectively.

Based on submissions in Six-Year Review 2, estimates of state and the EPA burden are influenced by state data management capabilities and the likelihood of submitting the requested data. The EPA's assessments of individual state data capabilities and likeliness to participate are based on Agency experience conducting data verifications in state program offices, as well as other direct knowledge of data capabilities and resources. To estimate burden, the EPA organized states into 4 categories of expected burden level, as follows:

**Submit occurrence data using proprietary software - 6 states.** These states are expected to spend the most time reading and considering the request for data, as they may need to identify which of their data elements correspond to those requested. For similar reasons, compilation and submission of their occurrence data and treatment technique information and follow-up with the EPA is expected to be the highest. The EPA expects that Agency burden, which is estimated primarily on a per State basis, will be higher for these states.

**Submit occurrence data using a combination of SDWIS/State software and proprietary software - 10 states.** These states are expected to spend more time reading and considering the request for data, as they may need to identify which of their data elements from which data system correspond to the data requested. For similar reasons, compilation and submission of their occurrence data and treatment technique information and follow-up with the EPA is expected to be somewhat higher than states using only SDWIS/State. The EPA expects that Agency burden, which is estimated primarily on a per state basis, will be higher for these states.

**Submit occurrence data using SDWIS/State software - 38 states.** Those with or planning to use SDWIS/State are expected to spend less time than states with proprietary software. Reading and considering the request for data is expected to be less time-consuming, as the SDWIS/State data elements will correspond closely to the data

requested. Compilation and submission of their occurrence data and treatment technique information, and follow-up with the EPA is also expected to be easier for these states. The EPA will provide the states with extraction scripts for SDWIS/State database, thus data extraction is also expected to be easier for these states. The EPA expects that Agency burden, which is estimated primarily on a per state basis, will be lower for these states.

**Will not submit data - 2 States.** States that do not have the requested data stored electronically or those that are considered generally not likely to submit data are expected only to spend a minimal amount of time considering the request. No further burden is assumed. The EPA will incur no burden for these states.

## **6(a) Estimating Respondent Burden**

The average annual respondent burden (in labor hours) for states is shown in Exhibit 6-1. Appendix A provides detail of the estimated respondent burden for states to complete the activities described in section 4(b)(ii). There is no burden for public water systems. EPA estimates a total average annual respondent burden of 765 hours for activities associated with this reporting effort; or an average of 14 hours per state (765 hours divided by 56 states). This estimate includes costs for reading and understanding the EPA's request, compiling and submitting the data to the EPA, and any needed follow-up with the Agency to address questions regarding the data.

### **Reading/Understanding the EPA's Request**

The EPA assumes that all states will read the Agency's request letter. A one-time burden for states that will submit data with proprietary software is estimated at 7 hours; states with SDWIS/State are estimated to spend 4 hours; those states with a mix of proprietary software for some rules, and SDWIS/State for others is estimated at 5 hours; and states that will not submit data are estimated to spend 1 hour.

### **Compiling and Submitting Monitoring Data**

State burden for this reporting activity is likely to vary widely depending on the level of effort each state chooses to invest. All states will follow a security protocol when submitting data through a designated, secure system. Burden for states that will submit with proprietary software is estimated at 44 hours. Those states with a mix of proprietary software for some rules, and SDWIS/State for other rules, is estimated at 34 hours. States with SDWIS/State are estimated to spend 24 hours.

### **Follow-up with the States**

The EPA expects that those states that use or are planning to use SDWIS/State or provide their data in the requested format with an explanation of their codes, headers, etc., will need to spend little follow-up time with the Agency. States submitting data with proprietary database



software, (and particularly those that send their data "as is") are expected to need more time on follow-up clarifications with the EPA. States with proprietary software are estimated to spend 13 hours of follow-up time with the EPA. Those states with a mix of proprietary software for some rules, and SDWIS/State for other rules, is estimated at 11 hours. States with SDWIS/State are estimated to only to require 8 hours of follow-up.

**6(b) Estimating Respondent Costs**

Exhibit 6-1 shows the annual average costs for states over the 3-year period of the ICR. Appendix A provides detailed cost and burden estimations for the information collection activities covered by this ICR. Average annual labor costs for all states for this ICR period are estimated to be \$43,021. Respondents will not incur capital or operations and maintenance (O&M) costs associated with this ICR. The EPA estimates each state will incur an annual average labor cost of \$768 for this data collection effort.

State labor costs are based on information provided in the "2001 ASDWA Drinking Water Program Resource Needs Self-Assessment." In 2000, the U.S. General Accounting Office 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. Labor costs per hour are based on the default annual rates for 2010, which are provided in the model. These default rates are estimated forward from 2010 to 2019 using a 1-3% inflation factor for each year, using the Bureau of Labor Statistics Employment Cost Index data from 2010 to 2017 labor costs with an inflation rate of 3% for 2018 and 2019.

<b>Exhibit 6-: Average Annual State Burden and Costs</b>				
<b>Number of States</b>	<b>Burden Hours</b>		<b>Labor Costs</b>	
	<b>All States</b>	<b>Per State</b>	<b>All States</b>	<b>Per State</b>
56	765	13.7	\$43,021	\$768

**6(c) Estimating Agency Burden and Costs**

The EPA's drinking water program in the Agency's Headquarters will incur burden and costs for the coordination and implementation of this data collection effort. Cost and burden estimates for the EPA's activities associated with this request are detailed in Exhibit 6-2 and Appendix B.

### **6(c)(i) Agency Burden**

For the 3-year ICR period, the EPA estimates that the average annual burden to the Agency will be 3,143 hours. This estimate includes burden incurred by the EPA or its contractors for the activities outlined in Section 5(a) above. The EPA burden is estimated based on similar activities conducted during the Six-Year Review 3 occurrence data analysis.

#### **Extract or Download Data**

The EPA is estimating its data extraction and downloading burden based on the types of data systems that states use to submit data. To coordinate and download files to its database, including special consideration for security protocols, the EPA estimates that it will need:

- 11 hours per state for those 38 states that use or are planning to use SDWIS/State, and
- 17 hours per state for the 16 states that use either all proprietary, or a mix of proprietary and SDWIS/State.

#### **Initial Data Screening/Conversion to Uniform Structures**

The EPA's data screening and conversion is also estimated on a per state basis. Based on its experience during Six-Year Review 2, The EPA assumes that burden to review the data and to convert it into a consistent format will be influenced primarily by whether the data are stored in SDWIS/State or another proprietary database. The EPA estimates that it will need:

- 36 hours per state for those 38 states that use or are planning to use SDWIS/State; and
- 71 hours per state for the 16 states that use either all proprietary, or a mix of proprietary and SDWIS/State.

#### **Communication and Coordination with States**

The EPA assumes that the need to communicate and coordinate with states to ensure successful data submission and interpretation will require less burden for those states with SDWIS/State than for those with a proprietary database. The EPA estimates that it will need:

- 6 hours per state for those 38 states that use or are planning to use SDWIS/State; and
- 11 hours per state for the 16 states that use either all proprietary, or a mix of proprietary and SDWIS/State.

**Data Management and Analysis**

Data management and analysis activities include: quality assurance/quality control and review/editing of data; data analysis and report of findings; and recordkeeping. Although some of these tasks take place after state datasets have been combined for analysis on a per contaminant basis (versus a per state basis), The EPA has estimated a "per state" burden with the assumptions that 54 states will participate, and that approximately 45 contaminants will be fully analyzed for occurrence (i.e., undergo both Stage 1 and Stage 2 occurrence analysis as described in section 5(a) of this document). Based on prior similar activities, The EPA estimates 100 contractor and 30 the EPA hours for each of the 45 contaminants. To present this on a per state basis (as all other activities are shown), this 5,850-hour total (130 hours x 45 contaminants) is divided by 54 states (i.e., the number of states expected to participate), which equals approximately 108 hours per state. However, because burden for the occurrence analyses and treatment techniques will not vary greatly with the addition or subtraction of state datasets, burden would not be reduced or increased by the approximately 108 hours with each addition or subtraction of a state. This is because the analyses are conducted on a per contaminant basis, and the amount of data analyzed for each contaminant does not greatly factor into the amount of time needed to run the analyses and write-up the outcome. In addition, burden for this activity is not influenced by whether data came from SDWIS/State or another database, because data at this step in the process has already been cleaned and converted to uniform structures.

**6(c)(ii) Agency Cost**

For the ICR period of EPA's 3,143 annual burden hours are associated with annual labor costs of \$408,763 to collect and analyze the occurrence data and treatment technique information and evaluate and report on the findings. Direct the EPA per hour labor costs were derived using the Office of Personnel Management January 2018 General Schedule (GS) Pay Scale for government employees in the D.C. area. The EPA used the GS-13 Step 5 salary of \$109,900 per year, and by adding the standard government overhead factor of 1.6 (as well as a 3% annual inflation factor per year to account for 2020 salaries), the average hourly rate is estimated to be \$89.68 per hour. Contracted labor costs are based on historical hourly costs pertaining to the management and analysis of occurrence data, which were approximately \$135.90 per hour.

<b>Exhibit 6-: Annual EPA Burden and Costs</b>				
<b>Activity</b>	<b>EPA Burden Per State</b>		<b>Annual EPA<sup>1</sup></b>	
	<i>(38 SDWIS States)</i>	<i>(16 Non-SDWIS States)</i>	<i>Burden Hours</i>	<i>Cost</i>
<b>Extract/download data</b>	11	17	230	\$29,987
<b>Initial data screening/conversion to uniform structures</b>	36	71	835	\$112,796
<b>Communicate, coordinate with States</b>	6	11	135	\$17,666
<b>Data Mgt and Analysis: QA/QC; review/edit data; analyze/report findings; recordkeeping</b>	108	108	1,944	\$248,313

<b>Exhibit 6-: Annual EPA Burden and Costs</b>				
<b>Activity</b>	<b>EPA Burden Per State</b>		<b>Annual EPA<sup>1</sup></b>	
	<i>(38 SDWIS States)</i>	<i>(16 Non-SDWIS States)</i>	<i>Burden Hours</i>	<i>Cost</i>
<b>Total</b>	<b>161</b>	<b>207</b>	<b>3,143</b>	<b>\$408,763</b>

<sup>1</sup> Burden is calculated by: per state burden, times number of states, all divided by the 3 ICR years. Cost is calculated by burden times the hourly labor rates (EPA or Contractor, as appropriate). See Appendix B, Exhibit B-1, for details on EPA burden and cost estimations.

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

The only respondents for this ICR are states. (The terms “state” or “states” refers to primacy agencies in states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an eligible Indian tribe.) This ICR estimates the number of state potential respondents at 56. The total burden and costs for these respondents are summarized in Section 6(b) and Exhibit 6-1. EPA burden and costs are detailed in Section 6(c) and in Exhibit 6-2.

#### **6(e) Bottom Line Burden Hours and Cost Tables**

The bottom-line burden hours and costs for this ICR are shown in Exhibit 6-3. This includes the burden and costs to the 56 states that are affected by this ICR, as well as the burden and cost to the EPA for this collection and analysis.

<b>Exhibit 6-: Bottom Line Burden and Costs</b>		
	<b>Total</b>	<b>Annual Average</b>
<b>Number of Respondents (States)</b>	56 States	n/a
<b>Total Responses</b>	56	18.7
<b>Number of Responses per State</b>	1	0.3
<b>Total State Burden Hours</b>	2,296	765
<b>Hours per Response</b> (Total hours from above/Number of Respondents from above)	41	13.7
<b>State Labor Costs</b>	\$43,021	\$768
<b>State O&amp;M Costs</b>	\$0	\$0
<b>Total State Costs</b> (Labor plus O&M costs)	\$129,065	\$43,021
<b>Agency Total of Hours</b>	9,430	3,143
<b>Agency Labor Costs</b>	\$1,226,289	\$408,763
<b>Agency Non-Labor Costs</b>	\$0	\$0

#### **6(f) Reasons for Change in Burden**

The new burden under this ICR is for a one-time data collection effort in support of the fourth six-year review of national primary drinking water regulations.

This ICR is modeled after ICR Number 2231.02/OMB Control Number 2040-0275. Compared to ICR 2231.02, there is no estimated change in burden hours, other than to adjust the burden estimates for Texas based on information received through the EPA's consultation with ASDWA

The RTCR data collection is not expected to add any additional burden because the routine monitoring frequencies remained the same as under the TCR and the number of repeat samples collected were reduced; and the EPA is not requesting RTCR Level 1 and Level 2 Assessment data in this information request. The EPA conservatively estimates the same monitoring data burden as collected under the TCR since the Agency is uncertain how much the burden may decline for some states. States using SDWIS/State will not have any burden change because the time taken to use the data extraction tool does not change. The 17 states depending upon proprietary software will be providing the same or less volume of data as compared to what was collected under TCR. With respect to RTCR Level 1 and 2 Assessment data, SDWIS/Fed already collects sufficient information about Level 1 and 2 Assessments for Six-Year Review purposes and so the EPA does not require an additional request for information in this ICR.

#### **6(g) Burden Statement**

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 41 hours per response. Burden means the total time, effort, or financial resources expended by people to generate, maintain, retain, 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 request for information collection unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15.

To comment on the 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, The EPA has established a public docket for this ICR under Docket ID No. EPA-HQ-OW-2018-0241, which is available for public viewing at the Water Docket in the EPA Docket Center (EPA/DC), EPA West Building, Room 3334, 1301 Constitution Ave., NW, Washington, DC 20004. 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 Docket is (202) 566-2426. An electronic version of the public docket is available through [regulations.gov](http://regulations.gov). Use [regulations.gov](http://regulations.gov) to submit or view public comments, access the index listing of the contents of the public docket, and access those documents in the public docket that are available electronically. Once 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, DC 20503, Attention: Desk Office for the EPA. Please include the EPA Docket ID No. EPA-HQ-OW-2018-0241 and OMB control number 2040-NEW in any correspondence.

## **APPENDICES**

**Appendix A: Detailed Burden and Cost for States**

**Exhibit A-1. Estimated State Burden for Occurrence Data Submission**

State	Likely to Submit Data?	Average Burden Per State				Labor Costs		
		Reading EPA Request	Compiling, Submitting Data	Follow-up with EPA	Total Burden	State Program Size	Cost per Hour	Labor Cost per State
	(a)	(b)	(c)	(d)	(e) = (b)+(c)+(d)	(f)	(g)	(h)=(e)*(g)
Alabama	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Alaska	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
American Samoa	Likely/Non-SS	7	44	13	64	vs	\$51.61	\$3,303
Arizona	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Arkansas	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
California	Likely/SS	4	24	8	36	vl	\$89.38	\$3,218
Colorado	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Connecticut	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Delaware	Likely/SS	4	24	8	36	vs	\$51.61	\$1,858
District of Columbia	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Florida	Likely/Non-SS	7	44	13	64	l	\$63.22	\$4,046
Georgia	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Guam	Likely/SS	4	24	8	36	vs	\$51.61	\$1,858
Hawaii	Likely/SS	4	24	8	36	vs	\$51.61	\$1,858
Idaho	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Illinois	Likely/SS	4	24	8	36	l	\$63.22	\$2,276
Indiana	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Iowa	Likely/Mixed-SS	5	34	11	50	m	\$54.71	\$2,736
Kansas	Likely/SS	4	24	8	36	m	\$54.71	\$1,970



State	Likely to Submit Data?	Average Burden Per State				Labor Costs		
		Reading EPA Request	Compiling, Submitting Data	Follow-up with EPA	Total Burden	State Program Size	Cost per Hour	Labor Cost per State
Kentucky	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Louisiana	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Maine	Likely/Mixed-SS	5	34	11	50	s	\$50.79	\$2,540
Maryland	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Massachusetts	Likely/Non-SS	7	44	13	64	m	\$54.71	\$3,501
Michigan	Likely/SS	4	24	8	36	l	\$63.22	\$2,276
Minnesota	Likely/Non-SS	7	44	13	64	m	\$54.71	\$3,501
Mississippi	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Missouri	Likely/Mixed-SS	5	34	11	50	m	\$54.71	\$2,736
Montana	Likely/Mixed-SS	5	34	11	50	m	\$54.71	\$2,736
Nebraska	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Nevada	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
New Hampshire	Likely/Non-SS	7	44	13	64	m	\$54.71	\$3,501
New Jersey	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
New Mexico	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
New York	Likely/SS	4	24	8	36	l	\$63.22	\$2,276
North Carolina	Likely/SS	4	24	8	36	l	\$63.22	\$2,276
North Dakota	Likely/SS	4	24	8	36	vs	\$51.61	\$1,858
Northern Mariana Islands	Likely/SS	4	24	8	36	vs	\$51.61	\$1,858
Ohio	Likely/SS	4	24	8	36	l	\$63.22	\$2,276
Oklahoma	Likely/SS	4	24	8	36	m	\$54.71	\$1,970

State	Likely to Submit Data?	Average Burden Per State				Labor Costs		
		Reading EPA Request	Compiling, Submitting Data	Follow-up with EPA	Total Burden	State Program Size	Cost per Hour	Labor Cost per State
Oregon	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
Pennsylvania	Unlikely	1	0	0	1	l	\$63.22	\$63
Puerto Rico	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Rhode Island	Likely/Mixed-SS	5	34	11	50	vs	\$51.61	\$2,581
South Carolina	Likely/SS	4	24	8	36	m	\$54.71	\$1,970
South Dakota	Likely/Non-SS	7	44	13	64	s	\$50.79	\$3,251
Tennessee	Likely/Mixed-SS	5	34	11	50	m	\$54.71	\$2,736
Texas	Likely/Mixed-SS	7	44	13	64	vl	\$89.38	\$5,720
Utah	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Vermont	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Virginia	Likely/Mixed-SS	5	34	11	50	l	\$63.22	\$3,161
Virgin Islands	Likely/Mixed-SS	5	34	11	50	vs	\$51.61	\$2,581
Washington	Unlikely	1	0	0	1	l	\$63.22	\$63
West Virginia	Likely/SS	4	24	8	36	s	\$50.79	\$1,828
Wisconsin	Likely/Non-SS	7	44	13	64	l	\$63.22	\$4,046
Wyoming	Likely/Mixed-SS	5	34	11	50	vs	\$51.61	\$2,581
<b>TOTAL</b>		<b>248</b>	<b>1526</b>	<b>494</b>	<b>2296</b>			<b>\$129,065</b>
		Annual Ave. 2020-2022			765			<b>\$43,021</b>
		Annual Ave. Per State 2020-2022			13.7			<b>\$768</b>

(a) States divided into four major groups based on type of Six-Year Review 2 submission: likely to provide data (indicated by "Likely/SS" (38 states), "Likely/Mixed-SS" (9 states) or "Likely/Non-SS" (7 states)); and those that are unlikely to provide data (indicated by "Unlikely" (2 states)). Likely/SS (SDWIS/State) means state stores all or most of (or are planning to store all or most) data using SDWIS/State. Likely/Non-SS means state provided data to the EPA for the second Six-Year Review and had a strong record of electronic reporting but does not use

SDWIS/State for all data management. Likely/Mixed-SS means state uses a combination of proprietary software and SDWIS/State to store data. All others assigned "Unlikely." Total of 56 potential participating states.

(b-e) Average burdens based on estimated level of involvement and likely knowledge of the data. The EPA assumes highest burden for states that are likely to submit data but that do not have SDWIS/State; states with SDWIS/State are assigned a mid-level amount of burden for these activities, as these states are likely to "on average" have more knowledge of the needed data. The EPA expects that states that are unlikely to participate may spend a small amount of time considering the request, and none beyond that.

(f-h) Average hourly state labor costs are from the "2001 ASDWA Drinking Water Program Resource Needs Self-Assessment." To make the cost assessment model easier to use, ASDWA established suggested salary and benefit ranges (*i.e.*, default values) for different sized state programs (very small, small, medium, large, very large; as indicated by initials). See Exhibit A-2, which illustrates the basic model assumptions that were used here to estimate hourly labor costs.

**Exhibit A-2: Estimated 2019 Salaries and Overhead Costs from ASDWA State Resource Model**

State Size (a)	Professional Staff	Support Staff	Hourly Ave. ~ 80% Prof and 20% Support	Hourly Rate (adjusted for overhead at 23%)
	<i>(adjusted for atfringe benefits 22% of base salary)</i>			
Very Small (applies to 9 States, including VI, GU, AS, NM)	\$80,888	\$54,114	\$41.96	\$51.61
Small (applies to 12 States, including DC and PR)	\$81,142	\$47,034	\$41.29	\$50.79
Medium (applies to 23 total)	\$86,761	\$53,260	\$44.48	\$54.71
Large (applies to 10 total)	\$97,950	\$70,798	\$51.40	\$63.22
Very Large (applies to 2 total)	\$144,184	\$77,262	\$72.67	\$89.38

(a) State labor costs are from the "2001 ASDWA Drinking Water Program Resource Needs Self-Assessment". In 2000, the United States General Accounting Office 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. These hourly estimates are based on the default annual rates for 2010 that are provided in the model. These default rates are estimated forward from 2010 to 2019 using a 1-3% inflation factor each year using the Bureau of Labor Statistics Employment Cost Index data from 2010 to 2017 labor costs and then inflated 3% for 2018 and 2019. The model assumes 1,800 work hours per full-time equivalent employee. Hourly rate labor costs are adjusted to account for fringe benefits (*i.e.*, holidays, sick days, vacation, pension, health, dental, and life insurance); and overhead (*i.e.*, office space, furniture, utilities, copiers, fax machines, postage, basic computing needs, etc.).

**Appendix B: Detailed Burden and Cost for the EPA**

**Exhibit B-1: Estimated Burden and Labor Costs to the EPA for Occurrence Data Collection and Analysis**

<b>Activity</b>	<b>SDWIS and Non-SDWIS States</b>		<b>Contractor Burden</b>					<b>Contractor Labor Cost</b>			
	<i>Est. # of SDWIS States to Respond</i>	<i>Est. # of Non-SDWIS States to Respond</i>	<i>Est. Contractor Hours per SDWIS State</i>	<i>Est. Contractor Hours per Non-SDWIS State</i>	<i>Est. Total Contractor Hours for SDWIS States</i>	<i>Est. Total Contractor Hours for Non-SDWIS States</i>	<i>Est. Total Contractor Hours for All States</i>	<i>Cost per Hour for Contractual Labor</i>	<i>Est. Total Contractor Labor Cost for SDWIS States</i>	<i>Est. Total Contractor Labor Cost for Non-SDWIS States</i>	<i>Est. Total Contractor Labor Cost for All States</i>
	(a)	(b)	(c)	(d)	(e)=(a)*(c)	(f)=(b)*(d)	(g)=(e)+(f)	(h)	(i)=(e)*(h)	(j)=(f)*(h)	(k)=(i)+(j)
<i>Extract or download data (r)</i>	38	16	9	15	342	240	582	\$135.90	\$46,478	\$32,616	\$79,094
<i>Initial data screening/conversion to uniform structures</i>	38	16	35	70	1,330	1,120	2,450	\$135.90	\$180,747	\$152,208	\$332,955
<i>Communicate and coordinate with the States</i>	38	16	5	10	190	160	350	\$135.90	\$25,821	\$21,744	\$47,565
<i>Data Management and Analysis: QA/QC; review/edit data; analyze/report findings; recordkeeping</i>	38	16	83	83	3,154	1,328	4,482	\$135.90	\$428,629	\$180,475	\$609,104
<b>TOTAL</b>	<b>38</b>	<b>16</b>	<b>132</b>	<b>178</b>	<b>5,016</b>	<b>2,848</b>	<b>7,864</b>	<b>\$135.90</b>	<b>\$681,674</b>	<b>\$387,043</b>	<b>\$1,068,718</b>

**Exhibit B-1: Estimated Burden and Labor Costs to the EPA or Occurrence Data Collection and Analysis (continued)**

Activity	EPA Burden					EPA Labor Cost				EPA and Contractor Totals			
	Est. EPA Hours per SDWIS State	Est. EPA Hours for Non-SDWIS States	Est. Total EPA Hours for SDWIS States	Est. Total EPA Hours for Non-SDWIS States	Est. Total EPA Hours for All States	Cost per Hour for EPA Staff	Est. Total EPA Labor Cost for SDWIS States	Est. Total EPA Labor Cost for Non-SDWIS States	Est. Total EPA Labor Cost for All States	Est. Total EPA and Contractor Burden Per SDWIS State	Est. Total EPA and Contractor Burden Per Non-SDWIS State	Est. Total EPA and Contractor Burden for All States	Est. Total EPA and Contractor Labor Cost for All States
	(l)	(m)	(n)=(a)*(l)	(o)=(b)*(m)	(p)=(n)+(o)	(q)	(r)=(n)*(q)	(s)=(o)*(q)	(t)=(r)+(s)	(u)=(c)+(l)	(v)=(d)+(m)	(u)=(g)+(p)	(v)=(k)+(t)
Extract or download data (r)	2	2	76	32	108	\$100.62	\$7,647	\$3,220	\$10,867	11	17	690	\$89,961
Initial data screening/conversion to uniform structures	1	1	38	16	54	\$100.62	\$3,824	\$1,610	\$5,433	36	71	2,504	\$338,388
Communicate and coordinate with the States	1	1	38	16	54	\$100.62	\$3,824	\$1,610	\$5,433	6	11	404	\$52,998
Data Management and Analysis: QA/QC; review/edit data; analyze/report findings; recordkeeping	25	25	950	400	1,350	\$100.62	\$95,589	\$40,248	\$135,837	108	108	5,832	\$744,941
<b>TOTAL</b>	<b>29</b>	<b>29</b>	<b>1,102</b>	<b>464</b>	<b>1,566</b>	<b>\$100.62</b>	<b>\$110,883</b>	<b>\$46,688</b>	<b>\$157,571</b>	<b>161</b>	<b>207</b>	<b>9,430</b>	<b>\$1,226,289</b>
										<b>Annual Ave. 2020-2022</b>		<b>3,143</b>	<b>\$408,763</b>

(c, d, l, m, u, v) Estimates for Data Management and Analysis assume: 100 contractor hours for each of 45 contaminants for which occurrence will be analyzed. To show this on a per state basis, as all other activities are shown, these 4,500 hours (100 hours x 45 contaminants) are divided by 54 states (i.e., the maximum number of states expected to participate), which approximately 83 hours per state. Similarly, 30 EPA hours for each of the 45 contaminants are shown as 25 hours per state. Thus, total estimated burden per state for this activity is approximately 108 hours. However, burden for the analyses will not vary greatly with the addition or subtraction of state datasets; and burden would not be reduced or increased by the approximate 108 hours with each addition or subtraction of a state. The other 3 listed aspects of the EPA burden (data download, screening, and communication) will vary directly on a per state basis. Because these 3 other burden items are

collectively smaller (at 53/state for SDWIS/States from columns (c) and (l), and 99/state for Non-SDWIS/State from columns (d) and (m)) than the data analysis burden, the "per state" burden will increase as the number of participating states decreases.

(h) Contractor costs are based on historical hourly costs pertaining to the management and analysis of occurrence data, which were approximately \$135.90 per hour.

(q) The EPA internal labor 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 Washington-Baltimore-Northern Virginia, DC-MD-VA-WV-PA rate schedule effective January 2018 (see the U.S. Office of Personnel Management website: [www.opm.gov](http://www.opm.gov)). With these assumptions, labor rates were based on a 2,080-hour work year, with a \$109,900 annual salary during 2018 (most current available) plus 60 percent overhead, and then carried forward to 2020 using a 3% annual inflation factor, to arrive at \$89.68 per hour.

(r) For the majority of the NPDWR data being requested, there are approximately 38 states are using or planning to use SDWIS/State for data storage and management, and 16 using a proprietary data system or a combination of SDWIS/State and a proprietary data system. For estimation purposes, The EPA makes the conservative assumption that state burdens will vary with their primary data system (*i.e.*, the 16 states using primarily a proprietary data system or a combination of data systems are assumed to incur more burden than if they were primarily using SDWIS/State).

(u) The total EPA and contractor hours for all states for Data Management and Analysis 5,832 is different from that stated on p.23 by 18 hours and that is due to rounding of input numbers.