Information Collection Request for the Microbial Rules

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ACRONYMS

ADWR	Aircraft Drinking Water Rule
AMWA	Association of Metropolitan Water Agencies
ARCS	Aircraft Reporting and Compliance System
ASDWA	Association of State Drinking Water Administrators
AWWA	American Water Works Association
BLS	Bureau of Labor Statistics
CCP	Composite Correction Program
CCR	Consumer Confidence Report
CDC	Centers for Disease Control and Prevention
CFE	Combined Filter Effluent
CFR	Code of Federal Regulations
CPE	Comprehensive Performance Evaluation
CWS	Community Water System
CWSS	Community Water Systems Survey
DBPR	Disinfectants and Disinfection Byproducts Rule
DWSRF	Drinking Water State Revolving Fund
EPA	Environmental Protection Agency
ESWTR	Enhanced Surface Water Treatment Rule
ETT	Enforcement Targeting Tool
FAA	Federal Aviation Administration
FBRR	Filter Backwash Recycling Rule
FTE	Full Time Equivalent
GWR	Ground Water Rule
GWUDI	Ground Water Under the Direct Influence of Surface Water
HAA5	Haloacetic Acids
HPC	Heterotrophic Plate Count
ICR	Information Collection Request
IESWTR	Interim Enhanced Surface Water Treatment Rule
IFA	Individual Filter Assessment
LCR	Lead and Copper Rule
LT1ESWTR	Long Term 1 Enhanced Surface Water Treatment Rule
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
M-DBP	Microbial Disinfectants and Disinfection Byproducts
NAICS	North American Industry Classification System
NAWC	National Association of Water Companies
NCWS	Noncommunity Water System
NPDWRs	National Primary Drinking Water Regulations
NRDC	Natural Resources Defense Council
NRWA	National Rural Water Association
NTU	Nephelometric Turbidity Unit
O&M	Operation and Maintenance
OGWDW	Office of Ground Water and Drinking Water
OMB	Office of Management and Budget
PN	Public Notification
PRA	Paperwork Reduction Act
PWS	Public Water System
PWSS	Public Water System Supervision

RegNeg	Regulation Negotiation
RFA	Regulatory Flexibility Analysis
RIA	Regulatory Impact Analysis
RTCR	Revised Total Coliform Rule
SBARP	Small Business Advocacy Review Panel
SBREFA	Small Business Regulatory Enforcement Fairness Act
SCADA	Supervisory Control and Data Acquisition
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SER	Small Entity Representative
SOC	Standard Occupational Classification
SWAP	Source Water Assessment Program
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TNCWS	Transient Noncommunity Water System
TTHM	Total Trihalomethanes
UCMR	Unregulated Contaminant Monitoring Rule
UIC	Underground Injection Control
V&Es	Variances and Exemptions

1 IDENTIFICATION OF THE INFORMATION COLLECTION

1(a) Title and Number of the Information Collection

Title: Information Collection Request for the Microbial Rules

OMB Control Number: 2040-0205

EPA Tracking Number: 1895.09

1(b) Short Characterization

The Office of Ground Water and Drinking Water (OGWDW) at the U.S. Environmental Protection Agency (EPA) is responsible for developing National Primary Drinking Water Regulations (NPDWRs) as mandated by the Safe Drinking Water Act (SDWA). Section 1412 of the SDWA requires EPA to establish NPDWRs for contaminants that may adversely impact human health. In section 1414, the Act further requires EPA to enforce these regulations to ensure that the nation's public drinking water systems dependably comply with the standards stipulated in the *Code of Federal Regulations* (CFR), 40 CFR Part 141, Subpart B.

Section 1445 of the SDWA stipulates that every public drinking water system (PWS) supplier conduct monitoring, maintain records, and provide such information as is needed for EPA to implement its monitoring and enforcement responsibilities with respect to the Act. Forty-nine States have been given primary enforcement responsibility, or primacy, under SDWA to ensure that PWSs are complying with the requirements of the NPDWRs. The Safe Drinking Water Information System (SDWIS) federal and state databases contain information in conformance with reporting requirements established by the SDWA and related regulations and guidance. These data assist EPA in fulfilling its SDWA obligations. SDWIS assists EPA in tracking and interpreting violations data and other program-related data. Revisions are currently being made to this system. EPA expects primacy agencies to fully transition to the revised system, SDWIS Prime, in the subsequent ICR period.

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[1] Throughout this document, the terms "state" or "states" are used to refer to all types of primacy agencies. There are currently 57 primacy agencies, including the 50 states, the District of Columbia, U.S. territories (Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and Northern Marianas), and Navajo Nation. Though Wyoming and the District of Columbia do not have primacy, the EPA burden for these activities is counted as primacy agency burden.

This ICR examines PWS, air carrier, primacy agency and EPA burden and costs for recordkeeping and reporting required in support of microbial contaminant-associated rulemakings. EPA's microbial rules include:

1) Surface Water Treatment Rule (SWTR)[2]
2) Total Coliform Rule (TCR)/Revised Total Coliform Rule (RTCR)[3]
3) Interim Enhanced Surface Water Treatment Rule (IESWTR)
4) Filter Backwash Recycling Rule (FBRR)
5) Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)
6) Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)
7) Ground Water Rule (GWR)
8) Aircraft Drinking Water Rule (ADWR)

This ICR estimates burden and costs for September 1, 2015 through August 31, 2018 for the rules above. It updates the burden and cost estimates provided in the Microbial Rules ICR dated August 2012, which expires on August 31, 2015. Net change burden and costs (i.e., incremental costs over the 1989 TCR) developed in the previously approved RTCR ICR for the period following the RTCR effective date of April 1, 2016, are accounted for in this programmatic ICR. The burden and cost estimates for each rule are discussed in greater detail in section 6 of this document.

Continuing costs and burden for microbial rules listed above are evaluated in this ICR. The total annual burden associated with this ICR is estimated to be approximately 14.7 million hours per year. The total annual cost associated with this ICR is estimated to be approximately $652.5 million. The distribution of annual burden between PWSs, air carriers and primacy agencies is approximately 12.0 million hours, 0.03 million hours, and 2.6 million hours, respectively. The distribution of annual costs between PWSs, air carriers, and primacy agencies is approximately $522.8 million, $4.2 million, and $125.6 million, respectively. There is no EPA burden or cost for this ICR.[4] Section 6 and Appendices B through H detail these burden and cost calculations.

The approximate annual operation and maintenance (O&M) and capital costs are $110.0 million ($88.0 million for O&M and $22.0 million for capital). This represents the "cost burden" as reported in the OMB inventory. These costs are for PWSs and air carriers only; primacy agencies do not have capital or O&M costs associated with the Microbial Rules.

The total number of respondents for this ICR is 149,864; 57 of these respondents are primacy agencies, 42 are air carriers, and the balance are existing PWSs (149,765). The total

[2] This Microbial Rules ICR includes all SWTR components except disinfectant residual monitoring and associated activities, which are included in the Disinfectants and Disinfection Byproducts, Chemical, and Radionuclides (DDBP/Chem/Rads) Rules ICR (see section 4(b)(i)).

[3] The burden associated with the first 3 years of RTCR implementation was amended to the 2012 OMB-approved Microbial Rules ICR on January 23, 2014. However, text and supporting appendices related to the RTCR are included in the Microbial Rules ICR for the first time.

[4] EPA directly implements the ADWR, but the burden and cost for these activities is accounted for in the PWSS Program ICR under the 206.4 regional FTEs dedicated to drinking water protection implementation activities.

annual number of responses for these respondents is 29.2 million (27.1 million for PWSs, 0.13 million for air carriers and 2.0 million for primacy agencies).

2 NEED FOR AND USE OF THE COLLECTION

2(a) Need/Authority for the Collection

This section identifies the regulatory or statutory authority for the information collection activities covered in this ICR and describes why EPA needs the information. Section 4 contains a summary of the major recordkeeping and reporting requirements for rules covered by this ICR.

The Microbial Rules ICR includes the following rules addressing microbial contaminants:

1) Surface Water Treatment Rule
2) Total Coliform Rule/Revised Total Coliform Rule
3) Interim Enhanced Surface Water Treatment Rule
4) Filter Backwash Recycling Rule
5) Long Term 1 Enhanced Surface Water Treatment Rule
6) Long Term 2 Enhanced Surface Water Treatment Rule
7) Ground Water Rule
8) Aircraft Drinking Water Rule

As EPA publishes new regulations, EPA will amend the appropriate ICR to include the new rules.

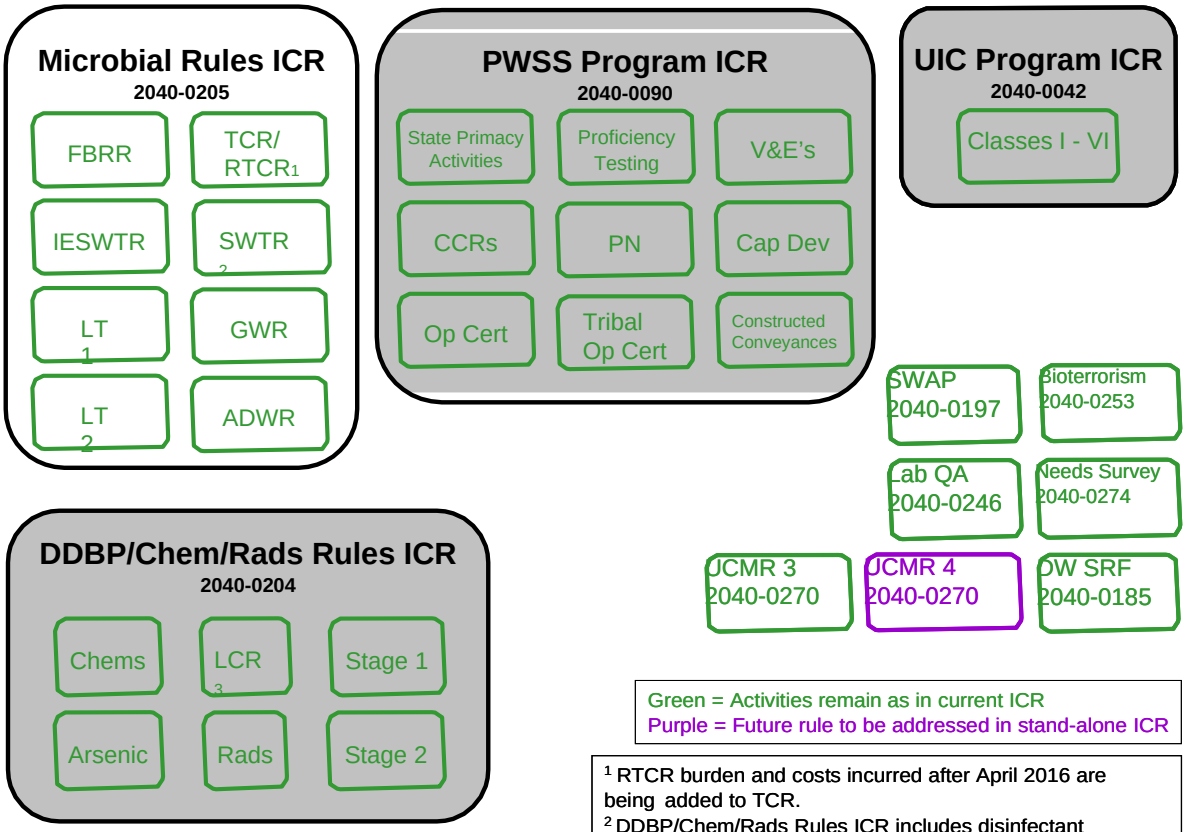
For a graphical depiction of the structure of the OGWDW ICRs, see Figure 1. A complete itemization of the activities included in the three primary ICRs, as well as other drinking water program ICRs, is included as Exhibit 1.

The information collected under this microbial ICR is required by EPA to carry out its monitoring and enforcement responsibilities as specified under SDWA and its amendments. Without comprehensive, up-to-date information on microbial contaminants present in drinking water, the Agency would not be able to meet these statutory requirements.

Section 1412(b) authorizes EPA to establish NPDWRs to protect public health. Further, section 1445 of the SDWA requires that “every person who is a supplier of water 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 him in establishing regulations, in determining whether such person has acted or is in compliance with this title...”

In addition, section 1401(1)(D) of the SDWA 1986 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 to insure compliance with such 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.

Figure 1. Structure of OGWDW ICRs



Green = Activities remain as in current ICR
Purple = Future rule to be addressed in stand-alone ICR

[1] RTCR burden and costs incurred after April 2016 are being added to TCR.
[2] DDBP/Chem/Rads Rules ICR includes disinfectant residual monitoring under SWTR
[3] Includes LCR Short-Term Revisions

Exhibit 1: Structure of OGWDW ICRs

Currently covered	To be covered in the future
PWSS Program ICR (2040-0090)	
Consumer Confidence Reports (CCRs)	
Variances & Exemptions	
Capacity Development Program	
General State Primacy Activities	
Public Notification (PN)	
Operator Certification Expense Reimbursement Grants Program	
Tribal Operator Certification	
Constructed Conveyances	
Proficiency Testing	
Microbial Rules ICR (2040-0205)	
Surface Water Treatment Rule, except disinfectant residual monitoring and associated activities[5]	
Total Coliform Rule/ Revised Total Coliform Rule	
Interim Enhanced Surface Water Treatment Rule (IESWTR)	
Filter Backwash Recycling Rule	
Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)	
Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)	
Ground Water Rule	
Aircraft Drinking Water Rule	
Disinfectants/Disinfection Byproducts, Chemical, and Radionuclides Rules ICR (2040-0204)	
Stage 1 Disinfectants and Disinfection Byproducts Rule	
Disinfectant Residual Monitoring and associated activities under the SWTR	
Stage 2 Disinfectants and Disinfection Byproducts Rule	
Chemical Phase Rules	
Radionuclides Rule	
Arsenic Rule	
Lead and Copper Rule	Lead and Copper Rule Long Term Revisions
Source Water Assessment Program (SWAP) ICR (2040-0197)	
SWAP	
Underground Injection Control (UIC) Program ICR (2040-0042)	
UIC Base Program Activities	
Classes I-VI Rule	
Florida Class I Rule	
Drinking Water State Revolving Fund (DWSRF) Program ICR (2040-0185)	
Drinking Water State Revolving Fund Program	

[5] Disinfectant residual monitoring and associated activities are included in the DDBP/Chem/Rads Rules ICR.

Currently covered	To be covered in the future
Drinking Water Infrastructure Needs Survey ICR (2040-0274)	
Needs Survey	
Title VI of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002: Drinking Water Security and Safety ICR (2040-0253)	
Vulnerability Assessments and Emergency Response Plans for community water systems (CWSs).	
Unregulated Contaminant Monitoring Rule ICR (2040-0270)	
Monitoring of Unregulated Contaminants (UCMR 3)	UCMR 4
Laboratory Quality Assurance Evaluation Program for Analysis of Cryptosporidium ICR (2040-0246)	
Proficiency Testing Program for Laboratories Analyzing Cryptosporidium	

- *Surface Water Treatment Rule (SWTR)*

The 1986 SDWA amendments required EPA to propose and promulgate a NPDWR specifying criteria under which filtration would be required as a treatment technique for PWSs supplied by surface water sources (section 1412 (b)(7)(C)(i)). In promulgating this regulation and setting the criteria, EPA was required to consider source water quality; protection afforded by watershed management programs; treatment techniques, such as disinfection practices and length of water storage; and other factors relevant to protection of public health. The requirements for the SWTR included in this ICR help EPA promote public health through proper operation of filtration techniques. Additional SWTR requirements, such as monitoring and watershed control programs, promote protection of public health in the absence of filtration.

- *Total Coliform Rule (TCR)*

The 1986 SDWA amendments required EPA to publish maximum contaminant level goals (MCLGs) and promulgate NPDWRs for the 83 contaminants listed in the Advance Notice of Proposed Rulemaking at 47 FR 45502 (March 4, 1982) and 48 FR 45502 (October 5, 1983). EPA believes that promulgation of this regulation complied with the statutory requirements for regulating total coliforms in all PWSs.

- *Revised Total Coliform Rule (RTCR)*

The 1996 SDWA amendments require EPA to review and revise, as appropriate, each existing NPDWR no less often than every six years (SDWA section 1412(b)(9)). In 2003, EPA completed its review of the 1989 TCR (68 FR 42908, July 18, 2003) and stated its intent to revise the 1989 TCR. The purpose of the review was to identify new health risk assessments, changes in technology, and other factors that would provide a health-related or technological basis to support a regulatory revision.

The RTCR achieves the objectives of the 1989 TCR by taking into account the changes in regulatory framework for implementing the SDWA over the past 20 years and experience with the TCR since it was promulgated in 1989.

The information collected under the RTCR is required by EPA to carry out its monitoring and enforcement responsibilities under the SDWA. Without comprehensive, up-to-date information on drinking water contamination, EPA would not be able to meet the SDWA statutory requirements.

- *Interim Enhanced Surface Water Treatment Rule (IESWTR)*

SDWA section 1412(b)(2)(C) of the 1996 amendments required EPA to promulgate an Interim Enhanced Surface Water Treatment Rule. The IESWTR set the first drinking water standards to control *Cryptosporidium* in systems serving 10,000 or more customers.

- *Filter Backwash Recycling Rule (FBRR)*

The 1996 SDWA amendments established new drinking water requirements for filtration. SDWA section 1412(b)(14) required the Administrator to promulgate a regulation to govern the recycling of filter backwash water within the treatment process of a PWS. The FBRR satisfies this regulatory requirement.

- *Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)*

SDWA section 1412(b)(2)(C) required EPA to develop rules to balance the risks between microbial pathogens and disinfection byproducts. The provisions in the LT1ESWTR address the concerns covered by the IESWTR as they apply to systems serving fewer than 10,000 customers.

- *Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)*

SDWA section 1412(b)(2)(C) required EPA to develop rules to balance the risks between microbial pathogens and disinfection byproducts. The LT2ESWTR builds upon the SWTR, IESWTR, and LT1ESWTR by supplementing existing microbial treatment requirements for systems where additional public health protection is needed.

Collectively, the SWTR, IESWTR, LT1ESWTR, and LT2ESWTR place stringent treatment requirements on systems using surface water as a source.

- *Ground Water Rule (GWR)*

The 1996 SDWA amendments required the Administrator to publish a national drinking water regulation requiring disinfection of ground water as necessary (section 1412(b)(8)). The GWR sets conditions where disinfection of ground water is considered necessary. The final GWR was promulgated November 8, 2006.

- *Aircraft Drinking Water Rule(ADWR)*

All PWSs are subject to the NPDWRs unless they are excluded from regulatory requirements under SDWA section 1411. Section 1411 excludes from regulation any PWS that receives all of its water from another regulated PWS, does not sell or treat the water, and is not a "carrier which conveys passengers in interstate commerce." The classes of interstate carrier conveyances (ICCs) include aircraft, trains, buses, and water vessels. As a result, all ICCs that regularly serve water to an average of at least twenty-five individuals daily, at least 60 days per year are PWSs and are currently subject to existing NPDWRs regardless of whether they treat or sell the water.

Water used for human consumption onboard an aircraft must meet the requirements of the SDWA, as with all other PWSs. EPA promulgated the ADWR to tailor existing health-based drinking water standards to the unique characteristics of aircraft.

2(b) Use/Users of the Data

The information described in section 4 of this ICR will be collected by EPA and made available to the public upon request, as required by the Freedom of Information Act (40 CFR Chapter 1 Part 2). In some cases, SDWA requires that the information be provided to the public or the primacy agency. Primary users of the data collected under this ICR are OGWDW, PWS managers, air carriers and primacy agencies, which include state regulators, Indian Tribes, and, in some instances, EPA Regional Administrators. Other users include the following:

- Staff from other EPA programs (such as Superfund, the Resource Conservation and Recovery Act, and the Office of Enforcement and Compliance Assurance)
- Federal Emergency Management Agency
- Centers for Disease Control and Prevention (CDC)
- Military bases
- 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 (NRWA)
- National Association of Water Companies (NAWC)
- Association of State Drinking Water Administrators (ASDWA)
- Consumer organizations
- News organizations

Primacy agencies maintain records compiled from PWS respondents (40 CFR 142.14) and can use these records to track PWS monitoring and compliance violations, as well as enforcement activities. The primacy agency can also track schedules for PWSs trying to achieve compliance.

Primacy agencies report information on PWS violations to SDWIS. This federal information system allows EPA and states to store and retrieve information over time. Trends in compliance data can be evaluated at the system, state, and national program levels. Usually, these data are used by the Agency for maintaining oversight and to communicate information on drinking water program implementation.

3 NON-DUPLICATION, CONSULTATIONS, AND OTHER COLLECTION CRITERIA

3(a) Non-duplication

EPA has made an effort to ensure that the data collection efforts associated with this ICR are not duplicated. EPA consulted with state environmental programs, other federal agencies (such as the CDC), and regulated entities (such as PWSs and their representative trade associations) during the development of each rule discussed in this document. To the best of EPA's knowledge, data currently required by the SDWA (and its implementing regulations codified at 40 CFR Parts 141 and 142) are not available from any other source.

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

To comply with the 1995 amendments to the PRA, EPA solicited public comment on this ICR for a 60-day period before it was submitted to OMB. Specifically, EPA published a notice in the *Federal Register* on March 31, 2015 (80 FR 17040) requesting comment on the estimated respondent burden and other aspects of this ICR (Appendix A). EPA did not receive any comments during the 60-day comment period.

3(c) Consultations

In May 2015, as part of the revision of the Microbial Rules ICR, EPA consulted with representatives of PWSs and states regarding the accuracy of EPA's burden estimates. The groups consulted were NAWC, NRWA, AWWA, AMWA, and ASDWA. EPA received comments from ASDWA. ASDWA's comments were incorporated into this ICR to the extent possible. The end of each appendix to the ICR contains a table summarizing EPA's previous and revised burden estimates for the relevant rule.

3(d) Effects of Less Frequent Collection

EPA has considered a wide range of alternatives for frequency of data collection. Where possible, EPA has chosen to require the least frequent collection that remains consistent with overall public health protection objectives. If data are collected less frequently, the primacy agency may not identify in a timely fashion significant contaminant concentrations which might threaten the health and safety of drinking water consumers.

For some microbial contaminant regulations, the primacy agency has discretion in adjusting the monitoring schedules. Monitoring schedules vary based on the number of people served by a system, contaminants likely to be found, and source of raw water supply. The monitoring frequency framework also considers that the number of people served affects exposure to contaminants, as well as the resources available to undertake monitoring activity. 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).

- Contaminants likely to be found.
- Historical variability in contaminant occurrence.

3(e) General Guidelines

This collection conforms to all the general guidelines at 5 CFR 1320.5(d)(2).

3(f) Confidentiality

No confidential information will be collected as a result of this ICR.

3(g) Sensitive Questions

No information of a sensitive nature will be collected as a result of this ICR.

4 RESPONDENTS AND INFORMATION REQUESTED

4(a) Respondents/NAICS Codes

Data associated with this ICR are collected and maintained at the PWS, air carrier, state, and federal levels. Respondents include:

- Owners/operators of PWSs, who must report to the primacy agency.
- All commercial air carriers that fly routes between two or more locations within the United States and whose aircraft meet the definition of a PWS. Air carriers report to EPA.[6]
- Primacy agencies, which must report to EPA.

The North American Industry Classification System (NAICS) code for PWSs is 22131. The NAICS code for state agencies that include drinking water programs is 92411 (Administration of Air and Water Resources and Solid Waste Management Programs) or 92312 (Administration of Public Health Programs). Ancillary systems (i.e., those that supplement the function of other establishments like factories, power plants, mobile home parks, etc.) cannot be categorized in a single NAICS code. For ancillary systems, the NAICS code is that of the primary establishment or industry. The NAICS codes for air carriers are 481111 and 481211, the codes for scheduled and unscheduled air transportation industries, respectively.

4(b) Information Requested

Exhibits 2 and 3 summarize the respondent information collection requirements covered by the Microbial Rules ICR. These requirements are also discussed below.

[6] Note that technically aircraft are PWSs if they serve 25 or more people at least 60 days each year. However, aircraft water systems are not included in the inventory of PWSs contained in SDWIS. US EPA has developed the Aircraft Reporting and Compliance Systems (ARCS) to capture the reporting of aircraft PWS data, pursuant to ADWR. Additionally, the ADWR applies only to air carriers that own and operate aircraft water systems. Because many air carriers own or operate more than one aircraft, there is not a one-to-one correspondence between aircraft water systems and respondents. For these reasons, for the ADWR standalone ICR, EPA did not group aircraft water systems with PWS respondents (NAICS code 22131). Instead, EPA determined that air carriers were the

appropriate respondents. EPA decided to carry that designation forward as it incorporated the ADWR ICR into the 2012 OMB-approved Microbial Rules ICR.

Exhibit 2: PWS Recordkeeping and Reporting Requirements

Requirement	Regulatory Citation	Frequency/Retention
General Requirements (apply to all regulations)		
Reporting		
Except where a different period is specified in an individual drinking water regulation, PWSs are required to submit the following to the state:		
Results of any test measurement or analysis required in 40 CFR Part 141.	40 CFR 141.31(a)	By the end of the required monitoring
Failure to comply with any NPDWR.	40 CFR 141.31(b) and (c)	As necessary, unless state lab performs analysis and reports results directly to state
Copies of records required to be maintained under 40 CFR 141.33 and/or copies of documents that the state is entitled to under section 1445 of SDWA or state law.	40 CFR 141.31(e)	As requested by the state
Recordkeeping		
Except where a different period is specified in an individual drinking water regulation, PWSs are required to retain the following information:		
Records of bacteriological or chemical analyses and related information.	40 CFR 141.33(a)	5 years for bacteriological data; 10 years for chemical data
Records of actions taken by the PWS to correct violations of NPDWRs.	40 CFR 141.33(b)	3 years after last action taken related to the violation
Copies of any written reports, summaries or communications relating to sanitary surveys.	40 CFR 141.33(c)	10 years
Records concerning a variance or exemption granted.	40 CFR 141.33(d)	5 years following the expiration of the variance or exemption
SWTR (all requirements except those regarding disinfection residual monitoring)		
Unfiltered Systems – Reporting		
Report source water quality information to the state for each month the system serves water to the public.	40 CFR 141.75(a)(1)(i) through (ix)	Monthly
Report to the state a summary of PWS compliance with all watershed control program requirements.	40 CFR 141.75(a)(3)	Annually
Report to the state on-site inspections conducted during that year.	40 CFR 141.75(a)(4)	Annually
Report to the state any waterborne disease outbreak potentially attributable to the water system.	40 CFR 141.75(a)(5)(i)	As soon as possible but not later than end of the next business day.
Report to the state any time turbidity exceeds 5 nephelometric turbidity units (NTU).	40 CFR 141.75(a)(5)(ii)	As soon as practical but no later than 24 hours after learning of the exceedance.
Filtered Systems – Reporting		

Requirement	Regulatory Citation	Frequency/Retention
Report to the state turbidity measurements and associated information for each month the system serves water to the public.	40 CFR 141.75(b)(1)(i) through (iii)	Monthly
Report to the state any time turbidity exceeds 5 NTU the PWS.	40 CFR 141.75(b)(3)(ii)	As soon as practical but no later than 24 hours after learning of the exceedance.
Report to the state any waterborne disease outbreak potentially attributable to that water system.	40 CFR 141.75(b)(3)(i)	As soon as possible but not later than end of the next business day.
TCR		
Reporting		
Prepare written sample siting plan for state review.	40 CFR 141.21(a)(1)	As necessary
Notify the state if fecal coliforms or *E. coli* are present.	40 CFR 141.21(e)(1)	By end of the day in which system receives results, or if state office is closed, by end of next business day.
Report to the state any exceedance of the maximum contaminant level (MCL) for total coliforms.	40 CFR 141.21(g)(1)	By end of next business day.
Report to the state any failure to comply with coliform monitoring requirements.	40 CFR 141.21(g)(2)	Within 10 days after discovering the violation.
Recordkeeping		
Subject to general requirements as listed above.		
RTCR		
Reporting		
Report an *E. coli* MCL violation to the state.	40 CFR 141.861(a)(1)(i)	By end of the day in which system learns of the violation, or if state office is closed, by end of next business day.
Report an *E. coli*-positive sample to the state.	40 CFR 141.861(a)(1)(ii)	By end of the day in which system receives results, or if state office is closed, by end of next business day.
Report treatment technique violation for total coliforms to the state.	40 CFR 141.861(a)(2)	By end of next business day after the system learns of the violation.
Submit assessment form to the state.	40 CFR 141.861(a)(3)	Within 30 days of triggering an assessment and upon completion of each scheduled corrective action for corrections not completed by the time of submission of the assessment form.
Report a coliform monitoring violation to the state.	40 CFR 141.861(a)(4)	Within 10 days after discovering the violation.
Certify that the system has complied with the State-approved start-up procedure (for seasonal systems only).	40 CFR 141.861(a)(5)	As necessary, prior to serving water to the public.
Recordkeeping		

Requirement	Regulatory Citation	Frequency/Retention
Any assessment form, documentation of corrective actions completed as a result of assessments, or other available summary documentation of the sanitary defects found and corrective actions taken.	40 CFR 141.861(b)(1)	No less than 5 years
Any repeat sample taken that meets state criteria for an extension of the 24-hour period for collecting repeat samples.	40 CFR 141.861(b)(2)	5 years (as required under 40 CFR 141.33(a))
IESWTR		
Reporting		
A PWS using alternative filtration technologies must demonstrate to the state that the system achieves required removal/inactivation.	40 CFR 141.173(b)	As necessary
A PWS must report combined filter effluent (CFE) turbidity levels for each month that the system serves water to the public.	40 CFR 141.175(a)(1) through (3)	Monthly
A PWS must report that it has conducted individual filter turbidity monitoring for each month that the system serves water to the public.	40 CFR 141.175(b)	Monthly
If certain measurement thresholds are exceeded, a PWS must report individual filter turbidity measurements for each month that the system serves water to the public.	40 CFR 141.175(b)(1) through (4)	As necessary
Following certain exceedances, a PWS must report to the state the reason for the exceedance or that it has produced a filter profile.	40 CFR 141.175(b)(1) and (2)	As necessary
Following certain exceedances, a PWS must report to the state that it has conducted a filter self-assessment.	40 CFR 141.175(b)(3)	As necessary
Following certain exceedances, a PWS must submit to the state a comprehensive performance evaluation	40 CFR 141.175(b)(4)	As necessary
If certain CFE measurement thresholds are exceeded, systems must inform the state.	40 CFR 141.175(c)(1) and (2)	As soon as possible but no later than the end of the next business day.
A PWS must submit information to the state as part of the required consultation process when making significant changes to disinfection practices.	40 CFR 141.172(c)(4)	As necessary
Recordkeeping		
Systems must maintain the results of individual filter turbidity	40 CFR 141.175(b)	3 years
A PWS must retain disinfection profile data in graphic form, as a spreadsheet, or in some other format acceptable to the state for review as part of sanitary surveys conducted by the state.	40 CFR 141.172(b)(6)	As necessary

Requirement	Regulatory Citation	Frequency/Retention
FBRR		
Recordkeeping		
Collect and retain on file the following recycle flow information for review and evaluation by the state: 1) Copy of the recycle notification and information previously submitted to the state; 2) List of all recycle flows and the frequency with which they are returned; 3) Average and maximum backwash flow rate through the filters and the average and maximum duration of the filter backwash process in minutes; 4) Typical filter run length and a written summary of how filter run length is determined; 5) The type of treatment provided for the recycle flow; and 6) Data on the physical dimensions of the equalization and/or treatment units, typical and maximum hydraulic loading rates, type of treatment chemicals used and average dose and frequency of use, and frequency at which solids are removed, if applicable.	40 CFR 141.76(d)(1) through (6), 141.33	10 years
LT1ESWTR		
Reporting		
A PWS using alternative filtration technologies must demonstrate to the state that the system achieves required removal/inactivation.	40 CFR 141.552(a)	As necessary
A PWS must report CFE turbidity levels for each month that the system serves water to the public.	40 CFR 141.570(a), 141.551	Monthly
A PWS must report that it has conducted individual filter turbidity monitoring for each month that the system serves water to the public.	40 CFR 141.570(b)(1), 141.560(d)	Monthly
If certain measurement thresholds are exceeded, a PWS must report individual filter turbidity measurements for each month that the system serves water to the public.	40 CFR 141.570(b)(2), 141.560(d), 141.563(a)	As necessary
Following certain exceedances, a PWS must report to the state the reason for the exceedance.	40 CFR 141.570(b)(2), 141.563(a)	As necessary
Following certain exceedances, a PWS must report to the state that it has conducted a filter self-assessment.	40 CFR 141.570(b)(3)	As necessary
Following certain exceedances, a PWS must report to the state that a CPE was triggered.	40 CFR 141.570(b)(4)	As necessary
Following certain exceedances, a PWS must submit to the state a CPE.	40 CFR 141.570(b)(5) and 141.563(c)	Within 120 days after the CPE was triggered

Requirement	Regulatory Citation	Frequency/Retention
Report a description of the proposed change in disinfection, the system's disinfection profile for *Giardia lamblia* (and, if necessary, viruses) and disinfection benchmark, and an analysis of how the proposed change will affect the current levels of	40 CFR 141.570(d), 141.542	As necessary
Recordkeeping		
Records of individual filter turbidity monitoring measurements.	40 CFR 141.571(a), 141.560(e)	At least 3 years
Records of disinfection profiles (including raw data and analysis).	40 CFR 141.571(b), 141.536	Indefinitely
Records of disinfection benchmarking (including raw data	40 CFR 141.571(c)	Indefinitely
LT2ESWTR		
Reporting		
Results of *E. coli* and *Cryptosporidium* (and turbidity, if applicable) source water monitoring.	40 CFR 141.706(a)	Monthly while monitoring is required
Bin classification (or mean *Cryptosporidium* level for unfiltered systems).	40 CFR 141.710(e)(1)-(e)(2), 141.712	6 months after source water monitoring is complete
Use of uncovered finished water reservoirs and a schedule for covering or disinfecting them.	40 CFR 141.714(b)	One time, by April 1, 2008.
Systems installing technology must demonstrate compliance with technology based criteria.	40 CFR 141.715	Varies
Systems changing disinfection practices must develop a disinfection profile and benchmark for *Giardia* and	40 CFR 141.708-141.709	As necessary
Sampling schedule.	40 CFR 141.702	Once prior to initial monitoring and once during second round of monitoring
Recordkeeping		
Records of sample results for *Cryptosporidium, E. coli* and turbidity.	40 CFR 141.706	At least 3 years
Systems changing technologies must complete a disinfection profile for *Giardia* and viruses.	40 CFR 141.708	At least 3 years
Results of treatment monitoring associated with microbial toolbox and with uncovered finished water reservoirs.	40 CFR 141.722	At least 3 years
Notification that systems will not conduct source water monitoring due to having 5- log treatment in place.	40 CFR 141.722	At least 3 years
GWR		
Reporting		

Requirement	Regulatory Citation	Frequency/Retention
A PWS conducting compliance monitoring must notify the state any time the system fails to meet any state-specified requirements including, but not limited to, minimum residual disinfectant concentration, membrane operating criteria or membrane integrity, and alternative treatment operating criteria, if operation in accordance with the criteria or requirements is not restored within 4 hours.	40 CFR 141.405(a)	As soon as possible but no later than the close of the next business day.
After completing any corrective action, a PWS must notify the state of completion of the corrective action.	40 CFR 141.405(a)	Within 30 days.
If a PWS with a positive TCR sample does not conduct source water monitoring, the system must provide documentation to the state that it met the state criteria for avoiding monitoring.	40 CFR 141.405(a)	Within 30 days
Recordkeeping		
Records of corrective actions.	40 CFR 141.405(b)	At least 10 years
Reports of public notification.	40 CFR 141.405(b)	At least 3 years
Documentation of records of decisions and records of invalidation of fecal indicator-positive ground water source samples.	40 CFR 141.405(b)	At least 5 years
For consecutive systems, documentation of notification to the wholesale system(s) of total-coliform positive samples that are not invalidated.	40 CFR 141.405(b)	At least 5 years
Records of the state-specified minimum disinfectant residual.	40 CFR 141.405(b)	At least 10 years
Records of the lowest daily residual disinfectant concentration and records of the date and duration of any failure to maintain the state-prescribed minimum residual disinfectant concentration for a period of more than 4 hours.	40 CFR 141.405(b)	At least 5 years
Records of state-specified compliance requirements of membrane filtration and of parameters specified by the state for state-approved alternative treatment and records of the date and duration of any failure to meet the membrane operating, membrane integrity, or alternative treatment operating requirements for more than 4 hours.	40 CFR 141.405(b)	At least 5 years

Requirement	Regulatory Citation	Frequency/Retention
ADWR[7]		
Reporting		
Development of a sampling plan.	40 CFR 141.806(a)(1)	One time, by April 19, 2011 (or for new aircraft, during the first quarter of operation).
The coliform sampling frequency listed in the sampling plan.	40 CFR 141.806(a)(1)	One time, by April 19, 2011 (or for new aircraft, during the first quarter of operation).
Development of an operations and maintenance plan.	40 CFR 141.806(a)(1)	One time, by April 19, 2011 (or for new aircraft, during the first quarter of operation).
Frequency for routine disinfection and flushing, cited in the operations and maintenance plan.	40 CFR 141.806(a)(1)	One time, by April 19, 2011 (or for new aircraft, during the first quarter of operation).
Inventory information for each aircraft.	40 CFR 141.806(b)(1)	One time, by April 19, 2011
Changes in aircraft inventory.	40 CFR 141.806(b)(2)	10 days after the calendar month in which the changes occurred.
Coliform sampling results.	40 CFR 141.806(b)(3)	According to the frequency established in the sampling plan, within 10 days after the sampling period ends.
Routine disinfection and flushing events.	40 CFR 141.806(b)(3)	According to the frequency established in the operations and maintenance plan, within 10 days of the end of the disinfection and flushing period.
All events requiring notification to passengers or crew, or non-routine disinfection and flushing, or non-routine sampling.	40 CFR 141.806(b)(4)	Within 10 days of the event.
Failure to comply with the monitoring or disinfection and flushing requirements.	40 CFR 141.806(b)(5)	Within 10 calendar days of discovery of the failure.
Changes in disinfection and flushing and coliform sampling frequencies.	40 CFR 141.806(b)(6)	No later than 10 days following the calendar month in which the change occurred.
Evidence of a self-inspection.	40 CFR 141.806(c)	Within 90 days of completion of the inspection.
Whether a deficiency detected during a self-inspection or compliance audit has been corrected, and a schedule if it has not.	40 CFR 141.806(c)	Within 90 days of the detection of the deficiency.
Recordkeeping		
Records of bacteriological analyses.	40 CFR 141.807(a)	At least 5 years
Records of any disinfection and flushing.	40 CFR 141.807(b)	At least 5 years
Records of self-inspections.	40 CFR 141.807(c)	At least 10 years
Sampling plans, such plans must be available for review by the Administrator upon request, including during compliance audits.	40 CFR 141.807(d)	None specified; must be maintained and available for review by EPA.

[7] Respondents for ADWR are determined differently than respondents for other rules in the ICR. See previous footnote.

Requirement	Regulatory Citation	Frequency/Retention
Aircraft water system operations and maintenance plans.	40 CFR 141.807(e)	None specified, must be maintained in accordance with Federal Aviation Administration (FAA) requirements and made available for review by EPA.
Copies of public notices issued to passengers and crew.	40 CFR 141.807(f)	At least 3 years

Exhibit 3
Primacy Agency Recordkeeping and Reporting Requirements

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
General Requirements (apply to all regulations)		
Reporting		
Submit reports to the Administrator containing new violations incurred by the PWSs and enforcement actions initiated by the state during the previous quarter.	40 CFR 142.15(a)(1) and (2)	Quarterly
Recordkeeping		
Maintain records of tests, measurements, analyses, decisions, and determinations performed on each PWS to determine compliance with applicable provisions of state primary drinking water regulations.	40 CFR 142.14(a)	Varies (not less than one year)
Retain files, which shall include for each PWS in the state reports of sanitary surveys, records of any state approvals, and records of any enforcement actions.	40 CFR 142.14(d)(2) and (3)	12 years
SWTR (all requirements except those regarding disinfection residual monitoring)		
Reporting		
A list of PWSs that includes the name, identification number and date of the determination by the state that the PWS is not required to provide filtration system.	40 CFR 142.15(c)(1)(i)(A)	As necessary
A list of PWSs that includes the name and identification number for each PWS that the state has determined has no means of having a sample transported and analyzed for heterotrophic plate count (HPC) by a certified laboratory under the requisite time and temperature conditions and is providing adequate disinfection in the distribution system.	40 CFR 142.15(c)(1)(i)(B)	As necessary
Notification of any determination that a PWS is not required to provide filtration treatment.	40 CFR 142.15(c)(1)(ii)	Within 60 days of the end of the calendar quarter.
Recordkeeping		
Records of microbiological analyses.	40 CFR 142.14(a)(1)	1 year
Records of microbiological analyses of repeat or special samples.	40 CFR 142.14(a)(2)	1 year
Records of turbidity measurements.	40 CFR 142.14(a)(3)	1 year
Records of decisions made on a system-by-system and case-by-case basis under provisions of Part 141, Subpart H, Subpart P, or Subpart T.	40 CFR 142.14(a)(4)(ii)	Varies

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
Records of any decision to allow a PWS to substitute a turbidity limit, sample at alternate locations, use continuous monitoring (for unfiltered systems), or reduce sampling sampling frequency or reporting requirements.	40 CFR 142.14(a)(4)(ii)(A)(1) through (5),(7),(8)	40 years or until 1 year after the decision is reversed or revised.
Records of any decision that a violation of the total coliform MCL was not caused by a deficiency in treatment of the source water.	40 CFR 142.14(a)(4)(ii)(B)(3)	One year after the decision is made.
Records of any decision that total coliform monitoring otherwise required because the turbidity of the source water exceeds 1 NTU is not feasible, except that if such decision allows a system to avoid monitoring without receiving state approval in each instance.	40 CFR 142.14(a)(4)(ii)(B)(4)	One year after the decision is made.
Records of any decision that a PWS's watershed control program meets the requirements of 141.71(b)(2).	40 CFR 142.14(a)(4)(ii)(C)(3)	Until the next decision is available and filed.
Records of any decision that an individual is a qualified operator for a PWS using a surface water source or a ground water source under the direct influence of surface water.	40 CFR 142.14(a)(4)(ii)(C)(4)	Until the qualification is withdrawn.
Records of any decision that a party other than the state is approved to conduct on-site inspections.	40 CFR 142.14(a)(4)(ii)(C)(5)	Until the decision is withdrawn.
Records of any decision that an unfiltered PWS has been identified as the source of a waterborne disease outbreak, and, if applicable, deficiencies have been addressed to prevent another such occurrence. A copy of the decision must be provided to the system.	40 CFR 142.14(a)(4)(ii)(C)(6)	Until filtration treatment is installed.
Records of any decision that certain interim disinfection requirements are necessary for an unfiltered PWS for which the state has determined that filtration is necessary, and a list of those requirements. A copy of the requirements must be provided to the system.	40 CFR 142.14(a)(4)(ii)(C)(7)	Until filtration treatment is installed.
Records of any decision that automatic shut-off of delivery of water to the distribution system of an unfiltered PWS would cause an unreasonable risk to health or interfere with fire protection.	40 CFR 142.14(a)(4)(ii)(C)(8)	Until rescinded.

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
Records of any decision that a PWS may use alternative filtration technology because they consistently achieve 99.9 percent removal and/or inactivation of *Giardia lamblia* cysts and 99.99 percent removal and/or inactivation of viruses. A copy of the decision must be provided to the PWS.	40 CFR 142.14(a)(4)(ii)(C)(11)	Until the decision is reversed or revised.
Records of any decision that a system using a ground water source is under the direct influence of surface water.	40 CFR 142.14(a)(4)(ii)(C)(14)	40 years
Records of any determination that a PWS supplied by a surface water source or a ground water source under the direct influence of surface water is not required to provide filtration treatment. A copy of the determination must be provided to the system.	40 CFR 142.14(a)(4)(ii)(C)(14)(iii)	40 years or until withdrawn, whichever is earlier.
Records of analysis for other than microbiological contaminants (including total coliform, fecal coliform, and HPC), residual disinfectant concentration, other parameters necessary to determine disinfection effectiveness.	40 CFR 142.14(a)(6)	12 years
Special Primacy Requirements		
An application for approval of a state program revision that adopts 40 CFR Part 141, Subpart H Filtration and Disinfection.	40 CFR 142.16(b)	One time
TCR		
Reporting		
Reports to the Administrator containing a list of PWSs that the state is allowing to monitor less frequently than once per month for CWSs or less frequently than once per quarter for Noncommunity Water Systems (NCWSs).	40 CFR 142.15(c)(2)	One time; update as needed.
Recordkeeping		
Records of microbiological analyses.	40 CFR 142.14(a)(1)	1 year
Records of microbiological analyses of repeat or special samples.	40 CFR 142.14(a)(2)	1 year
Records of any decision to waive the 24-hour time limit for collecting repeat samples after a total coliform-positive routine sample.	40 CFR 142.14(a)(5)(i)(A)	5 years
Records of any decision to allow a system to waive the requirement for five routine samples the month following a total coliform-positive sample.	40 CFR 142.14(a)(5)(i)(B)	5 years
Records of any decision to invalidate a total coliform-positive sample.	40 CFR 142.14(a)(5)(i)(C)	5 years

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
Records of any decision to reduce the total coliform monitoring frequency for certain CWSs to less than once per month. A copy of the reduced frequency decision must be provided to the system.	40 CFR 142.14(a)(5)(ii)(A)	Retain in such a manner that a system's current status may be determined.
Records of any decision to reduce the total coliform monitoring frequency for certain NCWSs to less than once per quarter. A copy of the reduced frequency decision must be provided to the system.	40 CFR 142.14(a)(5)(ii)(B)	Retain in such a manner that a system's current status may be determined.
Records of any decision to reduce the total coliform monitoring frequency for certain NCWSs during any month the system serves 1,000 persons or fewer. A copy of the reduced frequency must be provided to the system.	40 CFR 142.14(a)(5)(ii)(C)	Retain in such a manner that a system's current status may be determined.
Records of any decision to waive the 24-hour limit for taking a total coliform sample for PWSs that do not practice filtration in accordance with Part 141, Subpart H, and that measure a source water turbidity level exceeding 1 NTU near the first service connection.	40 CFR 142.14(a)(5)(ii)(D)	Retain in such a manner that a system's current status may be determined.
Records of any decision that certain NCWSs may reduce the frequency of their sanitary survey to less than once every five years, along with a record of the reduced frequency. A copy of the reduced frequency decision must be provided to the system.	40 CFR 142.14(a)(5)(ii)(E)	Retain in such a manner that a system's current status may be determined.
A list of agents other than the state, if any, approved to conduct sanitary surveys.	40 CFR 142.14(a)(5)(ii)(F)	Retain in such a manner that a system's current status may be determined.
Records of any decision to allow a PWS to forgo fecal coliform or *E. coli* testing on a total coliform-positive sample if that system assumes that the total coliform-positive sample is fecal coliform-positive or *E. coli*-positive.	40 CFR 142.14(a)(5)(ii)(G)	Retain in such a manner that a system's current status may be determined.
RTCR		
Reporting		
A list of systems that the state is allowing to monitor under a reduced monitoring frequency.	40 CFR 142.15(c)(3)	Not specified
Recordkeeping		
Any case-by-case decision to waive or extend the 24-hour time limit for collecting repeat samples following a total coliform-positive routine sample, sample invalidation, or (for unfiltered systems) a high turbidity measurement.	40 CFR 142.14(a)(10)(i)(A)	5 years

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
Any decision to allow a system to waive the requirement for three routine samples the month following a total coliform- positive sample.	40 CFR 142.14(a)(10)(i)(B)	5 years
Any decision to invalidate a total coliform-positive sample.	40 CFR 142.14(a)(10)(i)(C)	5 years
Completed and approved Level 1 and/or Level 2 assessments, including reports from the system that corrective action has been completed.	40 CFR 142.14(a)(10)(i)(D)	5 years
Any decision to reduce the total coliform monitoring frequency for a NCWS using only ground water and serving 1,000 or fewer people to less than once per quarter.	40 CFR 142.14(a)(10)(ii)(A)	Retain in such a manner that a system's current status may be determined.
Any decision to reduce the total coliform monitoring frequency for a CWS serving 1,000 or fewer people to less than once per month.	40 CFR 142.14(a)(10)(ii)(B)	Retain in such a manner that a system's current status may be determined.
Any decision to reduce the total coliform monitoring frequency for a NCWS using only ground water and serving more than 1,000 people during any month the system serves 1,000 or fewer people	40 CFR 142.14(a)(10)(ii)(C)	Retain in such a manner that a system's current status may be determined.
Any decision to allow a system to forgo *E. coli* testing of a total coliform-positive sample if that system assumes that the total coliform-positive sample is *E. coli*-positive.	40 CFR 142.14(a)(10)(ii)(D)	Retain in such a manner that a system's current status may be determined.
IESWTR		
Reporting		
A list of Subpart H systems that have had a sanitary survey completed during the previous year and an annual evaluation of the state's program for conducting sanitary surveys.	40 CFR 142.15(c)(5)	Annually
Recordkeeping		
Records of turbidity measurements.	40 CFR 142.14(a)(3)	1 year
Records of decisions made on a system-by-system and case-by-case basis under provisions of Part 141, Subpart H, Subpart P, or Subpart T.	40 CFR 142.14(a)(4)(ii)	As necessary

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
Records of systems consulting with the state concerning a significant modification to their disinfection practice (including the status of the consultation).	40 CFR 142.14(a)(7)(i)	As necessary
Records of decisions that a system using alternative filtration technologies can consistently achieve a 2-log (99 percent) removal of *Cryptosporidium* oocysts, as well as the required levels of removal and/or inactivation of *Giardia* and viruses for systems using alternative filtration technologies.	40 CFR 142.14(a)(7)(ii)	As necessary, kept until decision is reversed or revised.
Records of systems required to conduct a filter self-assessment, CPE or composite correction program (CCP).	40 CFR 142.14(a)(7)(iii)	As necessary
FBRR		
Reporting		
Subject to general requirements as listed above.		
Recordkeeping		
Records of any decisions made to approve alternate recycle locations.	40 CFR 142.14(a)(4)(ii)(A)(9)	40 years or until 1 year after decision is reversed or revised.
LT1ESWTR		
Reporting		
Subject to general requirements as listed above.		
Recordkeeping		
Records of turbidity measurements.	40 CFR 142.14(a)(3)	Not less than one year.
Records of decisions made on a system-by-system and case-by-case basis under provisions of Part 141, Subpart H, Subpart P, or Subpart T.	40 CFR 142.14(a)(4)(ii)	As necessary
Records of systems consulting with the state concerning a significant modification to their disinfection practice (including the status of the consultation).	40 CFR 142.14(a)(7)(i)	As necessary
Records of decisions that a system using alternative filtration technologies can consistently achieve a 2-log (99 percent) removal of *Cryptosporidium* oocysts, as well as the required levels of removal and/or inactivation of *Giardia* and viruses for systems using alternative filtration technologies.	40 CFR 142.14(a)(7)(ii)	As necessary
Records of those systems required to conduct a filter self-assessment, CPE or CCP.	40 CFR 142.14(a)(7)(iii)	As necessary
LT2ESWTR		
Reporting		
The bin classification after the initial and after the second round of source water monitoring for each filtered system.	40 CFR 142.15(c)(6)	After each round of monitoring.
Any change in treatment requirements for these systems due to watershed assessments during sanitary surveys.	40 CFR 142.15(c)(6)	After each round of monitoring.

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
The determination of whether the mean *Cryptosporidium* level is greater than 0.01 oocysts/L both after the initial and after the second round of source water monitoring for each unfiltered system.	40 CFR 142.15(c)(6)	As necessary
Recordkeeping		
Results of *Cryptosporidium* and *E. coli* source water monitoring.	40 CFR 142.14(a)(9)	As necessary
Bin classification after the first and second round of monitoring.	40 CFR 142.14(a)(9)	As necessary
Any change in treatment requirements for filtered systems due to watershed assessment during sanitary surveys.	40 CFR 142.14(a)(9)	As necessary
The determination of whether the mean *Cryptosporidium* level is greater than 0.01 oocysts/L after the initial and after the second round of source water monitoring for each unfiltered system.	40 CFR 142.14(a)(9)	As necessary
The treatment processes or control measures that systems use to meet their *Cryptosporidium* treatment requirements.	40 CFR 142.14(a)(9)	As necessary
A list of systems required to cover or treat the effluent of an uncovered finished water storage facility.	40 CFR 142.14(a)(9)	As necessary
GWR		
Reporting		
The month and year in which the most recent sanitary survey was completed. For a state that used a phased review process, the date the last element of the applicable eight elements was evaluated for each ground water system.	40 CFR 142.15(c)(7)	As necessary
The date the system completed the corrective action.	40 CFR 142.15(c)(7)	As necessary
All ground water systems providing at least 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log virus inactivation and removal) before or at the first customer for any ground water source(s).	40 CFR 142.15(c)(7)	As necessary
Recordkeeping		
Records of written notices of significant deficiencies.	40 CFR 142.14(d)(17)	At least 12 years
Records of corrective action plans, schedule approvals, and state-specified interim measures.	40 CFR 142.14(d)(17)	At least 12 years
Records of confirmations that a significant deficiency has been corrected or the fecal contamination in the ground water source has been addressed.	40 CFR 142.14(d)(17)	At least 12 years

Requirement	Regulatory Citation	Minimum Frequency/ Retention Period
Records of state determinations and records of ground water systems' documentation for not conducting triggered source water monitoring.	40 CFR 142.14(d)(17)	At least 12 years
Records of invalidations of fecal indicator-positive ground water source samples.	40 CFR 142.14(d)(17)	At least 12 years
Records of state approvals of source water monitoring plans.	40 CFR 142.14(d)(17)	At least 12 years
Records of notices of the minimum residual disinfections concentration (when using chemical disinfection) needed to achieve at least 4-log virus inactivation before or at the first	40 CFR 142.14(d)(17)	At least 12 years
Records of notices of the state-specified monitoring and compliance requirements (when using membrane filtration or alternative treatment) needed to achieve at least 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log inactivation and removal) before or at the first customer.	40 CFR 142.14(d)(17)	At least 12 years
Records of written notices from the ground water system that it provides at least 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log virus inactivation and removal) before or at the first customer for each ground water source.	40 CFR 142.14(d)(17)	At least 12 years
Records of written determinations that the ground water system may discontinue 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log inactivation and removal).	40 CFR 142.14(d)(17)	At least 12 years
ADWR		
States do not have information collection requirements for the ADWR.		

4(b)(i) Data Items

1) *Surface Water Treatment Rule*[8]

Provisions of the SWTR require the following data to be collected by PWSs:

- Source water coliform data for unfiltered systems.

[8] Includes all rule components except disinfectant residual monitoring and associated activities, which are included in the DDBP/Chem/Rads Rules ICR (see footnote 2 for more information).

- CFE turbidity data for filtered systems.
- Source water turbidity for unfiltered systems.
- Residual disinfectant concentrations for filtered and unfiltered systems. (This requirement is addressed under the DDBP/Chem/Rads ICR).
- Annual summaries of watershed control programs for unfiltered systems.
- Annual reports summarizing the results of on-site inspections for unfiltered systems.
- A report to the primacy agency within 48 hours following attribution of any waterborne disease outbreak in filtered and unfiltered systems.

In addition, primacy agencies must submit special reports as specified in 40 CFR 142.15(c)(1). These reports include:

- List of PWSs not required to provide filtration.
- List of PWSs not required to analyze for HPC.
- Notification of determination that a PWS is not required to provide filtration.

2a) Total Coliform Rule

The TCR requires PWSs to collect and report presence or absence of coliform bacteria (as total coliform) in the distribution system and data on the presence or absence of *E. coli* or fecal coliform. Primacy agencies must maintain results of sanitary surveys conducted under TCR.

In addition, primacy agencies must submit special reports as specified in section 142.15(c) and must maintain records as specified in section 142.14(a)(5). These reports include lists of PWSs that have received permission for reduced monitoring or monitoring waivers and the effective dates of these waivers.

2b) Revised Total Coliform Rule

The following are the reporting and recordkeeping requirements for PWSs beginning on April 1, 2016. Note that sample siting plans were submitted during the RTCR startup period and were covered under the standalone ICR.

In addition to the reporting requirements specified in 40 CFR 141.31, PWSs are required by the RTCR to report the following to the states (see section 141.861(a)):

- *E. coli* MCL violation by the end of the day the system learns of the violation, or by the end of the next business day if the state office is closed when the system learns of the violation.
- *E. coli*-positive sample by the end of the day when the system learns of the analytical result, or by the end of the next business day if the state office is closed when the system learns of the result.
- Treatment technique violation for total coliforms by no later than the end of the next business day after the PWS learns of the violation. The PWS must provide public notification.

- Assessment form within 30 days of triggering an assessment and completion of each scheduled corrective action for corrections not completed by the time of submission of the assessment form. A "Level 1" assessment (described further in section 4(b)(ii)) is required in the following situations:

    - PWSs taking ≥40 samples per month have total coliform bacteria present in more than 5 percent of samples for a given month;
    - PWSs taking <40 samples per month have two or more total coliform positive samples in a month; or
    - PWSs fail to take all required repeat samples after a single total-coliform positive sample.

- A "Level 2" assessment is required in the following situations:

    - A PWS has an *E. coli* MCL violation; or
    - A PWS is triggered into a Level 1 assessment for the second time in 12 months, unless the first Level 1 treatment technique trigger was based on exceeding the allowable number of total coliform-positive samples, the state has determined a likely reason for the positive samples that caused the initial Level 1 treatment technique trigger, and the state establishes that the system has fully corrected the problem; or
    - PWSs with approved reduced annual monitoring triggers a Level 1 assessment in two consecutive years.
- Monitoring violation within 10 days after the PWS discovers the violation. The PWS must provide public notification.

In addition to the recordkeeping requirements for PWSs specified in 40 CFR 141.33, PWSs are required by the RTCR to keep records of the following (see section 141.861(b)):

- Any assessment form, documentation of corrective actions completed as a result of assessments, or other available summary documentation of the sanitary defects found and corrective actions taken for state review; and
- Any repeat sample taken that meets state criteria for an extension of the 24-hour period for collecting repeat samples.

States must begin complying with the reporting and recordkeeping requirements described below by April 1, 2016. It is important to note that the burden associated with the development of primacy applications was addressed in the standalone RTCR ICR.

In addition to the reporting requirements specified in 40 CFR 142.15, the RTCR requires states to report the following to EPA (see section 142.15(c)(3)):

- A list of systems that the state is allowing to monitor under a reduced monitoring frequency.

In addition to those items already specified in 40 CFR 142.14, states are required to keep records of the following (see section 142.14(a)(10)):

- Any case-by-case decision to waive or extend the 24-hour time limit for collecting samples following either a total coliform-positive routine sample, invalidation, or a high turbidity measurement;
- Any decision to allow a system to waive the requirement for three routine samples the month following a total coliform-positive sample;
- Any decision to invalidate a total coliform-positive sample;
- Completed and approved Level 1 and/or Level 2 assessments, including reports from the system that corrective action has been completed;
- Any decision to reduce the total coliform monitoring frequency for a CWS serving 1,000 or fewer people to less than once per month;
- Any decision to reduce the total coliform monitoring frequency for a NCWS using only ground water and serving 1,000 or fewer people to less than once per quarter;
- Any decision to reduce the total coliform monitoring frequency for a NCWS using only ground water and serving more than 1,000 people during any month the system serves 1,000 or fewer people; and
- Any decision to allow a system to forgo *E. coli* testing of a total coliform-positive sample if that system assumes that the total coliform-positive sample is *E. coli*- positive.

3) Interim Enhanced Surface Water Treatment Rule

EPA must balance the health risks from microbial organisms, such as *Giardia lamblia* and *Cryptosporidium*, against risks from compounds formed during water disinfection. The IESWTR and Stage 1 DBPR, which were promulgated concurrently, address complex and interrelated drinking water issues. The IESWTR requires individual filter monitoring and modifies the allowable turbidity levels specified in the SWTR.

Under the IESWTR, PWSs must report the following:

- The total number of CFE turbidity measurements that exceeded their 95th percentile turbidity limit and the number of measurements that exceed their maximum turbidity limit.
- That they have conducted individual filter turbidity monitoring, including the dates, filter number, and turbidities of any measurements that exceed 1.0 NTU.
- Reports of exceptions to turbidity performance for individual filters.
- If a self-assessment is required, the system must report the date that it was triggered and the date that it was completed.
- If a CPE is required, the system must report that the CPE is required and the date that it was triggered.
- If a CPE is required, the system must submit a copy of the completed CPE report.
- When those systems that are required to develop a disinfection profile plan a significant change in disinfection practice, they must submit the profile, along with an analysis of how the proposed change will affect the current disinfection benchmark to the state for review.

The IESWTR requires PWSs to keep the following records:

- Individual filter turbidity measurements.

The IESWTR (in section 142.14) requires primacy agencies to maintain the following items:

- Records of turbidity measurements for individual filters.
- Records of disinfectant residual measurements and other parameters necessary to document disinfection effectiveness.
- A list of systems consulting with the state to modify their disinfection practices.
- A record of state decisions regarding the use of alternative filtration technologies that have demonstrated 99 percent removal of *Cryptosporidium* oocysts by specific water systems.
- Records of any other system-by-system and case-by-case decisions made by the state under provisions of Part 141, Subpart H or Subpart P or Subpart T.
- Records of those systems required to perform filter self-assessments, CPEs, CCPs.

Additionally, the primacy agency must report the following (per section 142.15):

- Subpart H systems[9] that have had a sanitary survey in the last year.
- Evaluation of the state's program for conducting sanitary surveys for all Subpart H systems.

4) Filter Backwash Recycling Rule

Under the FBRR, PWSs should already have reported the following, but they must keep records of the reported information on file:

- Recycle notification, which includes plant schematic, recycle flow, and plant flow.
- List of all recycle flows and the frequency with which they are returned.
- Average and maximum backwash flow rates through the filters.
- Average and maximum duration of the filter backwash process.
- Typical filter run length and a written summary of how filter run length is determined.
- Type of treatment provided for the recycle flow.
- Data on the physical dimensions of the equalization and/or treatment units, typical and maximum hydraulic loading rates, type of treatment chemicals used, average dose of treatment chemicals, frequency of treatment chemical use, and frequency at which solids are removed, if applicable.
- Primacy agencies must maintain records of decisions regarding alternate recycle locations at PWSs.

[9] Subpart H systems include all PWSs using surface water or ground water under the direct influence of surface

water (GWUDI) as a source (40 CFR section 141.2).

5) Long Term 1 Enhanced Surface Water Treatment Rule

Under the LT1ESWTR, PWSs must report the following:

- The total number of CFE turbidity measurements that exceeded their 95th percentile turbidity limit and the number of measurements that exceed their maximum turbidity limit.
- That they have conducted individual filter turbidity monitoring, including the dates, filter number, and turbidities of any measurements that exceeded 1.0 NTU.
- For systems that exceed 1.0 NTU in two consecutive measurements, the filter number, date, time, and reason for the exceedance at the end of the month.
- Exceptions to turbidity performance for individual filters.
- If a self-assessment is required, the system must report the date that it was triggered and the date that it was completed.
- Any requirement to conduct a CPE and the date that it was triggered.
- The system must submit a copy of the completed CPE report.
- Results of optional monitoring that show total trihalomethane (TTHM) levels <0.064 mg/L and haloacetic acid (HAA5) levels <0.048 mg/L (only if the system wishes to forgo profiling) or report that disinfection profiling has begun.
- A description of the proposed change in disinfection, the system's disinfection profile for *Giardia lamblia* (and, if necessary, viruses) and disinfection benchmark, and an analysis of how the proposed change will affect the current levels of disinfection.

The PWS recordkeeping requirements under the rule include:

- Records of individual filter turbidity measurements.
- Records of disinfection profiles.
- Records of benchmarking.

Currently, states are subject to the general reporting requirements under 40 CFR 142.15. There are no additional reporting requirements under this rule.

The additional state recordkeeping requirements under the LT1ESWTR include:

- Records of turbidity measurements for individual filters.
- Records of disinfectant residual measurements and other parameters necessary to document disinfection effectiveness.
- A list of systems consulting with the state to modify their disinfection practices.
- A record of state decisions regarding the use of alternative filtration technologies that have demonstrated 99 percent removal of *Cryptosporidium* oocysts by specific water systems.

- Records of any other system-by-system and case-by-case decisions made by the state under provisions of Part 141, Subpart H or Subpart P or Subpart T.
- Records of those systems required to perform filter self-assessments, CPEs or CCPs.

6) Long Term 2 Enhanced Surface Water Treatment Rule

PWSs must submit the following information:

- Sampling schedules, including sampling location(s) and planned dates for source water sampling (for initial and second round monitoring). Systems serving 50,000 people or more submitted sampling schedules for the second round of monitoring under the previous ICR period; all other systems will submit schedules during this ICR period.

For systems that filter and serve 10,000 or more people, monitor as follows (note that the first round of monitoring occurred during previous ICR periods; a second round of monitoring is in progress):

- Monthly *E. coli* and *Cryptosporidium* monitoring results, to be taken over a period of 2 years, plus two matrix spike samples for *Cryptosporidium*.
- Monthly turbidity monitoring results (sampled concurrently with *Cryptosporidium* and *E. coli*).

For small systems that filter and serve fewer than 10,000 people, the first round of monitoring occurred during previous ICR periods, and a second round of monitoring will begin during this ICR period. These systems monitor as follows:

- Biweekly *E. coli* monitoring results, to be taken over a period of 1 year (beginning in this ICR period).
- If system exceeds the *Cryptosporidium* monitoring trigger based on *E. coli* monitoring results, then 24 *Cryptosporidium* samples, plus two matrix spike samples for *Cryptosporidium*. (Note that *Cryptosporidium* monitoring will not begin until the next ICR period.)

Large unfiltered systems are required to collect 24 *Cryptosporidium* samples over a period of 2 years. Small unfiltered systems are required to collect 24 *Cryptosporidium* samples over a period of 1 or 2 years. Both groups of systems are required to collect two matrix spike samples for *Cryptosporidium*.

For filtered systems, sampling plans and bin classifications for the second round of monitoring must be reported to the state. All unfiltered systems must report their mean *Cryptosporidium* levels to the state. (Some systems will incur a burden for this during this ICR period.)

PWSs of all sizes that propose to make a significant change to their disinfection practice will complete disinfection profiles and benchmarks for *Giardia lamblia* and viruses and report

these, along with a description of the proposed change in disinfection practice and an analysis of how the proposed change will affect the current level of disinfection. Most disinfection changes associated with the LT2ESWTR (and Stage 2 DBPR) occurred during previous ICR periods. Disinfection profiling will be completed during this ICR period.

PWSs of all sizes that install new technology as a result of their bin classifications or choose to disinfect the effluent from an uncovered finished water reservoir will be required to demonstrate compliance with certain criteria for each technology. PWSs must keep all monitoring data collected under the LT2ESWTR on file for 3 years. These data must be available for review during sanitary surveys.

States will be required to maintain the following data:

- Results of initial and reassessment source water monitoring for small systems.
- Initial bin classifications for each filtered system and mean *Cryptosporidium* level for each unfiltered system.
- Records of toolbox treatment technologies that systems choose to meet their treatment technique requirements, plus any changes in toolbox treatment technologies, including all documentation necessary to demonstrate compliance with required design and implementation criteria for receiving log credit for toolbox options.
- Any changes to initial bin classifications based on watershed assessment during sanitary surveys.
- Records of technologies employed by unfiltered systems to meet virus, *Giardia*, and *Cryptosporidium* inactivation requirements.
- List of systems required to cover or treat effluent of an uncovered finished water reservoir.

States must report the following to EPA:

- Second round bin classification for each filtered system and any changes in bin classifications. Mean *Cryptosporidium* level for each unfiltered system. (The second round of monitoring began during the previous ICR period and continues during this ICR period.)
- Any finding that a system is not meeting its required *Cryptosporidium* treatment level.

7) Ground Water Rule

PWSs must report or provide the following additional information (40 CFR 141.405(a)):

- Failure to meet any state-specified requirements including minimum residual disinfectant concentration, membrane operating criteria or membrane integrity, and alternative treatment operating criteria, if operation in accordance with the criteria or requirements is not restored within 4 hours.
- Completion of corrective action (within 30 days of completion).

- Documentation to the state within 30 days of a total coliform-positive sample that a PWS met the state criteria that exempt the system from source water monitoring requirements.

PWSs must keep records of the following (40 CFR 141.405(b)):

- Documentation of corrective actions.
- Documentation of notice to the public.
- Documentation of records of decisions and records of invalidation of fecal indicator-positive ground water source samples.
- For consecutive systems, documentation of notification to the wholesale system(s) of total-coliform positive samples that are not invalidated.
- For systems, including wholesale systems, that are required to perform compliance monitoring, the additional requirements include the following:
  - Records of the state-specified minimum disinfectant residual
  - Records of the lowest daily residual disinfectant concentration and records of the date and duration of any failure to maintain the state-prescribed minimum residual disinfectant concentration for a period of more than 4 hours.
  - Records of state-specified compliance requirements for membrane filtration and of parameters specified by the state for state-approved alternative treatment, and records of the date and duration of any failure to meet the membrane operating, membrane integrity, or alternative treatment operating requirements for more than 4 hours.

For records kept by the states, the additional requirements include the following (40 CFR 142.14(d)(17)):

- Records of written notices of significant deficiencies.
- Records of corrective action plans, schedule approvals and state-specified interim measures.
- Records of confirmations that a significant deficiency has been corrected or the fecal contamination in the ground water source has been addressed.
- Records of state determinations and records of ground water systems' documentation for not conducting triggered source water monitoring.
- Records of invalidations of fecal indicator-positive ground water source samples.
- Records of state approvals of source water monitoring plans.
- Records of notices of the minimum residual disinfectant concentration (when using chemical disinfection) needed to achieve at least 4-log virus inactivation before or at the first customer.
- Records of notices of the state-specified monitoring and compliance requirements (when using membrane filtration or alternative treatment) needed to achieve at least 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log inactivation and removal) before or at the first customer.
- Records of written notices from the ground water system that it provides at least 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log virus inactivation and removal) before or at the first

customer for each ground water source.
- Records of written determinations that the ground water system may discontinue 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log inactivation and removal).

Additionally, the state must report the following (40 CFR 142.15):

- The month and year in which the most recent sanitary survey was completed or, for a state that used a phased review process, the date the last element of the applicable eight elements was evaluated for each ground water system.
- The date the system completed the corrective action.
- All ground water systems providing at least 4-log treatment of viruses (using inactivation, removal, or a state-approved combination of 4-log virus inactivation and removal) before or at the first customer for any ground water source(s).

8) Aircraft Drinking Water Rule

Air carriers are required to maintain records and submit the following items to EPA:

- Information on total coliform sampling frequency and disinfection and flushing frequency.
- Water system inventory and any subsequent changes.
- Monitoring results for total coliform bacteria samples taken as part of routine, repeat, and post-disinfection follow-up sampling.
- Analytical results for *E. coli*, required when total coliform results are positive.
- Evidence of self-inspection of water system components completed every 5 years, including an indication that deficiencies have been corrected; and, if not corrected, a description of the deficiency, an explanation of why it has not been corrected, and a schedule for correction.
- Notification of all events requiring public notice and corrective action.
- Failure to comply with the monitoring and disinfection and flushing

procedures. Air carriers are also required to maintain the following documents:[10]

- The O&M plan for the aircraft PWS to address ADWR requirements. This plan should be included in FAA's aircraft O&M program and made available for EPA review upon request.
- The coliform sampling plan that was developed as part of their O&M plan, which must be available for EPA review upon request.
- Any O&M plans and coliform sampling plans that must be developed for any new aircraft the air carrier acquires through purchases, ownership transfers, or any other means. These plans must be made available for EPA review upon request.

[10] Burden to develop O&M plans and coliform sampling plans for existing aircraft was accounted for under the standalone ADWR ICR and is not included again under the Microbial Rules ICR as it is a one-time activity. Additionally, the number of aircraft acquired post-ADWR promulgation is assumed to be a very small percentage

of the existing ADWR inventory; therefore the burden to develop new O&M and coliform sampling plans for aircraft acquired post-ADWR promulgation is assumed to be negligible.

4(b)(ii) Respondent Activities

PWSs and primacy agencies must complete the activities described in the sections below.

Public Water Systems

In general, each PWS is involved in the following collection activities:

- Gathering information.
- Processing, compiling and reviewing the information collected.
- Submitting reports and other documents.
- Recording and maintaining the information.

For this ICR, these activities are necessary to complete monitoring, reporting and recordkeeping requirements associated with microbial contaminant-related regulations.

1) Surface Water Treatment Rule

Requirements for reporting under the SWTR are separated into those for systems that use filtration treatment and those for systems that do not use filtration treatment. The reporting requirements for these types of PWSs are summarized in the paragraphs below.

Unfiltered Systems

- Monitor and report information on the results of source water monitoring for total or fecal coliform and turbidity.
- Submit this information each month that the system is in operation.
- Summarize fecal or total coliform monitoring by including:
    - The number of total or fecal coliform samples collected and the values obtained for each measurement;
    - The number of results less than 20/100 milliliters (mL) for fecal coliform or less than 100/100 mL for total coliform during the month;
    - The cumulative number of fecal or total coliform results obtained since the start of the six consecutive month compliance period;
    - And the percent of samples less than the respective performance standard for the six-month compliance period.
- Summarize turbidity information to include:
    - The maximum turbidity value obtained each month;
    - The value and date of each measurement that exceeded five NTUs;
    - And the date the occurrence was reported to the state.
- Monitor and report disinfectant residual levels (this requirement is addressed under the DBP/Chem/Rads ICR).
- Submit annual reports on watershed control programs and onsite inspections.

Filtered Systems

- Monitor and report to the state on a monthly basis information regarding CFE turbidity. Turbidity reporting requirements vary according to the filtration technology used.
- Monitor and report disinfectant residual levels (this requirement is addressed under the DBP/Chem/Rads ICR).

2a) Total Coliform Rule

PWSs must conduct the following activities to comply with the TCR:

- Collect water samples at specified intervals, as defined in the federal or state regulations.
- Collect monitoring data on the presence of total coliform bacteria in the distribution system.
- Collect data on the presence or absence of *E. coli* or fecal coliform following a positive routine total coliform sample.
- Report laboratory results and violations to the state at frequencies required by federal and state regulations.

2b) Revised Total Coliform Rule

Beginning in April 2016, EPA anticipates PWSs to be involved in the following activities:

- Conducting routine, additional routine, and repeat coliform monitoring and reporting the results as required.
- Completing a Level 1 assessment if the PWS experiences a Level 1 trigger, and submitting a form to the state to identify sanitary defects detected, corrective actions completed, and a timetable for any corrective actions not already completed. A Level 1 assessment is an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. It is conducted by the system operator or owner. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g., whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing.
- Completing a Level 2 assessment if the PWS experiences a Level 2 trigger, and submitting a form to the state to identify sanitary defects detected, corrective actions completed, and a timetable for any corrective actions not already completed. A Level 2 assessment provides a more detailed examination of the system (including the system's monitoring and operational practices) than does a Level 1 assessment through the use of more comprehensive investigation and review of available information, additional internal and external resources, and

other relevant practices. It is conducted by an individual approved by the state, which may include the system operator. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g., whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing.

- Correcting sanitary defects found through the performance of Level 1 or Level 2 assessments and report on completion of corrective actions as required.

3) Interim Enhanced Surface Water Treatment Rule

Systems serving at least 10,000 people using surface water or ground water under the direct influence of surface water (GWUDI) are required to do the following:

- Conduct continuous monitoring of individual filter turbidity for each filter in the system.
- Report individual filter turbidity monitoring results to the state at frequencies specified in the federal regulations.
- Report exceptions to the state in cases where the monitoring shows exceedances of specific turbidity levels.
- Perform a filter profile and/or filter assessment, or obtain a CPE if warranted.
- Provide a CPE report to the state if necessary.

4) Filter Backwash Recycling Rule

The rule requires PWSs to collect and retain on file recycle flow information for review and evaluation by the state beginning June 8, 2004 (40 CFR 141.76(d)).

5) Long Term 1 Enhanced Surface Water Treatment Rule

Under the LT1ESWTR, systems serving under 10,000 people and using surface water or GWUDI are required to do the following:

- Conduct continuous monitoring of individual filter turbidity for each filter in the system.
- Record individual filter turbidimeter readings at the specified intervals.
- Report individual filter turbidity monitoring results to the state at frequencies specified in the federal regulations.
- Report exceptions to the primacy agency in cases where the monitoring shows exceedances of specific turbidity levels.
- Perform a filter profile and filter assessment, or arrange for a CPE if warranted.
- Provide a CPE report to the state, if necessary.
- Develop a disinfection benchmark, if necessary.
- Consult with the state before making significant changes to disinfection practices.

6) Long Term 2 Enhanced Surface Water Treatment Rule

Under the LT2ESWTR systems are required to do the following:

- Submit a sampling plan for the second round of monitoring. This requirement applies to systems serving fewer than 50,000 people.
- Monitor source water for *E. coli* and *Cryptosporidium* and calculate a treatment bin classification based on monitoring results. This requirement applies to filtered systems only. Systems serving at least 10,000 people are also required to monitor source water turbidity; the burden for turbidity monitoring is assumed to be negligible.
- Filtered systems serving less than 10,000 people may monitor for *E. coli* as a trigger instead. These systems will only sample for *Cryptosporidium* if their *E. coli* results exceed certain levels.
- Unfiltered systems are required to monitor source water for *Cryptosporidium* only and calculate treatment requirements based on monitoring results.
- If additional treatment was installed in the previous ICR period based on the first round of bin classification, systems must demonstrate to the state that they are complying with the requirements for the technologies they have chosen.
- Prepare disinfection benchmarking reports for *Giardia* and viruses if disinfection is changed. This activity will be completed during this 3-year ICR period.
- Keep all monitoring data on file for 3 years.

7) Ground Water Rule

Under the GWR, systems are required to do the following:

- Conduct triggered source water monitoring if the system tests positive for total coliform in the distribution system under TCR, for systems not providing 4-log treatment of viruses. Under triggered monitoring requirements (40 CFR 141.402) a system must collect at least one source water sample and have that sample tested for a fecal indicator specified by the state. If a system detects the state-specified fecal indicator at its source, then the system must take five additional samples within 24 hours unless the state determines that corrective action must be taken immediately.
- Conduct source water assessment monitoring for fecal indicators if required by the state.
- Comply with treatment technique requirements and any associated reporting requirements if the state identifies a significant deficiency during a sanitary survey or the system has confirmed fecal contamination of its source water.
- Monitor disinfectant residual for compliance, for systems providing disinfection to achieve 4-log inactivation of viruses.
- Maintain records of GWR information listed in section 4(b)(i).

8) Aircraft Drinking Water Rule

Air carriers will need to undertake the following activities to meet reporting requirements under the ADWR:

- Report the development of a new sampling plan; submit new monitoring and disinfection and flushing frequency information for new purchases or transfers of ownership of aircraft; and maintain sampling plans.
- Report changes in aircraft water system inventory within 10 days after the end of the month in which they occurred.
- Take routine and repeat coliform samples and post-disinfection follow-up coliform samples following corrective action.
- Submit routine, repeat, and post-disinfection sampling results to EPA.
- Record routine, repeat, and post-disinfection coliform sampling activities.
- Record disinfection and flushing activities conducted as part of routine activity or corrective action.
- Prepare and provide public notification to passengers and crew as needed. All public notification instances must be reported to EPA.
- Conduct a comprehensive self-inspection of aircraft water system components at least every 5 years.
- Submit evidence of self-inspection to EPA, including report of deficiencies corrected and unresolved deficiencies and their correction schedule.

Primacy Agencies

In general, primacy agencies conduct the following activities with regard to reporting and recordkeeping:

- Maintain an inventory of PWSs.
- Compile results of analyses of drinking water samples.
- Analyze and review PWS data.
- Make determinations concerning PWSs.
- Track PWS compliance.
- Report systems not in compliance with drinking water requirements.
- Maintain state approval of plans and specifications, enforcement activities, and variances and exemptions (V&Es) for each PWS.

By conducting these activities, primacy agencies are able to evaluate a PWSs performance and identify areas of improvement. They also identify enforcement targets and systems requiring remedial action. In addition, states are responsible for reporting compliance data to the federal government. Some of these activities are covered in the PWSS Program ICR as general primacy activities. Therefore, only microbial contaminant-specific recordkeeping activities have been included in this Microbial Rules ICR.

1) Surface Water Treatment Rule

The SWTR states that primacy agencies must conduct the following:

- Collect and maintain information submitted by PWSs.
- Record which systems using surface water are required to provide filtration and which are not. These records must be kept indefinitely.
- Submit a special report to the EPA Administrator listing PWSs that are not required to filter.
- Retain the results of microbiological contaminant analyses of source water samples in the same manner as other microbiological contaminant analytical results.

2a) Total Coliform Rule

Primacy agencies are required by the TCR to conduct the following activities:

- Analyze monitoring results and identify systems not in compliance with either MCL (or performance criteria) or monitoring and reporting frequencies.
- Provide in writing permission for reduced monitoring or monitoring waivers; Primacy agencies are required to maintain this information for five years.
- Submit to the EPA Administrator a special report that lists PWSs that have received permission to reduce monitoring requirements.
- Collect and maintain data regarding the results of sanitary surveys conducted under the TCR.

2b) Revised Total Coliform Rule

Beginning in April 2016, EPA expects the states to be involved in the following activities.

- Tracking compliance.
- Analyzing and reviewing PWS data.
- Making determinations concerning PWS monitoring requirements.
- Responding to PWSs with positive samples.
- Recordkeeping.
- Reviewing completed assessment forms and consulting with the PWS about the assessment form.
- Reviewing and coordinating with PWSs to determine the optimal corrective action to be implemented.
- Providing consultation, reviewing the public notification certification, and filing the report of the violation.

3) Interim Enhanced Surface Water Treatment Rule

Primacy agencies are required to maintain records of state verification activities and each determination made and to report to EPA in accordance with state reporting requirements. In

addition, primacy agencies ensure that PWSs are implementing the IESWTR properly. To meet these responsibilities, states are involved in the following additional activities:

- Reviewing individual filter turbidity monitoring data.
- Conducting CPEs for PWSs.
- Conducting sanitary surveys.
- Consulting with PWSs on changes in disinfection practice.
- Conducting follow-up inspections.

4) Filter Backwash Recycling Rule

For the FBRR, primacy agencies incur a recordkeeping requirement for maintaining data submitted by conventional and direct filtration PWSs that recycle. Primacy agencies must also maintain written approval for all PWSs with alternate recycle locations.

5) Long Term 1 Enhanced Surface Water Treatment Rule

Primacy agencies have the responsibility for ensuring the implementation of the LT1ESWTR (40 CFR 142.16). EPA anticipates that states will be involved in the following activities:

- Consulting with PWSs on changes in disinfection practice.
- Conducting CPEs for PWSs (if requested).
- Conducting follow-up inspections.
- Compliance tracking for turbidity.

6) Long Term 2 Enhanced Surface Water Treatment Rule

Primacy agencies have the responsibility for ensuring the implementation of the LT2ESWTR. This will include the following activities (some of these activities will occur during future ICR periods):

- Maintaining and updating the data management system.
- Reviewing system sampling schedules and proposed sampling locations.
- Maintaining *E. coli* and *Cryptosporidium* monitoring data.
- Responding to systems' inquiries.
- Reviewing and approving bin classifications.
- Reviewing disinfection profiles and benchmarks.
- Reviewing and, in some cases, approving processes to meet bin treatment requirements.
- Reporting the information required in section 4(b)(i).
- Keeping records of the information in section 4(b)(i).

7) Ground Water Rule

States will need to perform the following tasks:

- Perform sanitary surveys, and reporting and recordkeeping requirements associated with performing sanitary surveys.
- Track and file monitoring results and reviewing any additional reporting.

8) Aircraft Drinking Water Rule

EPA is the primacy agency for the ADWR; EPA activities under this rule are described in section 5(a) of this document.

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

5(a) Agency Activities

As part of its oversight responsibility, EPA maintains SDWIS[11] and evaluates SDWIS data to determine system compliance. Agency personnel also reformat, distribute, and store these data for a number of uses, including responding to Congressional and public inquiries. EPA also oversees its regional and state programs, provides technical assistance, and develops policies designed to ensure consistent program implementation. EPA officials serve as respondents when testifying to Congress on the PWSS Program or in the courts for enforcement actions.

EPA also acts as the enforcement authority for the ADWR. EPA oversees ADWR compliance because aircraft fly in interstate commerce and, therefore, no single state can have primacy over an aircraft PWS, as described in 40 CFR 142.3(b). The burden associated with the 206.4 regional full time equivalents (FTEs)[12] covered under the PWSS Program ICR includes the EPA ADWR burden. The Agency will be responsible for collecting the information generated as air carriers comply with the rule. EPA activities for ADWR include the following:

- Train EPA staff.
- Provide technical assistance to air carriers.
- Review sampling frequency and disinfection and flushing frequency information.
- Review routine, repeat, and post-disinfection monitoring results.
- Review information on public notification events.
- Review aircraft water system inventory changes.
- Review certifications and reports of air carrier self-inspections.
- Conduct onsite compliance audits, as needed.

Burden and costs for these activities are addressed in the PWSS Program ICR (OMB No. 2040-0090). Section 5(a) of the PWSS Program ICR contains additional detail regarding the activities supported by the collection of SDWIS data described in the first paragraph of this section.

In addition to these activities, the Agency assumes the activities performed by the state for those states, territories and tribes that do not have primacy. Specifically, the Agency will be involved in the following activities related to microbial contaminant regulations:

- Training PWSs
- Analyzing and reviewing PWS data.
- Making compliance determinations concerning PWSs.
- Conducting CPEs and sanitary surveys.

[11] As mentioned in section 1 of this ICR, revisions are currently being made to SDWIS. EPA expects the revisions to streamline the reporting and recordkeeping process. Details regarding potential burden and cost reductions in

future ICR periods are provided in section 5(b) of the PWSS Program ICR.
[12] FTE figures were provided by OGWDW.

- Meeting with PWSs about changes in recycling practices.
- Compliance tracking.
- Recordkeeping.

Burden and costs for these activities are accounted for under the primacy agency burden (see section 6). EPA regional offices also conduct general primacy activities for states, territories and tribes that do not have primacy. This burden is addressed in the PWSS ICR and is included in the general primacy burden for primacy agencies.

Exhibit 4
EPA Requirements

Requirement	Regulatory Citation	Frequency
General Requirements (apply to all regulations)		
For states and other entities for which the Agency maintains primacy, the Agency must maintain the records and perform the reporting activities required of states. (This burden is addressed under primacy agency burden.)	40 CFR 142.14 and 142.15	As necessary
Review state request for approval of a program revision and notify state of determination regarding request.	40 CFR 142.12(d)(3)	One time, as necessary
SWTR		
Publish a notice of any proposed comprehensive review of state decisions to determine if PWSs must provide filtration.	40 CFR 142.80(b)	As necessary
Notify each state affected by the results of a comprehensive review.	40 CFR 142.80(c)	As reviews are completed
Make the results of comprehensive reviews available to the public.	40 CFR 142.80(c)	As reviews are completed
Notify the state if periodic reviews or other available information indicate that the state has abused its discretion in applying the criteria for avoiding filtration or that the state has failed to prescribe compliance schedules for PWSs that must provide filtration.	40 CFR 142.81(a)	As necessary
Notify the state that a public hearing will be held on the notice provisions.	40 CFR 142.81(b)	As necessary
Publish a notice of the public hearing in the *Federal Register* and in a newspaper of general circulation in the involved state.	40 CFR 142.81(c)	As necessary
TCR		
Subject to general requirements as listed above.		
RTCR		
Subject to general requirements as listed above.		
IESWTR		
Subject to general requirements as listed above		
FBRR		
Subject to general requirements as listed above.		
LT1ESWTR		
Subject to general requirements as listed above.		
Publish a notice of any proposed comprehensive review of state decisions to determine if PWSs must provide filtration.	40 CFR 142.80(b)	As necessary
Notify each state affected by the results of a comprehensive review.	40 CFR 142.80(c)	As reviews are completed
Make the results of comprehensive reviews available to the public.	40 CFR 142.80(c)	As reviews are completed

Requirement	Regulatory Citation	Frequency
Notify the state if periodic reviews or other available information indicate that the state has abused its discretion in applying the criteria for avoiding filtration or that the state has failed to prescribe compliance schedules for PWSs that must provide filtration.	40 CFR 142.81(a)	As necessary
Notify the state that a public hearing will be held on the notice provisions.	40 CFR 142.81(b)	As necessary
Publish a notice of the public hearing in the *Federal Register* and in a newspaper of general circulation in the involved state.	40 CFR 142.81(c)	As necessary
LT2ESWTR		
Subject to general requirements as listed above.		
Approving laboratories	40 CFR 141.705	As necessary
Collecting and managing sampling location descriptions, sampling schedules, and monitoring data submitted by medium and large systems.	40 CFR 141.702(a), 141.703(f), 141.706(b)	As necessary
GWR		
Subject to general requirements as listed above.		
ADWR		
No specific EPA requirements are stated in the ADWR; however, EPA will conduct the oversight activities described previously for the ADWR.		

5(b) Collection Methodology and Management

Primacy agencies must report data to EPA on a quarterly basis. These data include any new data and revisions or corrections to existing data. This information is maintained in SDWIS[13], which contains the following:

- Inventory data for each PWS.
- Violations.
- Enforcement actions and some follow-up activity.
- Variances and exemptions (where applicable).

Primacy agencies primarily transmit SDWIS data to EPA electronically. In the District of Columbia, Wyoming, and Indian Lands (except for the Navajo Nation, which has primacy), results of system samples are sent directly to the EPA Region.

SDWIS data support a number of rule implementation and program management activities, which include the following:

- Using data pulled from SDWIS on a quarterly basis, the Office of Enforcement and Compliance Assurance uses the Enforcement Targeting Tool (ETT) to generate a list of PWSs that are considered "priority systems" for enforcement.

[13] The public can access the violation data in SDWIS online at

http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/howtoaccessdata.cfm.

The ETT provides information on trends in drinking water enforcement.

- Supporting PWSS program file reviews. During PWSS program file reviews, EPA compares SDWIS data to primacy agency data to assess the quality of the data and recommend any necessary changes in collection or reporting methodologies.
- Promoting consistent national program implementation. The process of file reviews provides insights into the primacy agency's interpretation of regulations to ensure consistent SDWA implementation.

In addition to SDWIS, EPA has developed and maintains the web-based Aircraft Reporting and Compliance System (ARCS) for air carriers complying with the ADWR. Air carriers must report all compliance data to ARCS unless they receive permission to use another reporting method. The burden for developing this system was addressed in the standalone ICR for the ADWR (OMB control number 2040-0277).

All costs for rule-related data management activities are addressed in the PWSS Program ICR (OMB No. 2040-0090). Section 5(b) of the PWSS Program ICR contains additional detail regarding the activities supported by the previously described collection of SDWIS data.

5(c) Small Entity Flexibility

In developing this ICR, EPA considered the requirement of the Small Business Regulatory Enforcement Fairness Act (SBREFA) to minimize the burden of information collections on small entities. The terms small entities are defined in section 601 of the Regulatory Flexibility Act and are listed below:[14]

- A small business is any business that is independently owned and operated and not dominant in its field as defined by the Small Business Administration regulations under section 3 of the Small Business Act.
- A small organization is any non-profit enterprise that is independently owned and operated and not dominant in its field.
- A small governmental jurisdiction is the government of a city, county, town, township, village, school district or special district that has a population of fewer than 50,000. This definition may also include Indian Tribes.

The major requirement under SBREFA is a regulatory flexibility analysis (RFA) of all rules that have a "significant economic impact on a substantial number of small entities." Since this ICR is not currently associated with new rules, it is not currently subject to the SBREFA.

Throughout the 1992–1993 negotiated rulemaking process for the Stage 1 DBPR and the IESWTR and the July 1994 rule proposals, a small PWS was defined as a system serving fewer than 10,000 people. This definition reflects the original 1979 standard for TTHMs, which applied only to systems serving at least 10,000 people. The definition thus recognizes that the baseline conditions from which systems serving fewer than 10,000 people would approach

[14] These definitions were taken from section 601 of the Regulatory Flexibility Act.

disinfection byproduct control and simultaneous control of microbial pathogens would be different than those for systems serving 10,000 or more people. Subsequent to the 1994 proposals, EPA defined a "small business" (for purposes of RFAs in drinking water regulations) as a PWS serving 10,000 or fewer people. This definition is consistent with the approach used herein and in the 1996 Congressional amendments to SDWA.

EPA has made significant efforts to minimize the burden for all respondents, particularly for small entities. In setting monitoring requirements, EPA has been able to minimize burden for small entities as detailed below.

1) Surface Water Treatment Rule

Only a small percentage of small systems use surface water supplies; therefore, this rule does not have a significant economic impact on a substantial number of small entities. Since system size is the key determinant of the monitoring frequency requirements of the SWTR, systems serving fewer than 3,300 people will have the least stringent monitoring requirements.

EPA will allow a reduction in the frequency of turbidity monitoring from six samples per day to one sample per day for systems using slow sand filtration treatment or other eligible technologies. Systems serving fewer than 500 people may also reduce sampling to once per day regardless of filtration type.

2a) Total Coliform Rule

The number of required coliform samples varies directly with system size. For CWSs, the number of samples ranges from a minimum of one sample per month for systems serving fewer than 1,000 people to 480 samples per month for those serving 3,960,001 or more people. This requirement is codified at 40 CFR 141.21(a). Generally, quarterly monitoring must be conducted at NCWSs using ground water only and serving 1,000 or fewer people. As provided for in 40 CFR 141.21(a)(3)(i), the primacy agency may reduce the quarterly monitoring frequency as a result of a sanitary survey.

2b) Revised Total Coliform Rule

To assess this impact, EPA conducted outreach to small entities and convened a Small Business Advocacy Review Panel SBARP in February 2008 to obtain recommendations from representatives of the small entities that would be subject to the rule's requirements. The panel recommended using total coliforms as a trigger for investigation and/or corrective action, balancing monitoring requirements and costs with risk, further differentiating requirements from other related rules, and considering reporting and recordkeeping costs when estimating burden.

Several of these recommendations were implemented. The RTCR eliminates the MCLG and MCL for total coliforms and instead uses total coliforms as an indicator of the potential pathway of contamination into the distribution system. PWSs that may be vulnerable to fecal contamination are required to do an assessment and if necessary, take appropriate corrective action. Other provisions of the RTCR that resulted in reduced costs for small PWSs include:

- Reduced routine monitoring for qualifying PWSs serving 1,000 or fewer people.
- Reduced number of repeat samples required.
- Reduced additional routine monitoring for PWSs serving 4,100 or fewer people.
- Reduced public notification requirements for all systems, including small systems.
- Reductions in corrective actions over time as a result of enhanced system performance for all small systems.

3) Interim Enhanced Surface Water Treatment Rule

Except for sanitary survey requirements, which are conducted by the primacy agency, the IESWTR only applies to systems serving at least 10,000 people. The rule does not have a significant impact on small entities.

4) Filter Backwash Recycling Rule

The FBRR applies to both large and small systems. As part of the economic analysis for the rule, EPA certified that this rule would not have a significant impact on a substantial number of small systems and, therefore, an RFA was not required.

5) Long Term 1 Enhanced Surface Water Treatment Rule

The LT1ESWTR applies only to Subpart H systems serving fewer than 10,000 people. After considering the economic impacts of the rule on small entities, EPA certified that this action would not have a significant economic impact on a substantial number of small entities. The Agency determined that less than one percent of small entities will experience an impact of one percent or more of their annual revenues or expenditures. No affected small governmental jurisdictions are expected to incur annual costs exceeding three percent of their annual revenue. Accordingly, an RFA was not required.

6) Long Term 2 Enhanced Surface Water Treatment Rule

The LT2ESWTR allows small filtered systems to monitor for *E. coli* instead of *Cryptosporidium*. The analysis for *E. coli* is much less expensive than the one for *Cryptosporidium*. Small systems are only required to monitor for *Cryptosporidium* if *E. coli* concentrations are above a trigger value. In addition, systems with at least 2 years of historical *Cryptosporidium* data may use that data instead of performing new monitoring.

7) Ground Water Rule

The GWR was developed in consultation with the SBARP. Several of the panel's recommendations were incorporated into the rule. These recommendations include:

- Utilizing a risk targeted approach, in which only those systems most at risk are required to monitor or provide corrections.
- Using coliform monitoring instead of more expensive viral monitoring. Monitoring for other organisms is required only if coliform monitoring is positive.

8) Aircraft Drinking Water Rule

EPA has chosen to apply the same requirements to air carriers of all sizes. EPA has developed the ADWR to provide flexibility to all air carriers including small entities or small businesses. For example, where a maintenance frequency is not specified by the water tank manufacturer, air carriers can choose the combination of monitoring and disinfection and flushing that accommodates existing routine aircraft maintenance schedules. The ADWR allows air carriers with positive total coliform samples 72 hours to implement disinfection and flushing as corrective action or the alternative of 24 hours to collect repeat samples. It also allows air carriers additional time before corrective action is required if they prevent public access to the water by physically shutting off or disconnecting the water system or preventing the flow of water through the taps. The rule also permits air carriers to take only one routine sample (instead of two) for certain aircraft with a removable/portable water tank that is drained every day where the aircraft has only one tap.

5(d) Collection Schedule

The collection schedules for each rule are summarized below. Additional information may be obtained by consulting the individual rules for specific collection schedules.

Exhibit 5
Collection Schedule

Rule	***Collection Commencement Year***
SWTR	1991/1993 (depending on filtration status)
TCR	1991 – coliform monitoring 1994 – sanitary surveys for CWSs, 1999 for NCWSs
RTCR	2016 – coliform monitoring
IESWTR	2002 – turbidity monitoring 2002/2004 - sanitary surveys (depending on size and source type)
FBRR	2004 – recordkeeping
LT1ESWTR	2005 – turbidity monitoring
LT2ESWTR	2006 – *Cryptosporidium* and *E. coli* monitoring first round (depends on system size; all sampling completed by 2011) 2010 – disinfection profiling (depends on system size) 2012 – reporting for compliance with new technologies 2015 – second round of *Cryptosporidium* and *E. coli* monitoring
GWR	2009 – sanitary survey, triggered monitoring, corrective action plans, compliance monitoring
ADWR	April 2011 – inventory data, sampling and O&M plan information October 2011 – coliform sampling data, dates routine disinfection and flushing are performed

6 ESTIMATING BURDEN AND COST OF COLLECTION

This section estimates the burden and cost to PWSs, air carriers and primacy agencies for complying with drinking water information requirements associated with microbial contaminant rulemakings. These include the following:

1) Surface Water Treatment Rule[15]
2) Total Coliform Rule/Revised Total Coliform Rule
3) Interim Enhanced Surface Water Treatment Rule
4) Filter Backwash Recycling Rule
5) Long Term 1 Enhanced Surface Water Treatment Rule
6) Long Term 2 Enhanced Surface Water Treatment Rule
7) Ground Water Rule
8) Aircraft Drinking Water Rule

This ICR updates the annual burdens and costs associated with these rulemakings for the three-year ICR period of September 1, 2015, through August 31, 2018. This section also discusses the assumptions used to estimate cost and burden and describes the change in annual burden, as compared with the current OMB annual burden inventory.

EPA has refined some of the assumptions for calculating the burden and costs associated with implementing the drinking water regulations contained in this ICR in an effort to accurately characterize the burden and costs. For this update, many assumptions were revised based on program changes and well-documented changes in some data. To provide a comparable basis on which to calculate the requirements addressed by the Microbial Rules ICR, and to address inconsistencies, EPA applied uniform assumptions to all rules where applicable. The categories of assumptions are listed below.

- A 2013 labor rate of $21.62 was obtained from the Bureau of Labor Statistics (BLS) for PWSs. An overhead rate of 60 percent was applied, resulting in an hourly rate of $34.59. For states, a 2013 labor rate of $28.50 was obtained from the BLS. An overhead rate of 60 percent was applied, resulting in an hourly rate of $45.60.
- PWS inventory figures from the most recent frozen SDWIS database pull (October 2014).
- Number of entry points per system—data from the 2006 Community Water Systems Survey (CWSS).
- Number of plants per system—data from the 2006 CWSS.

In addition, EPA has revised some of the estimates of burden for particular activities (e.g., sampling, developing reports) to reflect consultations with representatives of PWSs and states (see section 3(c)).

[15] Includes all rule components except disinfectant residual monitoring and associated activities, which are

included in the DDBP/Chem/Rads Rules ICR.

6(a) Respondent Burden

6(a)(i) Burden to Public Water Systems

The annual PWS burden for September 1, 2015, through August 31, 2018, is estimated to be approximately 12.0 million hours. Exhibit 6 shows the breakdown of the annual burden hours on a rule-specific basis. The annual air carrier burden for the same time period is 0.034 million hours (see Exhibit 7). Wherever possible, activity-level burden assumptions were carried forward from previous ICRs or were updated to reflect consultation results. However, if updated data were available (e.g., system inventories), the most recent data were used in burden calculations. Appendices B through H show the assumptions and detailed burden calculations for each rule. The following further describes the bases for the burden estimates for each rule.

1) Surface Water Treatment Rule

Activities associated with the SWTR account for 1.77 million annual burden hours per year. The assumptions used to calculate the SWTR burden are based largely on assumptions carried forward from the 2012 Microbial Rules ICR. This ICR includes burden estimates for all components of the SWTR except disinfectant residual monitoring and associated activities, which are included in the DDBP/Chem/Rads Rule ICR. For unfiltered systems, burden estimates include raw water sampling for coliform, on-site inspections, watershed management and raw water turbidity monitoring. The burden for filtered systems includes only finished water turbidity monitoring. Detailed burden and cost calculations for the SWTR are provided in Appendix B.

2) Total Coliform Rule/Revised Total Coliform Rule

Activities associated with the TCR and RTCR account for a burden of 4.79 million hours per year, and represent the sum of the TCR burden and the net change RTCR burden. Net change burden (i.e., incremental burden over the 1989 TCR) developed in the previously approved RTCR ICR for the period following the RTCR effective date of April 1, 2016, is being accounted for in this ICR.[16] The 3-year period covered by this programmatic ICR includes approximately 3 years of burden for TCR activities and 2.5 years of net change burden for RTCR activities. Note that in order to account for the full burden related to RTCR, for modeling purposes, burden related to TCR is included for the full 3-year evaluation period.

TCR burden includes that incurred to conduct routine total coliform monitoring and repeat sampling for *E. coli* or fecal coliform. The assumptions used to calculate the TCR burden are based largely on assumptions carried forward from the 2012 Microbial Rules ICR.

RTCR net change burden (i.e., incremental burden over the 1989 TCR) includes that incurred to conduct routine monitoring, additional routine monitoring, and repeat monitoring; to perform Level 1 and Level 2 assessments; and to perform reporting and recordkeeping related to

16 The burden associated with the first 3 years of RTCR implementation was amended to the 2012 OMB-approved Microbial Rules ICR on January 23, 2014. However, text and supporting appendices related to the

RTCR are included in the Microbial Rules ICR for the first time.

corrective actions. The assumptions used to calculate the net change RTCR burden are based largely on assumptions carried forward from the standalone RTCR ICR for the final rule. Note that net change burden related to RTCR PN has been removed from the RTCR standalone ICR and is accounted for under the PN Rule in the 2015 PWSS Programmatic ICR.

Section 6(f)(i) describes the reasons for changes between the burden reported in the 2012 Microbial Rules ICR and this ICR. TCR reporting and recordkeeping burden is provided in Appendix C1. RTCR net change reporting and recordkeeping burden (i.e., incremental burden over the 1989 TCR) is provided in Appendix C2. Since there are ongoing reporting and recordkeeping requirements under the 1989 TCR, Appendix C2 also provides the additional TCR burden calculations to calculate the net change in the reporting and recordkeeping burden for PWSs to comply with the RTCR, and are shown for informational purposes only.

3) Interim Enhanced Surface Water Treatment Rule

Activities associated with the IESWTR account for a burden of 4.32 million hours per year. Included in this burden are individual filter turbidity monitoring, turbidity exceptions reporting, and conducting individual filter assessments (IFAs). The assumptions used to calculate the IESWTR burden are based largely on the assumptions carried forward from the 2012 Microbial Rules ICR. Detailed information about assumptions, burden, and calculations are provided in Appendix D.

4) Filter Backwash Recycling Rule

No burden is estimated for PWSs for this rule. Currently, the rule requires PWSs to maintain records on recycle flow. The burden associated with this recordkeeping is assumed to be negligible.

5) Long Term 1 Enhanced Surface Water Treatment Rule

Activities associated with the LT1ESWTR account for a burden of 0.13 million hours per year. The burden estimates for PWSs include turbidity exceptions reporting and turbidity monitoring. The assumptions used to calculate the LT1ESWTR burden are based largely on the assumptions carried forward from the 2012 Microbial Rules ICR. Detailed information about assumptions, burden, and calculations are provided in Appendix E.

6) Long Term 2 Enhanced Surface Water Treatment Rule

Activities associated with the LT2ESWTR account for a burden of 0.14 million hours per year. The burden estimates include reporting associated with demonstrating compliance with installed treatment. PWS burden estimates also account for some of the burden associated with developing disinfection profiles and benchmarks. The initial round of monitoring for *E. coli* and/or *Cryptosporidium* was completed during a previous ICR period. The second round of monitoring will take place during this ICR period. PWSs conducting monitoring are also expected to complete a sampling plan and bin recalculation.

Appendix F summarizes the assumptions used to calculate the LT2ESWTR burden and provides the detailed burden and cost calculations.

7) Ground Water Rule

Activities associated with the GWR account for a burden of 0.86 million hours per year. For ground water systems providing 4-log treatment of viruses, the burden estimates include compliance monitoring to demonstrate treatment effectiveness and associated reporting, including reports of disinfection failure. In addition, burden estimates for developing corrective action plans are included. For ground water systems that do not provide 4-log treatment of viruses, PWS burden estimates also account for burden associated with conducting triggered source water monitoring if the system tests positive for total coliform in the distribution system under the TCR. PWS burden also includes the burden associated with sanitary surveys.

Appendix G summarizes the assumptions used to calculate the GWR burden and provides the detailed burden and cost calculations.

8) Aircraft Drinking Water Rule

Activities associated with the ADWR account for an air carrier burden of 0.034 million hours per year. The assumptions used to calculate the ADWR burden are based largely on assumptions carried forward from the standalone ADWR ICR for the final rule, which was incorporated into the 2012 Microbial Rules ICR. Air carrier burden includes sampling, reporting associated with sampling and O&M activities, self-inspection, and public notice.

Appendix H summarizes the assumptions used to calculate the ADWR burden and provides the detailed burden and cost calculations.

6(a)(ii) Burden to Primacy Agencies

The annual burden for primacy agencies for September 1, 2015, through August 31, 2018, is estimated to be approximately 2.62 million hours. Exhibit 8 shows the annual burden hours on a rule-specific basis. Many other primacy agency activities, such as compliance assurance and data management, cannot be divided among specific rules and are included in the PWSS Program ICR as general primacy activities. The bases for burden estimates included in this ICR are detailed below.

1) Surface Water Treatment Rule

The annual state burden for the SWTR is expected to be 0.26 million hours. All of this burden is associated with review of finished water turbidity monitoring results. Estimates for primacy agency burden for the SWTR are based on assumptions carried forward from the 2012 Microbial Rules ICR. Detailed calculations for burden and cost are shown in Appendix B.

2) Total Coliform Rule/Revised Total Coliform Rule

Activities associated with the TCR/RTCR account for a burden of 0.45 million hours per year, and represent the sum of the TCR burden and the net change RTCR burden. Net change burden (i.e., incremental burden over the 1989 TCR) developed in the previously approved RTCR ICR for the period following the RTCR effective date of April 1, 2016, is being accounted for in this programmatic ICR[17]. The 3-year period covered by this programmatic ICR includes approximately 3 years of burden for TCR activities and 2.5 years of net change burden for RTCR activities. Note that in order to account for the full burden related to RTCR, for modeling purposes, burden related to TCR is included for the full 3-year evaluation period.

TCR burden includes monitoring TCR-related activities such as reviewing routine coliform reports, *E. coli* and fecal coliform reports[18], and additional routine sampling reports. The burden for sanitary surveys for ground water systems is addressed under the GWR (see Appendix G). Sanitary survey burden for surface water systems is included under the IESWTR. Estimates for primacy agency burden for the TCR are based on assumptions carried forward from the 2012 Microbial Rules ICR.

RTCR net change burden (i.e., incremental burden over the 1989 TCR) includes responding to positive sample results; reviewing completed assessment forms required to be filed by PWSs; consulting with PWSs about their assessment form; and reviewing and coordinating with PWSs to determine the appropriate corrective action to be implemented and providing consultation. States must also submit information to SDWIS to assist both EPA and states in tracking PWS compliance. The assumptions used to calculate the net change RTCR burden are based largely on assumptions carried forward from the standalone RTCR ICR for the final rule. Note that net change burden related to RTCR PN has been removed from the RTCR standalone ICR and is accounted for under the PN Rule in the 2015 PWSS Programmatic ICR.

Section 6(f)(i) describes the reasons for changes between the burden reported in the 2012 Microbial Rules ICR and this ICR. TCR reporting and recordkeeping burden is provided in Appendix C1. RTCR net change reporting and recordkeeping burden (i.e., incremental burden over the 1989 TCR) is provided in Appendix C2. Since there are ongoing reporting and recordkeeping requirements under the 1989 TCR, Appendix C2 also provides the additional TCR burden calculations to calculate the net change in the reporting and recordkeeping burden for states to comply with the RTCR, and are shown for informational purposes only.

17 The burden associated with the first 3 years of RTCR implementation was amended to the 2012 OMB-approved Microbial Rules ICR on January 23, 2014. However, text and supporting appendices related to the RTCR are included in the Microbial Rules ICR for the first time.

18 Once the RTCR is fully implemented, systems will only conduct coliform and *E. coli* monitoring.

3) Interim Enhanced Surface Water Treatment Rule

Primacy agencies are expected to expend 0.96 million annual burden hours implementing requirements of the IESWTR. The assumptions used to calculate the IESWTR burden are based largely on assumptions carried forward from the 2012 Microbial Rules ICR. The burden includes estimates for review of turbidity monitoring results and exceptions reports. Additionally, states conduct CPEs as necessary and sanitary surveys for all surface water systems. Detailed cost and burden calculations are included in Appendix D.

4) Filter Backwash Recycling Rule

No burden is estimated for states for this rule. The burden associated with the recordkeeping requirements in this rule is assumed to be negligible.

5) Long Term 1 Enhanced Surface Water Treatment Rule

The annual state burden for the LT1ESWTR is expected to be 0.12 million hours. The assumptions used to calculate the LT1ESWTR burden are based largely on assumptions carried forward from the 2012 Microbial Rules ICR. The burden includes estimates for compliance tracking and recordkeeping of turbidity monitoring for small systems, and review of turbidity monitoring and turbidity exceptions reports. Additionally, states conduct turbidity exceptions reporting, which includes CPEs and annual exception reports for systems serving 10,000 or fewer people. Detailed calculations for burden and cost are shown in Appendix E.

6) Long Term 2 Enhanced Surface Water Treatment Rule

The annual state burden for the LT2ESWTR is expected to be 0.10 million hours. The assumptions used to calculate the LT2ESWTR burden are based largely on assumptions carried forward from the 2012 Microbial Rules ICR. State burden includes reviewing monitoring results and assisting with and reviewing bin classifications. States will also review disinfection profiles and benchmarks for systems that significantly change their disinfection practices.

Appendix F summarizes the assumptions used to calculate the LT2ESWTR burden and provides the detailed burden and cost calculations.

7) Ground Water Rule

The annual state burden for the GWR is expected to be 0.73 million hours. The assumptions used to calculate the GWR burden are based largely on assumptions carried forward from the standalone GWR ICR for the final rule, which was incorporated into the 2012 Microbial Rules ICR. The burden includes those activities associated with performing sanitary surveys, as well as burden to review initial compliance monitoring notification and compliance monitoring reports submitted by PWSs. In addition, states will ensure PWSs are complying with treatment technique requirements and any associated reporting requirements. For ground water systems that do not provide 4-log treatment of viruses, state burden estimates also account for review of triggered source water monitoring results. Lastly, the burden includes annual administrative activities such as recordkeeping, staff training, and technical assistance to PWSs. Appendix G summarizes the assumptions used to calculate the GWR burden and provides the detailed burden and cost calculations.

8) Aircraft Drinking Water Rule

EPA is the primacy agency for the ADWR, and has direct oversight for that rule. This burden is captured in the 206.4 regional EPA FTE included in the PWSS Program ICR.

6(b) Respondent Costs

6(b)(i) Cost to Public Water Systems

Exhibit 6 shows the annual costs for PWSs over the three-year ICR period. Annual costs are estimated at approximately $522.8 million, which consists of $416.0 million in labor costs, $84.8 million in O&M costs, and $22.0 million in capital costs.

Exhibit 7 shows the annual costs for air carriers over the three-year ICR period. Annual costs are estimated at approximately $4.2 million, which consists of $0.96 million in labor costs, $3.2 million in O&M costs, and $0.003 million in capital costs.

PWS labor costs are based on the number of burden hours times the average hourly wage rate, including overhead. The average hourly wage rate for PWSs is the rate quoted by the BLS for Standard Occupational Classification (SOC) Code 51-8031, “Local Government—Water and Liquid Waste Treatment Plant and System Operators.” The quoted rate was $21.62 in 2013 dollars (see http://www.bls.gov/oes/2013/may/oes518031.htm). In addition, 60 percent overhead was assumed, bringing the loaded rate to $34.59 in 2013 dollars. For air carriers, four labor rates are used and are all loaded by approximately 50 percent. All rates are from the BLS in 2013 dollars (see Appendix H for SOC codes for each occupation). The first labor rate is for “Transportation, Storage, and Distribution Managers” at a loaded rate of $65.40. The second labor rate is for “Cleaners of Vehicles and Equipment” at a loaded rate of $16.48. Labor rates for “Transportation Inspectors” and “Inspectors, Testers, Sorters, Samplers, and Weighers” were also used at loaded rates of $48.95 and $27.14, respectively.

In addition to the labor costs, there are O&M costs associated with the SWTR, TCR/RTCR, IESWTR, LT1ESWTR, LT2ESWTR, GWR and ADWR.

- SWTR O&M costs reflect non-labor costs associated with coliform analyses (unfiltered systems) and turbidity analyses (unfiltered and filtered systems). Coliform analysis O&M costs are based on analysis costs as listed in the GWR Economic Analysis. Turbidity analysis O&M costs are based on vendor quotes regarding calibration materials needed to perform turbidity analyses.
- TCR O&M costs reflect non-labor costs associated with coliform and E. coli analysis.
- RTCR O&M costs reflect net change non-labor costs associated with coliform analysis.
- IESWTR O&M costs reflect non-labor costs associated with turbidity analysis for individual filters. For the IESWTR, turbidity analysis costs are based on O&M cost equations for operating an integrated supervisory control and data acquisition (SCADA) system. These cost equations are carried forward from the IESWTR Regulatory Impact Analysis (RIA).
- LT1ESWTR O&M costs reflect non-labor costs associated with turbidity analysis for individual filters.
- LT2ESWTR O&M costs reflect non-labor costs associated with Cryptosporidium and E. coli laboratory analysis.
- GWR O&M costs reflect non-labor costs associated with compliance (disinfection) monitoring (maintenance costs, monthly reagents, charts and recorder pens) and E. coli analysis materials costs from the GWR Economic Analysis.

Additionally, there are capital costs associated with SWTR, IESWTR, LT1ESWTR, GWR, and ADWR.

- SWTR, IESWTR and LT1ESWTR include capital costs for turbidity monitoring equipment. For these rules, capital costs are estimated based on vendor estimates and costing equations for in-line and bench-top turbidimeters, or SCADA systems needed to comply with turbidity monitoring requirements. Capital costs are distributed evenly across the replacement period for turbidity analysis equipment (estimated to be 7 years).
- GWR includes capital costs for chlorine monitoring equipment such as chlorine analyzer, power cord and chart recorder).
- ADWR includes a capital cost for refrigerators purchased by air carriers, which is distributed evenly across the replacement period for the equipment.

Further detail on the O&M and capital costs for the SWTR, TCR/RTCR, IESWTR, LT1ESWTR, LT2ESWTR, GWR and ADWR can be found in Appendices B, C1/C2, D, E, F, G and H, respectively.

6(b)(ii) Cost to Primacy Agencies

Exhibit 8 shows that the annual costs to primacy agencies are estimated at approximately $125.6 million. All costs incurred by primacy agencies are labor costs. Labor costs are based on the number of burden hours times the average hourly wage rate, including overhead. Labor rates

in 2013 dollars are used and are loaded with a 60 percent overhead factor. A loaded labor rate of $45.60 per hour in 2013 dollars was used for state labor. The labor costs are based on the BLS SOC Code 19-2041, "State Government - Environmental Scientists and Specialists, Including Health," an average FTE cost of $94,848, including overhead, which equates to approximately $45.60 per hour.[19] In addition, another labor rate was used for states conducting sanitary surveys and reviewing compliance monitoring results for the GWR. Loaded, this rate comes to $59.71 per hour.

There are no O&M or capital costs for primacy agencies under this ICR.

Exhibit 6
Annual PWS Burden and Cost
September 1, 2015 – August 31, 2018

Activity	Annual Burden Hours	Cost				Annual Responses
		Annual Labor Cost ($K)	Annual O&M Cost ($K)	Annual Capital Cost ($K)	Total Annual Cost ($K)	
SWTR	1,773,186	$61,338	$4,640	$2,318	$68,297	17,737,514
TCR/RTCR	4,792,580	$165,785	$42,127	N/A	$207,912	3,673,598
IESWTR	4,322,149	$149,512	$18,467	$17,228	$185,207	3,818,305
LT1ESWTR	133,839	$4,630	$2,990	$2,343	$9,963	311,346
LT2ESWTR	144,525	$4,904	$9,764	N/A	$14,668	72,023
GWR	860,961	$29,782	$6,843	$89	$36,714	1,460,940
TOTAL	**12,027,240**	**$415,950**	**$84,830**	**$21,979**	**$522,759**	**27,073,725**

Note: Detail may not add exactly to totals due to rounding.

Exhibit 7
Annual Air Carrier Burden and Cost
September 1, 2015 – August 31, 2018

Activity	Annual Burden Hours	Cost				Annual Responses
		Annual Labor	Annual O&M	Annual Capital Cost ($K)	Total Annual Cost ($K)	
ADWR	34,340	$956	$3,205	$3	$4,163	133,803
TOTAL	**34,340**	**$956**	**$3,205**	**$3**	**$4,163**	**133,803**

[19] According to the ICR Handbook, an employee works an average of 2,080 hours in one year.

Exhibit 8
Annual Primacy Agency Burden and Cost
September 1, 2015 – August 31, 2018

Activity	Annual Burden Hours	Cost				Annual Responses
		Annual Labor Cost ($K)	Annual O&M Cost ($K)	Annual Capital Cost ($K)	Total Annual Cost ($K)	
SWTR	264,421	$12,058	N/A	N/A	$12,058	75,100
TCR/RTCR	448,931	$20,477	N/A	N/A	$20,477	1,797,380
IESWTR	964,787	$43,994	N/A	N/A	$43,994	71,283
LT1ESWTR	115,789	$5,280	N/A	N/A	$5,280	64,830
LT2ESWTR	100,317	$4,574	N/A	N/A	$4,574	217
GWR	727,772	$39,201	N/A	N/A	$39,201	32,952
TOTAL	**2,622,018**	**$125,585**	**N/A**	**N/A**	**$125,585**	**2,041,762**

Note: Detail may not add exactly to totals due to rounding.

6(c) Agency Burden and Costs

Burden and costs to the federal government are incurred by EPA's drinking water program at Headquarters and EPA Regions to assist primacy agencies in implementing drinking water regulations. EPA burden and costs for on-going general activities for all EPA drinking water regulations are accounted for under the PWSS Program ICR. Burden and costs included in the PWSS Program ICR cover all cross-cutting (non-rule specific) regulatory activities associated with compliance tracking, regulatory enforcement, and rule development activities. There are no rule-specific activities expected for EPA under any of the rules covered by this ICR, except for EPA's oversight of air carriers for the ADWR. EPA's burden under the ADWR is shown for informational purposes in Appendix H; however, this burden is not included in the total burden for the ADWR. As explained above and in section 5(a), EPA ADWR burden is accounted for in the PWSS Program ICR.

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

Respondents for this ICR include PWSs, air carriers and primacy agencies. The number of PWS respondents is 149,765,[20] the number of active PWSs. All PWSs are subject to the TCR and RTCR but are not necessarily subject to each of the other information collection requirements contained in this ICR. Each rule associated with this ICR identifies the types of PWSs that are subject to that particular requirement. The numbers, by type of PWSs affected for each rule, are identified in the appendices. The number of air carrier respondents is 42. Note that air carriers are respondents for the ADWR only.

[20] Source: SDWIS/FED Data from October 2014.

In addition to the PWS and air carrier respondents, this ICR assumes 57 primacy agencies (50 states plus the District of Columbia, U.S. territories, and Navajo Nation).[21] Therefore, the total number of respondents is 149,864. The total costs and burden for these respondents are summarized in Exhibits 6, 7, and 8.

6(e) Bottom Line Burden Hours and Costs

The bottom line burden hours and costs for this ICR are presented in Exhibit 9. The total annual respondent burden associated with this ICR, which includes burden for PWSs, air carriers and primacy agencies, is estimated to be approximately 14.7 million hours. The corresponding total annual respondent costs are estimated to be $652.5 million. The annual capital and O&M costs are approximately $110.0 million.

[21] For several of these entities, primacy activities are actually implemented by EPA regional offices. However, as a

simplifying assumption, they are included with the states for respondent calculations under this ICR.

Exhibit 9
Bottom Line Annual Burden and Cost
September 1, 2015 – August 31, 2018

Annual Number of Respondents	**149,864**	(=)	
	149,765	(+)	Existing PWSs
	42	(+)	Existing Air Carriers
	57		Primacy agencies
Total Annual Responses	**29,249,289**	(=)	
	27,073,725	(+)	PWS responses (see Exhibit 6)
	133,803	(+)	Air Carrier responses (see Exhibit 7)
	2,041,762		Primacy agency responses (see Exhibit 8)
Number of Responses per Respondent	**195.2**	(=)	
	29,249,289	(/)	Total annual responses from above
	149,864		Total number of respondents from above
Total Annual Respondent Hours	**14,683,598**	(=)	
	12,027,240	(+)	PWS hours (see Exhibit 6)
	34,340	(+)	Air Carrier hours (see Exhibit 7)
	2,622,018		Primacy agency hours (see Exhibit 8)
Hours per Response	**0.50**	(=)	
	14,683,598	(/)	Total annual respondent hours from above
	29,249,289		Total annual responses from above
Annual O&M and Capital Cost ($K)[1]	**$110,017**	(=)	
	$84,830	(+)	Total PWS O&M costs (see Exhibit 6)
	$21,979	(+)	Total PWS capital costs (see Exhibit 6)
	$3,205	(+)	Total Air Carrier O&M costs (see Exhibit 7)
	$3		Total Air Carrier capital costs (see Exhibit 7)
Total Annual Respondent Cost ($K)	**$652,507**	(=)	
	$522,759	(+)	For PWSs (see Exhibit 6)
	$4,163	(+)	For Air Carriers (see Exhibit 7)
	$125,585		For primacy agencies (see Exhibit 8)
Total Annual Hours (resp. plus Agency)	**14,683,598**	(=)	
	14,683,598	(+)	Total annual respondent hours from above
	0		Total EPA hours
Total Annual Cost ($K) (resp. plus Agency)	**$652,507**	(=)	
	$652,507	(+)	Total annual respondent cost from above
	$0		Total EPA cost

Note: Detail may not add exactly to totals due to rounding.

[1]No Primacy Agency capital or O&M costs are incurred, see Exhibit 8.

6(f) Reasons for Change in Burden

There is an overall increase of 913,658 hours in the total estimated respondent burden compared with the ICR currently approved by OMB. This increase is mostly due to an increase of 943,903 hours in the Public Water System collection. In exhibit 12, the reasons for this increase are explained in detail. One reason given for the increase was that the program pulled data from an updated PWS inventory and total coliform MCL violations that were reported in 2014. Another reason for the increase was because the number of surface water systems increased. An additional reason for the increase was that the number of systems conducting compliance monitoring is expected to increase. These and other increases are explained in detail below in Exhibit 12.

This 6(f) section presents the change in burden and explains the reasons for the change in burden. The discussion is divided into two parts:

- Section 6(f)(i) summarizes the burden adjustments made (by addition of new rules) since the 2012 Microbial Rules ICR (see Exhibit 11).
- Section 6(f)(ii) summarizes burden adjustments to each rule since the 2012 Microbial Rules ICR (see Exhibits 12 through 14).

Exhibit 10 summarizes how each of these changes affects the overall burden inventory for the Microbial Rules ICR.

Exhibit 10
Summary of Changes in Annual Burden
(Includes PWS, Air Carrier and Primacy Agency Burden)

Type of Change	Burden (hours)	Running Total	Comment
Burden Estimated in the 2012 Microbial Rules ICR	12,930,414	12,930,414	This burden serves as the baseline[2] for the 2015 Microbial Rules ICR.
Restructuring Adjustments–see Section 6(f)(i)	839,526	13,769,940	Burden for RTCR is now included in this ICR[3].
Other Adjustments to Burden–see Section 6(f)(ii)	913,659	14,683,598	Burden for which EPA seeks approval in this ICR.

Notes:

(1) Detail may not add exactly to totals due to rounding.

(2) Burden requested in the 2012 Microbial Rules ICR (12,930,414 hours is used as a starting point for the 2015 Microbial Rules ICR.

(3) Burden associated with the first 3 years of RTCR implementation (839,526 hours) was amended to the 2012 OMB-approved Microbial Rules ICR on January 23, 2014.

6(f)(i) Restructuring Adjustments

Restructuring adjustments have been made to consolidate the burden for the regulation being incorporated into the Microbial Rules ICR. These adjustments are discussed below and summarized in Exhibit 11.

- Net change burden associated with the RTCR. The final RTCR was promulgated February 13, 2013, and the net change burden associated with the first 3 years post rule promulgation (839,526 hours) was amended to the 2012 OMB-approved Microbial Rules ICR on January 23, 2014. This represents the RTCR net change burden (i.e., incremental over the 1989 TCR) from the 2013 OMB-approved standalone RTCR ICR to perform implementation-related activities.

Exhibit 11
Restructuring Adjustments to the Annual Burden Inventory for the Microbial Rules ICR (Includes PWS, Air Carrier and Primacy Agency Burden)

Action	Annual Burden Hours	Brief Explanation
N/A	12,930,414	Inventory for the 2012 Microbial Rules ICR[2] carried forward as the baseline for 2015 Microbial Rules ICR (includes PWS, state, and air carrier burden).
Add	839,526	Microbial Rules ICR amended with RTCR net change burden[3] on January 23, 2014.
Total	**13,769,940**	**Current opening inventory for the 2015 Microbial Rules ICR (based on current burden inventories.)**

Notes:

(1) Detail may not add exactly to totals due to rounding.

(2) Burden requested in the 2012 Microbial Rules ICR (12,930,414 hours is used as a starting point for the 2015 Microbial Rules ICR.

(3) This represents the RTCR net change burden (i.e., incremental over the 1989 TCR) from the 2013 OMB-approved standalone ICR to perform implementation-related activities.

6(f)(ii) Other Burden Adjustments

Changes in calculated burden are a result of updating relevant baseline information for each rule with the most current and accurate information available (e.g., PWS inventories) and updating to 2013 labor rates. Where appropriate, estimated violation, waiver, and other associated rates have also been updated to reflect current information on rule compliance. Burden also may have changed as a result of consultation with water industry representatives and due to changes in rule requirements.

Exhibits 12-14 summarize reasons for these changes and quantify the changes by rule. Burden adjustments associated with PWS activities resulted in a burden increase of 943,903 hours and are detailed in Exhibit 12. Burden adjustments associated with air carrier activities resulted in a burden decrease of 747 hours and are detailed in Exhibit 13. Burden adjustments for primacy agencies result in a decrease of 29,498 hours per year, as shown in Exhibit 14.

Exhibit 12
Adjustments to PWS Burden from Previous ICR Estimates

Activity	2012 Annual Burden Estimate (Hours)	2015 Annual Burden Estimate (Hours)	Change in Burden	Reason for Change in Burden
SWTR	1,783,619	1,773,186	(10,433)	The change in burden is attributable to the use of updated system inventories. Note that the overall system inventory has decreased since the previous ICR.
TCR/RTCR[2]	4,256,101	4,792,580	536,478	For purposes of this Microbial Rules ICR, the total burden associated with the TCR/RTCR is equal to the sum of the TCR burden over three years plus the net change in RTCR burden over 2.5 years. This assumption was made to ensure the model accurately reflected the full burden for TCR/RTCR. The change in TCR burden is attributed to the adjustments made in the modeling inputs to account for updated PWS inventory and total coliform MCL violations reported to SDWIS. This information was obtained from an October 2014 SDWIS data pull. In addition, the increase in the RTCR burden is attributed to the rule requirements such as conducting routine, additional routine, and repeat monitoring; Level 1 and Level 2 assessments, reporting and recordkeeping requirements related to corrective actions; and completion of start-up activities.
IESWTR	4,280,585	4,322,149	41,564	IESWTR applies to surface water systems serving more than 10,000 people. The increase in IEWSTR burden is attributed to the increase in the number of surface water PWSs serving more than 10,000 people.
FBRR	0	0	0	Existing systems should have completed requirements associated with changing the recycle return location no later than 2006. New PWSs will design their plants to meet these requirements. The burden is negligible.
LT1ESWTR	138,391	133,839	(4,552)	The decrease in LT1ESWTR burden is attributed to the estimated decrease in the number of surface water PWSs serving less than 10,000 people using conventional or direct filtration.
LT2ESWTR	43,039	144,525	101,486	This ICR accounts for all the PWSs that installed new technologies as a result of the first round of LT2ESWTR source water monitoring and are now complying with reporting requirements associated with these treatment changes. In addition, PWSs will be conducting the second round of *Cryptosporidium* monitoring during this ICR period. The LT2ESWTR burden also accounts for changes in the PWS inventory.
GWR	581,601	860,961	279,360	The increase in GWR burden is attributed to the increase in number of systems adding 4-log disinfection and conducting compliance monitoring during this ICR period. The number of systems conducting compliance monitoring is expected to increase each year post-GWR promulgation as more entry points install 4-log disinfection. In addition, the burden also accounts for changes in the PWS inventory.
TOTAL	**11,083,337**	**12,027,240**	**943,903**	**Adjusted PWS Burden.**

Notes:

(1) Detail may not add exactly to total due to independent rounding.

(2) System Burden associated with the first 3 years of RTCR implementation (747,848 hours) was amended to the 2012 OMB-approved Microbial Rules ICR on January 23, 2014 and is included in the previous annual burden estimate listed above. Net change burden and costs (i.e. incremental costs over the 1989 TCR) developed in the standalone RTCR ICR (OMB Control Number 2040-AD94) for the period following the RTCR effective date of April 1, 2016 are being incorporated into the 2015 Microbial Rules ICR. Note that net change burden related to RTCR PN has been removed from the RTCR standalone ICR and is accounted for under the PN Rule in the 2015 PWSS Programmatic ICR.

Exhibit 13
Adjustments to Air Carrier Burden from Previous ICR Estimates

Activity	2012 Annual Burden Estimate	2015 Annual Burden Estimate	Change in Burden	Reason for Change in Burden
ADWR	35,087	34,340	(747)	The change in burden is attributed to the use of updated aircraft inventory and revised estimated rates of total coliform positive occurrence based on actual field data in ARCS.
TOTAL	**35,087**	**34,340**	**(747)**	**Adjusted Air Carrier Burden**

Exhibit 14
Adjustments to Primacy Agency Burden from Previous ICR Estimates

Activity	2012 Annual Burden Estimate (Hours)	2015 Annual Burden Estimate (Hours)	Change in Burden	Reason for Change in Burden
SWTR	266,889	264,421	(2,467)	The change in burden is attributable to the use of updated system inventories. Note that the overall system inventory has decreased since the previous ICR, and the state burden is based on the system inventory.
TCR/RTCR[2]	550,615	448,931	(101,684)	For purposes of this Microbial Rules ICR, the total burden associated with the TCR/RTCR is equal to the sum of the TCR burden over three years plus the net change in RTCR burden over 2.5 years. This assumption was made to ensure the model accurately reflected the full burden for TCR/RTCR. The change in TCR burden is attributed to the adjustments made in the modeling inputs to account for updated PWS inventory and total coliform MCL violations reported to SDWIS. This information was obtained from an October 2014 SDWIS data pull. In addition, the increase in the RTCR burden is attributed to the rule requirements such as conducting routine, additional routine, and repeat monitoring; Level 1 and Level 2 assessments, reporting and recordkeeping requirements related to corrective actions; and completion of start-up activities. States must also submit information to SDWIS to assist both EPA and states in tracking PWS compliance. The decrease in RTCR burden is attributed to the completion of state start-up activities related to implementation prior to the time period covered by this ICR.
IESWTR	947,908	964,787	16,879	IESWTR applies to surface water systems serving more than 10,000 people, and the state burden is based on the number of systems complying with the rule. Since the previous ICR, the number of large surface water systems has increased, resulting in an increase in state burden.
FBRR	0	0	0	States have completed the review and recordkeeping associated with the FBRR. The burden is negligible.
LT1ESWTR	119,237	115,789	(3,448)	The change in burden results from updated system inventories. The state burden is based on the system inventory.
LT2ESWTR	28,642	100,317	71,675	This ICR accounts for all the PWSs that installed new technologies as a result of the first round of LT2ESWTR source water monitoring and are now complying with reporting requirements associated with these treatment changes. In addition, PWSs will be conducting the second round of *Cryptosporidium* monitoring during this ICR period. The LT2ESWTR burden also accounts for changes in the PWS inventory.
GWR	738,226	727,772	(10,453)	The change in burden is attributable to the use of updated system inventories. The overall system inventory has decreased since the previous ICR, and the state burden for some rule components is based on the system inventory. Although system burden related to compliance monitoring increases each year post-GWR promulgation as more entry points add 4-log disinfection, the state burden for compliance monitoring report review (disinfection failure) remains relatively consistent.
TOTAL	**2,651,516**	**2,622,018**	**(29,498)**	**Adjusted Primacy Agency Burden**

Note:

(1) Detail may not add exactly to totals due to rounding.

(2) Note that the state burden associated with the first 3 years of RTCR implementation (91,678 hours) was amended to the 2012 OMB-approved Microbial Rules ICR on January 23, 2014 and is included in the previous annual burden estimate listed above. Net change burden and costs (i.e., incremental costs over the 1989 TCR) developed in the standalone RTCR ICR (OMB Control Number 2040-AD94) for the period following the RTCR effective date of April 1, 2016, are being incorporated into the 2015 Microbial Rules ICR. Note that net change burden related to RTCR PN has been removed from the RTCR standalone ICR and is accounted for under the PN Rule in the 2015 PWSS Programmatic ICR.

Exhibit 15 shows the effects of these adjustments on the bottom line burden. Adding 943,903 hours to account for adjustments to PWS burden, subtracting 747 hours to account for adjustments to air carrier burden and subtracting 29,498 hours to account for adjustments to primacy agency burden yields 14,683,598 hours.

Exhibit 15
Adjustments to Annual Burden Carried Forward from Previous ICR Estimates (Includes PWS, Air Carrier and Primacy Agency Burden)

Action	Annual Burden Hours	Brief Explanation
None	13,769,940	2012 Microbial Rules ICR inventory based on current burden inventories (see Exhibit 11).
Add	943,903	Adjustment to the PWS burden carried forward from previous ICRs (see Exhibit 12).
Add	(747)	Adjustment to Air Carrier burden carried forward from previous ICR (see Exhibit 13)
Add	(29,498)	Adjustment to the primacy agency burden carried forward from previous ICRs (see Exhibit 14).
Total	**14,683,598**	**Hours requested in 2015 Microbial Rules ICR (see Exhibit 10).**

Note: Detail may not add exactly to totals due to rounding.

6(g) Burden Statement

The public reporting burden for collections included in this ICR is detailed in Exhibit 15 above. The annual respondent burden is estimated to average approximately 14.68 million hours, of which 12.03 million hours are attributable to PWSs, 0.034 million hours to air carriers and 2.62 million hours to primacy agencies (numbers may not add due to rounding). These estimates include time for gathering information as well as developing and maintaining records.

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 EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Part 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-2011-0442, 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), WJC West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. 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, to 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. Comments can also be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number (EPA-HQ-OW-2011-0442) and the OMB Control Number 2040-0205 in any correspondence.