Appendix A

Federal Register Notice Soliciting Comments on Information Collection Requests

Energy is authorized to issue securities and assume obligations or liabilities as a guarantor, indorser, surety, or otherwise in respect of any security of another person; provided that such issuance or assumption is for some lawful object within the corporate purposes of Velocity American Energy, compatible with the public interest, and is reasonably necessary or appropriate for such purposes.

The Commission reserves the right to require a further showing that neither public nor private interests will be adversely affected by continued approvals of Velocity American Energy's issuance of securities or assumptions of liability.

Copies of the full text of the Director's Order are available from the Commission's Public Reference Room, 888 First Street, NE., Washington, DC 20426. The Order may also be viewed on the Commission's Web site at *http://www.ferc.gov*, using the eLibrary link. Enter the docket number excluding the last three digits in the docket number filed to access the document. Comments, protests, and interventions may be filed electronically via the internet in lieu of paper. See, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the ''e-Filing'' link. The Commission strongly encourages electronic filings.

Kimberly D. Bose,

Secretary.

[FR Doc. E8–12660 Filed 6–5–08; 8:45 am]

BILLING CODE 6717–01–P

FEDERAL ENERGY REGULATORY COMMISSION

[Docket No. RM98–1–000]

Records Governing Off-the-Record Communications; Public Notice

April 18, 2008.

This constitutes notice, in accordance with 18 CFR 385.2201(b), of the receipt of prohibited and exempt off-the-record communications.

Order No. 607 (64 FR 51222, September 22, 1999) requires Commission decisional employees, who make or receive a prohibited or exempt off-the-record communication relevant to the merits of a contested proceeding, to deliver to the Secretary of the Commission, a copy of the communication, if written, or a summary of the substance of any oral communication.

Prohibited communications are included in a public, non-decisional file associated with, but not a part of, the decisional record of the proceeding. Unless the Commission determines that the prohibited communication and any responses thereto should become a part of the decisional record, the prohibited off-the-record communication will not be considered by the Commission in reaching its decision. Parties to a proceeding may seek the opportunity to respond to any facts or contentions made in a prohibited off-the-record communication, and may request that the Commission place the prohibited communication and responses thereto in the decisional record. The Commission will grant such a request only when it determines that fairness so requires. Any person identified below as having made a prohibited off-the-record communication shall serve the document on all parties listed on the official service list for the applicable proceeding in accordance with Rule 2010, 18 CFR 385.2010.

Exempt off-the-record communications are included in the decisional record of the proceeding, unless the communication was with a cooperating agency as described by 40 CFR 1501.6, made under 18 CFR 385.2201(e) (1) (v).

The following is a list of off-the-record communications recently received by the Secretary of the Commission. The communications listed are grouped by docket numbers in ascending order. These filings are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site at *http://www.ferc.gov* using the eLibrary link. Enter the docket number, excluding the last three digits, in the docket number field to access the document. For assistance, please contact FERC, Online Support at *FERCOnlineSupport@ferc.gov* or toll free at (866)208–3676, or for TTY, contact (202)502–8659.

Exempt:

Docket No.	Date received	Presenter or requester
1. CP07–208–000	5–5–08	Hon. Charles A. Wilson.

Kimberly D. Bose,

Secretary.

[FR Doc. E8–12656 Filed 6–5–08; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OW–2008–0438; FRL–8576–7]

Agency Information Collection Activities; Proposed Collection; Comment Request; Microbial Rules (Renewal); EPA ICR No. 1895.04, OMB Control No. 2040–0205

AGENCY: Environmental Protection Agency.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that EPA is planning to submit a request to renew an existing approved Information Collection Request (ICR) to the Office of Management and Budget (OMB). This ICR is scheduled to expire on September 30, 2008. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection as described below.

DATES: Comments must be submitted on or before August 5, 2008.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OW–2008–0438, by one of the following methods:

- *http://www.regulations.gov* (our preferred method): Follow the on-line instructions for submitting comments.
- *E-mail: OW-Docket@epa.gov.*
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center (EPA/DC), Water Docket, MC: 2822T, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
- *Hand Delivery:* EPA Docket Center, Public Reading Room, EPA Headquarters West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OW–2008–0438. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information

whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm*.

FOR FURTHER INFORMATION CONTACT: Richard Naylor, Drinking Water Protection Division, Office of Ground Water and Drinking Water, (MC: 4606M), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 202–564–3847; fax number: 202–564–3755; e-mail address: *naylor.richard@epa.gov*.

SUPPLEMENTARY INFORMATION:

How Can I Access the Docket and/or Submit Comments?

EPA has established a public docket for this ICR under Docket ID No. EPA–HQ–OW–2008–0438, which is available for online viewing at *http://www.regulations.gov*, or in person viewing at the Water Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC 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.

Use *http://www.regulations.gov* to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the docket ID number identified in this document.

What Information Is EPA Particularly Interested In?

Pursuant to section 3506(c)(2)(A) of the PRA, EPA specifically solicits comments and information to enable it to:

(i) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility;

(ii) evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(iii) enhance the quality, utility, and clarity of the information to be collected; and

(iv) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses. In particular, EPA is requesting comments from very small businesses (those that employ less than 25) on examples of specific additional efforts that EPA could make to reduce the paperwork burden for very small businesses affected by this collection.

What Should I Consider When I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible and provide specific examples.

2. Describe any assumptions that you used.

3. Provide copies of any technical information and/or data you used that support your views.

4. If you estimate potential burden or costs, explain how you arrived at the estimate that you provide.

5. Offer alternative ways to improve the collection activity.

6. Make sure to submit your comments by the deadline identified under **DATES**.

7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and **Federal Register** citation.

What Information Collection Activity or ICR Does This Apply to?

Affected entities: New and existing public water systems (PWS), primacy agencies, and EPA.

Title: Microbial Rules (Renewal).

ICR numbers: EPA ICR No. 1895.04, OMB Control No. 2040–0205.

ICR status: This ICR is currently scheduled to expire on September 30, 2008. An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register** when approved, are listed in 40 CFR part 9, are displayed either by publication in the **Federal Register** or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

Abstract: The Microbial Rules Renewal ICR examines public water system, primacy agency and EPA burden and costs for recordkeeping and reporting requirements in support of the microbial drinking water regulations. These recordkeeping and reporting requirements are mandatory for compliance with 40 CFR parts 141 and 142. The following microbial regulations are included: Surface Water Treatment Rule (SWTR), Total Coliform Rule (TCR), Interim Enhanced Surface Water Treatment Rule (IESWTR), Filter Backwash Recycling Rule (FBRR), Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR), Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), and Ground Water Rule. Future microbial-related rulemakings will be added to this consolidated ICR after the regulations are finalized and the initial, rule-specific, ICRs are due to expire.

Burden Statement: The annual public reporting and recordkeeping burden for this collection of information is estimated to average 0.79 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and

requirements which have subsequently changed; 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.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here:

Estimated total number of potential respondents: 161,274.

Frequency of response: Varies by requirement (i.e., on occasion, monthly, quarterly, semi-annually, and annually).

Estimated total average number of responses for each respondent: 72.

Estimated total annual burden hours: 9,151,424 hours.

Estimated total annual costs: $118,653,327. This includes an estimated burden cost of $14,698,327 and an estimated cost of $22,793,000 for capital investment and $81,162,000 for maintenance and operational costs.

Are There Changes in the Estimates From the Last Approval?

There is an increase of 526,559 hours in the total estimated respondent burden compared with that identified in the ICR currently approved by OMB. This increase is primarily due to restructuring adjustments (i.e., incorporation of the approved burden hours from the previously stand-alone ICRs for the Long Term 2 Enhanced Surface Water Treatment Rule, and Ground Water Rule

What Is the Next Step in the Process for This ICR?

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another **Federal Register** notice pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

Dated: June 2, 2008.

Cynthia C. Dougherty,

Director, Office of Ground Water and Drinking Water.

[FR Doc. E8–12708 Filed 6–5–08; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OW–2008–0437; FRL–8576–8]

Agency Information Collection Activities; Proposed Collection; Comment Request; Public Water System Supervision Program (Renewal); EPA ICR No. 0270.43, OMB Control No. 2040–0090

AGENCY: Environmental Protection Agency.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that EPA is planning to submit a request to renew an existing approved Information Collection Request (ICR) to the Office of Management and Budget (OMB). This ICR is scheduled to expire on September 30, 2008. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection as described below.

DATES: Comments must be submitted on or before August 5, 2008.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OW–2008–0437, by one of the following methods:

- *http://www.regulations.gov* (our preferred method): Follow the on-line instructions for submitting comments.
- *E-mail: OW–Docket@epa.gov*.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center (EPA/DC), Water Docket, MC: 2822T, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
- *Hand Delivery:* EPA Docket Center, Public Reading Room, EPA Headquarters West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OW–2008–0437. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm*.

FOR FURTHER INFORMATION CONTACT: Richard Naylor, Drinking Water Protection Division, Office of Ground Water and Drinking Water, (MC: 4606M), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 202–564–3847; fax number: 202–564–3755; e-mail address: *naylor.richard@epa.gov*.

SUPPLEMENTARY INFORMATION:

How Can I Access the Docket and/or Submit Comments?

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Appendix B

Surface Water Treatment Rule Spreadsheets

Exhibit B.1a - SWTR Unfiltered System Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Raw Water Coliforms Sampling	60	9,840	19,679	$604,488	$208,670	N/A
On Site Inspections & Watershed Management	60	60	137,605	$4,226,837	N/A	N/A
Raw Water Turbidity Monitoring	60	175,200	11,315	$347,566	$43,347	$22,189

Note: Disinfectant residual monitoring requirements under the SWTR are addressed in the DBP/Chems/Rads ICR.

Exhibit B.1b - SWTR Filtered System Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Finished Water Turbidity Monitoring	1,767	5,158,761	608,125	$18,679,948	$1,055,715	$527,293

Note: Disinfectant residual monitoring requirements under the SWTR are addressed in the DBP/Chems/Rads ICR.

Exhibit B.1c - Total SWTR PWS (Filtered + Unfiltered System) Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Totals for Unfiltered and Filtered Systems	1,827	5,343,860	776,724	$23,858,839	$1,307,732	$549,482

Note: State activities associated with disinfectant residual monitoring requirements are addressed in the DBP/Chems/Rads ICR.

Exhibit B.1d - SWTR State Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Finished Water Turbidity Monitoring	57	22,700	183,216	$7,841,486	N/A	N/A

Note: State activities associated with disinfectant residual monitoring requirements are addressed in the DBP/Chems/Rads ICR.

Exhibit B.2 - SWTR System Inventory

Population Category	Surface Water and GWUDI			Non-Purchased Surface Water/GWUDI			Unfiltered Surface Water/GWUDI			Filtered Non-Purchased Surface Water/GWUDI		
	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC
≤100	1,179	259	1,238	438	129	636	1	0	0	437	129	636
101-500	2,093	236	475	659	148	375	4	0	0	655	148	375
501-1,000	1,167	88	82	365	60	62	3	0	0	362	60	62
1,001-3,300	2,458	68	56	944	33	44	15	0	0	929	33	44
3,301-10K	2,026	20	22	1,005	5	19	14	0	0	991	5	19
10,001-50K	1,828	6	3	962	2	2	14	0	0	948	2	2
50,001-100K	378	1	0	218	0	0	4	0	0	214	0	0
100,001-1M	306	1	1	230	0	1	4	0	0	226	0	1
>1M	16	0	1	15	0	0	1	0	0	14	0	0
Total	**11,452**	**680**	**1,878**	**4,837**	**377**	**1,139**	**60**	**0**	**0**	**4,777**	**377**	**1,139**

Source: SDWIS/FED Data from October 2007. Number of unfiltered systems from ICR done for final LT2ESWTR in 2006.
Note: Source was not specified for some systems. These PWSs were assigned to SW or GW categories based on the ratio of SW to GW systems within a given size category.

Population Category	Plants Per System (SW/GWUDI)			Total Filtered Non-Purchased Plants (SW/GWUDI)			Total Plants Monitoring Under IESWTR (SW/GWUDI)			Total Plants Monitoring Under LT1ESWTR (SW/GWUDI)			Total Filtered Plants Monitoring Under SWTR (SW/GWUDI)		
	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC
≤100	1.00	1.0	1.0	437	129	636	N/A	N/A	N/A	207	61	302	230	68	335
101-500	1.00	1.0	1.0	655	148	375	N/A	N/A	N/A	328	74	187	328	74	188
501-1,000	1.04	1.0	1.0	377	60	62	N/A	N/A	N/A	328	52	54	49	8	8
1,001-3,300	1.04	1.0	1.0	967	33	44	N/A	N/A	N/A	783	27	36	184	6	8
3,301-10K	1.05	1.0	1.0	1,041	5	19	N/A	N/A	N/A	920	4	17	120	1	2
10,001-50K	1.11	1.0	1.0	1,052	2	2	985	2	2	N/A	N/A	N/A	68	0	0
50,001-100K	1.11	1.0	1.0	238	0	0	198	0	0	N/A	N/A	N/A	40	0	0
100,001-1M	1.64	1.0	1.0	371	0	1	334	0	1	N/A	N/A	N/A	37	0	0
>1M	1.64	1.0	1.0	23	0	0	9	0	0	N/A	N/A	N/A	14	0	0
Total				**5,160**	**377**	**1,139**	**1,525**	**2**	**3**	**2,565**	**219**	**596**	**1,069**	**157**	**541**

Source: Entry pts for CWSs: From Exhibits 5.1 and 5.2 of the Draft Final Model Systems Report prepared for EPA by the Cadmus Group, Inc., in March 2005. The exhibits are an analysis of data from the 2000 Community Water System Survey. Includes treated entry points. Excludes 2 outlier systems that had more than 100 entry points, as well as 27 systems that provided insufficient information on their treated entry points. Numbers of plants monitoring under IESWTR and LT1ESWTR are from Appendix D and E system inventories and are based on percentage of plants using conventional or direct filtration.

Exhibit B.3 - Raw Water Coliforms Burden and Cost (Unfiltered Systems)

Population Category	Hourly Labor Rate	Number of Unfiltered Systems (SW and GWUDI)			Yearly Sample Freq.	Labor Hours Per Sample		Cost/Sample		Total Samples/Year	Labor				O&M Costs
		CWS	NTNC	TNC		Collect	Analysis	O&M (materials)	Labor	CWS	Sample Collection		Analysis		Analytical Materials
											(hrs)	(cost)	(hrs)	(cost)	
<100	$30.72	1	0	0	52	1	1	$21.21	$30.72	52	52	$1,597	52	$1,597	$ 1,103
101-500	$30.72	4	0	0	52	1	1	$21.21	$30.72	208	208	$6,389	208	$6,389	$ 4,411
501-1,000	$30.72	3	0	0	104	1	1	$21.21	$30.72	312	312	$9,584	312	$9,584	$ 6,617
1,001-3,300	$30.72	15	0	0	104	1	1	$21.21	$30.72	1,560	1560	$47,919	1,560	$47,919	$ 33,083
3,301-10K	$30.72	14	0	0	156	1	1	$21.21	$30.72	2,184	2184	$67,087	2,184	$67,087	$ 46,317
10,001-25K	$30.72	9	0	0	208	1	1	$21.21	$30.72	1,826	1826	$56,084	1,826	$56,084	$ 38,721
25,001-50K	$30.72	5	0	0	260	1	1	$21.21	$30.72	1,358	1358	$41,705	1,358	$41,705	$ 28,794
50,001-100K	$30.72	4	0	0	260	1	1	$21.21	$30.72	1,040	1040	$31,946	1,040	$31,946	$ 22,056
100,001-1M	$30.72	4	0	0	260	1	1	$21.21	$30.72	1,040	1040	$31,946	1,040	$31,946	$ 22,056
>1M	$30.72	1	0	0	260	1	1	$21.21	$30.72	260	260	$7,986	260	$7,986	$ 5,514
Total		**60**	**0**	**0**	**1,716**					**9,840**	**9,840**	**$ 302,244**	**9840**	**$ 302,244**	**$ 208,670**

Sources: Cost per sample from ICR for proposed Aircraft Drinking Water Rule, updated from 2006 to 2007 dollars. Burden estimates incorporate results of February 2008 consultations with drinking water industry representatives.
Unfiltered systems must measure total or fecal coliform density of source water 1-5 times per week, depending on system size (40 CFR 141.74(b)).

Exhibit B.4 - On Site Inspections and Watershed Management Burden and Cost (Unfiltered Systems)

Population Category	Hourly Labor Rate	Number of Unfiltered Systems (SW and GWUDI)			Hours/ System/ Year	Total Annual Burden and Cost	
		CWS	NTNC	TNC		(hrs)	(cost)
<100	$30.72	1	0	0	48	48	$1,474
101-500	$30.72	4	0	0	115	460	$14,130
501-1,000	$30.72	3	0	0	221	663	$20,366
1,001-3,300	$30.72	15	0	0	418	6,270	$192,597
3,301-10K	$30.72	14	0	0	826	11,564	$355,215
10,001-25K	$30.72	9	0	0	1,411	12,386	$380,457
25,001-50K	$30.72	5	0	0	2,160	11,280	$346,476
50,001-75K	$30.72	3	0	0	2,947	7,957	$244,414
75,001-100K	$30.72	1	0	0	4,070	5,291	$162,525
100,001-500K	$30.72	4	0	0	7,392	26,345	$809,249
500,001-1M	$30.72	0	0	0	15,792	6,885	$211,498
>1M	$30.72	1	0	0	48,456	48,456	$1,488,436
Total		**60**	**0**	**0**		**137,605**	**$4,226,837**

Note: Burden estimates incorporate results of February 2008 consultations with drinking water industry representatives.

Exhibit B.5 - Raw Water Turbidity Monitoring Burden and Costs (Unfiltered Systems)

Population Category	Hourly Labor Rate	Number of Unfiltered Systems (SW and GWUDI)			% Cont. Monitoring	Labor Hours/System/Year (Collection, Analysis, and Reporting)			Total Labor Hours/Year	Total Labor Cost/Year
		CWS	NTNC	TNC		Calibration	Continuous Monitoring	Verification Grab Samples		
						(15 min./day)*365	(1 min/reading) *6 readings/day*365	(10 min/sample)*1 sample/day*365		
<100	$30.72	1	0	0	100%	91.3	36.5	60.8	189	$5,793
101-500	$30.72	4	0	0	100%	91.3	36.5	60.8	754	$23,171
501-1,000	$30.72	3	0	0	100%	91.3	36.5	60.8	566	$17,378
1,001-3,300	$30.72	15	0	0	100%	91.3	36.5	60.8	2,829	$86,891
3,301-10K	$30.72	14	0	0	100%	91.3	36.5	60.8	2,640	$81,099
10,001-25K	$30.72	9	0	0	100%	91.3	36.5	60.8	1,655	$50,849
25,001-50K	$30.72	5	0	0	100%	91.3	36.5	60.8	985	$30,250
50,001-100K	$30.72	4	0	0	100%	91.3	36.5	60.8	754	$23,171
100,001-1M	$30.72	4	0	0	100%	91.3	36.5	60.8	754	$23,171
>1M	$30.72	1	0	0	100%	91.3	36.5	60.8	189	$5,793
Total		**60**	**0**	**0**					**11,315**	**$347,566**

Note: Burden estimates incorporate results of February 2008 consultation with water industry representatives.

The SWTR requires systems using continuous monitoring to "validate the continuous measurement on a regular basis using a protocol approved by the State" (40 CFR 141.74(b)(3)). EPA assumes 1 verification sample per day.

Exhibit B.6 - Raw Water Turbidity Monitoring O&M and Capital Costs (Unfiltered Systems)

Population Category	Number of Unfiltered Systems (SW and GWUDI)			% Cont. Monitoring	Activities/System/Year		Annual O&M Unit Costs		Annual O&M Costs		Capital Unit Costs		Annual Capital Costs	
	CWS	NTNC	TNC		Calibration	Verification Grab Samples	Continuous Monitoring	Grab Sampling	Continuous Monitoring	Grab Sampling	Continuous Monitoring	Grab Sampling	Continuous Monitoring	Grab Sampling
					1 per day	1 per day	Materials	Materials	Unit O&M costs * # Systems	Unit O&M costs * # Systems	In-line turbidimeter	Bench-Top Unit	1/7 of systems replace per year	1/7 of systems replace per year
<100	1	0	0	100%	365	365	$361	$361	$361	$361	$1,445	$1,144	$206	$163
101-500	4	0	0	100%	365	365	$361	$361	$1,445	$1,445	$1,445	$1,144	$826	$654
501-1,000	3	0	0	100%	365	365	$361	$361	$1,084	$1,084	$1,445	$1,144	$619	$490
1,001-3,300	15	0	0	100%	365	365	$361	$361	$5,418	$5,418	$1,445	$1,144	$3,096	$2,451
3,301-10K	14	0	0	100%	365	365	$361	$361	$5,057	$5,057	$1,445	$1,144	$2,890	$2,288
10,001-25K	9	0	0	100%	365	365	$361	$361	$3,171	$3,171	$1,445	$1,144	$1,812	$1,434
25,001-50K	5	0	0	100%	365	365	$361	$361	$1,886	$1,886	$1,445	$1,144	$1,078	$853
50,001-100K	4	0	0	100%	365	365	$361	$361	$1,445	$1,445	$1,445	$1,144	$826	$654
100,001-1M	4	0	0	100%	365	365	$361	$361	$1,445	$1,445	$1,445	$1,144	$826	$654
>1M	1	0	0	100%	365	365	$361	$361	$361	$361	$1,445	$1,144	$206	$163
Total	**60**	**0**	**0**						**$21,673**	**$21,673**			**$12,385**	**$9,805**

Note: O&M unit costs and capital unit costs have been updated from 2000 to 2007 dollars.

The SWTR requires systems using continuous monitoring to "validate the continuous measurement on a regular basis using a protocol approved by the State" (40 CFR 141.74(b)(3)). EPA assumes 1 verification sample per day.

Exhibit B.7 - Finished Water Turbidity Monitoring Burden and Costs (Filtered Systems)

Population Category	Hourly Labor Rate	Number of Filtered Non-Purchased Plants (SW and GWUDI)			% Cont. Monitoring	Labor Hours/System/Year (Collection, Analysis, and Reporting)				Total Labor Hours/Year	Total Labor Cost/Year
		CWS	NTNC	TNC		Calibration	Continuous Monitoring	Verification Grab Samples	Grab Sample Only		
						(15 min./day)*365	(1 min/reading) *6 readings/day*365	(10 min/sample)*1 sample/day*365	(15 min/sample)*6 sample/day*365		
<100	$30.72	230	68	335	50%	91.3	36.5	60.8	547.5	261,578	$8,034,971
101-500	$30.72	328	74	188	50%	91.3	36.5	60.8	547.5	243,745	$7,487,178
501-1,000	$30.72	49	8	8	100%	91.3	36.5	60.8	547.5	12,213	$375,147
1,001-3,300	$30.72	184	6	8	100%	91.3	36.5	60.8	547.5	37,431	$1,149,775
3,301-10K	$30.72	120	1	2	100%	91.3	36.5	60.8	547.5	23,236	$713,757
10,001-25K	$30.72	42	0	0	100%	91.3	36.5	60.8	547.5	7,999	$245,715
25,001-50K	$30.72	25	0	0	100%	91.3	36.5	60.8	547.5	4,759	$146,175
50,001-100K	$30.72	40	0	0	100%	91.3	36.5	60.8	547.5	7,535	$231,445
100,001-1M	$30.72	37	0	0	100%	91.3	36.5	60.8	547.5	6,997	$214,918
>1M	$30.72	14	0	0	100%	91.3	36.5	60.8	547.5	2,633	$80,867
Total		**1,069**	**157**	**541**						**608,125**	**$18,679,948**

Note: The SWTR requirements for filtered systems apply only to those systems that do not use conventional or direct filtration. Systems using conventional or direct filtration monitor turbidity under the IESWTR and LT1ESWTR. EPA assumes that 50 percent of systems serving 500 or fewer will monitor turbidity with grab samples rather than continuous monitoring. The burden estimates shown here incorporate the results of February 2008 consultations with water industry representatives.

Exhibit B.8 - Finished Water Turbidity Monitoring O&M and Capital Costs (Filtered Systems)

Population Category	Number of Filtered Non-Purchased Plants (SW and GWUDI)			% Cont. Monitoring	Activities/System/Year			Annual O&M Unit Costs		Annual O&M Costs		Capital Unit Costs		Annual Capital Costs	
	CWS	NTNC	TNC		Calibration	Verification Grab Samples	Routine Grab Samples	Continuous Monitoring	Grab Sampling	Continuous Monitoring	Grab Sampling	Continuous Monitoring	Grab Sampling	Continuous Monitoring	Grab Sampling
					1 per day	1 per day	6 per day	Materials	Materials	Unit O&M costs * # Systems	Unit O&M costs * # Systems	In-line turbidimeter	Bench-Top Unit	1/7 of systems replace per year	1/7 of systems replace per year
<100	230	68	335	50%	365	365	2190	$361	$361	$114,208	$228,416	$1,445	$1,144	$65,262	$103,331
101-500	328	74	188	50%	365	365	2190	$361	$361	$106,422	$212,843	$1,445	$1,144	$60,812	$96,286
501-1,000	49	8	8	100%	365	365	N/A	$361	$361	$23,393	$23,393	$1,445	$1,144	$13,368	$10,583
1,001-3,300	184	6	8	100%	365	365	N/A	$361	$361	$71,697	$71,697	$1,445	$1,144	$40,970	$32,434
3,301-10K	120	1	2	100%	365	365	N/A	$361	$361	$44,508	$44,508	$1,445	$1,144	$25,433	$20,135
10,001-25K	42	0	0	100%	365	365	N/A	$361	$361	$15,322	$15,322	$1,445	$1,144	$8,756	$6,931
25,001-50K	25	0	0	100%	365	365	N/A	$361	$361	$9,115	$9,115	$1,445	$1,144	$5,209	$4,124
50,001-100K	40	0	0	100%	365	365	N/A	$361	$361	$14,432	$14,432	$1,445	$1,144	$8,247	$6,529
100,001-1M	37	0	0	100%	365	365	N/A	$361	$361	$13,402	$13,402	$1,445	$1,144	$7,658	$6,063
>1M	14	0	0	100%	365	365	N/A	$361	$361	$5,043	$5,043	$1,445	$1,144	$2,882	$2,281
Total	**1,069**	**157**	**541**							**$417,543**	**$638,172**			**$238,596**	**$288,697**

Note: The SWTR requirements for filtered systems apply only to those systems that do not use conventional or direct filtration. Systems using conventional or direct filtration monitor turbidity under the IESWTR and LT1ESWTR. EPA assumes that 50 percent of SWTR systems serving 500 or fewer take grab samples only; the other 50 percent monitor continuously. O&M unit costs and capital unit costs updated from 2000 to 2007 dollars.

Exhibit B.9

Surface Water Treatment Rule - Summary of Original and Revised Burden Estimates

Raw Water Coliforms Burden Per Sample (Unfiltered Systems)		
2004 Burden	**Task**	**Revised Burden**
0.08 hr (4.8 min.)	Sample Collection	1 hr
0.08 hr (4.8 min.)	Sample Analysis	1 hr

On Site Inspections and Watershed Management Burden per Year (Unfiltered Systems)			
2004 Burden	**Task**	**System Size**	**Revised Burden**
30,912 hrs	On Site Inspections and Watershed Management	>1M	48,456 hrs

Raw Water Turbidity Monitoring Burden (Unfiltered Systems)		
2004 Burden	**Task**	**Revised Burden**
5 min	Calibration (Per Day)	15 min
5 min	Verification Grab Sample (Per Sample)	10 min

Finished Water Turbidity Monitoring Burden (Filtered Systems)		
2004 Burden	**Task**	**Revised Burden**
5 min	Calibration (Per Day)	15 min
5 min	Verification Grab Sample (Per Sample)	10 min
5 min	Grab Sample Only (Per Sample)	15 min

Assumes 50% of systems serving a population less than 500 monitor continuously.
Note: Disinfectant residual monitoring is covered in the DBP/Chem/Rads ICR.

Appendix C

Total Coliform Rule Spreadsheets

Exhibit C.1a - TCR PWS Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
System Monitoring	155,693	973,454	3,464,341	$106,414,965	$77,457,439	N/A

Exhibit C.1b - TCR State Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Monitoring Related Activities	57	1,868,316	467,079	$19,990,566	N/A	N/A
Sanitary Surveys	57	9,194	123,940	$5,304,522	N/A	N/A
Total	**57**	**1,877,510**	**591,019**	**$25,295,088**	**N/A**	**N/A**

Note: Sanitary survey burden for surface water systems is included under IESWTR. Sanitary survey burden for ground water systems for year 1 of this ICR period is included here. Sanitary survey burden for years 2 and 3 is included under the GWR (see App. G).

Number of responses for monitoring for states is based on number of PWS respondents and assumes 1 response per system per month.

State burden for monitoring assumes 15 minutes to review each system's data each month.

Exhibit C.2 - Calculating Average Number of TCR Samples for 3 System Types, Combined
Source: SDWIS/FED Data from October, 2007

All PWSs

Population Range	Minimum Routine/ month	Minimum Repeat	Addtnl Routines next mo	CWSs Systems	CWSs Samples	NTNCWSs Systems	NTNCWSs Samples	TNCWSs Systems	TNCWSs Samples	Total PWSs Systems	Total PWSs Samples
	A	B	C	D	E=D*A	F	G=F*A	H	I=H*A	J=D+F+H	K=E+G+I
25-500	1	4	4	29,282	29,282	16,034	16,034	81,873	81,873	127,189	127,189
501-1k	1	4	4	5,678	5,678	1,829	1,829	2,081	2,081	9,588	9,588
1,001-2.5K	2	3	3	6,496	12,992	749	1,498	618	1,236	7,863	15,726
2,501-3.3K	3	3	2	1,732	5,196	84	252	52	156	1,868	5,604
3,301-4.1K	4	3	1	1,184	4,736	46	184	34	136	1,264	5,056
4,101-4.9K	5	3	0	821	4,105	15	75	17	85	853	4,265
4,901-5.8K	6	3	0	761	4,566	20	120	20	120	801	4,806
5,801-6.7K	7	3	0	590	4,130	12	84	7	49	609	4,263
6,701-7.6K	8	3	0	446	3,568	13	104	10	80	469	3,752
7,601-8.5K	9	3	0	416	3,744	4	36	5	45	425	3,825
8,501-10k	10	3	0	604	6,040	10	100	9	90	623	6,230
10,001-12.9k	10	3	0	667	6,670	7	70	3	30	677	6,770
12,901-17.2K	15	3	0	763	11,445	5	75	6	90	774	11,610
17,201-21.5K	20	3	0	455	9,100	1	20	0	0	456	9,120
21,501-25K	25	3	0	303	7,575	0	0	2	50	305	7,625
25,001-33K	30	3	0	447	13,410	4	120	1	30	452	13,560
33,001-41K	40	3	0	336	13,440	1	40	0	0	337	13,480
41,001-50K	50	3	0	204	10,200	3	150	0	0	207	10,350
50,001-59K	60	3	0	178	10,680	0	0	1	60	179	10,740
59,001-70K	70	3	0	151	10,570	0	0	1	70	152	10,640
70,001-83K	80	3	0	102	8,160	1	80	0	0	103	8,240
83,001-96K	90	3	0	77	6,930	0	0	0	0	77	6,930
96,001-130K	100	3	0	126	12,600	0	0	1	100	127	12,700
130,001-220K	120	3	0	145	17,400	1	120	1	120	147	17,640
220,001-320K	150	3	0	57	8,550	0	0	0	0	57	8,550
320,001-450K	180	3	0	31	5,580	0	0	0	0	31	5,580
450,001-600K	210	3	0	14	2,940	0	0	0	0	14	2,940
600,001-780K	240	3	0	14	3,360	0	0	1	240	15	3,600
780,001-970K	270	3	0	6	1,620	0	0	0	0	6	1,620
970,001-1,230K	300	3	0	8	2,400	0	0	0	0	8	2,400
1,230,001-1,520K	330	3	0	5	1,650	0	0	0	0	5	1,650
1,520,001-1,850K	360	3	0	5	1,800	0	0	0	0	5	1,800
1,850,001-2,270K	390	3	0	2	780	0	0	1	390	3	1,170
2,270,001-3,020K	420	3	0	2	840	0	0	0	0	2	840
3,020,001-3,960K	450	3	0	0	0	0	0	0	0	0	0
Over 3,960K	480	3	0	2	960	0	0	0	0	2	960
Total				52,110	252,697	18,839	20,991	84,744	87,131	155,693	360,819

TCR Samples - combined GW+SW/GWUDI

Population PopRange	Routine	Repeat	Addtnl Routines next mo	CWSs Sys	CWSs Samples	NTNCWSs Sys	NTNCWSs Samples	TNCWSs Sys	TNCWSs Samples	Total PWSs Sys	Total PWSs Samples
	A	B	C	D	E=D*A	G	H=G*A	J	K=J*A	M=D+G+J	N=E+H+K
25-500	1.0	4	4	29,282	29,282	16,034	16,034	81,873	81873.00	127,189	127,189
501-1k	1.0	4	4	5,678	5,678	1,829	1,829	2,081	2081.00	9,588	9,588
1,001-2.5K	2.0	3	3	6,496	12,992	749	1,498	618	1236.00	7,863	15,726
2,501-3.3K	3.0	3	2	1,732	5,196	84	252	52	156.00	1,868	5,604
3,301-4.1K	4.0	3	1	1,184	4,736	46	184	34	136.00	1,264	5,056
4,101-10K	7.2	3	0	3,638	26,153	74	519	68	469.00	3,780	27,141
10,001-25k	15.9	3	0	2,188	34,790	13	165	11	170.00	2,212	35,125
25,001-50k	37.5	3	0	987	37,050	8	310	1	30.00	996	37,390
Over 50K	104.7	3	0	925	96,820	2	200	6	980.00	933	98,000
Total				52,110	252,697	18,839	20,991	84,744	87131.00	155,693	360,819

Exhibit C.2 (Continued). Average Number of TCR Samples for Surface/GWUDI Systems

SURFACE/GWUDI

Population Range	Routine	Repeat	Addtnl Routines next mo	CWSs		NTNCWSs		TNCWSs		Total PWSs	
				Systems	Samples	Systems	Samples	Systems	Samples	Systems	Samples
	A	B	C	D	E=D*A	F	G=F*A	H	I=H*A	J=D+F+H	K=E+G+I
25-500	1	4	4	3,272	3,272	495	495	1,713	1,713	5,480	5,480
501-1k	1	4	4	1,167	1,167	88	88	82	82	1,337	1,337
1,001-2.5K	2	3	3	1,841	3,681	57	114	45	90	1,943	3,885
2,501-3.3K	3	3	2	617	1,852	11	33	11	33	639	1,918
3,301-4.1K	4	3	1	447	1,788	4	16	6	24	457	1,828
4,101-4.9K	5	3	0	332	1,660	2	10	3	15	337	1,685
4,901-5.8K	6	3	0	306	1,838	6	36	5	32	318	1,906
5,801-6.7K	7	3	0	273	1,911	2	14	4	28	279	1,953
6,701-7.6K	8	3	0	192	1,536	3	24	0	0	195	1,560
7,601-8.5K	9	3	0	184	1,656	0	0	0	0	184	1,656
8,501-10k	10	3	0	292	2,920	3	30	4	40	299	2,990
10,001-12.9k	10	3	0	352	3,520	2	20	1	10	355	3,550
12,901-17.2K	15	3	0	425	6,375	2	30	1	15	428	6,420
17,201-21.5K	20	3	0	265	5,300	0	0		0	265	5,300
21,501-25K	25	3	0	169	4,225		0	0	0	169	4,225
25,001-33K	30	3	0	270	8,100	1	30	1	30	272	8,160
33,001-41K	40	3	0	215	8,600	0	0		0	215	8,600
41,001-50K	50	3	0	132	6,600	2	75		0	134	6,675
50,001-59K	60	3	0	119	7,140		0	0	0	119	7,140
59,001-70K	70	3	0	104	7,280		0	0	0	104	7,280
70,001-83K	80	3	0	73	5,840	1	80		0	74	5,920
83,001-96K	90	3	0	65	5,850		0		0	65	5,850
96,001-130K	100	3	0	94	9,400		0	0	0	94	9,400
130,001-220K	120	3	0	116	13,920	1	120	1	120	118	14,160
220,001-320K	150	3	0	52	7,800		0		0	52	7,800
320,001-450K	180	3	0	27	4,860		0		0	27	4,860
450,001-600K	210	3	0	12	2,520		0		0	12	2,520
600,001-780K	240	3	0	12	2,880		0	0	0	12	2,880
780,001-970K	270	3	0	5	1,350		0		0	5	1,350
970,001-1,230K	300	3	0	7	2,100		0		0	7	2,100
1,230,001-1,520K	330	3	0	4	1,320		0		0	4	1,320
1,520,001-1,850K	360	3	0	5	1,800		0		0	5	1,800
1,850,001-2,270K	390	3	0	1	390		0	1	390	2	780
2,270,001-3,020K	420	3	0	2	840		0		0	2	840
3,020,001-3,960K	450	3	0		0		0		0	0	0
Over 3,960K	480	3	0	2	960		0		0	2	960
				11,452	142,252	680	1,215	1,878	2,622	14,009	146,089

TCR Sampling - SW/GWUDI

Population PopRange	Routine	Repeat	Addtnl Routines next mo	CWSs - SW		NTNCWSs - SW		TNCWSs - SW		Total PWSs - SW	
				Sys	Samples	Sys	Samples	Sys	Samples	Sys	Samples
	A	B	C	D	E=D*A	G	H=G*A	J	K=J*A	M=D+G+J	N=E+H+K
25-500	1.0	4	4	3,272	3,272	495	495	1,713	1,713	5,480	5,480
501-1k	1.0	4	4	1,167	1,167	88	88	82	82	1,337	1,337
1,001-2.5K	2.0	3	3	1,841	3,681	57	114	45	90	1,943	3,885
2,501-3.3K	3.0	3	2	617	1,852	11	33	11	33	639	1,918
3,301-4.1K	4.0	3	1	447	1,788	4	16	6	24	457	1,828
4,101-10K	7.3	3	0	1,579	11,521	16	114	16	115	1,612	11,750
10,001-25k	16.0	3	0	1,211	19,420	4	50	2	25	1,217	19,495
25,001-50k	37.8	3	0	617	23,300	3	105	1	30	621	23,435
Over 50K	108.9	3	0	700	76,250	2	200	2	510	704	76,960
Total				11,452	142,252	680	1,215	1,878	2,622	14,009	146,089

Exhibit C.2 (Continued). Average Number of TCR Samples for Ground Water Systems

Ground Water

Population Range	Routine	Repeat	Addtnl Routines next mo	CWSs Systems	CWSs Samples	NTNCWSs Systems	NTNCWSs Samples	TNCWSs Systems	TNCWSs Samples	Total PWSs Systems	Total PWSs Samples
	A	B	C	D	E=D*A	F	G=F*A	H	I=H*A	J=D+F+H	K=E+G+I
25-500	1	4	4	26,010	26,010	15,539	15,539	80,160	80,160	121,709	121,709
501-1k	1	4	4	4,511	4,511	1,741	1,741	1,999	1,999	8,251	8,251
1,001-2.5K	2	3	3	4,655	9,311	692	1,384	573	1,146	5,920	11,841
2,501-3.3K	3	3	2	1,115	3,344	73	219	41	123	1,229	3,686
3,301-4.1K	4	3	1	737	2,948	42	168	28	112	807	3,228
4,101-4.9K	5	3	0	489	2,445	13	65	14	70	516	2,580
4,901-5.8K	6	3	0	455	2,728	14	84	15	88	483	2,900
5,801-6.7K	7	3	0	317	2,219	10	70	3	21	330	2,310
6,701-7.6K	8	3	0	254	2,032	10	80	10	80	274	2,192
7,601-8.5K	9	3	0	232	2,088	4	36	5	45	241	2,169
8,501-10k	10	3	0	312	3,120	7	70	5	50	324	3,240
10,001-12.9k	10	3	0	315	3,150	5	50	2	20	322	3,220
12,901-17.2K	15	3	0	338	5,070	3	45	5	75	346	5,190
17,201-21.5K	20	3	0	190	3,800	1	20		0	191	3,820
21,501-25K	25	3	0	134	3,350		0	2	50	136	3,400
25,001-33K	30	3	0	177	5,310	3	90	0	0	180	5,400
33,001-41K	40	3	0	121	4,840	1	40		0	122	4,880
41,001-50K	50	3	0	72	3,600	2	75		0	74	3,675
50,001-59K	60	3	0	59	3,540		0	1	60	60	3,600
59,001-70K	70	3	0	47	3,290		0	1	70	48	3,360
70,001-83K	80	3	0	29	2,320	0	0		0	29	2,320
83,001-96K	90	3	0	12	1,080		0		0	12	1,080
96,001-130K	100	3	0	32	3,200		0	1	100	33	3,300
130,001-220K	120	3	0	29	3,480	0	0	0	0	29	3,480
220,001-320K	150	3	0	5	750		0		0	5	750
320,001-450K	180	3	0	4	720		0		0	4	720
450,001-600K	210	3	0	2	420		0		0	2	420
600,001-780K	240	3	0	2	480		0	1	240	3	720
780,001-970K	270	3	0	1	270		0		0	1	270
970,001-1,230K	300	3	0	1	300		0		0	1	300
1,230,001-1,520K	330	3	0	1	330		0		0	1	330
1,520,001-1,850K	360	3	0	0	0		0		0	0	0
1,850,001-2,270K	390	3	0	1	390		0	0	0	1	390
2,270,001-3,020K	420	3	0	0	0		0		0	0	0
3,020,001-3,960K	450	3	0		0		0		0	0	0
Over 3,960K	480	3	0	0	0		0		0	0	0
Total				40,658	110,445	18,159	19,776	82,866	84,509	141,684	214,730

TCR Sampling - Ground Water

Population PopRange	Min Samp/ month	Min Repeat	Addtnl Routines next mo	CWSs - GW Sys	CWSs - GW Samples	NTNCWSs - GW Sys	NTNCWSs - GW Samples	TNCWSs - GW Sys	TNCWSs - GW Samples	Total PWSs - GW Sys	Total PWSs - GW Samples
	A	B	C	D	E=D*A	G	H=G*A	J	K=J*A	M=D+G+J	N=E+H+K
25-500	1.0	4	4	26,010	26,010	15,539	15,539	80,160	80,160	121,709	121,709
501-1k	1.0	4	4	4,511	4,511	1,741	1,741	1,999	1,999	8,251	8,251
1,001-2.5K	2.0	3	3	4,655	9,311	692	1,384	573	1,146	5,920	11,841
2,501-3.3K	3.0	3	2	1,115	3,344	73	219	41	123	1,229	3,686
3,301-4.1K	4.0	3	1	737	2,948	42	168	28	112	807	3,228
4,101-10K	7.1	3	0	2,059	14,632	58	405	52	354	2,168	15,391
10,001-25k	15.7	3	0	977	15,370	9	115	9	145	995	15,630
25,001-50k	37.2	3	0	370	13,750	6	205	0	0	376	13,955
Over 50K	91.4	3	0	225	20,570	0	0	4	470	229	21,040
Total				40,658	110,445	18,159	19,776	82,866	84,509	141,684	214,730

Exhibit C.3 - Inventory of Systems with Violations (for Routine and Repeat Monitoring)

Inventory

Population	CWSs			NTNCWSs			TNCWSs			NCWSs		
Range	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total
25-500	26,010	3,272	29,282	15,539	495	16,034	80,160	1,713	81,873	95,699	2,208	97,907
501-1K	4,511	1,167	5,678	1,741	88	1,829	1,999	82	2,081	3,740	170	3,910
1,001-2.5K	4,655	1,841	6,496	692	57	749	573	45	618	1,265	102	1,367
2,501-3.3K	1,115	617	1,732	73	11	84	41	11	52	114	22	136
3,301-4.1K	737	447	1,184	42	4	46	28	6	34	70	10	80
4,101-10K	2,059	1,579	3,638	58	16	74	52	16	68	110	32	142
10,001-25K	977	1,211	2,188	9	4	13	9	2	11	18	6	24
25,001-50K	370	617	987	6	3	8	0	1	1	6	4	9
Over 50K	225	700	925	0	2	2	4	2	6	4	4	8
Total	40,658	11,452	52,110	18,159	680	18,839	82,866	1,878	84,744	101,025	2,558	103,583

Source: TCR Inventory, pages C-1 through C-9

Population	Violation Rate CWS		Violation Rate NCWS	
Range	GW	SW/GUDI	GW	SW/GUDI
25-500	5.37%	1.99%	4.56%	1.86%
501-1K	2.99%	1.71%	3.77%	3.53%
1,001-2.5K	3.51%	2.35%	4.66%	4.64%
2,501-3.3K	0.84%	0.79%	0.42%	1.00%
3,301-4.1K	1.39%	0.67%	2.82%	0.00%
4,101-10K	3.87%	2.38%	2.82%	0.00%
10,001-25K	3.93%	3.04%	3.26%	0.00%
25,001-50K	1.49%	1.55%	1.00%	0.00%
Over 50K	2.22%	1.14%	0.00%	0.00%

Source: Violation rates based on SDWIS data on the number of systems w/monthly TCR violations from the FY07Q03 frozen database

CWSs with MCL Violations, TC+ Samples, No TC+ Samples

Population	CWS Inventory (from TCR Inventory)			CWSs with MCL Vios (# of Samples) 5.10% = Vio Rate			CWSs with TC+ Samples 3 x # of Vios			CWSs with "Clean" Samples (=Inventory-Sys w/TC+)		
Range	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total
	A	B	C	D	E	F	G=D*3	H=E*3	I=F*3	J=A-G	K=B-H	L=C-I
25-500	26,010	3,272	29,282	1,398	65	1,463	4,194	195	4,389	21,816	3,077	24,893
501-1K	4,511	1,167	5,678	135	20	155	405	60	465	4,106	1,107	5,213
1,001-2.5K	4,655	1,841	6,496	163	43	207	490	130	620	4,165	1,711	5,876
2,501-3.3K	1,115	617	1,732	9	5	14	28	15	43	1,087	603	1,689
3,301-4.1K	737	447	1,184	10	3	13	31	9	40	706	438	1,144
4,101-10K	2,059	1,579	3,638	80	38	117	239	113	352	1,819	1,466	3,286
10,001-25K	977	1,211	2,188	38	37	75	115	111	226	862	1,100	1,962
25,001-50K	370	617	987	6	10	15	17	29	45	353	588	942
Over 50K	225	700	925	5	8	13	15	24	39	210	676	886
Total	40,658	11,452	52,110	1,845	228	2,073	5,534	684	6,218	35,125	10,767	45,892

Source: Number of systems with violations from SDWIS FY2007. Assumes that for every system with a violation, there are 3 systems with TC+ samples that trigger repeat sampling and in some cases additional routine monitoring.

Inventory of Systems with Violations (for Routine and Repeat Monitoring) continued

NCWSs with MCL Violations, TC+ Samples, No TC+ Samples

Population	NCWS Inventory (from TCR Inventory)			NCWSs with MCL Vios 4.46% = Vio Rate			NCWSs with TC+ Samples 3 x # of Vios			NCWSs with "Clean" Samples (=Inventory-Sys w/TC+)		
Range	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total
	A	B	C	D	E	F	G=D*3	H=E*3	I=F*3	J=A-G	K=B-H	L=C-I
25-500	95,699	2,208	97,907	4,360	41	4,401	13,080	123	13,203	82,619	2,085	84,704
501-1K	3,740	170	3,910	141	6	147	423	18	441	3,317	152	3,469
1,001-2.5K	1,265	102	1,367	59	5	64	177	14	191	1,088	88	1,176
2,501-3.3K	114	22	136	0	0	1	1	1	2	113	21	134
3,301-4.1K	70	10	80	2	0	2	6	0	6	64	10	74
4,101-10K	110	32	142	3	0	3	9	0	9	100	32	133
10,001-25K	18	6	24	1	0	1	2	0	2	16	6	22
25,001-50K	6	4	9	0	0	0	0	0	0	5	4	9
Over 50K	4	4	8	0	0	0	0	0	0	4	4	8
Total	101,025	2,558	103,583	4,566	52	4618	13,698	156	13,854	87,327	2,402	89,729

Source: Number of systems with violations from SDWIS FY2007. Assumes that for every system with a violation, there are 3 systems with TC+ samples that trigger repeat sampling and in some cases additional routine monitoring.

All Systems with MCL Violations, TC+ Samples, No TC+ Samples

Population	Total PWS Inventory (CWS + NCWS)			PWSs with MCL Vios (CWS + NCWS)			PWSs with TC+ Samples (CWS + NCWS)			PWSs with "Clean" Samples (=Inventory-Sys w/TC+)		
Range	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total	GW	SW/GUDI	Total
	A	B	C	D	E	F	G=D*3	H=E*3	I=F*3	J=A-G	K=B-H	L=C-I
25-500	121,709	5,480	127,189	5,758	106	5864	17,274	318	17,592	104,435	5,162	109,597
501-1K	8,251	1,337	9,588	276	26	302	828	78	906	7,423	1,259	8,682
1,001-2.5K	5,920	1,943	7,863	222	48	270	667	144	811	5,253	1,799	7,052
2,501-3.3K	1,229	639	1,868	10	5	15	30	15	45	1,199	624	1,823
3,301-4.1K	807	457	1,264	12	3	15	37	9	46	770	448	1,218
4,101-10K	2,168	1,612	3,780	83	38	120	248	113	361	1,920	1,499	3,419
10,001-25K	995	1,217	2,212	39	37	76	117	111	228	878	1,106	1,984
25,001-50K	376	621	996	6	10	15	17	29	45	359	592	951
Over 50K	229	704	933	5	8	13	15	24	39	214	680	894
Total	141,684	14,009	155,693	6,411	280	6690.79232	19,232	840	20,072	122,452	13,169	135,621

Population	Inventory for Calculating Routine Monitoring			Inventory for Calculating Repeat/Addtl Routine Mon		
Range	GW*	SW/GUDI	Total	GW	SW/GUDI	Total
	M	N	O	P	Q	R
25-500 - TC+*	17,274	318	17,592	17,274	318	17,592
25-500 - rest	104,435	5,162	109,597	0	0	0
501-1K - TC+*	828	78	906	828	78	906
501-1K - rest	7,423	1,259	8,682	0	0	0
1,001-2.5K	5,920	1,943	7,863	667	144	811
2,501-3.3K	1,229	639	1,868	30	15	45
3,301-4.1K	807	457	1,264	37	9	46
4,101-10K	2,168	1,612	3,780	248	113	361
10,001-25K	995	1,217	2,212	117	111	228
25,001-50K	376	621	996	17	29	45
Over 50K	229	704	933	15	24	39
Total	141,684	14,009	155,693	19,232	840	20,072

* GW CWSs (serving 1,000 or less) with TC+ results sample monthly rather than quarterly.

Exhibit C.4 - Sampling - Burden, Cost, and Frequencies of Monitoring

GW

Size Category	Labor Rates	Labor Hours Required		Analytical Cost/Sample					
		Collection	Analysis	Samples for Total Coliforms			Samples for Fecal/E.coli		
	($/hr)	(hrs/sample)	(hrs/sample)	PurchServ	O&M-matrl	O&M-labor	PurchServ	O&M-matrl	O&M-labor
	A	B	C	D	E	F=C*A	G	H	I=C*A
25-500	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
501-1K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
1,001-2.5K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
2,501-3.3K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
3,301-4.1K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
4,101-10K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
10,001-25K	$30.72	1.0	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
25,001-50K	$30.72	1.0	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
Over 50K	$30.72	1.0	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12

Monitoring Frequency per Year		Number of Routine Smp/Sys	Minimum Repeat Samples	Addtl Routines next mo	For Systems that are TC+, Percentage of Routine Samples Assumed to Be TC+	Routine Samples that=TC+	Repeat	Sliding scale- TC+ Repeats	TC+ Repeat
Most	Other*								
J	K	L	M	N	O	P=L*O	Q=P*M	R	S=Q*R
4	12	1.0	4	4	100%	1.0	4.0	50%	2.0
4	12	1.0	4	4	100%	1.0	4.0	50%	2.0
12		2.0	3	3	50%	1.0	3.0	50%	1.5
12		3.0	3	2	50%	1.5	4.5	25%	1.1
12		4.0	3	1	50%	2.0	6.0	25%	1.5
12		7.1	3	0	25%	1.8	5.4	25%	1.4
12		15.7	3	0	25%	3.9	11.7	25%	2.9
12		37.2	3	0	10%	3.7	11.1	25%	2.8
12		91.4	3	0	10%	9.1	27.3	10%	2.7

* GW CWSs serving <=1,000 with TC-positive samples monitor monthly rather than quarterly.
Note: Number of routine samples per system from TCR Inventory page. Number is a weighted average based on number of systems in each size category.

SW/GWUDI

Size Category	Labor Rates	Labor Hours Required		Analytical Cost/Sample					
		Collection	Analysis	Samples for Total Coliforms			Samples for Fecal/E.coli		
	($/hr)	(hrs/sample)	(hrs/sample)	PurchServ	O&M-matrl	O&M-labor	PurchServ	O&M-matrl	O&M-labor
	A	B	C	D	E	F	G	H	I
25-500	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
501-1K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
1,001-2.5K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
2,501-3.3K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
3,301-4.1K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
4,101-10K	$30.72	0.5	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
10,001-25K	$30.72	1.0	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
25,001-50K	$30.72	1.0	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12
Over 50K	$30.72	1.0	0.166667	$0.00	$21.21	$5.12	$0.00	$21.21	$5.12

Monitoring Frequency per Year		Number of Routine Smp/Sys	Minimum Repeat Samples	Addtl Routines next mo	For Systems that are TC+, Percentage of Routine Samples Assumed to Be TC+	Routine Samples that=TC+	Repeat	Sliding scale-TC+ Repeat	TC+ Repeat
J	K	L	M	N	O	P=L*O	Q=P*M	R	S=Q*R
12		1.0	4	4	100%	1.0	4.0	50%	2.0
12		1.0	4	4	100%	1.0	4.0	50%	2.0
12		2.0	3	3	50%	1.0	3.0	50%	1.5
12		3.0	3	2	50%	1.5	4.5	25%	1.1
12		4.0	3	1	50%	2.0	6.0	25%	1.5
12		7.3	3	0	25%	1.8	5.4	25%	1.4
12		16.0	3	0	25%	4.0	12.0	25%	3.0
12		37.8	3	0	10%	3.8	11.4	25%	2.9
12		108.9	3	0	10%	10.9	32.7	10%	3.3

Note: Number of routine samples per system from TCR Inventory page. Number is a weighted average based on number of systems in each size category.

Notes: Labor estimates take into account the results of February 2008 consultations with water industry representatives. Overall sample costs are conservative estimates. Many systems now use a method allowing for both total coliforms and fecal/E.coli to be tested at one time. Average sample cost based on research conducted for the Aircraft Drinking Water Rule in Nov. 2006.

Exhibit C.5 - Routine Monitoring - Burden and Cost

a. Routine-GW

Size Category	Number of PWSs	Monitoring Frequency per Year	Routine Samples/ Sys	Total Samples/ Sys/Yr	Labor (per System per Year)				O&M	Total Burden per System	Cost (per System per Year)		Total Cost per System per Year	GW Routine Monitoring			
					Sample Collection		Analysis (in-house)		Analytical Costs		O&M	Labor		Total Annual Burden - Hours	Total Annual Cost	O&M Cost	Labor Cost
					(hrs)	(cost)	(hrs)	(cost)	Materials	(hrs)							
	A (from "Systems with Violations")	B = J or K from "Sampling"	C = L from "Sampling"	D = B * C	E = D* B from "Sampling"	F = E* A from "Sampling"	G = D* C from "Sampling"	H= G* A from "Sampling"	I = D* E from "Sampling"	J = E+G	K = I	L = F+ H	M = K + L	N = A * J	O = A * M	P = A * K	Q = A * L
25-500 - TC+*	17,274	12	1.0	12.0	6.0	$184.30	2.0	$61.43	$254.49	8.0	$254.49	$245.74	$500.23	138,192.0	$8,640,900.50	$4,396,019.17	$4,244,881.33
25-500 - rest	104,435	4	1.0	4.0	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.94	$167.77	281,974.5	$17,520,625.82	$8,859,138.25	$8,661,487.57
501-1K - TC+*	828	12	1.0	12.0	6.0	$184.30	2.0	$61.43	$254.49	8.0	$254.49	$245.74	$500.23	6,624.0	$414,186.96	$210,715.75	$203,471.21
501-1K - rest	7,423	4	1.0	4.0	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.94	$167.77	20,041.5	$1,245,291.37	$629,669.77	$615,621.60
1,001-2.5K	5,920	12	2.0	24.0	12.0	$368.61	4.0	$122.87	$508.98	16.0	$508.98	$491.48	$1,000.45	94,725.7	$5,923,030.77	$3,013,315.20	$2,909,715.57
2,501-3.3K	1,229	12	3.0	36.0	18.0	$552.91	6.0	$184.30	$763.46	24.0	$763.46	$737.21	$1,500.68	29,487.4	$1,843,797.63	$938,023.73	$905,773.90
3,301-4.1K	807	12	4.0	48.0	24.0	$737.21	8.0	$245.74	$1,017.95	32.0	$1,017.95	$982.95	$2,000.90	25,824.0	$1,614,728.89	$821,486.04	$793,242.85
4,101-10K	2,168	12	7.1	85.3	42.6	$1,308.56	14.2	$436.19	$1,808.78	56.8	$1,808.78	$1,744.74	$3,553.52	123,161.4	$7,705,229.03	$3,922,047.26	$3,783,181.77
10,001-25K	995	12	15.7	188.8	188.8	$5,799.42	31.5	$967.59	$4,003.56	220.3	$4,003.56	$6,767.02	$10,770.57	219,198.5	$10,716,718.83	$3,983,538.76	$6,733,180.07
25,001-50K	376	12	37.2	445.9	445.9	$13,696.83	74.3	$2,282.29	$9,457.31	520.2	$9,457.31	$15,979.13	$25,436.44	195,335.1	$9,551,381.51	$3,551,220.00	$6,000,161.50
Over 50K	229	12	91.4	1,097.1	1097.1	$33,699.92	182.8	$5,615.12	$23,265.82	1279.9	$23,265.82	$39,315.04	$62,580.86	293,097.1	$14,331,017.17	$5,327,873.67	$9,003,143.50
Total	141,684			1,957.1	1,844.4	$56,654.94	326.2	$10,019.97	$41,504.50	2,170.6	$41,504.50	$66,674.91	$108,179.41	1,427,661.3	$79,506,908.47	$35,653,047.60	$43,853,860.87

*GW CWSs serving 1000 or fewer with TC-positive samples.

b. Routine-SW

Size Category	Number of PWSs	Monitoring Frequency per Year	Routine Samples/ Sys	Total Samples/ Sys/Yr	Labor (per System per Year)				O&M	Total Burden per System	Cost (per System per Year)		Total Cost per System per Year	SW Routine Monitoring			
					Sample Collection		Analysis (in-house		Analytical Costs		O&M	Labor		Total Annua Burden	Total Annua Cost	O&M Cost	Labor Cost
					(hrs)	(cost)	(hrs)	(cost)	Materials	(hrs)	(F+H)	(I+J)					
	A (from "Systems with Violations")	B = J or K from "Sampling"	C = L from "Sampling"	D = B * C	E = D* B from "Sampling"	F = E* A from "Sampling"	G = D* C from "Sampling"	H= G* A from "Sampling"	I = D* E from "Sampling"	J = E+G	K = I	L = F+ H	M = K + L	N = A * J	O = A * M	P = A * K	Q = A * L
25-500	5,480	12	1.0	12.0	6.0	$184.30	2.0	$61.43	$254.49	8.0	$254.49	$245.74	$500.23	43,840.0	$2,741,237.39	$1,394,592.17	$1,346,645.23
501-1K	1,337	12	1.0	12.0	6.0	$184.30	2.0	$61.43	$254.49	8.0	$254.49	$245.74	$500.23	10,697.6	$668,904.73	$340,302.26	$328,602.46
1,001-2.5K	1,943	12	2.0	24.0	12.0	$368.61	4.0	$122.87	$508.98	16.0	$508.98	$491.48	$1,000.45	31,082.3	$1,943,520.18	$988,757.13	$954,763.05
2,501-3.3K	639	12	3.0	36.0	18.0	$552.91	6.0	$184.30	$763.46	24.0	$763.46	$737.21	$1,500.68	15,344.6	$959,467.77	$488,124.90	$471,342.87
3,301-4.1K	457	12	4.0	48.0	24.0	$737.21	8.0	$245.74	$1,017.95	32.0	$1,017.95	$982.95	$2,000.90	14,624.0	$914,412.77	$465,203.37	$449,209.39
4,101-10K	1,612	12	7.3	87.5	43.8	$1,345.42	14.6	$448.47	$1,856.43	58.4	$1,856.43	$1,793.89	$3,650.32	94,121.3	$5,883,101.22	$2,991,952.14	$2,891,149.07
10,001-25K	1,217	12	16.0	192.4	192.4	$5,910.00	32.1	$986.02	$4,081.05	224.5	$4,081.05	$6,896.03	$10,977.08	273,216.5	$13,359,101.59	$4,966,635.90	$8,392,465.69
25,001-50K	621	12	37.8	453.2	453.2	$13,921.07	75.5	$2,319.15	$9,610.31	528.7	$9,610.31	$16,240.22	$25,850.53	328,058.4	$16,040,255.41	$5,963,197.67	$10,077,057.75
Over 50K	704	12	108.9	1,307.1	1307.1	$40,150.55	217.9	$6,693.29	$27,720.97	1525.0	$27,720.97	$46,843.84	$74,564.81	1,073,600.0	$52,493,628.83	$19,515,565.03	$32,978,063.81
Total	14,009			2,172.3	2,062.5	$63,354.37	362.1	$11,122.72	$46,068.13	2,424.6	$46,068.13	$74,477.10	$120,545.23	1,884,584.6	$95,003,629.89	$37,114,330.57	$57,889,299.32

Exhibit C.6 - Repeat Monitoring - Burden and Cost

a. Repeat-GW

Size Category	PWSs	Repeat Samples/ System	Labor (per System per Year)				O&M	Total Burden (per System	Cost (per System Per Year)		Total Cost (per System	GW Repeat Monitoring				
			Sample Collection		Analysis (in-house)		Analytical Costs		O&M	Labor		Total Number of Samples	Total Annual Burden	Total Annual Cost	O&M Cost	Labor Cost
			(hrs)	(cost)	(hrs)	(cost)	Materials	per Year) (hrs)			per Year)					
	A (from "Systems with Violations)	B = Q from "Sampling"	C = B* B from "Sampling"	D = C* A from "Sampling"	E = B * C from "Sampling"	F = E* A from "Sampling"	G = B* E from "Sampling"	H = C + E	J = G	K = D + F	L = J + K	M = A * B	N = A * H	O = A * L	P = A * J	Q = A * K
25-500	17,274	4	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	69096	46,639.8	$2,897,886.24	$1,465,353.42	$1,432,532.82
501-1K	828	4	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	3312	2,235.6	$138,905.28	$70,239.24	$68,666.04
1,001-2.5K	667	3	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	2001	1,333.8	$83,401.08	$42,427.45	$40,973.63
2,501-3.3K	30	4.5	2.3	$70.65	0.8	$24.57	$95.43	3.1	$95.43	$95.22	$190.65	133	91.6	$5,630.88	$2,818.54	$2,812.34
3,301-4.1K	37	6	3.0	$92.15	1.0	$30.72	$127.24	4.0	$127.24	$122.87	$250.11	219	146.3	$9,145.27	$4,652.53	$4,492.74
4,101-10K	248	5.4	2.7	$82.94	0.9	$27.65	$114.52	3.6	$114.52	$110.59	$225.11	1341	894.2	$55,917.86	$28,447.04	$27,470.82
10,001-25K	117	11.7	11.7	$359.39	2.0	$61.43	$248.13	13.7	$248.13	$420.82	$668.95	1369	1,602.5	$78,248.53	$29,024.30	$49,224.22
25,001-50K	17	11.1	11.1	$340.96	1.9	$58.36	$235.40	13.0	$235.40	$399.32	$634.72	185	216.9	$10,592.35	$3,928.41	$6,663.94
Over 50K	15	27.3	27.3	$838.58	4.6	$141.30	$578.96	31.9	$578.96	$979.88	$1,558.84	410	478.5	$23,382.60	$8,684.40	$14,698.20
Total	19,232		63.6	$1,953.61	13.1	$402.39	$1,632.96	76.7	$1,632.96	$2,356.00	$3,988.96	78,066	53,639.2	$3,303,110.09	$1,655,575.33	$1,647,534.75

Note: Systems with TC-positive samples are required to take 4 repeat samples for each TC-positive sample if they serve 1,000 people or fewer. Larger systems must take 3 repeat samples for each TC-positive sample.

b. Repeat-SW

Size Category	PWSs	Repeat Samples/ System	Labor (per System per Year)				O&M	Total Burden (per System	Cost (per System Per Year)		Total Cost (per System	SW Repeat Monitoring				
			Sample Collection		Analysis (in-house)		Analytical Costs		O&M	Labor		Total Number of Samples	Total Annual Burden	Total Annual Cost	O&M Cost	Labor Cost
			(hrs)	(cost)	(hrs)	(cost)	Materials	per Year) (hrs)			per Year)				(C x R)	(C x S)
	A (from "Systems with Violations)	B = Q from "Sampling"	C = B* B from "Sampling"	D = C* A from "Sampling"	E = B * C from "Sampling"	F = E* A from "Sampling"	G = B* E from "Sampling"	H = C + E	J = G	K = D + F	L = J + K	M = A * B	N = A * H	O = A * L	P = A * J	Q = A * K
25-500	318	4	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	1272	858.6	$53,347.68	$26,975.94	$26,371.74
501-1K	78	4	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	312	210.6	$13,085.28	$6,616.74	$6,468.54
1,001-2.5K	144	3	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	431	287.5	$17,976.83	$9,145.10	$8,831.73
2,501-3.3K	15	4.5	2.3	$70.65	0.8	$24.57	$95.43	3.1	$95.43	$95.22	$190.65	69	47.2	$2,904.20	$1,453.70	$1,450.50
3,301-4.1K	9	6	3.0	$92.15	1.0	$30.72	$127.24	4.0	$127.24	$122.87	$250.11	54	36.2	$2,263.64	$1,151.60	$1,112.05
4,101-10K	113	5.4	2.7	$82.94	0.9	$27.65	$114.52	3.6	$114.52	$110.59	$225.11	610	406.8	$25,435.60	$12,939.83	$12,495.77
10,001-25K	111	12	12.0	$368.61	2.0	$61.43	$254.49	14.0	$254.49	$430.04	$684.53	1327	1,548.3	$75,705.76	$28,145.38	$47,560.38
25,001-50K	29	11.4	11.4	$350.18	1.9	$58.36	$241.76	13.3	$241.76	$408.54	$650.30	327	381.8	$18,669.48	$6,940.69	$11,728.79
Over 50K	24	32.7	32.7	$1,004.45	5.5	$168.94	$693.48	38.2	$693.48	$1,173.39	$1,866.87	785	916.8	$44,804.88	$16,643.52	$28,161.36
Total	840		69.6	$2,137.92	14.0	$430.03	$1,760.20	83.6	$1,760.20	$2,567.95	$4,328.15	5,187	4,693.8	$254,193.35	$110,012.50	$144,180.86

Note: Systems with TC-positive samples are required to take 4 repeat samples for each TC-positive sample if they serve 1,000 people or fewer. Larger systems must take 3 repeat samples for each TC-positive sample.

Exhibit C.7 - Fecal / E.coli Monitoring - Burden and Cost

a. Fecal/E. Coli - GW

Size Category	PWSs	TC+ Samples/ System	Labor (per System per Year)				O&M	Total Burden	Cost (per System per Year		Total Cost	GW Fecal/E. coli Monitoring			
			Sample Collection		Analysis (in-house)		Analytical Costs	(per System	O&M	Labor	(per System	Total Annual	Total Annual	O&M Cost	Labor Cost
			(hrs)	(cost)	(hrs)	(cost)	Materials	per Year) (hrs)			per Year)	Burden	Cost		
	A (from "Systems with Violations")	B = P + S (both from "Sampling")	C = B * B (from "Sampling")	D = C * A (from "Sampling")	E = B * C (from "Sampling")	F = E * A (from "Sampling")	G = B * H (from "Sampling")	H = C + E	I = G	J = D + F	K = I + J	L = A * H	M = A * K	N = A * I	O = A * J
25-500	17,274	3.0	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	34,548.0	$2,160,286.44	$1,098,971.88	$1,061,314.56
501-1K	828	3.0	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	1,656.0	$103,549.68	$52,677.36	$50,872.32
1,001-2.5K	667	2.5	1.3	$39.93	0.4	$12.29	$53.02	1.7	$53.02	$52.22	$105.24	1,133.7	$70,183.35	$35,358.43	$34,824.92
2,501-3.3K	30	2.6	1.3	$39.93	0.4	$12.29	$55.14	1.7	$55.14	$52.22	$107.36	50.2	$3,170.89	$1,628.57	$1,542.33
3,301-4.1K	37	3.5	1.8	$55.29	0.6	$18.43	$74.23	2.4	$74.23	$73.72	$147.95	87.8	$5,409.79	$2,714.22	$2,695.57
4,101-10K	248	3.2	1.6	$49.15	0.5	$15.36	$67.86	2.1	$67.86	$64.51	$132.37	521.6	$32,881.03	$16,856.59	$16,024.44
10,001-25K	117	6.8	6.8	$208.88	1.1	$33.79	$144.21	7.9	$144.21	$242.67	$386.88	924.1	$45,254.19	$16,868.56	$28,385.63
25,001-50K	17	6.5	6.5	$199.66	1.1	$33.79	$137.85	7.6	$137.85	$233.45	$371.30	126.8	$6,196.34	$2,300.47	$3,895.87
Over 50K	15	11.8	11.8	$362.46	2.0	$61.43	$250.25	13.8	$250.25	$423.89	$674.14	207.0	$10,112.10	$3,753.75	$6,358.35
Total	19,232		34.1	$1,047.46	7.1	$218.10	$909.80	41.2	$909.80	$1,265.56	$2,175.36	39,255.2	$2,437,043.81	$1,231,129.83	$1,205,913.99

Each system with a TC-positive sample must check that sample for fecal coliform or E. coli.

b. Fecal/E. Coli - SW

Size Category	PWSs	TC+ Samples/ System	Labor (per System per Year)				O&M	Total	Cost (per System per Year		Total Cost	SW Fecal/E. coli Monitoring			
			Sample Collection		Analysis (in-house)		Analytical Costs	(per System	O&M	Labor	(per System	Total Annual	Total Annual	O&M Cost	Labor Cost
			(hrs)	(cost)	(hrs)	(cost)	Materials	per Year) (hrs)			per Year)	Burden	Cost		
	A (from "Systems with Violations")	B = P + S (both from "Sampling")	C = B * B (from "Sampling")	D = C * A (from "Sampling")	E = B * C (from "Sampling")	F = E * A (from "Sampling")	G = B * H (from "Sampling")	H = C + E	I = G	J = D + F	K = I + J	L = A * H	M = A * K	N = A * I	O = A * J
25-500	318	3.0	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	636.0	$39,769.08	$20,231.16	$19,537.92
501-1K	78	3.0	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	156.0	$9,754.68	$4,962.36	$4,792.32
1,001-2.5K	144	2.5	1.3	$39.93	0.4	$12.29	$53.02	1.7	$53.02	$52.22	$105.24	244.4	$15,127.79	$7,621.39	$7,506.40
2,501-3.3K	15	2.6	1.3	$39.93	0.4	$12.29	$55.14	1.7	$55.14	$52.22	$107.36	25.9	$1,635.43	$839.96	$795.48
3,301-4.1K	9	3.5	1.8	$55.29	0.6	$18.43	$74.23	2.4	$74.23	$73.72	$147.95	21.7	$1,339.03	$671.82	$667.21
4,101-10K	113	3.2	1.6	$49.15	0.5	$15.36	$67.86	2.1	$67.86	$64.51	$132.37	237.3	$14,956.73	$7,667.63	$7,289.11
10,001-25K	111	7.0	7.0	$215.02	1.2	$36.86	$148.45	8.2	$148.45	$251.88	$400.33	906.9	$44,274.59	$16,417.86	$27,856.73
25,001-50K	29	6.7	6.7	$205.81	1.1	$33.79	$142.09	7.8	$142.09	$239.60	$381.69	223.9	$10,957.95	$4,079.27	$6,878.68
Over 50K	24	14.2	14.2	$436.19	2.4	$73.72	$301.14	16.6	$301.14	$509.91	$811.05	398.4	$19,465.20	$7,227.36	$12,237.84
Total	840		36.9	$1,133.48	7.6	$233.46	$969.17	44.5	$969.17	$1,366.94	$2,336.11	2,850.5	$157,280.48	$69,718.81	$87,561.69

Each system with a TC-positive sample must check that sample for fecal coliform or E. coli.

Exhibit C.8 - Additional Routine Monitoring - Burden and Cost

a. Additional Routines - GW

Size Category	PWSs	TC+ Samples/ System	Labor (per System per Year)				O&M	Total Burden	Cost (per System per Year		Total Cost	GW Addtl Routine Monitoring			
			Sample Collection		Analysis (in-house)		Analytical Costs	(per System	O&M	Labor	(per System	Total Annual	Total Annual	O&M Cost	Labor Cost
			(hrs)	(cost)	(hrs)	(cost)	Materials	per Year) (hrs)			per Year)	Burden	Cost		
	A (from "Systems with Violations")	B = N (from "Sampling")	C = B * B (from "Sampling")	D = C * A (from "Sampling")	E = B * C (from "Sampling")	F = E * A (from "Sampling")	G = B * E (from "Sampling")	H = C + E	I = G	J = D + F	K = I + J	L = A * H	M = A * K	N = A * I	O = A * J
25-500	17,274	4.0	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	46,639.8	##########	$1,465,353.42	$1,432,532.82
501-1K	828	4.0	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	2,235.6	$138,905.28	$70,239.24	$68,666.04
1,001-2.5K	667	3.0	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	1,333.8	$83,401.08	$42,427.45	$40,973.63
2,501-3.3K	30	2.0	1.0	$30.72	0.3	$9.22	$42.41	1.3	$42.41	$39.94	$82.35	38.4	$2,432.22	$1,252.59	$1,179.63
3,301-4.1K	37	1.0	0.5	$15.36	0.2	$6.14	$21.21	0.7	$21.21	$21.50	$42.71	25.6	$1,561.69	$775.54	$786.15
4,101-10K	248	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
10,001-25K	117	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
25,001-50K	17	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
Over 50K	15	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
Total	19,232		7.0	$215.02	2.4	$73.72	$296.90	9.4	$296.90	$288.74	$585.64	50,273.2	##########	$1,580,048.24	$1,544,138.27

Systems that collect fewer than 5 routine samples per month must collect 5 routine samples the month following a TC-positive sample. Depending on system size, systems will be required to take 1-4 additional routine samples to bring the total to 5 samples.

b. Additional Routines - SW

Size Category	PWSs	TC+ Samples/ System	Labor (per System per Year)				O&M	Total Burden	Cost (per System per Year		Total Cost	SW Addtl Routine Monitoring			
			Sample Collection		Analysis (in-house)		Analytical Costs	(per System	O&M	Labor	(per System	Total Annual	Total Annual	O&M Cost	Labor Cost
			(hrs)	(cost)	(hrs)	(cost)	Materials	per Year) (hrs)			per Year)	Burden	Cost		
	A (from "Systems with Violations")	B = N (from "Sampling")	C = B * B (from "Sampling")	D = C * A (from "Sampling")	E = B * C (from "Sampling")	F = E * A (from "Sampling")	G = B * E (from "Sampling")	H = C + E	I = G	J = D + F	K = I + J	L = A * H	M = A * K	N = A * I	O = A * J
25-500	318	4.0	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	858.6	$53,347.68	$26,975.94	$26,371.74
501-1K	78	4.0	2.0	$61.43	0.7	$21.50	$84.83	2.7	$84.83	$82.93	$167.76	210.6	$13,085.28	$6,616.74	$6,468.54
1,001-2.5K	144	3.0	1.5	$46.08	0.5	$15.36	$63.62	2.0	$63.62	$61.44	$125.06	287.5	$17,976.83	$9,145.10	$8,831.73
2,501-3.3K	15	2.0	1.0	$30.72	0.3	$9.22	$42.41	1.3	$42.41	$39.94	$82.35	19.8	$1,254.45	$646.04	$608.41
3,301-4.1K	9	1.0	0.5	$15.36	0.2	$6.14	$21.21	0.7	$21.21	$21.50	$42.71	6.3	$386.55	$191.96	$194.59
4,101-10K	113	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
10,001-25K	111	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
25,001-50K	29	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
Over 50K	24	0.0	0.0	$0.00	0.0	$0.00	$0.00	0.0	$0.00	$0.00	$0.00	0.0	$0.00	$0.00	$0.00
Total	840		7.0	$215.02	2.4	$73.72	$296.90	9.4	$296.90	$288.74	$585.64	1,382.8	$86,050.79	$43,575.78	$42,475.01

Systems that collect fewer than 5 routine samples per month must collect 5 routine samples the month following a TC-positive sample. Depending on system size, systems will be required to take 1-4 additional routine samples to bring the total to 5 samples.

Exhibit C.9 - System Responses - Monitoring Events

Population	Inventory of Public Water Systems			Frequency of Monitoring per Year		Number of Responses Monitoring Events per Year		
Range	GW*	SW/GUDI	Total	GW	SW/GUDI	GW	SW/GUDI	Total
	A (from M of "Systems with Violations")	B (from N of "Systems with Violations")	C = A + B	D (from J or K of "Sampling")	E (from J or K of "Sampling")	F = A * D	G = B * E	H = F + G
25-500 - TC+*	17,274	318	17,592	12	12	207,288	3,816	211,104
25-500 - rest	104,435	5,162	109,597	4	12	417,740	61,944	479,684
501-1K - TC+*	828	78	906	12	12	9,936	936	10,872
501-1K - rest	7,423	1,259	8,682	4	12	29,691	15,110	44,802
1,001-2.5K	5,920	1,943	7,863	12	12	71,044	23,312	94,356
2,501-3.3K	1,229	639	1,868	12	12	14,744	7,672	22,416
3,301-4.1K	807	457	1,264	12	12	9,684	5,484	15,168
4,101-10K	2,168	1,612	3,780	12	12	26,020	19,340	45,360
10,001-25K	995	1,217	2,212	12	12	11,940	14,604	26,544
25,001-50K	376	621	996	12	12	4,506	7,446	11,952
Over 50K	229	704	933	12	12	2,748	8,448	11,196
Total	141,684	14,009	155,693			805,341	168,112	973,454

* GW CWSs with TC+ results sample monthly.

Exhibit C.10 - Total Burden and Cost for TCR

System TCR Totals

Monitoring	Total Burden in Hours			Total Cost			O&M Cost			Labor Cost		
	GW	SW	Total	GW	SW	Total	GW	SW	Total	GW	SW	Total
Routine	1,427,661.3	1,884,584.6	3,312,245.9	$79,506,908.47	$95,003,629.89	$174,510,538.37	$35,653,047.60	$37,114,330.57	$72,767,378.17	$43,853,860.87	$57,889,299.32	$101,743,160.19
Repeat	53,639.2	4,693.8	58,333.0	$3,303,110.09	$254,193.35	$3,557,303.44	$1,655,575.33	$110,012.50	$1,765,587.83	$1,647,534.75	$144,180.86	$1,791,715.61
Fecal/E. coli	39,255.2	2,850.5	42,105.7	$2,437,043.81	$157,280.48	$2,594,324.29	$1,231,129.83	$69,718.81	$1,300,848.64	$1,205,913.99	$87,561.69	$1,293,475.68
Addtl Routine	50,273.2	1,382.8	51,656.0	$3,124,186.51	$86,050.79	$3,210,237.30	$1,580,048.24	$43,575.78	$1,623,624.02	$1,544,138.27	$42,475.01	$1,586,613.28
Total	1,570,828.9	1,893,511.7	3,464,340.6	$88,371,248.88	$95,501,154.51	$183,872,403.40	$40,119,801.00	$37,337,637.66	$77,457,438.66	$48,251,447.88	$58,163,516.88	$106,414,964.76

Exhibit C.11 - Sanitary Surveys - State Burden and Cost

A. Community Water Systems

Size Category	Inventory GW	GW CWSs Hrs/ SSurvey	Labor Cost	Systems w SSurveys Annual %	Sys	GW CWS Total Annual Burden	Annual Cost
	A (from "Inventory of Systems with Violations")	B	C = B * $42.80	D	E = A * D	F = B * E	G = C * E
25-500	26,010	12	$513.59	20%	5,202	62,424	$2,671,691.71
501-1K	4,511	24	$1,027.18	20%	902	21,648	$926,515.16
1,001-2.5K	4,655	24	$1,027.18	20%	931	22,344	$956,303.34
2,501-3.3K	1,115	24	$1,027.18	20%	223	5,352	$229,060.84
3,301-4.1K	737	36	$1,540.77	20%	147	5,292	$226,492.90
Total	37,028				7,405	117,060	$5,010,063.95

Note: Burden estimates incorporate results of February 2008 consultations with water industry representatives.

B. Nontransient Noncommunity Systems

Size Category	GW	GW NTNCWSs Hrs/ SSurvey	Unit Cost	Systems w SSurveys Annual %	Sys	GW NTNC Total Annual Burden	Annual Cost
	A (from "Inventory of Systems with Violations")	B	C = B * $42.80	D	E = A * D	F = B * E	G = C * E
25-500	15,539	12	$513.59	20%	3,108	37,296	$1,596,235.65
501-1K	1,741	24	$1,027.18	20%	348	8,352	$357,458.18
1,001-2.5K	692	24	$1,027.18	20%	138	3,312	$141,750.66
2,501-3.3K	73	24	$1,027.18	20%	15	360	$15,407.68
3,301-4.1K	42	36	$1,540.77	20%	8	288	$12,326.14
Total	18,087				3,617	49,608	$2,123,178.30

Note: Burden estimates incorporate results of February 2008 consultations with water industry representatives.

Sanitary Surveys - Burden and Cost (Continued)

C. Transient Noncommunity Systems

Size Category	GW	GW TNCWSs Hrs/ SSurvey	Unit Cost	Systems w SSurveys Annual %	Sys	GW TNC Total Annual Burden	Annual Cost
	A (from "Inventory of Systems with Violations")	B	C = B * $42.80	D	E = A * D	F = B * E	G = C * E
25-500	80,160	12	$513.59	20%	16,032	192,384	$8,233,864.19
501-1K	1,999	24	$1,027.18	20%	400	9,600	$410,871.47
1,001-2.5K	573	24	$1,027.18	20%	115	2,760	$118,125.55
2,501-3.3K	41	24	$1,027.18	20%	8	192	$8,217.43
3,301-4.1K	28	36	$1,540.77	20%	6	216	$9,244.61
Total	82,801				16,561	205,152	$ 8,780,323.24

Note: Burden estimates incorporate results of February 2008 consultations with water industry representatives.

D. Totals

Size Category	Total Annual Burden	Total Annual Cost	Total Annual Responses
	H	I	J
25-500	292,104	$12,501,792	24,342
501-1K	39,600	$1,694,845	1,650
1,001-2.5K	28,416	$1,216,180	1,184
2,501-3.3K	5,904	$252,686	246
3,301-4.1K	5,796	$248,064	161
Total	371,820	$ 15,913,565.49	27,583

Exhibit C.12 - Total Coliform Rule - Summary of Original and Revised Burden Estimates

Sampling Burden			
2004 Burden	**Task**	**System Size**	**Revised Burden**
0.33 hr	Collection Per Sample	25-10,000	.5 hr
0.83 hr	Collection Per Sample	>10,000	1 hr
0.083 hr	Analysis Per Sample	>100,000	10 min

State Burden for Monitoring Related Activities and Sanitary Surveys			
2004 Burden	**Task**	**System Size**	**Revised Burden**
8 hrs	Sanitary Survey (Per Survey)*	25-500	12 hrs
20 hrs	Sanitary Survey (Per Survey)*	501-3,300	24 hrs
32 hrs	Sanitary Survey (Per Survey)*	3,301-4,100	36 hrs

*Applies to systems that take <5 samples/mo. Burden of SW systems addressed under Interim Enhanced Surface Water Treatment Rule.

Appendix D

Interim Enhanced Surface Water Treatment Rule Spreadsheets

Exhibit D.1a - IESWTR PWS Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Turbidity Monitoring	1,530	3,417,352	3,871,990	$118,936,964	$13,766,446	$83,297,959
Exception Reports and IFAs	154	154	3,858	$118,494	N/A	N/A
Totals	**1,530**	**3,417,506**	**3,875,847**	**$119,055,458**	**$13,766,446**	**$83,297,959**

Exhibit D.1b - IESWTR State Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Turbidity Monitoring	57	61,721	416,616	$17,830,813	N/A	N/A
Exception Reports and CPEs	57	141	6,686	$286,174	N/A	N/A
Sanitary Surveys	57	4,349	474,153	$20,293,326	N/A	N/A
Total	**57**	**66,211**	**897,456**	**$38,410,313**	**N/A**	**N/A**

Exhibit D.2 - IESWTR System Inventory

Population Category	Surface Water and GWUDI			Non-Purchased Surface Water/GWUDI			Unfiltered Surface Water/GWUDI			Filtered Non-Purchased Surface Water/GWUDI		
	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC
				A	B	C	D	E	F	G=A-D	H=B-E	I=C-F
≤100	1,179	259	1,238	438	129	636	1	0	0	437	129	636
101-500	2,093	236	475	659	148	375	4	0	0	655	148	375
501-1,000	1,167	88	82	365	60	62	3	0	0	362	60	62
1,001-3,300	2,458	68	56	944	33	44	15	0	0	929	33	44
3,301-10K	2,026	20	22	1,005	5	19	14	0	0	991	5	19
10,001-50K	1,828	6	3	962	2	2	14	0	0	948	2	2
50,001-100K	378	1	0	218	0	0	4	0	0	214	0	0
100,001-1M	306	1	1	230	0	1	4	0	0	226	0	1
>1M	16	0	1	15	0	0	1	0	0	14	0	0
Total	**11,452**	**680**	**1,878**	**4,837**	**377**	**1,139**	**60**	**0**	**0**	**4,777**	**377**	**1,139**

Source: SDWIS/FED Data from October 2007. Number of unfiltered systems from ICR done for final LT2ESWTR in 2006.

Note: Source was not specified for some systems. These PWSs were assigned to SW or GW categories based on the ratio of SW to GW systems within a given size category.

Exhibit D.3 - Systems and Plants Subject to IESWTR Individual Filter Turbidity Monitoring Requirements (Practicing Conventional or Direct Filtration)

Population Category	Filtered Non-Purchased Surface Water/GWUDI			% Using Conventional or Direct Filtration			Total Systems Subject to IESWTR Individual Filter Turbidity Monitoring			Plants Per System			Total Plants Subject to IESWTR Individual Filter Turbidity Monitoring		
	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC
	A	B	C	D	E	F	G=A*D	H=B*E	I=C*F	J	K	L	M=G*J	N=H*K	O=I*L
≤100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.00	N/A	N/A	N/A	N/A	N/A
101-500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.00	N/A	N/A	N/A	N/A	N/A
501-1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.04	N/A	N/A	N/A	N/A	N/A
1,001-3,300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.04	N/A	N/A	N/A	N/A	N/A
3,301-10K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.05	N/A	N/A	N/A	N/A	N/A
10,001-25K	594	1	1	93.6%	93.6%	93.6%	556	1	1	1.11	1.0	1.0	617	1	1
25,001-50K	354	1	1	93.6%	93.6%	93.6%	331	1	1	1.11	1.0	1.0	367	1	1
50,001-75K	144	0	0	83.2%	83.2%	83.2%	120	0	0	1.11	1.0	1.0	133	0	0
75,001-100K	70	0	0	83.2%	83.2%	83.2%	58	0	0	1.11	1.0	1.0	64	0	0
100,001-500K	201	0	1	90.0%	90.0%	90.0%	181	0	1	1.64	1.0	1.0	297	0	1
500,001-1M	25	0	0	90.0%	90.0%	90.0%	22	0	0	1.64	1.0	1.0	36	0	0
>1M	14	0	0	90.0%	90.0%	90.0%	13	0	0	1.64	1.0	1.0	9	0	0
Total	**1,402**	**2**	**3**				**1,281**	**2**	**3**				**1,525**	**2**	**3**

Sources: Number of plants per system (for CWSs) and percentage of plants using conventional or direct filtration are from 2000 CWSS.

Note: IESWTR individual filter turbidity monitoring requirements apply only to systems serving more than 10,000 people. Percentage of systems using conventional or direct filtration was not available. Percentage of plants was used as a proxy. Percentage of plants using conventional or direct filtration was assumed to apply to NTNCWSs and TNCWSs.

Exhibit D.4 - Individual Filter Turbidity Monitoring Burden and Costs - PWSs

Population Category	Hourly Labor Rate	Number of Conv. & Dir. Systems (SW and GWUDI)			Number of Conv. & Dir. Plants (SW and GWUDI)			Plant Level Labor Hours/System/Year				System Level Labor Hours/System/Year		Total Labor Hours/Year**	Total Labor Cost/Year***
		CWS	NTNC	TNC	CWS	NTNC	TNC	Data Collection	Data Review	Data Reporting	Recordkeeping	Data Review	Develop Summary Report		
								3 collections/day*1 hr/collection*365	3 reviews/day*1 hr/review*365	1 report/month*10 hrs/report*12	5 hrs/month*12	8 hrs/month*12	8 hrs/month*12		
<100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
101-500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
501-1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,001-3,300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,301-10K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10,001-25K	$30.72	556	1	1	617	1	1	1095	1095	120	60	96	96	1,576,243	$48,417,882
25,001-50K	$30.72	331	1	1	367	1	1	1095	1095	120	60	96	96	937,701	$28,803,620
50,001-75K	$30.72	120	0	0	133	0	0	1095	1095	120	60	96	96	339,157	$10,417,988
75,001-100K	$30.72	58	0	0	64	0	0	1095	1095	120	60	96	96	163,298	$5,016,068
100,001-500K	$30.72	181	0	1	297	0	1	1095	1095	120	60	96	96	741,171	$22,766,739
500,001-1M	$30.72	22	0	0	36	0	0	1095	1095	120	60	96	96	90,671	$2,785,157
>1M	$30.72	13	0	0	9	0	0	1095	1095	120	60	96	96	23,749	$729,511
Total		**1,281**	**2**	**3**	**1,525**	**2**	**3**							**3,871,990**	**$118,936,964**

Note: Burden estimates take into account the results of the February 2008 consultation with water industry representatives. IESWTR individual filter turbidity monitoring requirements apply only to systems serving more than 10,000 people.

**Total labor hours per year is calculated from the number of plants times the sum of the data collection, review, and reporting hours, plus the number of systems times the sum of data review and summary development hours.
***Total labor cost per year is calculated from the product of the hourly labor rate and the total labor hours/year

Exhibit D.5 - Individual Filter Turbidity Monitoring O&M and Capital Costs - PWSs

Population Category	Number of Conv. & Dir. Systems (SW and GWUDI)			Flows (MGD)		O&M Unit Costs for Continuous Monitoring	Annual O&M Costs for Continuous Monitoring	Capital Unit Costs for Continuous Monitoring	Annual Capital Costs for Continuous Monitoring (7% Cost of Capital)
	CWS	NTNC	TNC	Avg Daily	Peak Daily	(cents/kgal)	# Systems*Unit Cost*Avg Daily Flow*1,000*Inflation Factor*1/100*365	(cents/kgal)	# Systems*Unit Cost*Peak Daily Flow*1,000*Inflation Factor*1/100*365
<100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
101-500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
501-1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,001-3,300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,301-10K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10,001-25K	556	1	1	2.1	4.8	0.282	$1,536,002	0.968	$12,051,472
25,001-50K	331	1	1	5.0	11.0	0.237	$1,828,450	0.813	$13,799,014
50,001-75K	120	0	0	8.8	18.0	0.239	$1,173,301	0.693	$6,958,806
75,001-100K	58	0	0	13.0	26.0	0.236	$824,070	0.626	$4,371,760
100,001-500K	181	0	1	27.0	51.0	0.241	$5,498,841	0.602	$25,945,200
500,001-1M	22	0	0	120.0	210.0	0.112	$1,389,436	0.576	$12,504,920
>1M	13	0	0	270.0	518.0	0.096	$1,516,345	0.253	$7,666,787
Total	**1,281**	**2**	**3**				**$13,766,446**		**$83,297,959**

Source: All cost data from the IESWTR RIA (1998), Appendix C. Updated to 2007$.

Note: IESWTR individual filter turbidity monitoring requirements apply only to systems serving more than 10,000 people.

Exhibit D.6 - Exceptions Reporting and Individual Filter Assessment Burden and Costs - PWSs

Population Category	Hourly Labor Rate	Number of Conv. & Dir. Systems (SW and GWUDI)			Percent of Systems Performing Each Year		Number of Systems Performing Each Year		Labor Hours/Report		Total Labor Hours/Year	Total Labor Cost/Year
		CWS	NTNC	TNC	Exception Reports	IFAs	Exception Reports	IFAs	Exception Reports	IFAs		
	A	B	C	D	E	F	G=(B+C+D)*E	H=(B+C+D)*F	I	J	K=(G*I)+(J*H)	L=K*A
<100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
101-500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
501-1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,001-3,300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,301-10K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10,001-25K	$30.72	556	1	1	10%	2%	56	11	20	50	1,676	$51,480
25,001-50K	$30.72	331	1	1	10%	2%	33	7	20	50	997	$30,625
50,001-75K	$30.72	120	0	0	10%	2%	12	2	20	50	360	$11,072
75,001-100K	$30.72	58	0	0	10%	2%	6	1	20	50	174	$5,331
100,001-500K	$30.72	181	0	1	10%	2%	18	4	20	50	546	$16,773
500,001-1M	$30.72	22	0	0	10%	2%	2	0	20	50	67	$2,052
>1M	$30.72	13	0	0	10%	2%	1	0	20	50	38	$1,161
Total		**1,281**	**2**	**3**			**129**	**26**			**3,858**	**$118,494**

Note: Exception reports are required when systems exceed turbidity levels of 0.5 or 1 NTU in consecutive measurements in individual filters (absent such exceedances, systems need only report that they have completed monitoring). Individual filter assessments are required when systems exceed turbidity levels of 1 NTU during 3 consecutive months.

Burden estimates take into account the results of the February 2008 consultation with water industry representatives. Assumptions regarding percent of systems performing exception reports and IFAs from 1998 IESWTR ICR. IESWTR individual filter turbidity monitoring requirements apply only to systems serving more than 10,000 people.

Exhibit D.7 - Individual Filter Turbidity Monitoring Burden and Costs - States

Population Category	Hourly Labor Rate	Number of Conv. & Dir. Systems (SW and GWUDI)			State Level Labor Hours/System/Year				Total Labor Hours/Year**	Total Labor Cost/Year***
		CWS	NTNC	TNC	Compliance Tracking	Analyze/Review Data	Make Determinations (As Required)	Recordkeeping		
					8 hrs/month/ system*12	9 hrs/month/ system*12	8 hr/month/ system*12	2 hrs/month/ system*12		
<100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
101-500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
501-1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,001-3,300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,301-10K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10,001-25K	$42.80	556	1	1	96	108	96	24	180,999	$7,746,593
25,001-50K	$42.80	331	1	1	96	108	96	24	107,676	$4,608,420
50,001-75K	$42.80	120	0	0	96	108	96	24	38,930	$1,666,158
75,001-100K	$42.80	58	0	0	96	108	96	24	18,744	$802,224
100,001-500K	$42.80	181	0	1	96	108	96	24	58,972	$2,523,932
500,001-1M	$42.80	22	0	0	96	108	96	24	7,214	$308,764
>1M	$42.80	13	0	0	96	108	96	24	4,082	$174,723
Total		**1,281**	**2**	**3**					**416,616**	**$17,830,813**

Note: Burden estimates take into account the results of the February 2008 consultation with water industry representatives (including states).

**Total labor hours per year are calculated from the number of systems for which states must review data times the sum of the compliance tracking, data review, determinations, and recordkeeping burden the state incurs per system.

***Total labor cost per year is calculated from the product of the hourly labor rate and the total labor hours per year

Exhibit D.8 - Exceptions Reporting and Comprehensive Performance Evaluation Burden and Costs - States

Population Category	Hourly Labor Rate	Number of Conv. & Dir. Systems (SW and GWUDI)			Percent of Systems Requiring Activity Each Year		Number of Systems Requiring Activity Each Year		Labor Hours/Activity		Total Labor Hours/Year	Total Labor Cost/Year
		CWS	NTNC	TNC	Exception Reports	CPEs	Exception Reports	CPEs	Exception Reports	CPEs		
	A	B	C	D	E	F	G=(B+C+D)*E	H=(B+C+D)*F	I	J	K=(G*I)+(J*H)	L=K*A
<100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
101-500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
501-1,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,001-3,300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,301-10K	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10,001-25K	$42.80	556	1	1	10%	1%	56	6	36	160	2,905	$124,328
25,001-50K	$42.80	331	1	1	10%	1%	33	3	36	160	1,728	$73,962
50,001-75K	$42.80	120	0	0	10%	1%	12	1	36	160	625	$26,741
75,001-100K	$42.80	58	0	0	10%	1%	6	1	36	160	301	$12,875
100,001-500K	$42.80	181	0	1	10%	1%	18	2	36	160	946	$40,508
500,001-1M	$42.80	22	0	0	10%	1%	2	0	36	160	116	$4,955
>1M	$42.80	13	0	0	10%	1%	1	0	36	160	66	$2,804
Total		**1,281**	**2**	**3**			**129**	**13**			**6,686**	**$286,174**

Source: Percentages of systems for which states must review exception reports and conduct CPEs carried forward from the 1998 IESWTR ICR.

Note: Exception reports are required when systems exceed turbidity levels of 0.5 or 1 NTU in consecutive measurements in individual filters (absent such exceedances, systems need only report that they have completed monitoring). Comprehensive performance evaluations are performed by states when a system exceeds 2 NTU in two consecutive measurements in an individual filter in each of two consecutive months.

Burden estimates take into account the results of the February 2008 consultation with water industry representatives (including states).

Exhibit D.9 - Sanitary Surveys - State Burden and Costs

Population Category	Hourly Labor Rate	Number Filtered Systems (SW and GWUDI)			Number of Unfiltered Systems (SW and GWUDI)			Percent of Surveys Performed Annually		Total Surveys Annually		System Level Labor Hours/Sanitary Survey		Total Labor Hours/Year	Total Labor Cost/Year
		CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	All NCWSs	Filtered Systems	Unfiltered Systems	Filtered Systems	Unfiltered Systems		
	A	B	C	D	E	F	G	H	I	J=(B*H)+((C+D)*I)	K=(E*H)+((F+G)*I)	L	M	N=L*J+M*K	O=N*A
<100	$42.80	1,179	259	1,238	1	0	0	33.3%	20.0%	693	0	16	16	11,088	$474,538
101-500	$42.80	2,093	236	475	4	0	0	33.3%	20.0%	840	1	16	16	13,457	$575,966
501-1,000	$42.80	1,167	88	82	3	0	0	33.3%	20.0%	423	1	28	28	11,874	$508,193
1,001-3,300	$42.80	2,458	68	56	15	0	0	33.3%	20.0%	844	5	28	28	23,775	$1,017,558
3,301-4,400	$42.80	448	4	5	3	0	0	33.3%	20.0%	151	1	40	40	6,087	$260,521
4,401-10K	$42.80	1,579	16	17	11	0	0	33.3%	20.0%	533	4	65	40	34,776	$1,488,362
10,001-25K	$42.80	1,146	4	2	9	0	0	33.3%	20.0%	383	3	65	40	25,026	$1,071,095
25,001-50K	$42.80	682	2	1	5	0	0	33.3%	20.0%	228	2	391	194	89,476	$3,829,474
50,001-75K	$42.80	255	1	0	3	0	0	33.3%	20.0%	85	1	705	334	60,356	$2,583,184
75,001-100K	$42.80	123	0	0	1	0	0	33.3%	20.0%	41	0	1,034	485	42,620	$1,824,084
100,001-500K	$42.80	273	1	1	4	0	0	33.3%	20.0%	91	1	1,364	638	125,207	$5,358,754
500,001-1M	$42.80	33	0	0	0	0	0	33.3%	20.0%	11	0	1,689	786	18,966	$811,735
>1M	$42.80	16	0	1	1	0	0	33.3%	20.0%	6	0	2,008	1004	11,446	$489,862
Total		**11,452**	**680**	**1,878**	**60**	**0**	**0**			**4,329**	**20**			**474,153**	**$20,293,326**

Source: Percentage of systems undergoing surveys annually is based on IESWTR requirements.

Note: All SW/GWUDI systems must undergo surveys (other requirements of the IESWTR are assumed to apply to non-purchased SW/GWUDI systems). Burden estimates take into account the results of the February 2008 consultation with water industry representatives (including states).

Exhibit D.10 - Interim Enhanced Surface Water Treatment Rule - Summary of Original and Revised Burden Estimates

Individual Filter Turbidity Monitoring Burden - PWSs		
2004 Burden	**Task**	**Revised Estimate**
Plant Level Burden		
4 hrs	Data reporting (Per Report)	10 hrs.
System Level Burden		
4 hrs	Data Review (Per Month)	8 hrs.

Exceptions Reporting and Individual Filter Assessment Burden Per Report--PWSs		
2004 Burden	**Task**	**Revised Estimate**
8 hrs	Exceptions Reporting	20 hrs.

Individual Filter Turbidity Monitoring Burden Per System--States		
2004 Burden	**Task**	**Revised Estimate**
4 hrs	Compliance Tracking (Per Month)	8 hrs
4 hrs	Analyze and Review Data (Per Month)	9 hrs
1 hr	Make Determination, As Required (Per Month)	8 hrs
2 hrs	Recordkeeping (Per month)	2 hrs

Exceptions Reporting and Comprehensive Performance Evaluation Burden Per Report--States		
2004 Burden	**Task**	**Revised Estimate**
16 hrs	Exceptions reporting	36 hrs
250 hrs	CPEs	160 hrs

Appendix E

Long Term 1 Enhanced Surface Water Treatment Rule Spreadsheets

Exhibit E1
LT1ESWTR Burden and Cost Summary by Activity

Exhibit E1a
LT1ESWTR PWS Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Turbidity Monitoring	3,293	3,293	150,961	$4,637,096	$3,270,462	$2,629,442
Turbidity Exceptions Reporting	593	593	4,742	$145,673	N/A	N/A
Individual Filter Assessments	132	132	6,587	$202,323	N/A	N/A
Total	**3,293**	**4,018**	**162,290**	**$4,985,092**	**$3,270,462**	**$2,629,442**

Exhibit E1b
LT1ESWTR State Burden and Cost Summary

Requirement	Annual Respondents	Avg. Annual Responses	Annual Burden	Annual Burden (Labor) Cost	Annual O&M Cost	Annual Capital Cost
Turbidity Monitoring	57	3,293	118,552	$5,073,932	N/A	N/A
Turbidity Exceptions Reporting	57	725	23,179	$992,062	N/A	N/A
Total	**57**	**4,018**	**141,732**	**$6,065,993**	**N/A**	**N/A**

Exhibit E2
Summary of the LT1 Burden, Respondents, Responses, and Costs for the ICR Approval Period by Year and Annual Averages

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	Three Year Total
Burden (hours)	**F5.4**	162,290	162,290	162,290	162,290	486,869
Respondents (number)**	**F7**	3,293	3,293	3,293	3,293	3,293
Responses (number)	**F8**	4,018	4,018	4,018	4,018	12,053
Costs (labor)	**F3.4**	$4,985,092	$4,985,092	$4,985,092	$4,985,092	$14,955,276
Costs (Turbidimeter Capital)	**F3.4**	$2,629,442	$2,629,442	$2,629,442	$2,629,442	$7,888,325
Costs (Turbidimeter O&M)	**F3.4**	$3,270,462	$3,270,462	$3,270,462	$3,270,462	$9,811,387

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

** Some respondents will respond to the rule over the course of more than one year. Therefore the three year total is not the sum of the three years.

States

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	Three Year Total
Burden (hours)	**E6**	141,732	141,732	141,732	141,732	425,195
Respondents (number)**	**E7**	57	57	57	57	57
Responses (number)	**E8**	4,018	4,018	4,018	4,018	12,053
Costs	**E4**	$6,065,993	$6,065,993	$6,065,993	$6,065,993	$18,197,979

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

** Some respondents will respond to the rule in more than one year. Therefore the three year total is not the sum of the three years.

	Annual Average	Three Year Total
Total Burden (hours)	**304,021**	**912,064**
Total Respondents (number)	**3,350**	**3,350**
Total Cost for All Activities	**$16,950,989**	**$50,852,967**

Exhibit E3.1
Costs for the ICR Approval Period Year by Year for Systems Serving Fewer than 1,000 People

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual Activities					
Turbidity Monitoring	E10.1a	$2,006,342	$2,006,342	$2,006,342	$2,006,342
Turbidity Exceptions Reporting	E10.1b	$69,898	$69,898	$69,898	$69,898
Individual Filter Assessments	E10.1b	$97,080	$97,080	$97,080	$97,080
Annual Activity Yearly Labor Total		**$2,173,319**	**$2,173,319**	**$2,173,319**	**$2,173,319**
Yearly Labor Total		**$2,173,319**	**$2,173,319**	**$2,173,319**	**$2,173,319**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

PWS Capital and O&M

	Source (Exhibit)**	Year 1	Year 2	Year 3	Annual Average
Annual					
Turbidimeter Capital Cost*	E10.1c	$815,222	$815,222	$815,222	$815,222
Turbidimeter Annual O&M *	E10.1c	$1,569,430	$1,569,430	$1,569,430	$1,569,430
Yearly Total		**$2,384,651**	**$2,384,651**	**$2,384,651**	**$2,384,651**

* Used a weighted value based upon the three size categories of 25-100, 101-500, and 501-1,000.

** The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E3.2
Costs for the ICR Approval Period Year by Year for Systems Serving between 1,000 and 3,300 People

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual Activities					
Turbidity Monitoring	E10.2a	$1,251,682	$1,251,682	$1,251,682	$1,251,682
Turbidity Exceptions Reporting	E10.2b	$36,051	$36,051	$36,051	$36,051
Individual Filter Assessments	E10.2b	$50,070	$50,070	$50,070	$50,070
Annual Activity Yearly Labor Total		**$1,337,803**	**$1,337,803**	**$1,337,803**	**$1,337,803**
Yearly Labor Total		**$1,337,803**	**$1,337,803**	**$1,337,803**	**$1,337,803**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

PWS Capital and O&M

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual					
Turbidimeter Capital Cost	E10.2c	$710,911	$710,911	$710,911	$710,911
Turbidimeter Annual O&M	E10.2c	$809,331	$809,331	$809,331	$809,331
Yearly Total		**$1,520,243**	**$1,520,243**	**$1,520,243**	**$1,520,243**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E3.3
Costs for the ICR Approval Period Year by Year for Systems Serving between 3,300 and 9,999 People

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual Activities					
Turbidity Monitoring	E10.3a	$1,379,073	$1,379,073	$1,379,073	$1,379,073
Turbidity Exceptions Reporting	E10.3b	$39,724	$39,724	$39,724	$39,724
Individual Filter Assessments	E10.3b	$55,173	$55,173	$55,173	$55,173
Annual Activity Yearly Labor Total		**$1,473,969**	**$1,473,969**	**$1,473,969**	**$1,473,969**
Yearly Labor Total		**$1,473,969**	**$1,473,969**	**$1,473,969**	**$1,473,969**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

PWS Capital and O&M

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual					
Turbidimeter Capital Cost	E10.3c	$1,103,309	$1,103,309	$1,103,309	$1,103,309
Turbidimeter Annual O&M	E10.3c	$891,701	$891,701	$891,701	$891,701
Yearly Total		**$1,995,010**	**$1,995,010**	**$1,995,010**	**$1,995,010**

*The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E3.4
Costs for the ICR Approval Period Year by Year for All System Sizes

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	3 Year Total
Annual Activities						
Turbidity Monitoring	E3.1-E3.3	$4,637,096	$4,637,096	$4,637,096	$4,637,096	$13,911,289
Turbidity Exceptions Reporting	E3.1-E3.3	$145,673	$145,673	$145,673	$145,673	$437,018
Individual Filter Assessments	E3.1-E3.3	$202,323	$202,323	$202,323	$202,323	$606,969
Annual Activity Yearly Total		**$4,985,092**	**$4,985,092**	**$4,985,092**	**$4,985,092**	**$14,955,276**
Yearly Labor Total		**$4,985,092**	**$4,985,092**	**$4,985,092**	**$4,985,092**	**$14,955,276**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

PWS Capital and O&M

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	3 Year Total
Annual						
Turbidimeter Capital Cost	E3.1-E3.3	$2,629,442	$2,629,442	$2,629,442	$2,629,442	$7,888,325
Turbidimeter Annual O&M	E3.1-E3.3	$3,270,462	$3,270,462	$3,270,462	$3,270,462	$9,811,387
Yearly Total		**$5,899,904**	**$5,899,904**	**$5,899,904**	**$5,899,904**	**$17,699,711**

*The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E4
Costs for the ICR Approval Period Year by Year for States
Summary Cost Estimates for States and Systems

States

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	3 Year Total
Annual Activities						
Turbidity Monitoring	E12a	$5,073,932	$5,073,932	$5,073,932	$5,073,932	$15,221,795
Turbidity Exceptions Reporting	E12b	$992,062	$992,062	$992,062	$992,062	$2,976,185
Annual Activity Yearly Total		**$6,065,993**	**$6,065,993**	**$6,065,993**	**$6,065,993**	**$18,197,979**
Yearly Total		**$6,065,993**	**$6,065,993**	**$6,065,993**	**$6,065,993**	**$18,197,979**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Summary of Total Year by Year Costs for PWSs and States*

	Source (Exhibit)**	Year 1	Year 2	Year 3	Annual Average	3 Year Total
Start-Up Summary						
PWSs Serving ≤ 1,000 People	E3.1	$2,173,319	$2,173,319	$2,173,319	$2,173,319	$6,519,958
PWSs Serving 1,000 - 3,300 People	E3.2	$1,337,803	$1,337,803	$1,337,803	$1,337,803	$4,013,410
PWSs Serving 3,300 - 9,999 People	E3.3	$1,473,969	$1,473,969	$1,473,969	$1,473,969	$4,421,908
PWS Total		**$4,985,092**	**$4,985,092**	**$4,985,092**	**$4,985,092**	**$14,955,276**
States and Territories	E4	**$6,065,993**	**$6,065,993**	**$6,065,993**	**$6,065,993**	**$18,197,979**
Yearly Total		**$11,051,085**	**$11,051,085**	**$11,051,085**	**$11,051,085**	**$33,153,255**

* Include Capital and O&M costs.

**The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E5.1
Burden for the ICR Approval Period Year by Year by Activity for Systems Serving Fewer than 1,000 People

PWSs Labor

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual Activities					
Turbidity Monitoring	E10.1a	65,316	65,316	65,316	65,316
Turbidity Exceptions Reporting	E10.1b	2,276	2,276	2,276	2,276
Individual Filter Assessment	E10.1b	3,160	3,160	3,160	3,160
Annual Activity Yearly Labor Total		**70,752**	**70,752**	**70,752**	**70,752**
Yearly Labor Total		**70,752**	**70,752**	**70,752**	**70,752**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E5.2
Burden for the ICR Approval Period Year by Year by Activity for Systems Serving between 1,000 and 3,300 People

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual Activities					
Turbidity Monitoring	E10.2a	40,748	40,748	40,748	40,748
Turbidity Exceptions Reporting	E10.2b	1,174	1,174	1,174	1,174
Individual Filter Assessment	E10.2b	1,630	1,630	1,630	1,630
Annual Activity Yearly Labor Total		**43,552**	**43,552**	**43,552**	**43,552**
Yearly Labor Total		**43,552**	**43,552**	**43,552**	**43,552**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E5.3
Burden for the ICR Approval Period Year by Year by Activity for Systems Serving between 3,300 and 9,999 People

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average
Annual Activities					
Turbidity Monitoring	E10.3a	44,896	44,896	44,896	**44,896**
Turbidity Exceptions Reporting	E10.3b	1,293	1,293	1,293	**1,293**
Individual Filter Assessment	E10.3b	1,796	1,796	1,796	**1,796**
Annual Activity Yearly Labor Total		**47,985**	**47,985**	**47,985**	**47,985**
Yearly Total		**47,985**	**47,985**	**47,985**	**47,985**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E5.4
Burden for the ICR Approval Period Year by Year by Activity for All System Sizes

PWSs

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	3 Year Total
Annual Activities						
Turbidity Monitoring	E5.1-E5.3	150,961	150,961	150,961	150,961	**452,882**
Turbidity Exceptions Reporting	E5.1-E5.3	4,742	4,742	4,742	4,742	**14,227**
Individual Filter Monitoring	E5.1-E5.3	6,587	6,587	6,587	6,587	**19,760**
Annual Activity Yearly Tota		**162,290**	**162,290**	**162,290**	**162,290**	**486,869**
Yearly Total		**162,290**	**162,290**	**162,290**	**162,290**	**486,869**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E6
Burden for the ICR Approval Period Year by Year by Activity for States
Summary Burden for States and Systems

States

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	3 Year Total
Start-Up Activities						
Profiling & Benchmark Dev./Compl. Tracking**	E11	0	0	0	0	0
Start-Up Activity Yearly Total		**0**	**0**	**0**	**0**	**0**
Annual Activities						
Turbidity Monitoring	E12a	118,552	118,552	118,552	118,552	355,657
Turbidity Exceptions Reporting	E12b	23,179	23,179	23,179	23,179	69,538
Annual Activity Yearly Tota		**141,732**	**141,732**	**141,732**	**141,732**	**425,195**
Yearly Total		**141,732**	**141,732**	**141,732**	**141,732**	**425,195**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

** Includes tracking for applicability monitoring or profiling, as well as data review, determinations, and consultations with PWSs.

Summary of Total Year by Year Burden for PWSs and States

	Source (Exhibit)*	Year 1	Year 2	Year 3	Annual Average	3 Year Total
Start-Up Summary						
PWSs Serving ≤ 1,000 People	E5.1	70,752	70,752	70,752	**70,752**	**212,257**
PWSs Serving 1,000 - 3,300 People	E5.2	43,552	43,552	43,552	**43,552**	**130,656**
PWSs Serving 3,300 - 9,999 People	E5.3	47,985	47,985	47,985	**47,985**	**143,955**
PWS Total		**162,290**	**162,290**	**162,290**	**162,290**	**486,869**
States and Territories	E6	**141,732**	**141,732**	**141,732**	**141,732**	**425,195**
Yearly Total		**304,021**	**304,021**	**304,021**	**304,021**	**912,064**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

Exhibit E7
Respondents for the ICR Approval Period Year by Year by Activity

PWSs [1]

	Year 1	Year 2	Year 3	Annual Average
Respondents	3,293	3,293	3,293	**3,293**
Includes systems performing:				
Annual Turbidity Monitoring	3,293	3,293	3,293	**3,293**
Turbidity Exceptions Reporting	593	593	593	**593**
Individual Filter Assesment	132	132	132	**132**

States [2]

	Year 1	Year 2	Year 3	Annual Average
Respondents	57	57	57	**57**
Includes States performing:				
Annual Turbidity Monitoring	57	57	57	**57**
Turbidity Exceptions Reporting	57	57	57	**57**
Comprehensive Performance Evaluation	57	57	57	**57**

* Includes tracking for applicability monitoring or profiling, as well as data review, determinations, and consultations with PWSs.

Sum for PWSs and States

	Year 1	Year 2	Year 3	Annual Average
PWSs	3,293	3,293	3,293	**3,293**
States and Territories	57	57	57	**57**
Yearly Total	**3,350**	**3,350**	**3,350**	**3,350**

[1] Each PWS is one respondent. One respondent may be involved in more than one activity; however, in order to avoid double-counting, the maximum number of respondents expected to be involved in the rule activities annually is assumed to be the number of respondents for that year.
[2] Each State is one respondent.

Exhibit E8
Responses for the ICR Approval Period Year by Year by Activity

PWSs [1]

	Year 1	Year 2	Year 3	Annual Average
Annual Activities				
Turbidity Monitoring	3,293	3,293	3,293	**3,293**
Turbidity Exceptions Reporting	593	593	593	**593**
Individual Filter Assessments	132	132	132	**132**
Yearly Total	**4,018**	**4,018**	**4,018**	**4,018**

States [2]

	Year 1	Year 2	Year 3	Annual Average
Annual Activities				
Turbidity Monitoring	3,293	3,293	3,293	**3,293**
Turbidity Exceptions Reporting	593	593	593	**593**
Comprehensive Performance Evaluation	132	132	132	**132**
Yearly Total	**4,018**	**4,018**	**4,018**	**4,018**

Sum for PWSs and States

	Year 1	Year 2	Year 3	Annual Average
PWSs	4,018	4,018	4,018	**4,018**
States and Territories	4,018	4,018	4,018	**4,018**
Yearly Total	**8,035**	**8,035**	**8,035**	**8,035**

* The distribution over time is based upon the Compliance Schedule in Exhibit E17.

[1] Each PWS is one respondent. Each activity detailed in Exhibits E2-E5 is a response.

[2] Each State is one respondent. Each activity detailed in Exhibits E2-E5 is a response.

Exhibit E9
PWS Cost and Burden Estimates for Start-up Activities for Systems Serving Fewer than 1,000 People

Disinfection Benchmark Labor for Systems Serving 500 or Less (Filtered & Unfiltered Systems)

Activity	Systems (Respondents)	Hours per Task	Cost per Task	Total Burden (hrs.)	Total Initial Cost ($)
	A	B	C	A*B	A*C
Submit Profiling Notification to State	0	1.0	$31	-	$0
Data Entry and Spreadsheet Development	0	8.7	$266	-	$0
Data Review	0	4.3	$133	-	$0
Generate Report for State and In-House Review	0	40.0	$1,229	-	$0
Meet and Review with State	0	8.0	$246	-	$0
Supplemental Viral Profile and Benchmark	0	53.0	$1,628	-	$0
Totals		**115.0**	**$3,532**	**-**	**$0**

		Total Cost ($)
Total Costs for All Start-Up Activities		**$0**

Notes: Baseline number systems performing rule activities from all filtered systems. Percentages requiring report and viral benchmark from original LT1ESTWTR analysis.

Exhibit E10.1
PWS Cost and Burden Estimates for Annual Activities by Systems Serving Fewer than 1,000 People

Exhibit E10.1a
Monitoring Requirements for Plants (Monitoring at Individual Filters)

Activity	Systems (Respondents)*	Frequency per Year	Hours per Task**	Cost per Task	Burden (hrs.)	Cost ($)
	A	B	C	D	A*B*C	A*B*D
Data Analysis	1,580	52	0.17	$5	13,695	$420,685
Data Review	1,580	52	0.17	$5	13,695	$420,685
Record Keeping	1,580	12	2.00	$61	37,926	$1,164,972
				$72	**65,316**	**$2,006,342**

Exhibit E10.1b
Turbidity Exceptions Reporting for Systems

Activity	Systems (Respondents)	Frequency per Year	Hours per Task**	Cost per Task	Burden (hrs.)	Cost ($)
	A	B	C	D	A*B*C	A*B*D
Annual Reporting Exceptions	284	1	8.0	$246	2,276	$69,898
Annual IFA	63	1	50.0	$1,536	3,160	$97,080
Total				**$1,782**	**5,436**	**$166,978**

	Burden (hrs.)	Cost
Total for All PWS Labor Burdens and Costs	**70,752**	**$2,173,319**

Exhibit E10.1c
Turbidimeter Installation, Operation, and Maintenance

Activities	Systems	Cost per Task	Cost	Annualized Cost
Turbidimeter Installation***	1,580	$3,311	$5,231,432	$815,222
Operation and Maintenance	1,580	$993	$1,569,430	$1,569,430
Total			**$6,800,862**	**$2,384,651**

	Burden (hrs.)	Cost
Total for All PWS Activities	**70,752**	**$4,557,971**

*Systems performing monitoring include direct and conventional filtration CWSs and NTNCWSs from system baseline. Percentage performing exceptions reporting and IFA from LT1ESWTR EA.

**Burden estimates incorporate the results of EPA's February 2008 consultation with water industry representatives.

***The capitalization factor used for turbidimeter installation annualizes costs over 7 years using a 3% cost-of-capital as the discount rate.

Exhibit E10.2
PWS Cost and Burden Estimates for Annual Activities by Systems Serving 1,000 - 3,300 People

Exhibit E10.2a
Monitoring Requirements for Plants (Monitoring at Individual Filters)

Activity	Systems (Respondents)* A	Frequency per Year B	Hours per Task** C	Cost per Task D	Burden (hrs.) A*B*C	Cost ($) A*B*D
Data Analysis	815	52	0.250	$8	10,595	$325,437
Data Review	815	52	0.250	$8	10,595	$325,437
Record Keeping	815	12	2.0	$61	19,559	$600,807
Totals				**$77**	**40,748**	**$1,251,682**

Exhibit E10.2b
Turbidity Exceptions Reporting for Systems

Activity	Systems (Respondents) A	Frequency per Year B	Hours per Task C	Cost per Task D	Burden (hrs.) A*B*C	Cost ($) A*B*D
Annual Reporting Exceptions	147	1	8.0	$246	1,174	$36,051
Annual IFA	33	1	50.0	$1,536	1,630	$50,070
Total				**$1,782**	**2,804**	**$86,121**

	Burden (hrs.)	Cost ($)
Total for All PWS Activities	**43,552**	**$1,337,803**

Exhibit E10.2c
Turbidimeter Installation, Operation, and Maintenance

Activity	Systems	Cost per Task	Cost	Annualized Cost
Turbidimeter Installation***	815	$5,598	$4,562,055	$710,911
Operation and Maintenance	815	$993	$809,331	$809,331
Total			**$5,371,386**	**$1,520,243**

	Burden (hrs.)	Cost
Total for All PWS Activities	**43,552**	**$2,858,046**

*Systems performing monitoring include direct and conventional filtration CWSs and NTNCWSs from system baseline. Percentage performing exceptions reporting and IFA from LT1ESWTR EA.
**Burden estimates incorporate results of EPA's February 2008 consultation with water industry representatives.

*** The capitalization factor used for turbidimeter installation annualizes costs over 7 years using a 3% cost-of-capital as the discount rate.

Exhibit E10.3
PWS Cost and Burden Estimates for Annual Activities by Systems Serving 3,300 - 9,999 People

Exhibit E10.3a
Monitoring Requirements for Plants (Monitoring at Individual Filters)

Activity	Systems (Respondents)*	Frequency per Year	Hours per Task**	Cost per Task	Burden (hrs.)	Cost ($)
	A	B	C	D	A*B*C	A*B*D
Data Analysis	898	52	0.250	$8	11,673	$358,559
Data Review	898	52	0.250	$8	11,673	$358,559
Record Keeping	898	12	2.0	$61	21,550	$661,955
Totals				**$77**	**44,896**	**$1,379,073**

Exhibit E10.3b
Turbidity Exceptions Reporting for Systems

Activity	Systems (Respondents)	Frequency per Year	Hours per Task**	Cost per Task	Burden (hrs.)	Cost ($)
	A	B	C	D	A*B*C	A*B*D
Annual Reporting Exceptions	162	1	8.0	$246	1293	$39,724
Annual IFA	36	1	50.0	$1,536	1796	$55,173
Total				**$1,782**	**3,089**	**$94,897**

	Burden (hrs.)	Cost
Total Labor Burdens and Costs	**47,985**	**$1,473,969**

Exhibit E10.3c
Turbidimeter Installation, Operation, and Maintenance

Activity	Systems	Cost per Task	Cost	Annualized Cost
Turbidimeter Installation***	898	$7,885	$7,080,142	$1,103,309
Operation and Maintenance	898	$993	$891,701	$891,701
Total			**$7,971,843**	**$1,995,010**

	Burden (hrs.)	Cost
Total for All PWS Activities	**47,985**	**$3,468,979**

*Systems performing monitoring include direct and convention CWS and NTNCWS from system baseline. Percentage performing exceptions reporting and IFA from LT1ESWTR EA.

** Burden estimates incorporate the results of EPA's February 2008 consultation with water industry representatives.
*** The capitalization factor used for turbidimeter installation annualizes costs over 7 years using a 3% cost-of-capital as the discount rate.

Exhibit E11
State Cost and Burden Estimates for Start-up Activities by Activity

Profiling & Benchmark Dev./Compl. Tracking Labor

Activity	Responses	Hours per Task	Cost per Task	Total Burden (hrs.)	Total Initial Cost ($)
	A	B	C	A*B	A*C
Compliance Tracking*	-	4.0	$171	-	$0
Analyze and Review Profiling Data	-	8.0	$342	-	$0
Make Determinations	-	8.0	$342	-	$0
Meet and Review with PWSs	-	16.0	$685	-	$0
Review Viral Benchmark	-	16.0	$685	-	$0
Recordkeeping	-	4.0	$171	-	$0
Total		**56.0**	**2,397**	**-**	**$0**

	Total Burden (hrs.)	Total Cost ($)
Total for All Start-Up Activities	**-**	**$0**

* Includes tracking for applicability monitoring or profiling, as well as data review, determinations, and consultations with PWSs. Profiling and benchmarking were completed during previous ICR periods.

Exhibit E12
State Cost and Burden Estimates for Annual Activities

Exhibit E12a
Turbidity Monitoring

Activity	Responses	Frequency per Year	Hours per Task	Cost per Task	Burden (hrs.)	Cost ($)
	A	B	C	D	A*B*C	A*B*D
Compliance Tracking	3,293	12	1.0	$43	39,517	$1,691,311
Recordkeeping	3,293	12	2.0	$86	79,035	$3,382,621
Total					**118,552**	**$5,073,932**

Exhibit E12b
Turbidity Exceptions Reporting

Activity	Responses	Frequency per Year	Hours per Task	Cost per Task	Burden (hrs.)	Cost ($)
	A	B	C	D	A*B*C	A*B*D
Annual Exceptions Reports	593	1	3.5	$150	2,075	$88,799
Annual CPE (serving 1,000 or less)	31	1	400.0	$17,120	12,368	$529,359
Annual CPE (serving 1,000 - 9,999)	35	1	250.0	$10,700	8,736	$373,903
Total					**23,179**	**$992,062**

Number of systems requiring CPE calculated using percentage from LT1ESTWR 2004 ICR.
Burden estimates incorporate the results of EPA's February 2008 consultation with water industry representatives (including states).

Exhibit E13
Summary of Start-up and Annual Costs

Annual Activities

	Source Exhibit	Total Annual Cost
PWS Cost Estimates for Annual Activities		
Turbidity Monitoring	E3.4	$4,637,096
Turbidity Exceptions Reporting and IFAs	E3.4	$347,996
Turbidimeter Capital Cost*	E3.4	$2,629,442
Turbidimeter O&M Cost	E3.4	$3,270,462
Subtotal		**$10,884,996**
State Cost Estimates for Annual Activities		
Turbidity Monitoring	E4	$5,073,932
Turbidity Exceptions Reporting and CPEs	E4	$992,062
Subtotal		**$6,065,993**
Total Cost Estimates for Annual Activities		**$16,950,989**

*Annualization of turbidimeter costs: 3% cost-of-capital, annualized over 7 years.

Exhibit E14
Occupational Cost and Burden per Start-up Activity

Activity*	Total Burden		
	Hours**	Rate/Hr	Cost
States			
Profiling and Benchmark Dev./Compl. Tracking	56.0	$42.80	$2,397

* The activities listed in the first column correspond to Exhibit E11.

** Each occupation's hourly burdens are the sum of the hours devoted to each of the line items listed in Exhibit E11.

Exhibit E15
Occupational Cost and Burden per Activity per Year

Activity*	Total Burden		
	Hours**	Rate/Hr	Cost***
PWSs Serving 0 -500			
Turbidity Monitoring	41.3	$30.72	$1,270
Exception Reporting	8.0	$30.72	$246
Individual Filter Assessment	50.0	$30.72	$1,536
PWSs Serving 500-1,000			
Turbidity Monitoring	41.3	$30.72	$1,270
Exception Reporting	8.0	$30.72	$246
Individual Filter Assessment	50.0	$30.72	$1,536
PWSs Serving 1,000-3,300			
Turbidity Monitoring	50.0	$30.72	$1,536
Exception Reporting	8.0	$30.72	$246
Individual Filter Assessment	50.0	$30.72	$1,536
PWSs Serving 3,300-9,999			
Turbidity Monitoring	50.0	$30.72	$1,536
Exception Reporting	8.0	$30.72	$246
Individual Filter Assessment	50.0	$30.72	$1,536
States			
Turbidity Monitoring State	36.0	$42.80	$1,541
Exceptions Reporting****	403.5	$42.80	$17,269

* The activities listed in the first column correspond to tables a-c in Exhibits E10.1, E10.2, and E10.3.

** Each occupation's hourly burdens are the sum of the hours devoted to each of the line items listed in tables a-c in Exhibits E10.1, E10.2, and E10.3, multiplied by the frequency of the activity.

*** All labor rates include a 1.6 load factor.

****Exceptions reporting for states includes CPEs, which are assumed to take 400 hours for a system serving $\leq$ 1000 and 250 hours for a system serving 1,000-9,999.

Exhibit E16
LT1 Universe of Respondents Performing Information Collection and Record Keeping Activities

System Types	Turbidity Monitoring	Three Year Total
Community	2,479	**2,479**
Transient Non-Community	596	**596**
Non-Transient Non-Community	219	**219**
Total	**3,293**	**3,293**

Source: SDWIS/FED Data from October 2007.

Exhibit E17
LT1 Activity Schedule

Start date:	Year 1 Jan. 2002- Dec. 2002	Year 2 Jan. 2003- Dec. 2003	Year 3 Jan. 2004- Dec. 2004	Year 4 Jan. 2005- Dec. 2005	Year 5 Jan. 2006- Dec. 2006	Year 6 Jan. 2007- Dec. 2007	Year 7 Jan. 2008- Dec. 2008	Year 8 Jan. 2009- Dec. 2009	Year 9 Jan. 2010- Dec. 2010	Year 10 Jan. 2011- Dec. 2011	Year 11 Jan. 2012- Dec. 2012	Year 12 Jan. 2013- Dec. 2013	Year 13 Jan. 2014- Dec. 2014	Year 14 Jan. 2015- Dec. 2015	Year 15 Jan. 2016- Dec. 2016
Activity															
Turbidity Monitoring Start-up - Systems	17%	33%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turbidity Monitoring Annual - Systems	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Turbidity Monitoring Start-up - States	17%	33%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turbidity Monitoring Annual - States	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Turbidity Monitoring Capital	0%	20%	80%	0%	0%	0%	0%	0%	20%	80%	0%	0%	0%	0%	0%
Turbidity Monitoring O&M	0%	20%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Benchmarking Start-up - Systems <=500	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Benchmarking Start-up - Systems <=501-9,999	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Benchmarking Start-up - States	70%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Disinifection Profiling - Systems <=500	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Disinifection Profiling - Systems 501-9,999	0%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Disinfection Profiling - States	0%	0%	60%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Benchmarking - Systems <=500	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Benchmarking - Systems 501-9,999	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Benchmarking State - State	0%	0%	60%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Covered Finished Water*	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

* This rule activity is not associated with information collection or recordkeeping.

Exhibit E18
System Baseline

Population Category	Surface Water and GWUDI			Non-Purchased Surface Water/GWUDI			Unfiltered Surface Water/GWUDI			Filtered Non-Purchased Surface Water/GWUDI			Percent Conventional or Direct Filtration	Conventional or Direct Surface Water/GWUDI Systems		
	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC	CWS	NTNC	TNC		CWS	NTNC	TNC
≤100	1,179	259	1,238	438	129	636	1	0	0	437	129	636	47.41	207	61	302
101-500	2,093	236	475	659	148	375	4	0	0	655	148	375	49.99	328	74	187
501-1,000	1,167	88	82	365	60	62	3	0	0	362	60	62	87.01	315	52	54
1,001-3,300	2,458	68	56	944	33	44	15	0	0	929	33	44	80.98	753	27	36
3,301-10K	2,026	20	22	1,005	5	19	14	0	0	991	5	19	88.43	877	4	17

Source: SDWIS/FED Data from October 2007. Number of unfiltered systems from ICR done for final LT2ESWTR in 2006.

Note: Source was not specified for some systems. These PWSs were assigned to SW or GW categories based on the ratio of SW to GW systems within a given size category.

Number of unfiltered systems from the ICR developed for the final LT2ESWTR in 2006).

Percent of plants that use conventional or direct filtration from 2000 CWSS survey

	Conventional or Direct			
	CWS	NTNC	TNC	Total
≤ 1,000	850	187	543	1,580
1,001 - 3,300	753	27	36	815
3,301 - 10,000	877	4	17	898
Total	2,479	219	596	3,293

Exhibit E19

Long Term 1 Enhanced Surface Water Treatment Rule - Summary of Original and Revised Burden Estimates

Turbidity Exceptions Reporting Burden Per System		
2004 Burden	**Task**	**Revised Burden**
1 hr	Annual Reporting Exceptions	8 hrs
10 hrs	Annual IFA	50 hrs

State Burden Estimates for Annual Activities		
2004 Burden	**Task**	**Revised Burden**
Turbidity Exceptions Reporting		
60 hrs	Annual CPE (System Size 1,000-9,999)	250 hrs
120 hrs	Annual CPE (System Size ≤1,000)	400 hrs

Appendix F

Long Term 2 Enhanced Surface Water Treatment Rule Spreadsheets

Exhibit F-A.1 Summary of Burden, Respondents, Responses, and Costs for the ICR Approval Period

	Source (Exhibit)	Year 4 October-08 September-09	Year 5 October-09 September-10	Year 6 October-10 September-11	Total	Annual Average
PWSs						
Burden (hours)	F-A.2	125,024	36,612	37,583	199,218	66,406
Respondents (number)	F-A.3	5,956	1,736	1,736	5,956	3,142
Responses (number)	F-A.4	137,217	57,006	57,045	251,268	83,756
Costs (dollars)	F-A.5	$ 18,050,858	$ 15,989,594	$ 16,024,927	$ 50,065,379	$ 16,688,460
Labor		$ 3,916,716	$ 1,141,596	$ 1,176,929	$ 6,235,241	$ 2,078,414
O&M		$ 14,134,142	$ 14,847,998	$ 14,847,998	$ 43,830,139	$ 14,610,046
Capital		$ -	$ -	$ -	$ -	$ -
Burden per respondent					33.5	
Cost per respondent					$ 8,407	
States						
Burden (hours)	F-A.2	51,015	39,949	40,570	131,533	43,844
Respondents (number)	F-A.3	57	57	57	57	57
Responses (number)	F-A.4	210	260	298	768	256
Costs (dollars)	F-A.5	$ 2,183,376	$ 1,709,770	$ 1,736,363	$ 5,629,510	$ 1,876,503
Labor		$ 2,183,376	$ 1,709,770	$ 1,736,363	$ 5,629,510	$ 1,876,503
O & M		$ -	$ -	$ -	$ -	$ -
Capital		$ -	$ -	$ -	$ -	$ -
Burden per respondent					2,307.6	
Cost per respondent					$ 98,763	
Total - PWS and States						
Burden (hours)	F-A.2	176,038	76,561	78,153	330,751	110,250
Respondents (number)	F-A.3	6,013	1,793	1,793	6,013	3,199
Responses (number)	F-A.4	137,427	57,266	57,343	252,037	84,012
Cost (dollars)	F-A.5	$ 20,234,234	$ 17,699,364	$ 17,761,290	$ 55,694,889	$ 18,564,963
Labor		$ 6,100,092	$ 2,851,366	$ 2,913,292	$ 11,864,750	$ 3,954,917
O & M		$ 14,134,142	$ 14,847,998	$ 14,847,998	$ 43,830,139	$ 14,610,046
Capital		$ -	$ -	$ -	$ -	$ -
Burden per respondent					55.0	
Cost per respondent					$ 9,263	

Note: Detail may not add to total due to rounding.
The number of respondents is not added; rather the maximum number of respondents for the 3 years for a given activity is used to avoid double-counting.

Exhibit F-A.2 Burden for the ICR Approval Period (Hours)

	Source (Exhibit)	Year 4 October-08 September-09	Year 5 October-09 September-10	Year 6 October-10 September-11	Total	Annual Average
PWSs						
Start-up [1]	F-B.2	-	-	-	-	-
Assessment for binning [2]						
E. coli Monitoring	F-B.4	79,873	-	-	79,873	26,624
Cryptosporidium Monitoring	F-B.5	19,091	30,850	30,850	80,792	26,931
Reporting	F-B.6	25,080	3,548	3,548	32,176	10,725
UCFWR Reporting [3]	F-B.8	-	-	-	-	-
Technology Reporting	F-B.11	-	-	-	-	
Disinfection Benchmarking [4]	F-B.12	979	2,214	3,184	6,377	2,126
Assessment for Bin Reclassification		-	-	-	-	
E. coli Monitoring	F-B.14	-	-	-	-	-
Cryptosporidium Monitoring	F-B.15	-	-	-	-	-
Reporting	F-B.16	-	-	-	-	-
PWSs - Total		**125,024**	**36,612**	**37,583**	**199,218**	**66,406**
States and Territories						
Start-up [5]	F-B.3	-	-	-	-	-
Bin Determination and Reviewing Monitoring Data [6]	F-B.7	50,388	38,532	38,532	127,452	42,484
Reviewing/Approving UCFWR Schedule [7]	F-B.9	-	-	-	-	-
Technology Reporting	F-B.10	-	-	-	-	-
Disinfection Benchmarking [8]	F-B.13	627	1,417	2,038	4,081	1,360
States and Territories - Total		**51,015**	**39,949**	**40,570**	**131,533**	**42,484**
Total		**176,038**	**76,561**	**78,153**	**330,751**	**108,890**

Note: Detail may not add to total due to rounding.
Sources:
See Exhibit F-C.1 for breakdown of burden by year and system type.

(1) Start-up burden is assumed to have been completed in Year 3.

(2) Half of *E. coli* monitoring by systems serving up to 49,999 people will be completed in Year 4 (the other half was completed in Year 3). Half of *Cryptosporidium* monitoring by systems serving 10,000-49,999 people will be completed in Year 4 (the other half was completed in Year 3). *Cryptosporidium* monitoring for systems serving <10,000 people will be completed in Years 5 and 6.

(3) Reporting requirements associated with uncovered finished water reservoirs are assumed to have been completed in Year 3.

(4) Disinfection profiling and benchmarking are assumed to occur before systems begin installing treatment.

(5) State rule start-up activities will parallel system activities.

(6) Bin determination and monitoring review are assumed to parallel system monitoring and reporting activities.

(7) State activities related to uncovered finished water reservoirs parallel system activities.

(8) Disinfection profiling and benchmarking activities will parallel system activities.

Exhibit F-A.3 Respondents for the ICR Approval Period

	Source (Exhibit)	Year 4 October-08 September-09	Year 5 October-09 September-10	Year 6 October-10 September-11	Total [11]	Annual Average
PWSs						
Start-up [1,2]	F-B.2	-	-	-	-	-
Assessment for binning [3, 4]						
E. coli Monitoring	F-B.4	5,902	-	-	5,902	1,967
Cryptosporidium Monitoring	F-B.5	1,068	863	863	1,068	931
Reporting	F-B.6	5,956	1,736	1,736	5,956	3,142
UCFWR Reporting [5]	F-B.8	-	-	-	-	-
Technology Reporting	F-B.11	-	-	-	-	-
Disinfection Benchmarking [6]	F-B.12	249	637	637	637	507
Assessment for Bin Reclassification					-	-
E. coli Monitoring	F-B.14				-	-
Cryptosporidium Monitoring	F-B.15				-	-
Reporting	F-B.16				-	-
PWSs - Total		**5,956**	**1,736**	**1,736**	**5,956**	**3,142**
States and Territories						
Start-up [7]	F-B.3	-	-	-	-	-
Bin Determination and Reviewing Monitoring Data [8]	F-B.7	57	57	57	57	57
Reviewing/Approving UCFWR Schedule [9]	F-B.9	-	-	-	-	-
Technology Reporting	F-B.10	-	-	-	-	-
Disinfection Benchmarking [10]	F-B.13	57	57	57	57	57
States and Territories - Total		**57**	**57**	**57**	**57**	**57**
Total		**6,013**	**1,793**	**1,793**	**6,013**	**3,199**

Note: Detail may not add to total due to rounding.

Sources

(1) Each PWS is assumed to be a respondent.

(2) Start-up is assumed to have been completed in Years 1-3.

(3) Each plant is assumed to be a respondent.

(4) Systems serving up to 49,999 people will conduct half of their *E. coli* monitoring in Year 4. Systems serving 10,000-49,999 people will conduct half of their *Cryptosporidium* monitoring in Year 4. Systems serving <10,000 people will conduct *Cryptosporidium* monitoring in Years 5 and 6.

(5) Activities associated with uncovered finished water reservoirs are assumed to have been completed in Years 1-3.

(6) Systems are assumed to conduct disinfection profiling and benchmarking prior to installing treatment.

(7) Start-up is assumed to have been completed in Years 1-3.

(8) Each State will be a respondent associated with reviewing monitoring data.

(9) Activities associated with uncovered finished water reservoirs are assumed to have been completed in Years 1-3.

(10) State activities for reviewing disinfection benchmarks are assumed to parallel system activities for profiling and benchmarking.

(11) To avoid double-counting the number of respondents for assessment for binning and for State activities, the highest number of respondents for an activity for each year is used for the total number of respondents.

Exhibit F-A.4 Responses for the ICR Approval Period

	Source (Exhibit)	Year 4 October-08 September-09	Year 5 October-09 September-10	Year 6 October-10 September-11	Total	Annual Average
PWSs						
Start-up [1]	F-B.2	-	-	-	-	-
Assessment for binning [2]						
E. coli Monitoring	F-B.4	75,668	-	-	75,668	25,223
Cryptosporidium Monitoring	F-B.5	13,885	22,436	22436	58,758	12,107
Reporting	F-B.6	47,626	34,481	34,481	116,588	38,863
UCFWR Reporting [3]	F-B.8	-	-	-	-	-
Technology Reporting	F-B.11	-	-	-	-	-
Disinfection Benchmarking [4]	F-B.12	39	89	127	255	
Assessment for Bin Reclassification					-	-
E. coli Monitoring	F-B.14	-	-	-	-	-
Cryptosporidium Monitoring	F-B.15	-	-	-	-	-
Reporting	F-B.16	-	-	-	-	-
PWSs - Total		**137,217**	**57,006**	**57,045**	**251,268**	**76,192**
States and Territories						
Start-up [5]	F-B.3	-	-	-	-	-
Bin Determination and Reviewing Monitoring Data [6]	F-B.7	171	171	171	513	171
Reviewing/approving UCFWR schedule [7]	F-B.9	-	-	-	-	-
Technology Reporting	F-B.10	-	-	-		
Disinfection Benchmarking [8]	F-B.13	39	89	127	255	85
States and Territories - Total		**210**	**260**	**298**	**768**	**256**
Total		**137,427**	**57,266**	**57,343**	**252,037**	**76,448**

Note: Detail may not add to total due to rounding.

Sources

(1) Start-up is assumed to have been completed in Years 1-3.

(2) For monitoring, each sample taken is considered to be a response, and two additional responses are added (one for sample schedule/location and one for bin classification). Systems serving up to 49,999 people will conduct half of their E. coli monitoring in Year 4. Systems serving 10,000-49,999 people will conduct half of their Cryptosporidium monitoring in Year 4. Systems serving <10,000 people will conduct Cryptosporidium monitoring in Years 5 and 6.

(3) Activities associated with uncovered finished water reservoirs are assumed to have been completed in Years 1-3.

(4) Disinfection profiling and benchmarking are considered 1 response. Profiling is assumed to be conducted prior to treatment installation.

(5) State start-up activities are assumed to have been completed in Years 1-3.

(6) Each State will have 3 responses associated with binning and reviewing monitoring data (see Exhibit F-B.7). The number of responses from States and Territories equals three times the number of small systems performing E. coli monitoring in a given year.

(7) Activities associated with uncovered finished water reservoirs are assumed to have been completed in Years 1-3.

(8) State reviews of disinfection benchmarks will parallel system activities. One response per system conducting benchmarking is assumed.

Exhibit F-A.5 Cost for the ICR Approval Period

	Source (Exhibit)	Year 4 October-08 to September-09 Labor	Year 4 October-08 to September-09 O&M	Year 4 October-08 to September-09 Capital	Year 5 October-09 to September-10 Labor	Year 5 October-09 to September-10 O&M	Year 5 October-09 to September-10 Capital	Year 6 October-10 to September-11 Labor	Year 6 October-10 to September-11 O&M	Year 6 October-10 to September-11 Capital	Total October-08 to September-11 Labor	Total October-08 to September-11 O&M	Total October-08 to September-11 Capital	Total	Annual Average
PWSs															
Start-up [1]	F-B.2	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Assessment for binning [2]															
E. coli Monitoring	F-B.4	$ 2,453,478	$ 4,945,544	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,453,478	$ 4,945,544	$ -	$ 7,399,022	$ 2,466,341
Cryptosporidium Monitoring	F-B.5	$ 586,437	$ 9,188,598	$ -	$ 947,633	$ 14,847,998	$ -	$ 947,633	$ 14,847,998	$ -	$ 2,481,703	$ 38,884,595	$ -	$ 41,366,298	$ 13,788,766
Reporting	F-B.6	$ 841,173	$ -	$ -	$ 113,401	$ -	$ -	$ 113,401	$ -	$ -	$ 1,067,974	$ -	$ -	$ 1,067,974	$ 355,991
UCFWR Reporting [3]	F-B.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Technology Reporting	F-B.11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Disinfection Benchmarking [4]	F-B.12	$ 35,628	$ -	$ -	$ 80,562	$ -	$ -	$ 115,895	$ -	$ -	$ 232,085	$ -	$ -	$ 232,085	$ 77,362
Assessment for Bin Reclassification															
E. coli Monitoring	F-B.14	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Cryptosporidium Monitoring	F-B.15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reporting	F-B.16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
PWSs - Total		**$ 3,916,716**	**$ 14,134,142**	**$ -**	**$ 1,141,596**	**$ 14,847,998**	**$ -**	**$ 1,176,929**	**$ 14,847,998**	**$ -**	**$ 6,235,241**	**$ 43,830,139**	**$ -**	**$ 50,065,379**	**$ 16,688,460**
States and Territories															
Start-up [5]	F-B.3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reporting and bin determination	F-B.7	$ 2,156,562	$ -	$ -	$ 1,649,135	$ -	$ -	$ 1,649,135	$ -	$ -	$ 5,454,832	$ -	$ -	$ 5,454,832	$ 1,818,277
Reviewing/Approving UCFWR Schedule [6]	F-B.9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Technology Reporting	F-B.10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Disinfection Benchmarking [7]	F-B.13	$ 26,815	$ -	$ -	$ 60,635	$ -	$ -	$ 87,228	$ -	$ -	$ 174,677	$ -	$ -	$ 174,677	$ 58,226
States and Territories - Total		**$ 2,183,376**	**$ -**	**$ -**	**$ 1,709,770**	**$ -**	**$ -**	**$ 1,736,363**	**$ -**	**$ -**	**$ 5,629,510**	**$ -**	**$ -**	**$ 5,629,510**	**$ 1,876,503**
Total		**$ 6,100,092**	**$ 14,134,142**	**$ -**	**$ 2,851,366**	**$ 14,847,998**	**$ -**	**$ 2,913,292**	**$ 14,847,998**	**$ -**	**$ 11,864,750**	**$ 43,830,139**	**$ -**	**$ 55,694,889**	**$ 18,564,963**

Note: Detail may not add to total due to rounding.
Sources
See Exhibit F-C.2 for a breakdown of cost by year and system type.

(1) Start-up is assumed to have been completed in Years 1-3.

(2) 1/2 of *E. coli* and *Cryptosporidium* monitoring by systems serving 10K-49,999 will take place in Year 4 (the remainder was completed in Year 3).
1/2 of *E. coli* monitoring by systems serving < 10K will take place in Year 4 (the remainder was completed in Year 3).
1/2 of *Cryptosporidium* monitoring by systems serving <10K will take place in Year 5 and 1/2 will take place in Year 6.

(3) Systems are assumed to have incurred costs associated with uncovered finished water reservoirs during Years 1-3.

(4) Costs associated with disinfection profiling and benchmarking are assumed to be incurred prior to treatment installation.

(5) State rule start-up activities will parallel system activities.

(6) Costs associated with reviewing reports on uncovered finished water reservoirs are assumed to have been incurred during Years 1-3.

(7) State costs associated with reviewing disinfection benchmarks are assumed to parallel system costs.

Exhibit F-B.1a Baseline Number of Plants for Rule Start-up and Monitoring Activities

	Implementation					Monitoring for Initial Bin Classification			Future Monitoring for Re-Binning			
System Size (Population Served)	Number of Filtered Systems	Number of Unfiltered Systems	Baseline # PWSs	Percent of Plants with > 5.5 Log Treatment Prior to Rule Promulgation	Plants Per System	Baseline # of Plants Conducting *E. coli* Monitoring	Percent of Plants Triggered to Monitor for *Cryptosporidium*	Baseline # of Plants Conducting *Cryptosporidium* Monitoring	Percent of Plants with > 5.5 Log Treatment for LT2 Compliance	Percent of Plants with > 5.5 Log Treatment for Stage 2 Compliance	Baseline # of Plants Conducting *E. coli* Monitoring	Baseline # of Plants Conducting *Cryptosporidium* Monitoring
	A	B	C=A+B	D	E	F = A*E*(1-D)	G	H=F*G+B*E	I	J	K = F*(1-I-J)	L = G*K
CWSs												
<100	437	1	438	3.6%	1.0	421	35%	148	5.3%	15.0%	336	117
100-499	655	4	659	3.6%	1.0	632	35%	224	5.3%	6.3%	558	194
500-999	362	3	365	3.6%	1.0	363	35%	129	5.3%	6.3%	321	112
1,000-3,299	929	15	944	3.6%	1.0	932	35%	340	9.7%	1.8%	824	287
3,300-9,999	991	14	1,005	3.6%	1.1	1,003	35%	364	9.5%	1.8%	890	310
10,000-49,999	948	14	962	0.4%	1.1	1,048		1,064	30.4%	1.5%	715	715
50,000-99,999	214	4	218	0.4%	1.1	237		241	30.3%	1.5%	161	161
100,000-999,999	226	4	230	0.4%	1.6	369		376	29.7%	1.5%	254	254
1,000,000+	14	1	15	0.4%	1.6	23		25	29.7%	1.5%	16	16
National Totals	**4,777**	**60**	**4,837**			**5,028**		**2,910**			**4,075**	**2,165**
NTNCWSs												
<100	129	-	129	3.6%	1.0	124	35%	43	5.3%	15.0%	99	35
100-499	148	-	148	3.6%	1.0	143	35%	50	5.3%	6.3%	126	44
500-999	60	-	60	3.6%	1.0	58	35%	20	5.3%	6.3%	51	18
1,000-3,299	33	-	33	3.6%	1.0	32	35%	11	9.7%	1.8%	28	10
3,300-9,999	5	-	5	3.6%	1.0	5	35%	2	9.5%	1.8%	4	1
10,000-49,999	2	-	2	0.4%	1.0	2		2	30.4%	1.5%	1	1
50,000-99,999	-	-	0	0.4%	1.0	-		0	0.0%	1.5%	-	0
100,000-999,999	-	-	0	0.4%	1.0	-		0	0.0%	1.5%	-	0
1,000,000+	-	-	0	0.4%	1.0	-		0	0.0%	1.5%	-	0
National Totals	**377**	**-**	**377**			**364**		**128**			**310**	**109**
TNCWSs												
<100	636	-	636	0.0%	1.0	636	35%	221	5.3%	0.0%	603	210
100-499	375	-	375	0.0%	1.0	375	35%	131	5.3%	0.0%	355	124
500-999	62	-	62	0.0%	1.0	62	35%	22	5.3%	0.0%	59	20
1,000-3,299	44	-	44	0.0%	1.0	44	35%	15	9.7%	0.0%	40	14
3,300-9,999	19	-	19	0.0%	1.0	19	35%	7	9.5%	0.0%	17	6
10,000-49,999	2	-	2	0.0%	1.0	2		2	30.4%	0.0%	1	1
50,000-99,999	-	-	0	0.0%	1.0	-		0	0.0%	0.0%	-	0
100,000-999,999	1	-	1	0.0%	1.0	1		1	14.8%	0.0%	1	1
1,000,000+	-	-	0	0.0%	1.0	-		0	58.6%	0.0%	-	0
National Totals	**1,139**	**-**	**1,139**			**1,139**		**398**			**1,076**	**376**
Grand Totals	**6,294**	**60**	**6,354**			**6,531**		**3,436**			**5,462**	**2,650**

Notes:
Detail may not add exactly to totals due to rounding.
Sources:

(C) Number of systems from SDWIS/FED Data from October 2007.

(D) EPA assumes only membrane filtration plants will have > 5.5 log *Cryptosporidium* treatment prior to rule promulgation. Plants estimated to have membrane filtration as a result of Stage 1 DBPR compliance are from the Economic Analysis for the Stage 2 DBPR.

(E) For CWSs, from Exhibit 5.1 of the Draft Final Model Systems Report prepared for EPA by the Cadmus Group, Inc., in March 2005. The exhibit is an analysis of data from the 2000 Community Water System Survey. Includes treated entry points. Excludes 2 outlier systems that had more than 100 entry points, as well as 27 systems that provided insufficient information on their treated entry points. For NCWSs, assumed to be 1.0.

(G) Percentage of plants triggered into *Cryptosporidium* monitoring is estimated from the modelled Information Collection Rule Occurrence Distribution.

(I) Derived from Appendix G of the LT2ESWTR Economic Analysis; this number is calculated by dividing the number of plants achieving 5.5 log treatment for the LT2ESWTR by the total number of plants for the size category.

(J) EPA assumes only membrane plants will have > 5.5 log *Cryptosporidium* treatment as a result of the Stage 2 DBPR. Estimates from the Economic Analysis for the Stage 2 DBPR.

Exhibit F-B.1b Labor Rates

Cost Assumptions: Labor Rate Components

Cost Element	Base Hourly Labor Cost	ECI in Year of Data	ECI 2007	2007 Labor Cost
	A	B	C	D=A*(C/B)
State Employee	$ 39.87	100.8	108.2	$ 42.80

Sources: (A) State employee wage (2006$) from BLS SOC Code 19-2041, "State Government - Environmental Scientists and Specialists, Including Health" Multiplied by a loading rate of 1.6 to account for benefits.

(B)ECI for state employee from BLS (2008) from 2006 (State and local government; Total compensation; All workers, not seasonally adjusted). www.bls.gov.
(C) ECI for state employee from BLS (2008) from 2007 (State and local government; Total compensation; All workers, not seasonally adjusted). www.bls.gov.

Technical Wage Rates by System Size

Rate	System size					
	25-100	101-500	500-3.3k	3.3k-10k	10k-100k	>100k
Base Wage Rate ($2006)	$ 17.87	$ 17.87	$ 17.87	$ 17.87	$ 17.87	$ 17.87
Loaded Wage Rate ($2006)	$ 28.59	$ 28.59	$ 28.59	$ 28.59	$ 28.59	$ 28.59
Loaded Wage Rate ($2007)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72

Source: BLS 2007

Managerial and Clerical Wage Rates by System Size

Rate	System size		
	25-100	101-500	>500
Base Manager Wage Rate ($2000)	$ 30.77	$ 30.77	$ 30.77
Loaded Manager Wage Rate ($2000)	$ 40.00	$ 43.08	$ 46.16
Loaded Manager Wage Rate ($2007)	$ 51.21	$ 55.16	$ 59.10
Base Clerical Wage Rate ($2000)	$ 10.61	$ 10.61	$ 10.61
Loaded Clerical Wage Rate ($2000)	$ 13.79	$ 14.85	$ 15.92
Loaded Clerical Wage Rate ($2007)	$ 17.95	$ 19.33	$ 20.72

Source: 2000 Base rates: Labor Costs for National Drinking Water Rules (USEPA, 2003). Adjusted to 2007 values using ECI recalculated to base of June 1989 = 100. For managerial rate used White Collar, Professional specialty and technical, not seasonally adjusted. For clerical used Administrative support, including clerical.

Cost Assumptions: Estimated System Labor Costs per Hour by System Size

Cost Component	Population Category					
	25-100	101-500	500-3.3k	3.3-10k	10k-100k	>100k
Labor cost (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 36.39	$ 36.39	$ 36.39

Notes:

EPA estimates that systems with population greater than 3,300 use a combination of operators (technical) and engineers (managerial), with an 80/20 ratio between the two, respectively.

Exhibit F-B.1b (continued) Labor Rates

Analyte	Laboratory Cost Per Sample [1] Average	Range [2] Min	Range [2] Max	Total Laboratory Cost per Plant
Cryptosporidium [3]	$ 662	$ 486	$ 891	$17,206
E. Coli				
(1) Utility Analysis	26	15	47	682
(2) Commercial Lab [4]	87	75	106	2,275

Note: Lab costs per sample updated to $2007, from BLS, using PPI (all commodities).

[1] Lab costs based on EPA subcontractor (DynCorp) survey of laboratories. Cryptosporidium costs assume all plants must send samples to commercial laboratories and that 27 percent of samples will require multiple subsamples analysis at additional cost (based on Supplemental Survey results). E. Coli costs are provided for utility analysis (no shipping) and commercial analysis, which includes overnight shipping charges.

[2] Minimum costs are estimated from DynCorp for the minimum analytical cost and the mean cost for shipping a 37.6 pound package (average weight of sample as observed during the Supplemental Survey, estimated by Kevin Connell) overnight (FedEx). Maximum costs are estimated from DynCorp for the maximum analytical costs, the mean cost for shipping a 37.6 pound package (average weight of sample as observed during the Supplemental Survey, estimated by Kevin connell) overnight (FedEx), and the maximum cost of an additional subsample analysis, also estimated by DynCorp.

[3] Assumes monthly Cryptosporidium monitoring, plus two matrix spike samples to be analyzed at the beginning of monitoring and bi-weekly E. Coli monitoring. These are conservative estimates, therefore laboratory costs could be lower.

Costs	**Average**	**Minimum**	**Maximum**
***Crypto* Analytical**	**$ 504**	**$ 375**	**$ 605**
E. coli Analytical			
Commercial	**$ 44**	**$ 31**	**$ 62**
Utility	**$ 26**	**$ 15**	**$ 47**
Shipping (lbs)			
7	*44*		
25	*87*		
50	*136*		
Mean - 37.6	**111**	*59*	*152*
Subsample	**47**	0	**175**
Crypto Total	$ 662	$ 486	$ 891
E. coli commercial Total	$ 87	$ 75	$ 106
E. coli analytical Total	$ 26	$ 15	$ 47

Note: Lab costs per sample and shipping costs updated to $2007, from BLS, using PPI (all commodities).

E. coli commercial shipping costs were estimated by assuming that two 125-mL sample containers would be shipped to the laboratory in a 10-quart polyethylene cooler packed with approximately 4 lb of UTEK gel paks.

The approximate weight of the shipment, given these assumptions, is 7 lb. Using this weight, we estimated shipping costs for standard overnight service for shipments to 12 locations using the Fed Ex web site.

Exhibit F-B.2 Burden and Cost to PWSs Associated with Rule Start-Up Activities (Completed in Years 1-3)

System Size (Population Served)	Read Hours per PWS	Train Hours per PWS	Total Hours per PWS	Cost per Labor Hour	Baseline # of Systems Conducting Implementa-tion	Total Cost	Total Burden (Hours)	Total Burden (FTEs)
	A	B	C = A + B	D	E	F = C*D*E	G = C*E	H = G/2080
CWSs								
<100	35	15	50	$ 30.72	438	$ 672,962	21,908	10.5
100-499	35	15	50	$ 30.72	659	$ 1,012,450	32,960	15.8
500-999	35	15	50	$ 30.72	365	$ 560,689	18,253	8.8
1,000-3,299	35	15	50	$ 30.72	944	$ 1,450,384	47,217	22.7
3,300-9,999	35	15	50	$ 36.39	1,005	$ 1,829,158	50,260	24.2
10,000-49,999	35	15	50	$ 36.39	962	$ 1,750,533	48,100	23.1
50,000-99,999	35	30	65	$ 36.39	218	$ 515,697	14,170	6.8
100,000-999,999	35	30	65	$ 36.39	230	$ 544,084	14,950	7.2
1,000,000+	35	30	65	$ 36.39	15	$ 35,484	975	0.5
National Totals					**4,837**	**$ 8,371,441**	**248,794**	**119.6**
NTNCWSs								
<100	35	15	50	$ 30.72	129	$ 198,278	6,455	3.1
100-499	35	15	50	$ 30.72	148	$ 227,308	7,400	3.6
500-999	35	15	50	$ 30.72	60	$ 92,152	3,000	1.4
1,000-3,299	35	15	50	$ 30.72	33	$ 50,744	1,652	0.8
3,300-9,999	35	15	50	$ 36.39	5	$ 9,098	250	0.1
10,000-49,999	35	15	50	$ 36.39	2	$ 3,813	105	0.1
50,000-99,999	35	30	65	$ 36.39	-	$ -	-	-
100,000-999,999	35	30	65	$ 36.39	-	$ -	-	-
1,000,000+	35	30	65	$ 36.39	-	$ -	-	-
National Totals					**377**	**$ 581,393**	**18,862**	**9.1**
TNCWSs								
<100	35	15	50	$ 30.72	636	$ 977,014	31,807	15.3
100-499	35	15	50	$ 30.72	375	$ 575,978	18,751	9.0
500-999	35	15	50	$ 30.72	62	$ 95,224	3,100	1.5
1,000-3,299	35	15	50	$ 30.72	44	$ 67,578	2,200	1.1
3,300-9,999	35	15	50	$ 36.39	19	$ 34,913	959	0.5
10,000-49,999	35	15	50	$ 36.39	2	$ 3,639	100	0.0
50,000-99,999	35	30	65	$ 36.39	-	$ -	-	-
100,000-999,999	35	30	65	$ 36.39	1	$ 2,366	65	0.0
1,000,000+	35	30	65	$ 36.39	-	$ -	-	-
National Totals					**1,139**	**$ 1,756,711**	**56,982**	**27.4**
Grand Totals					**6,354**	**$ 10,709,546**	**324,638**	**156.1**

Notes:
Burden shown here is assumed to have been incurred in Years 1-3 and is not included in the totals for the LT2ESWTR. It is shown for informational purposes only.
Detail may not add exactly to totals due to rounding.
Sources:
(A & B) Burden estimates take into account the results of the February 2008 consultation with water industry representatives.
(D) For systems serving up to 3,300 people, the full technical rate was applied. For systems serving more than 3,300 people, costs are based on an 80%/20% split between technical and managerial rates. Technical rates are from BLS (2006), adjusted to $2007. Managerial rates are based on Labor Costs for National Drinking Water Rules (USEPA, 2003), inflated to $2007.
(E) Taken from Exhibit F-B.1, column A.

Exhibit F-B.3 Burden and Cost to States and Primacy Agencies Associated with Rule Start-up Activities (Completed in Years 1-3)

Implementation Activities	Cost per Labor Hour	FTEs per State	Hours per State	Cost Per State
	A	B	C = B*2080	D = A*C
Regulation Adoption and Program Development	$ 42.80	1.00	2,080	$ 89,022
Training State Staff	$ 42.80	0.50	1,040	$ 44,511
Training PWS Staff and Technical Assistants	$ 42.80	1.00	2,080	$ 89,022
Updating Data Management System	$ 42.80	0.25	520	$ 22,256
Public Notification	$ 42.80	0.10	208	$ 8,902
Totals per State		**2.85**	**5,928**	**$ 253,713**
National Totals (57 States/Primacy Agencies)		**162.45**	**337,896**	**$ 14,461,648**

Notes:

Burden shown here is assumed to have been incurred in Years 1-3 and is not included in the totals for the LT2ESWTR. It is shown for informational purposes only.

Detail may not add to totals due to rounding.

All States/Primacy Agencies are assumed to incur some costs for each activity.

1 FTE = 2,080 hours (40 hours/week; 52 weeks/year)

Sources:

(A) State labor rates based on the State Workload Model, updated to current dollar values.

(B) FTEs per State/Primacy Agency take into account the results of the February 2008 consultation with water industry representatives.

Exhibit F-B.4 Burden and Cost to Plants Associated with *E. coli* Monitoring for Bin Determination

		Sampling				Sample Analysis										
System Size (Population Served)	Baseline # of Plants Conducting *E. coli* Monitoring	# of *E. coli* Samples	Hours per Sample	Cost per Labor Hour	Total Sampling Labor Cost	Commercial Analysis (Includes Shipping)	Utility Analysis Hours per Sample (Labor)	Utility Analysis Cost per Sample (O&M)	Utility Analysis Cost per Sample (Total)	Percent Utilities with *E. coli* Analysis Capabilities	Total Laboratory Analysis Cost (Labor)	Total Laboratory Analysis Cost (O&M)	Total Cost	Total Burden (Hours)	Total Burden (FTEs)	Responses	Respondents
	A	B	C	D	E = A*B*C*D	F	G	H = I-G*D	I	J	K = D*G*J*A*B	L = F*A*B*(1-J)+H*A*B*J	M = E+K+L	N = A*B*C+A*B*G*J	O = N/2,080	P = A*B	Q
CWSs																	
<100	421	26	1.00	$ 30.72	$ 336,572	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 14,024	$ 776,828	$ 1,127,424	11,414	5.5	10,957	421
100-499	632	26	1.00	$ 30.72	$ 504,441	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 21,018	$ 1,164,279	$ 1,689,738	17,106	8.2	16,422	632
500-999	363	26	1.00	$ 30.72	$ 289,903	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 12,079	$ 669,111	$ 971,093	9,831	4.7	9,438	363
1,000-3,299	932	26	1.00	$ 30.72	$ 744,120	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 31,005	$ 1,717,470	$ 2,492,595	25,234	12.1	24,225	932
3,300-9,999	1,003	26	1.00	$ 30.72	$ 801,286	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 33,387	$ 1,849,411	$ 2,684,084	27,173	13.1	26,086	1,003
10,000-49,999	1,048	24	1.00	$ 30.72	$ 772,915	$ 87.49	0.166667	$ 21.13	$ 26.25	75%	$ 96,614	$ 949,039	$ 1,818,567	28,307	13.6	25,162	1,048
50,000-99,999	237	24	1.00	$ 30.72	$ 174,476	$ 87.49	0.166667	$ 21.13	$ 26.25	75%	$ 21,810	$ 214,234	$ 410,521	6,390	3.1	5,680	237
100,000-999,999	369	24	1.00	$ 30.72	$ 272,240	$ 87.49	0.166667	$ 21.13	$ 26.25	100%	$ 45,373	$ 187,241	$ 504,854	10,340	5.0	8,863	369
1,000,000+	23	24	1.00	$ 30.72	$ 16,864	$ 87.49	0.166667	$ 21.13	$ 26.25	100%	$ 2,811	$ 11,599	$ 31,274	641	0.3	549	23
National Totals	**5,028**				**$ 3,912,818**						**$ 278,121**	**$ 7,539,211**	**$ 11,730,151**	**136,436**	**65.6**	**127,382**	**5,028**
NTNCWSs																	
<100	124	26	1.00	$ 30.72	$ 99,393	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 4,141	$ 229,404	$ 332,939	3,371	1.6	3,236	124
100-499	143	26	1.00	$ 30.72	$ 113,945	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 4,748	$ 262,991	$ 381,684	3,864	1.9	3,709	143
500-999	58	26	1.00	$ 30.72	$ 46,194	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 1,925	$ 106,618	$ 154,737	1,567	0.8	1,504	58
1,000-3,299	32	26	1.00	$ 30.72	$ 25,437	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 1,060	$ 58,710	$ 85,207	863	0.4	828	32
3,300-9,999	5	26	1.00	$ 30.72	$ 3,849	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 160	$ 8,885	$ 12,895	131	0.1	125	5
10,000-49,999	2	24	1.00	$ 30.72	$ 1,539	$ 87.49	0.166667	$ 21.13	$ 26.25	75%	$ 192	$ 1,890	$ 3,621	56	0.0	50	2
50,000-99,999	-	24	1.00	$ 30.72	$ -	$ 87.49	0.166667	$ 21.13	$ 26.25	75%	$ -	$ -	$ -	-	-	-	-
100,000-999,999	-	24	1.00	$ 30.72	$ -	$ 87.49	0.166667	$ 21.13	$ 26.25	100%	$ -	$ -	$ -	-	-	-	-
1,000,000+	-	24	1.00	$ 30.72	$ -	$ 87.49	0.166667	$ 21.13	$ 26.25	100%	$ -	$ -	$ -	-	-	-	-
National Totals	**364**				**$ 290,357**						**$ 12,226**	**$ 668,498**	**$ 971,082**	**9,851**	**4.7**	**9,453**	**364**
TNCWSs																	
<100	636	26	1.00	$ 30.72	$ 508,047	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 21,169	$ 1,172,601	$ 1,701,817	17,229	8.3	16,539	636
100-499	375	26	1.00	$ 30.72	$ 299,509	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 12,480	$ 691,282	$ 1,003,270	10,157	4.9	9,750	375
500-999	62	26	1.00	$ 30.72	$ 49,516	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 2,063	$ 114,286	$ 165,866	1,679	0.8	1,612	62
1,000-3,299	44	26	1.00	$ 30.72	$ 35,141	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 1,464	$ 81,106	$ 117,711	1,192	0.6	1,144	44
3,300-9,999	19	26	1.00	$ 30.72	$ 15,323	$ 87.49	0.166667	$ 21.13	$ 26.25	25%	$ 638	$ 35,367	$ 51,328	520	0.2	499	19
10,000-49,999	2	24	1.00	$ 30.72	$ 1,474	$ 87.49	0.166667	$ 21.13	$ 26.25	75%	$ 184	$ 1,810	$ 3,469	54	0.0	48	2
50,000-99,999	-	24	1.00	$ 30.72	$ -	$ 87.49	0.166667	$ 21.13	$ 26.25	75%	$ -	$ -	$ -	-	-	-	-
100,000-999,999	1	24	1.00	$ 30.72	$ 737	$ 87.49	0.166667	$ 21.13	$ 26.25	100%	$ 123	$ 507	$ 1,367	28	0.0	24	1
1,000,000+	-	24	1.00	$ 30.72	$ -	$ 87.49	0.166667	$ 21.13	$ 26.25	100%	$ -	$ -	$ -	-	-	-	-
National Totals	**1,139**				**$ 909,747**						**$ 38,121**	**$ 2,096,960**	**$ 3,044,828**	**30,858**	**14.8**	**29,617**	**1,139**
Grand Totals	**6,531**				**$ 5,112,922**						**$ 328,469**	**$ 10,304,669**	**$ 15,746,061**	**177,144**	**85.2**	**166,451**	**6,531**

Notes:
Detail may not add exactly to totals due to independent rounding.
Sources:
(A) Taken from Exhibit F-B.1, column D.
(B) Bi-weekly source water monitoring for one year for small systems and monthly samples for 24 months for medium and large systems.
(C) Estimate of labor for collecting sample and shipping, based on the results of the February 2008 consultation with water industry representatives and expert opinion.
(D) All size categories were assumed to use a technical rate from BLS (2006), adjusted to $2007.
(F) DynCorp study, Kevin Connell, June 2002 (updated to $2007).
(G) Based on professional judgment and results of 2008 consultation with water industry representatives.
(H) The amount left after labor is subtracted from the amount in column I.
(I) DynCorp study, Kevin Connell, December 2000 (updated to $2007).
(J) Estimate based on Third Edition Baseline Handbook data.

Exhibit F-B.5 Burden and Cost to Plants Associated with *Cryptosporidium* Monitoring for Bin Determination

System Size (Population Served)	Baseline # of Plants Conducting *Crypto-sporidium* Monitoring	Sampling				Sample Analysis		Total Cost	Total Burden (Hours)	Total Burden (FTEs)	Responses
		# of *Crypto-sporidium* Samples	Hours per Sample	Cost per Labor Hour	Total Sampling Labor Cost	Cost per Sample	Total Laboratory Analysis Cost (O&M)				
	A	B	C	D	E = A*B*C*D	F	G = A*B*F	H = E+G	I = A*B*C	J = I/2080	K = A*B
CWSs											
<100	148	26	1.4	$ 30.72	$ 162,148	$ 661.78	$ 2,540,618	$ 2,702,766	5,279	2.5	3,839
100-499	224	26	1.4	$ 30.72	$ 245,768	$ 661.78	$ 3,850,815	$ 4,096,583	8,001	3.8	5,819
500-999	129	26	1.4	$ 30.72	$ 142,145	$ 661.78	$ 2,227,194	$ 2,369,339	4,628	2.2	3,365
1,000-3,299	340	26	1.4	$ 30.72	$ 373,192	$ 661.78	$ 5,847,370	$ 6,220,562	12,149	5.8	8,836
3,300-9,999	364	26	1.4	$ 30.72	$ 399,558	$ 661.78	$ 6,260,476	$ 6,660,034	13,008	6.3	9,460
10,000-49,999	1,064	26	1.4	$ 30.72	$ 1,168,386	$ 661.78	$ 18,306,865	$ 19,475,250	38,037	18.3	27,663
50,000-99,999	241	26	1.4	$ 30.72	$ 264,773	$ 661.78	$ 4,148,599	$ 4,413,372	8,620	4.1	6,269
100,000-999,999	376	26	1.4	$ 30.72	$ 412,728	$ 661.78	$ 6,466,840	$ 6,879,569	13,436	6.5	9,772
1,000,000+	25	26	1.4	$ 30.72	$ 26,922	$ 661.78	$ 421,827	$ 448,749	876	0.4	637
National Totals	**2,910**				**$ 3,195,620**		**$ 50,070,604**	**$ 53,266,224**	**104,033**	**50.0**	**75,661**
NTNCWSs											
<100	43	26	1.4	$ 30.72	$ 47,560	$ 661.78	$ 745,187	$ 792,746	1,548	0.7	1,126
100-499	50	26	1.4	$ 30.72	$ 54,523	$ 661.78	$ 854,288	$ 908,811	1,775	0.9	1,291
500-999	20	26	1.4	$ 30.72	$ 22,104	$ 661.78	$ 346,333	$ 368,437	720	0.3	523
1,000-3,299	11	26	1.4	$ 30.72	$ 12,172	$ 661.78	$ 190,712	$ 202,884	396	0.2	288
3,300-9,999	2	26	1.4	$ 30.72	$ 1,842	$ 661.78	$ 28,861	$ 30,703	60	0.0	44
10,000-49,999	2	26	1.4	$ 30.72	$ 2,292	$ 661.78	$ 35,919	$ 38,212	75	0.0	54
50,000-99,999	-	26	1.4	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
100,000-999,999	-	26	1.4	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
1,000,000+	-	26	1.4	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
National Totals	**128**				**$ 140,492**		**$ 2,201,300**	**$ 2,341,792**	**4,574**	**2.2**	**3,326**
TNCWSs											
<100	221	26	1.4	$ 30.72	$ 243,101	$ 661.78	$ 3,809,025	$ 4,052,125	7,914	3.8	5,756
100-499	131	26	1.4	$ 30.72	$ 143,315	$ 661.78	$ 2,245,530	$ 2,388,845	4,666	2.2	3,393
500-999	22	26	1.4	$ 30.72	$ 23,694	$ 661.78	$ 371,242	$ 394,936	771	0.4	561
1,000-3,299	15	26	1.4	$ 30.72	$ 16,815	$ 661.78	$ 263,462	$ 280,277	547	0.3	398
3,300-9,999	7	26	1.4	$ 30.72	$ 7,332	$ 661.78	$ 114,883	$ 122,215	239	0.1	174
10,000-49,999	2	26	1.4	$ 30.72	$ 2,196	$ 661.78	$ 34,413	$ 36,609	72	0.0	52
50,000-99,999	-	26	1.4	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
100,000-999,999	1	26	1.4	$ 30.72	$ 1,098	$ 661.78	$ 17,206	$ 18,304	36	0.0	26
1,000,000+	-	26	1.4	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
National Totals	**398**				**$ 437,550**		**$ 6,855,761**	**$ 7,293,311**	**14,244**	**6.8**	**10,360**
Grand Totals	**3,436**				**$ 3,773,662**		**$ 59,127,665**	**$ 62,901,327**	**122,851**	**59.1**	**89,347**

Notes:
Detail may not add exactly to totals due to independent rounding.
Sources:
(A) Taken from Exhibit F-B.1a, column F.
(B) Semimonthly source water monitoring for one year for small systems and monthly samples for 24 months for medium and large systems, plus two matrix spike samples.
(C) Estimate of labor for collecting sample and shipping, based on the results of the February 2008 consultation with water industry representatives and expert opinion.
(D) All size categories were assumed to use a technical rate from BLS (2006), adjusted to $2007.
(F) Taken from Exhibit F-B.1b.

Exhibit F-B.6 Burden and Cost to Plants Associated with Reporting for Source Water Sampling Plan and Initial Bin Classification Monitoring

System Size (Population Served)	Source Water Sampling Plan hours per plant	Bin Classification hours per plant	Total hours per plant	Cost per Labor Hour	Baseline # of Plants Reporting	Total Cost	Total Burden (Hours)	Total Burden (FTEs)
	A	B	C=A+B	D	E	F = C*D*E	G = C*E	H = G/2080
CWSs								
<100	1	7	8	$ 30.72	421	$ 103,561	3,371	1.6
100-499	1	7	8	$ 30.72	632	$ 155,213	5,053	2.4
500-999	1	7	8	$ 30.72	363	$ 89,201	2,904	1.4
1,000-3,299	1	7	8	$ 30.72	932	$ 228,960	7,454	3.6
3,300-9,999	1	7	8	$ 36.39	1,003	$ 292,110	8,026	3.9
10,000-49,999	1	16	17	$ 36.39	1,048	$ 648,652	17,823	8.6
50,000-99,999	1	16	17	$ 36.39	237	$ 146,426	4,023	1.9
100,000-999,999	10	16	26	$ 36.39	369	$ 349,427	9,601	4.6
1,000,000+	10	16	26	$ 36.39	23	$ 21,646	595	0.3
National Totals					**5,028**	**$ 2,035,195**	**58,851**	**28.3**
NTNCWSs								
<100	1	7	8	$ 30.72	124	$ 30,582	996	0.5
100-499	1	7	8	$ 30.72	143	$ 35,060	1,141	0.5
500-999	1	7	8	$ 30.72	58	$ 14,213	463	0.2
1,000-3,299	1	7	8	$ 30.72	32	$ 7,827	255	0.1
3,300-9,999	1	7	8	$ 36.39	5	$ 1,403	39	0.0
10,000-49,999	1	16	17	$ 36.39	2	$ 1,292	35	0.0
50,000-99,999	1	16	17	$ 36.39	0	$ -	-	-
100,000-999,999	10	16	26	$ 36.39	0	$ -	-	-
1,000,000+	10	16	26	$ 36.39	0	$ -	-	-
National Totals					**364**	**$ 90,378**	**2,929**	**1.4**
TNCWSs								
<100	1	7	8	$ 30.72	636	$ 156,322	5,089	2.4
100-499	1	7	8	$ 30.72	375	$ 92,156	3,000	1.4
500-999	1	7	8	$ 30.72	62	$ 15,236	496	0.2
1,000-3,299	1	7	8	$ 30.72	44	$ 10,812	352	0.2
3,300-9,999	1	7	8	$ 36.39	19	$ 5,586	153	0.1
10,000-49,999	1	16	17	$ 36.39	2	$ 1,237	34	0.0
50,000-99,999	1	16	17	$ 36.39	0	$ -	-	-
100,000-999,999	10	16	26	$ 36.39	1	$ 946	26	0.0
1,000,000+	10	16	26	$ 36.39	0	$ -	-	-
National Totals					**1,139**	**$ 282,297**	**9,151**	**4.4**
Grand Totals					**6,531**	**$ 2,407,869**	**70,930**	**34.1**

Notes:
Detail may not add exactly to totals due to independent rounding.
Sources:
(A) Burden estimates take into account results of February 2008 consultation with water industry representatives.
(B) Burden estimates take into account the results of the February 2008 consultation with water industry representatives.
(C) Although small systems will not report *E. coli* and *Cryptosporidium* results at the same time, the additional reporting burden is assumed to be negligible. The decrease in burden for small plants that report *E. coli* but are exempt from *Cryptosporidium* monitoring is also assumed to be negligible.
(D) For systems serving up to 3,300 people, the full technical rate was applied. For systems serving more than 3,300 people, costs are based on an 80%/20% split between technical and managerial rates. Technical rates are from BLS (2006), adjusted to $2007. Managerial rates are based on Labor Costs for National Drinking Water Rules (USEPA, 2003), inflated to $2007.
(E) Taken from Exhibit F-B.1, column D.

Exhibit F-B.7 Burden and Cost to States Associated with *E. coli* and *Cryptosporidium* Monitoring and Bin Determination (Initial and Future Rounds)

Initial Monitoring for Small Systems

State Activity	FTEs per State for *E. coli* Monitoring	Total Hours for *E. coli*	FTEs Per State for *Crypto-sporidium* Monitoring	Total Hours for *Crypto-sporidium*	Total FTEs Per State	Total Hours	Cost per Labor Hour	Total Cost
	A	B = A*2080	C	D = C*2080	E = A+C	F = B+D	G	H = F*G
Analyze PWS Reports and Make Bin Classifications	0.3	624	0.2	416	0.5	1040	$ 42.80	$ 44,511.08
Respond to PWS	0.3	624	0.2	416	0.5	1040	$ 42.80	$ 44,511.08
Recordkeeping	0.25	520	0.25	520	0.5	1040	$ 42.80	$ 44,511.08
Totals per State	**0.9**	**1,768**	**0.7**	**1,352**	**1.5**	**3,120**		**$ 133,533.23**
National Totals (57 States/Primacy Agencies)	**48.5**	**100,776**	**37.1**	**77,064**	**85.5**	**177,840**		**$ 7,611,394**

Notes:
Detail may not add to totals due to independent rounding.
All States/Primacy Agencies are assumed to incur some costs for each activity.
1 FTE = 2,080 hours (40 hours/week; 52 weeks/year)
Sources
(A), (C) EPA estimated FTEs based on experience with similar regulations.
(G) Based on 2006 BLS rates for state employees, adjusted to $2007.

Future Monitoring

State Activity	FTEs per State for *E. coli* Monitoring in Small Systems	Total Hours for *E. coli* in Small Systems	FTEs Per State for *Crypto-sporidium* Monitoring in Small Systems	Total Hours for *Crypto-sporidium* in Small Systems	FTEs Per State for *Crypto-sporidium* Monitoring in Medium & Large Systems	Total Hours for *Cryptosporidium* in Medium & Large Systems	Total FTEs Per State	Total Hours	Cost per Labor Hour	Total Cost
	A	B = A*2080	C	D = C*2080	E	F = E*2080	G = A+C+E	H = B+D+F	I	J = H*I
Analyze PWS Report and Make Bin Classifications	0.2	416	0.1	208	0.1	208	0.4	832	$ 42.80	$ 35,608.86
Respond to PWS	0.2	416	0.1	208	0.1	208	0.4	832	$ 42.80	$ 35,608.86
Recordkeeping	0.25	520	0.25	520	0.25	520	0.75	1560	$ 42.80	$ 66,766.61
Totals per State	**0.7**	**1,352**	**0.5**	**936**	**0.5**	**936**	**1.6**	**3,224**		**$ 137,984**
National Totals (57 States/Primacy Agencies)	**37.1**	**77,064**	**25.7**	**53,352**	**25.7**	**53,352**	**88.4**	**183,768**		**$ 7,865,107**

Notes:
Detail may not add to totals due to independent rounding.
All States/Primacy Agencies are assumed to incur some costs for each activity.
1 FTE = 2,080 hours (40 hours/week; 52 weeks/year)
Sources
(A), (C), (E) EPA estimated FTEs based on experience with similar regulations.
(I) Based on 2006 BLS rates for state employees, adjusted to $2007.

Exhibit F-B.8 Burden and Cost to PWSs Associated with UCFWR Reporting (Completed in Years 1-3)

System Size (Population Served)	Reporting Use of UCFWR	Reporting Schedule for Covering UCFWR or Disinfecting UCFWR Effluent	Total Hours per PWS	Cost per Labor Hour	Baseline # of Systems with UCFWRs	Total Cost	Total Burden (Hours)	Total Burden (FTEs)
	A	B	C = A + B	D	E	F = C*D*E	G = C*E	H = G/2080
CWSs								
<100	0.25	8	8.25	$ 30.72	3	$ 760	25	0.01
100-499	0.25	8	8.25	$ 30.72	-	$ -	-	-
500-999	0.25	8	8.25	$ 30.72	-	$ -	-	-
1,000-3,299	0.25	8	8.25	$ 30.72	-	$ -	-	-
3,300-9,999	0.25	8	8.25	$ 36.39	9	$ 2,702	74	0.04
10,000-49,999	0.25	8	8.25	$ 36.39	26	$ 7,806	215	0.10
50,000-99,999	0.25	8	8.25	$ 36.39	5	$ 1,501	41	0.02
100,000-999,999	0.25	8	8.25	$ 36.39	37	$ 11,109	305	0.15
1,000,000+	0.25	8	8.25	$ 36.39	1	$ 300	8	0.00
National Totals					**81**	**$ 24,180**	**668**	**0.3**

Notes:

Burden shown here is assumed to have been incurred in Years 1-3 and is not included in the totals for the LT2ESWTR. It is shown for informational purposes only.
Detail may not add exactly to totals due to rounding.
NTNCWS and TNCWS do not have UCFWRs
Sources:
(A & B) Burden estimates for each activity are based on EPA experience with similar rules.

(D) For systems serving up to 3,300 people, the full technical rate was applied. For systems serving more than 3,300 people, costs are based on an 80%/20% split between technical and managerial rates. Technical rates are from BLS (2006), adjusted to $2007. Managerial rates are based on Labor Costs for National Drinking Water Rules (USEPA, 2003), inflated to $2007.
(E) Exhibit 4.23, Economic Analysis for the LT2ESWTR

Exhibit F-B.9 Burden and Cost to States and Primacy Agencies Associated with Reviewing/Approving UCFWR Schedule (Completed in Years 1-3)

State/Primacy Agency Activity	Baseline # of Systems with UCFWRs	Cost per Labor Hour	FTEs per UCFWR	Hours per UCFWR	Cost Per UCFWR
	A	B	C	D	E = B*D
Recording Use of UCFWR	81	$ 42.80	0.0001	0.25	$ 10.7
Approving State Schedule	81	42.80	0.0005	1	$ 42.8
		Totals per UCFWR	**0.0006**	**1.25**	**$ 53.5**
		Burden and Cost per State/Primacy Agency	**0.01**	**14.46**	**$ 619.1**

Notes:

Burden shown here is assumed to have been incurred in Years 1-3 and is not included in the totals for the LT2ESWTR. It is shown for informational purposes only.
Detail may not add to totals due to rounding.
Only the seven States/Primacy Agencies with UCFWRs are assumed to incur burden and costs for these activities.
1 FTE = 2,080 hours (40 hours/week; 52 weeks/year)
Sources:
(A) Carried forward from January 2006 ICR (expert estimates).
(B) State labor rates 2006 BLS rates for state employees, adjusted to $2007.
(C) FTEs per State/Primacy Agency based on EPA experience with previous regulations.

Exhibit F-B.10 Burden and Cost to States Associated with Reviewing Plants' Reports on Technology Compliance (Beginning Year 7)

System Size (Population Served)	Number of Plants Installing UV	Number of Plants Installing MF/UF	Number of Plants Installing Bank Filtration	Number of Unfiltered Plants Installing Ozone	Total Plants	Annual Labor Hours per Plant	Labor Rate	Total Annual Labor Hours	Total Annual Costs
	A	B	C	D	E = A+B+C+D	F	G	H = E*F	I = G*H
<100	85	88	-	-	173	40	$ 42.80	6,914	$ 295,927
100-499	79	68	-	-	147	40	$ 42.80	5,896	$ 252,328
500-999	32	37	-	0	69	40	$ 42.80	2,763	$ 118,259
1,000-3,299	125	27	-	1	154	40	$ 42.80	6,145	$ 263,011
3,300-9,999	116	23	-	1	140	40	$ 42.80	5,598	$ 239,604
10,000-49,999	366	22	4	1	392	40	$ 42.80	15,687	$ 671,403
50,000-99,999	100	5	1	0	107	40	$ 42.80	4,263	$ 182,445
100,000-999,999	115	6	1	0	122	40	$ 42.80	4,891	$ 209,334
1,000,000+	21	1	0	-	22	40	$ 42.80	883	$ 37,774
National Totals	**1,038**	**277**	**6**	**4**	**1,326**			**53,040**	**$ 2,270,085**

Notes:
Detail may not add exactly to totals due to independent rounding.
UV stands for ultraviolet disinfection and MF/UF stands for microfiltration/ultrafiltration.
Sources:
(A)-(D) Taken from Appendix G of the Economic Analysis for the LT2ESWTR.
(F) Burden estimates take into account the results of the February 2008 consultation with water industry representatives.
(G) Based 2006 BLS rates for state employees, adjusted to $2007.

Exhibit F-B.11 Filtered and Unfiltered Plant Burden and Cost for Preparing Reports Demonstrating Technology Compliance (Beginning Year 7)

System Size (Population Served)	Number Plants Installing UV	Number of Plants Installing MF/UF	Number of Plants Installing Bank Filtration	Number of Unfiltered Plants Installing Ozone	Total Plants	Annual Labor Hours per Plant	Labor Rate	Total Annual Labor Hours	Total Annual Costs
	A	B	C	D	E=A+B+C+D	F	G	H=E*F	I=G*H
CWS									
<100	16	54	-	-	69	60	30.72	4,143	$ 127,262
100-499	37	48	-	-	85	60	30.72	5,112	$ 157,034
500-999	23	31	-	0	53	60	30.72	3,197	$ 98,209
1,000-3,299	111	25	-	1	138	60	30.72	8,260	$ 253,736
3,300-9,999	112	23	-	1	136	60	36.39	8,141	$ 296,276
10,000-49,999	361	21	4	1	387	60	36.39	23,219	$ 845,007
50,000-99,999	100	5	1	0	107	60	36.39	6,394	$ 232,710
100,000-999,999	114	6	1	0	122	60	36.39	7,301	$ 265,707
1,000,000+	20	1	0	-	21	60	36.39	1,288	$ 46,876
National Totals	**893**	**214**	**6**	**4**	**1,118**			**67,055**	**$ 2,322,818**
NTNCWS									
<100	9	28	-	-	37	60	30.72	2,205	$ 67,744
100-499	13	17	-	-	30	60	30.72	1,803	$ 55,396
500-999	5	6	-	-	10	60	30.72	609	$ 18,717
1,000-3,299	8	2	-	-	9	60	30.72	569	$ 17,471
3,300-9,999	2	0	-	-	2	60	36.39	149	$ 5,410
10,000-49,999	1	0	0	-	2	60	36.39	91	$ 3,323
50,000-99,999	-	-	-	-	-	60	36.39	-	$ -
100,000-999,999	0	0	0	-	0	60	36.39	18	$ 643
1,000,000+	-	-	-	-	-	60	36.39	-	$ -
National Totals	**38**	**52**	**0**	**-**	**91**			**5,445**	**$ 168,706**
TNCWS									
<100	60	7	-	-	67	60	30.72	4,023	$ 123,578
100-499	29	3	-	-	32	60	30.72	1,928	$ 59,217
500-999	5	1	-	-	6	60	30.72	338	$ 10,386
1,000-3,299	6	0	-	-	6	60	30.72	389	$ 11,940
3,300-9,999	2	0	-	-	2	60	36.39	108	$ 3,929
10,000-49,999	4	0	0	-	4	60	36.39	221	$ 8,046
50,000-99,999	-	-	-	-	-	60	36.39	-	$ -
100,000-999,999	0	0	0	-	0	60	36.39	18	$ 655
1,000,000+	1	0	0	-	1	60	36.39	36	$ 1,305
National Totals	**107**	**11**	**0**	**-**	**118**			**7,061**	**$ 219,056**
Grand Totals	**1,038**	**277**	**6**	**4**	**1,326**			**79,561**	**$ 2,710,580**

Notes:
Detail may not add exactly to totals due to independent rounding.
Some unfiltered plants may install ozone treatment, but no new burden is expected to be incurred because ozone will replace the currently usec disinfectant.
UV stands for ultraviolet disinfection and MF/UF stands for microfiltration/ultrafiltration.
Sources:
(A), (B), (C), (D) Taken from Appendix G of the LT2ESWTR Economic Analysis.
(F) Burden estimate takes into account the results of the February 2008 consultation with water industry representatives.

(G) For systems serving up to 3,300 people, the full technical rate was applied. For systems serving more than 3,300 people, costs are based on an 80%/20% split between technical and managerial rates. Technical rates are from BLS (2006), adjusted to $2007. Managerial rates are based on Labor Costs for National Drinking Water Rules (USEPA, 2003), inflated to $2007.

Exhibit F-B.12 Plant Burden and Cost for Disinfection Benchmarking Reports

System Size (Population Served)	Number of Plants Installing UV	Number of Plants Installing MF/UF	Number of Unfiltered Plants Installing Ozone	Total Number of Plants Changing Disinfection	Annual Labor Hours per Plant	Labor Rate	Total Annual Labor Hours	Total Annual Costs
	A	B	C	D = A+B+C	E	F	G = D*E	H = F*G
CWS								
<100	16	54	-	69	25	30.72	1,726	$ 53,025.65
100-499	37	48	-	85	25	30.72	2,130	$ 65,430.99
500-999	23	31	0	53	25	30.72	1,332	$ 40,920.59
1,000-3,299	111	25	1	138	25	30.72	3,442	$ 105,723.39
3,300-9,999	112	23	1	136	25	36.39	3,392	$ 123,448.47
10,000-49,999	361	21	1	383	25	36.39	9,580	$ 348,642.16
50,000-99,999	100	5	0	106	25	36.39	2,638	$ 96,017.83
100,000-999,999	114	6	0	120	25	36.39	3,012	$ 109,631.45
1,000,000+	20	1	-	21	25	36.39	534	$ 19,421.67
National Totals	**893**	**214**	**4**	**1,111**	**225**			**$ 962,262.22**
NTNCWS								
<100	9	28	-	37	25	30.72	919	$ 28,226.86
100-499	13	17	-	30	25	30.72	751	$ 23,081.80
500-999	5	6	-	10	25	30.72	254	$ 7,798.94
1,000-3,299	8	2	-	9	25	30.72	237	$ 7,279.72
3,300-9,999	2	0	-	2	25	36.39	62	$ 2,254.27
10,000-49,999	1	0	-	2	25	36.39	38	$ 1,370.08
50,000-99,999	-	-	-	-	25	36.39	-	$ -
100,000-999,999	0	0	-	0	25	36.39	7	$ 265.26
1,000,000+	-	-	-	-	25	36.39	-	$ -
National Totals	**38**	**52**	**-**	**91**	**225**			**$ 70,276.95**
TNCWS								
<100	60	7	-	67	25	30.72	1,676	$ 51,490.95
100-499	29	3	-	32	25	30.72	803	$ 24,673.59
500-999	5	1	-	6	25	30.72	141	$ 4,327.70
1,000-3,299	6	0	-	6	25	30.72	162	$ 4,975.03
3,300-9,999	2	0	-	2	25	36.39	45	$ 1,636.89
10,000-49,999	4	0	-	4	25	36.39	91	$ 3,316.95
50,000-99,999	-	-	-	-	25	36.39	-	$ -
100,000-999,999	0	0	-	0	25	36.39	7	$ 270.21
1,000,000+	1	0	-	1	25	36.39	15	$ 540.04
National Totals	**107**	**11**	**-**	**118**	**225**			**$ 91,231.35**
Grand Totals	**1,038**	**277**	**4**	**1,320**	**675**			**$1,123,770.51**

Notes:

Detail may not add exactly to totals due to independent rounding.

This ICR only characterizes burden and costs associated with systems complying with LT2ESWTR. Estimates of disinfection and profiling burden and costs associated with systems changing treatment to comply with Stage 2 DBPR are not yet available; they fall outside of the clearance period and will be added in future ICRs.

UV stands for ultraviolet disinfection and MF/UF stands for microfiltration/ultrafiltration.

Sources:

(A) - (C) From Appendix G of the Economic Analysis for the LT2ESWTR.

(E) Burden estimates take into account the results of February 2008 consultations with water industry representatives.

(G) For systems serving up to 3,300 people, the full technical rate was applied. For systems serving more than 3,300 people, costs are based on an 80%/20% split between technical and managerial rates. Technical rates are from BLS (2006), adjusted to $2007. Managerial rates are based on Labor Costs for National Drinking Water Rules (USEPA, 2003), inflated to $2007.

Exhibit F-B.13 State Burden and Cost for Disinfection Benchmarking Reports

System Size (Population Served)	Number of Plants Installing UV	Number of Plants Installing MF/UF	Number of Plants Installing Ozone	Total Number of Plants Changing Disinfection	Labor Hours per Plant	Labor Rate	Total Labor Hours	Total Costs
	A	B	C	D = A + B + C	E	F	G = D*E	H = F*G
<100	85	88	-	173	16	$ 42.80	$ 2,765.73	$ 118,370.97
100-499	79	68	-	147	16	$ 42.80	$ 2,358.26	$ 100,931.39
500-999	32	37	0	69	16	$ 42.80	$ 1,105.25	$ 47,303.67
1,000-3,299	125	27	1	154	16	$ 42.80	$ 2,458.10	$ 105,204.33
3,300-9,999	116	23	1	140	16	$ 42.80	$ 2,239.33	$ 95,841.41
10,000-49,999	366	22	1	388	16	$ 42.80	$ 6,213.47	$ 265,931.09
50,000-99,999	100	5	0	106	16	$ 42.80	$ 1,688.52	$ 72,267.25
100,000-999,999	115	6	0	121	16	$ 42.80	$ 1,937.34	$ 82,916.48
1,000,000+	21	1	-	22	16	$ 42.80	$ 351.04	$ 15,024.06
National Totals	**1,038**	**277**	**4**	**1,320**	**144**	**$ 385.19**		**$ 903,790.64**

Notes:

Detail may not add exactly to totals due to independent rounding.

This ICR only characterizes burden and costs associated with systems complying with LT2ESWTR. Estimates of disinfection and profiling burden and costs associated with systems changing treatment to comply with Stage 2 DBPR are not yet available; they fall outside of the clearance period and will be added in future ICRs.

UV stands for ultraviolet disinfection and MF/UF stands for microfiltration/ultrafiltration.

Sources:

(A) - (C) From Appendix G of the Economic Analysis for the LT2ESWTR.

(E) Burden estimates take into account the results of February 2008 consultations with water industry representatives.

(F) Based on 2006 BLS rates for state employees, updated to $2007.

Exhibit F-B.14 Burden and Cost to Plants Associated with E. coli Monitoring for Bin Reclassification

System Size (Population Served)	Baseline # of Plants Conducting *E. coli* Monitoring	Sampling				Sample Analysis							Total Cost	Total Burden (Hours)	Total Burden (FTEs)	Responses
		# of *E. coli* Samples	Hours per Sample	Cost per Labor Hour	Total Sampling Labor Cost	Commercial Analysis (Includes Shipping)	Utility Analysis Hours per Sample (Labor)	Utility Analysis Cost per Sample (O&M)	Utility Analysis Cost per Sample (Total)	Percent Utilities with *E. coli* Analysis Capabilities	Total Laboratory Analysis Cost (Labor)	Total Laboratory Analysis Cost (O&M)				
	A	B	C	D	E = A*B*C*D	F	G	H=I-G*D	I	J	K = D*G*J*A*B	L = F*A*B*(1-J)+H*A*B*J	M = E+K+L	N = A*B*C+A*B*G*J	O = N/2,080	P = A*B
CWSs																
<100	336	26	1	$ 30.72	$ 268,224	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 11,176.00	$ 619,076	$ 898,476	9,096	4.4	8,732
100-499	558	26	1	$ 30.72	$ 445,940	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 18,580.85	$ 1,029,255	$ 1,493,776	15,122	7.3	14,518
500-999	321	26	1	$ 30.72	$ 256,283	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 10,678.46	$ 591,515	$ 858,477	8,691	4.2	8,343
1,000-3,299	824	26	1	$ 30.72	$ 658,477	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 27,436.52	$ 1,519,800	$ 2,205,713	22,330	10.7	21,437
3,300-9,999	890	26	1	$ 30.72	$ 710,669	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 29,611.20	$ 1,640,263	$ 2,380,543	24,100	11.6	23,136
10,000-49,999	715	24	1	$ 30.72	$ 526,776	$ 87.49	0.17	$ 21.13	$ 26.25	75%	$ 65,846.97	$ 646,812	$ 1,239,435	19,293	9.3	17,149
50,000-99,999	161	24	1	$ 30.72	$ 118,991	$ 87.49	0.17	$ 21.13	$ 26.25	75%	$ 14,873.83	$ 146,105	$ 279,970	4,358	2.1	3,874
100,000-999,999	254	24	1	$ 30.72	$ 187,399	$ 87.49	0.17	$ 21.13	$ 26.25	100%	$ 31,233.15	$ 128,889	$ 347,521	7,118	3.4	6,101
1,000,000+	16	24	1	$ 30.72	$ 11,612	$ 87.49	0.17	$ 21.13	$ 26.25	100%	$ 1,935.39	$ 7,987	$ 21,534	441	0.2	378
National Totals	**4,075**				**$ 3,184,370**						**$ 211,372**	**$ 6,329,702**	**$ 9,725,444**	**110,548**	**53.1**	**103,667**
NTNCWSs																
<100	99	26	1	$ 30.72	$ 79,209	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 3,300.38	$ 182,819	$ 265,328	2,686	1.3	2,579
100-499	126	26	1	$ 30.72	$ 100,730	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 4,197.10	$ 232,491	$ 337,419	3,416	1.6	3,279
500-999	51	26	1	$ 30.72	$ 40,837	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 1,701.53	$ 94,254	$ 136,792	1,385	0.7	1,329
1,000-3,299	28	26	1	$ 30.72	$ 22,509	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 937.89	$ 51,953	$ 75,400	763	0.4	733
3,300-9,999	4	26	1	$ 30.72	$ 3,414	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 142.26	$ 7,880	$ 11,436	116	0.1	111
10,000-49,999	1	24	1	$ 30.72	$ 1,049	$ 87.49	0.17	$ 21.13	$ 26.25	75%	$ 131.11	$ 1,288	$ 2,468	38	0.0	34
50,000-99,999	-	24	1	$ 30.72	$ -	$ 87.49	0.17	$ 21.13	$ 26.25	75%	$ -	$ -	$ -	-	-	-
100,000-999,999	-	24	1	$ 30.72	$ -	$ 87.49	0.17	$ 21.13	$ 26.25	100%	$ -	$ -	$ -	-	-	-
1,000,000+	-	24	1	$ 30.72	$ -	$ 87.49	0.17	$ 21.13	$ 26.25	100%	$ -	$ -	$ -	-	-	-
National Totals	**310**				**$ 247,749**						**$ 10,410**	**$ 570,685**	**$ 828,844**	**8,404**	**4.0**	**8,065**
TNCWSs																
<100	603	26	1	$ 30.72	$ 481,287	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 20,053.64	$ 1,110,838	$ 1,612,179	16,321	7.8	15,668
100-499	355	26	1	$ 30.72	$ 283,733	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 11,822.20	$ 654,871	$ 950,426	9,622	4.6	9,237
500-999	59	26	1	$ 30.72	$ 46,908	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 1,954.51	$ 108,267	$ 157,130	1,591	0.8	1,527
1,000-3,299	40	26	1	$ 30.72	$ 31,743	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 1,322.61	$ 73,264	$ 106,329	1,076	0.5	1,033
3,300-9,999	17	26	1	$ 30.72	$ 13,872	$ 87.49	0.17	$ 21.13	$ 26.25	25%	$ 578.01	$ 32,018	$ 46,468	470	0.2	452
10,000-49,999	1	24	1	$ 30.72	$ 1,026	$ 87.49	0.17	$ 21.13	$ 26.25	75%	$ 128.31	$ 1,260	$ 2,415	38	0.0	33
50,000-99,999	-	24	1	$ 30.72	$ -	$ 87.49	0.17	$ 21.13	$ 26.25	75%	$ -	$ -	$ -	-	-	-
100,000-999,999	1	24	1	$ 30.72	$ 628	$ 87.49	0.17	$ 21.13	$ 26.25	100%	$ 104.62	$ 432	$ 1,164	24	0.0	20
1,000,000+	-	24	1	$ 30.72	$ -	$ 87.49	0.17	$ 21.13	$ 26.25	100%	$ -	$ -	$ -	-	-	-
National Totals	**1,076**				**$ 859,198**						**$ 35,964**	**$ 1,980,949**	**$ 2,876,111**	**29,142**	**14.0**	**27,971**
Grand Totals	**5,462**				**$ 4,291,317**						**$ 257,747**	**$ 8,881,336**	**$ 13,430,399**	**148,095**	**71.2**	**139,704**

Notes:
Detail may not add exactly to totals due to independent rounding.
Sources:
(A) Taken from Exhibit F-B.1, column I.
(B) Bi-weekly source water monitoring for one year for small systems and monthly samples for 24 months for medium and large systems.
(C) Estimate of labor for collecting sample and shipping; estimate takes into account the results of February 2008 consultation with water industry representatives.
(D) All size categories were assumed to use a technical rate from 2006 BLS rates for operators, adjusted to $2007.
(F) DynCorp study, Kevin Connell, June 2002.
(G) Estimate takes into account results of February 2008 consultation with water industry representatives.
(H) The amount left over after the cost of labor is subtracted from the cost of utility analysis provided in Column I.
(I) DynCorp study, Kevin Connell, December 2000.
(J) Estimate based on Third Edition Baseline Handbook data.

Exhibit F-B.15 Burden and Cost to Plants Associated with Cryptosporidium Monitoring for Bin Reclassification

System Size (Population Served)	Baseline # of Plants Conducting *Crypto-sporidium* Monitoring	Sampling				Sample Analysis		Total Cost	Total Burden (Hours)	Total Burden (FTEs)	Responses
		# of *Crypto-sporidium* Samples	Hours per Sample	Cost per Labor Hour	Total Sampling Labor Cost	Cost per Sample	Total Laboratory Analysis Cost (O&M)				
	A	B	C	D	E = A*B*C*D	F	G = A*B*F	H = E+G	I = A*B*C	J = I/2080	K = A*B
CWSs											
<100	117	26	1.38	$ 30.72	$ 128,345	$ 661.78	$ 662	$ 129,007	4,178	2.0	3,039
100-499	194	26	1.38	$ 30.72	$ 213,382	$ 661.78	$ 3,343,385	$ 3,556,768	6,947	3.3	5,052
500-999	112	26	1.38	$ 30.72	$ 122,631	$ 661.78	$ 1,921,452	$ 2,044,083	3,992	1.9	2,903
1,000-3,299	287	26	1.38	$ 30.72	$ 315,081	$ 661.78	$ 4,936,850	$ 5,251,931	10,257	4.9	7,460
3,300-9,999	310	26	1.38	$ 30.72	$ 340,055	$ 661.78	$ 5,328,156	$ 5,668,211	11,070	5.3	8,051
10,000-49,999	715	26	1.38	$ 30.72	$ 784,676	$ 661.78	$ 12,294,711	$ 13,079,387	25,545	12.3	18,578
50,000-99,999	161	26	1.38	$ 30.72	$ 177,246	$ 661.78	$ 2,777,188	$ 2,954,435	5,770	2.8	4,197
100,000-999,999	254	26	1.38	$ 30.72	$ 279,146	$ 661.78	$ 4,373,806	$ 4,652,952	9,088	4.4	6,609
1,000,000+	16	26	1.38	$ 30.72	$ 17,298	$ 661.78	$ 271,027	$ 288,325	563	0.3	410
National Totals	**2,165**				**$ 2,377,862**		**$ 35,247,238**	**$ 37,625,100**	**77,411**	**37.2**	**56,299**
NTNCWSs											
<100	35	26	1.38	$ 30.72	$ 37,902	$ 661.78	$ 593,860	$ 631,762	1,234	0.6	897
100-499	44	26	1.38	$ 30.72	$ 48,200	$ 661.78	$ 755,215	$ 803,414	1,569	0.8	1,141
500-999	18	26	1.38	$ 30.72	$ 19,540	$ 661.78	$ 306,169	$ 325,710	636	0.3	463
1,000-3,299	10	26	1.38	$ 30.72	$ 10,771	$ 661.78	$ 168,762	$ 179,533	351	0.2	255
3,300-9,999	1	26	1.38	$ 30.72	$ 1,634	$ 661.78	$ 25,597	$ 27,231	53	0.0	39
10,000-49,999	1	26	1.38	$ 30.72	$ 1,562	$ 661.78	$ 24,481	$ 26,043	51	0.0	37
50,000-99,999	-	26	1.38	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
100,000-999,999	-	26	1.38	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
1,000,000+	-	26	1.38	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
National Totals	**109**				**$ 119,608**		**$ 1,874,084**	**$ 1,993,693**	**3,894**	**1.9**	**2,832**
TNCWSs											
<100	210	26	1.38	$ 30.72	$ 230,296	$ 661.78	$ 3,608,396	$ 3,838,692	7,497	3.6	5,453
100-499	124	26	1.38	$ 30.72	$ 135,766	$ 661.78	$ 2,127,253	$ 2,263,019	4,420	2.1	3,214
500-999	20	26	1.38	$ 30.72	$ 22,446	$ 661.78	$ 351,689	$ 374,135	731	0.4	531
1,000-3,299	14	26	1.38	$ 30.72	$ 15,189	$ 661.78	$ 237,987	$ 253,176	494	0.2	360
3,300-9,999	6	26	1.38	$ 30.72	$ 6,638	$ 661.78	$ 104,005	$ 110,643	216	0.1	157
10,000-49,999	1	26	1.38	$ 30.72	$ 1,529	$ 661.78	$ 23,958	$ 25,487	50	0.0	36
50,000-99,999	-	26	1.38	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
100,000-999,999	1	26	1.38	$ 30.72	$ 935	$ 661.78	$ 14,651	$ 15,586	30	0.0	22
1,000,000+	-	26	1.38	$ 30.72	$ -	$ 661.78	$ -	$ -	-	-	-
National Totals	**376**				**$ 412,799**		**$ 6,467,940**	**$ 6,880,738**	**13,439**	**6.5**	**9,774**
Grand Totals	**2,650**				**$ 2,910,269**		**$ 43,589,262**	**$ 46,499,531**	**94,744**	**45.5**	**68,905**

Notes:

Detail may not add exactly to totals due to independent rounding.
(A) Taken from Exhibit F-B.1a, column J.
(B) Semimonthly source water monitoring for one year for small systems and monthly samples for 24 months for medium and large systems, plus two matrix spike samples.
Assume unfiltered plants achieve 3 log removal due to treatment installed following initial *Cryptosporidium* monitoring, and are therefore exempt from future *Cryptosporidium* monitoring.
(C) Estimate of labor for collecting sample and shipping; estimate takes into account the results of February 2008 consultation with water industry representatives.
(D) All size categories were assumed to use a technical rate from 2006 BLS rates for operators, adjusted to $2007.
(F) Taken from Exhibit F-B.1b.

Exhibit F-B.16 Burden and Cost to Plants Associated with Reporting for Source Water Sampling Schedule and Bin Re-Classification Monitoring

System Size (Population Served)	Source Water Sampling Plan hours per plant	Bin Re-Classification hours per plant	Hours per Plant	Cost per Labor Hour	Baseline # of Plants Reporting	Total Cost	Total Burden (Hours)	Total Burden (FTEs)
	A	B	C=A+B	D	E	F = C*D*E	G = C*E	H = G/2080
CWSs								
<100	1	7	8	$ 30.72	336	$ 82,530	2,687	1.3
100-499	1	7	8	$ 30.72	558	$ 137,212	4,467	2.1
500-999	1	7	8	$ 30.72	321	$ 78,856	2,567	1.2
1,000-3,299	1	7	8	$ 30.72	824	$ 202,608	6,596	3.2
3,300-9,999	1	7	8	$ 36.39	890	$ 259,076	7,119	3.4
10,000-49,999	1	16	17	$ 36.39	715	$ 442,085	12,147	5.8
50,000-99,999	1	16	17	$ 36.39	161	$ 99,860	2,744	1.3
100,000-999,999	10	16	26	$ 36.39	254	$ 240,531	6,609	3.2
1,000,000+	10	16	26	$ 36.39	16	$ 14,905	410	0.2
National Totals					**4,075**	**$ 1,557,664**	**45,345**	**21.8**
NTNCWSs								
<100	1	7	8	$ 30.72	99	$ 24,372	793	0.4
100-499	1	7	8	$ 30.72	126	$ 30,994	1,009	0.5
500-999	1	7	8	$ 30.72	51	$ 12,565	409	0.2
1,000-3,299	1	7	8	$ 30.72	28	$ 6,926	225	0.1
3,300-9,999	1	7	8	$ 36.39	4	$ 1,245	34	0.0
10,000-49,999	1	16	17	$ 36.39	1	$ 880	24	0.0
50,000-99,999	1	16	17	$ 36.39	-	$ -	-	-
100,000-999,999	10	16	26	$ 36.39	-	$ -	-	-
1,000,000+	10	16	26	$ 36.39	-	$ -	-	-
National Totals					**310**	**$ 76,982**	**2,495**	**1.2**
TNCWSs								
<100	1	7	8	$ 30.72	603	$ 148,088	4,821	2.3
100-499	1	7	8	$ 30.72	355	$ 87,302	2,842	1.4
500-999	1	7	8	$ 30.72	59	$ 14,433	470	0.2
1,000-3,299	1	7	8	$ 30.72	40	$ 9,767	318	0.2
3,300-9,999	1	7	8	$ 36.39	17	$ 5,057	139	0.1
10,000-49,999	1	16	17	$ 36.39	1	$ 861	24	0.0
50,000-99,999	1	16	17	$ 36.39	-	$ -	-	-
100,000-999,999	10	16	26	$ 36.39	1	$ 806	22	0.0
1,000,000+	10	16	26	$ 36.39	-	$ -	-	-
National Totals					**1,076**	**$ 266,315**	**8,636**	**4.2**
Grand Totals					**5,462**	**$ 1,900,962**	**56,477**	**27.2**

Sources

(A), (B) Based on the results of February 2008 consultation with water system industry representatives.

(D) For systems serving up to 3,300 people, the full technical rate was applied. For systems serving more than 3,300 people, costs are based on an 80%/20% split between technical and managerial rates. Technical rates are from BLS (2006), adjusted to $2007. Managerial rates are based on Labor Costs for National Drinking Water Rules (USEPA, 2003), inflated to $2007.

(E) Taken from Exhibit F-B.1, column I.

Assume unfiltered plants achieve 3 log removal due to treatment installed following initial *Cryptosporidium* monitoring, and are therefore exempt from future *Cryptosporidium* monitoring.

Exhibit F-C.1 12-Year Summary of Burden Associated with Implementing the LT2ESWTR (Hours)

Activity	Source	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
CWSs													
Start-up [1]	Exhibit F-B.2, Column G	15,925	14,170	218,699									
Assessment for Binning [2]													
E. coli Monitoring	Exhibit F-B.4, Column N	2,745	8,685	65,473	59,533								
Cryptosporidium Monitoring	Exhibit F-B.5, Column I	3,578	11,466	26,906	19,018	21,532	21,532						
Reporting	Exhibit F-B.6, Column G	2,602	7,254	24,754	20,102	2,499	2,499						
UCFWR Reporting [3]	Exhibit F-B.8, Column G	334	334										
Technology Reporting [4]													
	Exhibit F-B.11, Column H							8,031	21,795	42,138	50,307	61,285	64,170
Disinfection Benchmarking [5]	Exhibit F-B.12, Column G				973	2,195	3,153	5,798	5,798	4,825	3,603	1,322	
Assessment for Bin Reclassification [6]													
E. coli Monitoring	Exhibit F-B.14, Column N										4,869	10,781	50,405
Cryptosporidium Monitoring	Exhibit F-B.15, Column I										6,268	14,097	14,215
Reporting	Exhibit F-B.16, Column G										4,195	7,918	18,477
Yearly Total		**25,185**	**41,910**	**335,833**	**99,626**	**26,226**	**27,184**	**13,829**	**27,593**	**46,963**	**69,242**	**95,404**	**147,268**
NTNCWSs													
Start-up [1]	Exhibit F-B.2, Column G	-	-	18,862									
Assessment for Binning [2]													
E. coli Monitoring	Exhibit F-B.4, Column N	0	0	4,925	4,925								
Cryptosporidium Monitoring	Exhibit F-B.5, Column I	0	0	37	37	2,250	2,250						
Reporting	Exhibit F-B.6, Column G	0	0	1,211	1,211	253	253						
UCFWR Reporting [3]	Exhibit F-B.8, Column G												
Technology Reporting [4]	Exhibit F-B.11, Column H							11	55	2,216	2,768	4,377	4,911
Disinfection Benchmarking [5]	Exhibit F-B.12, Column G				1	5	9	498	498	497	493	245	
Assessment for Bin Reclassification [6]													
E. coli Monitoring	Exhibit F-B.14, Column N										0	10	4,202
Cryptosporidium Monitoring	Exhibit F-B.15, Column I										0	13	25
Reporting	Exhibit F-B.16, Column G										0	6	1,248
Yearly Totals		**0**	**0**	**25,035**	**6,175**	**2,508**	**2,512**	**509**	**553**	**2,712**	**3,261**	**4,650**	**10,386**
TNCWSs													
Start-up [1]	Exhibit F-B.2, Column G	65	-	56,917									
Assessment for Binning [2]													
E. coli Monitoring	Exhibit F-B.4, Column N	7	14	15,422	15,415								
Cryptosporidium Monitoring	Exhibit F-B.5, Column I	9	18	45	36	7,069	7,069						
Reporting	Exhibit F-B.6, Column G	7	13	3,773	3,767	795	795						
UCFWR Reporting [3]	Exhibit F-B.8, Column G												
Technology Reporting [4]	Exhibit F-B.11, Column H							32	143	2,923	3,646	5,703	6,382
Disinfection Benchmarking [5]	Exhibit F-B.12, Column G				4	14	23	645	645	640	631	311	
Assessment for Bin Reclassification [6]													
E. coli Monitoring	Exhibit F-B.14, Column N										12	21	14,559
Cryptosporidium Monitoring	Exhibit F-B.15, Column I										15	28	25
Reporting	Exhibit F-B.16, Column G										11	17	4,307
Yearly Totals		**87**	**45**	**76,157**	**19,222**	**7,878**	**7,887**	**677**	**787**	**3,563**	**4,315**	**6,080**	**25,273**
States and Territories													
Start-up [7]	Exhibit F-B.2, Column E, and Exhibit F-B.3, Column C	13,083	11,594	313,219									
Bin Determination and Reviewing Monitoring Data[8]	Exhibit F-B.7, Column B, Column D			50,388	50,388	38,532	38,532				11,273	25,364	77,078
Reviewing/Approving UCFWR Schedule [9]	Exhibit F-B.9, Column C		51	51									
Technology Reporting [10]	Exhibit F-B.10, Column H							5,382	14,662	31,518	37,813	47,577	50,309
Disinfection Benchmarking [11]	Exhibit F-B.13, Column G				627	1417	2038	4442	4442	3815	3025	1202	
Yearly Totals		**13,083**	**11,644**	**363,658**	**51,015**	**39,949**	**40,570**	**9,824**	**19,104**	**35,333**	**52,112**	**74,143**	**127,386**
Grand Totals		**38,355**	**53,599**	**800,683**	**176,038**	**76,561**	**78,153**	**24,839**	**48,038**	**88,572**	**128,929**	**180,278**	**310,314**

Notes:

This ICR only characterizes burden associated with systems complying with LT2ESWTR. Estimates of disinfection and profiling burden associated with systems changing treatment to comply with Stage 2 DBPR are not yet available; they fall outside of the clearance period and will be added in future ICRs.

[1] Start-up burden is assumed to have been completed in Years 1-3.

[2] Half of *E. coli* monitoring by systems serving up to 49,999 people will be completed in Year 4 (the other half was completed in Year 3). Half of *Cryptosporidium* monitoring by systems serving 10,000-49,999 people will be completed in Year 4 (the other half was completed in Year 3). *Cryptosporidium* monitoring for systems serving <10,000 people will be completed in Years 5 and 6 (for those systems that are triggered into *Cryptosporidium* monitoring based on *E. coli* results).

[3] Activities associated with uncovered finished water reservoirs are assumed to have been completed in Years 1-3.

[4] Systems must begin to demonstrate compliance with technologies 42 months following the completion of *Cryptosporidium* monitoring.

[5] Disinfection profiling must be completed prior to changing the disinfection process. Thus, the schedule reflects treatment installation.

[6] Assessments for re-binning: A second round of *E. coli* and *Cryptosporidium* monitoring for re-binning will take place starting 6.5 years after the completion of initial

[7] State rule start-up activities will parallel system activities.

[8] In the first round of monitoring, States will perform these activities for small systems only; States will perform these activities for all systems during future monitoring.

[9] State activities associated with uncovered finished water reservoirs are assumed to have been completed during Years 2-3.

[10] State activities will parallel system activities.

[11] State activities will parallel system activities.

Exhibit F-C.2 12-Year Summary of Cost Associated with Implementing the LT2ESWTR

Activity	Source	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
CWSs													
Start-up [1]	Exhibit F-B.2, Column F	579,568	515,697	7,276,176									
Assessment for Binning [2]													
E. coli Monitoring	Exhibit F-B.4, Column M	134,032	473,325	5,731,043	5,391,751								
Cryptosporidium Monitoring	Exhibit F-B.5, Column H	1,832,079	5,870,845	13,776,390	9,737,625	11,024,642	11,024,642						
Reporting	Exhibit F-B.6, Column F	94,708	264,003	856,908	687,614	81,096	81,096						
UCFWR Reporting [3]	Exhibit F-B.8, Column F	12,090	12,090										
Technology Reporting [4]	Exhibit F-B.11, Column I							292,269	793,217	1,486,534	1,772,058	2,136,314	2,229,566
Disinfection Benchmarking [5]	Exhibit F-B.12, Column H				35,412	79,878	114,743	200,223	200,223	164,811	120,345	42,740	
Assessment for Bin Reclassification [6]													
E. coli Monitoring	Exhibit F-B.14, Column M										254,520	634,371	4,608,202
Cryptosporidium Monitoring	Exhibit F-B.15, Column H										3,209,247	7,217,703	7,278,302
Reporting	Exhibit F-B.16, Column F										152,683	288,169	626,149
Yearly Total		**$2,652,478**	**$ 7,135,959**	**$27,640,517**	**$ 15,852,402**	**$11,185,616**	**$ 11,220,480**	**$492,493**	**$ 993,440**	**$1,651,345**	**$ 5,508,854**	**$10,319,298**	**$14,742,220**
NTNCWSs													
Start-up [1]	Exhibit F-B.2, Column F	-	-	581,393									
Assessment for Binning [2]													
E. coli Monitoring	Exhibit F-B.4, Column M	0	0	485,541	485,541								
Cryptosporidium Monitoring	Exhibit F-B.5, Column H	0	0	19,106	19,106	1,151,790	1,151,790						
Reporting	Exhibit F-B.6, Column F	0	0	37,394	37,394	7,795	7,795						
UCFWR Reporting [3]	Exhibit F-B.8, Column F												
Technology Reporting [4]	Exhibit F-B.11, Column I							386	2,010	68,866	86,004	135,758	152,232
Disinfection Benchmarking [5]	Exhibit F-B.12, Column H				53	190	327	15,428	15,428	15,375	15,238	7,551	
Assessment for Bin Reclassification [6]													
E. coli Monitoring	Exhibit F-B.14, Column M										0	617	414,422
Cryptosporidium Monitoring	Exhibit F-B.15, Column H										0	6,511	13,021
Reporting	Exhibit F-B.16, Column F										0	220	38,491
Yearly Totals		**$ -**	**$ -**	**$ 1,123,434**	**$ 542,094**	**$ 1,159,775**	**$ 1,159,912**	**$ 15,814**	**$ 17,438**	**$ 84,241**	**$ 101,242**	**$ 150,657**	**$ 618,167**
TNCWSs													
Start-up [1]	Exhibit F-B.2, Column F	2,366	-	1,754,346									
Assessment for Binning [2]													
E. coli Monitoring	Exhibit F-B.4, Column M	342	684	1,522,072	1,521,731								
Cryptosporidium Monitoring	Exhibit F-B.5, Column H	4,576	9,152	22,881	18,304	3,619,199	3,619,199						
Reporting	Exhibit F-B.6, Column F	237	473	116,402	116,165	24,510	24,510						
UCFWR Reporting [3]	Exhibit F-B.8, Column F												
Technology Reporting [4]	Exhibit F-B.11, Column I							1,176	5,189	91,212	113,726	177,246	198,151
Disinfection Benchmarking [5]	Exhibit F-B.12, Column H				162	494	825	19,988	19,988	19,826	19,495	9,581	
Assessment for Bin Reclassification [6]													
E. coli Monitoring	Exhibit F-B.14, Column M										582	1,186	1,437,473
Cryptosporidium Monitoring	Exhibit F-B.15, Column H										7,793	14,165	12,743
Reporting	Exhibit F-B.16, Column F										403	618	132,755
Yearly Totals		**$ 7,520**	**$ 10,309**	**$ 3,415,700**	**$ 1,656,362**	**$ 3,644,203**	**$ 3,644,534**	**$ 21,164**	**$ 25,177**	**$ 111,038**	**$ 141,999**	**$ 202,796**	**$ 1,781,123**
States and Territories													
Start-up [7]	Exhibit F-B.2, Column E, Exhibit F-B.3, Column D	559,933	496,200	13,405,515									
Bin Determination and Reviewing Monitoring Data [8]	Exhibit F-B.7, Column G, Column I	$ -	$ -	$ 2,156,562	$ 2,156,562	$ 1,649,135	$ 1,649,135	$ -	$ -	$ -	$ 482,475	$ 1,085,575	$ 3,298,852
Reviewing/Approving UCFWR Schedule [9]	Exhibit F-B.9, Column D		$ 2,167	$ 2,167									
Technology Reporting [10]	Exhibit F-B.10, Column I							230,365	627,529	1,348,942	1,618,380	2,036,259	2,153,172
Disinfection Benchmarking [11]	Exhibit F-B.13, Column H				26,815	60635	87228	190111	190111	163296	129476	51442	
Yearly Totals		**$ 559,933**	**$ 498,367**	**$15,564,244**	**$ 2,183,376**	**$ 1,709,770**	**$ 1,736,363**	**$420,476**	**$ 817,640**	**$1,512,238**	**$ 2,230,332**	**$ 3,173,276**	**$ 5,452,024**
Grand Totals		**$3,219,930**	**$ 7,644,635**	**$47,743,895**	**$ 20,234,234**	**$17,699,364**	**$ 17,761,290**	**$949,947**	**$ 1,853,695**	**$3,358,863**	**$ 7,982,427**	**$13,846,027**	**$22,593,534**

Notes:

This ICR only characterizes costs associated with systems complying with LT2ESWTR. Estimates of disinfection and profiling costs associated with systems changing treatment to comply with Stage 2 DBPR are not yet available; they fall outside of the clearance period and will be added in future ICRs.

[1] Start-up is assumed to have been completed in Years 1-3.

[2] Assessments for binning: half of *E. coli* monitoring by systems serving up to 49,999 people will be completed in Year 4 (the other half was completed in Year 3). Half of *Cryptosporidium* monitoring by systems serving 10,000-49,999 people will be completed in Year 4 (the other half was completed in Year 3). *Cryptosporidium* monitoring for systems serving <10,000 people will be completed in Years 5 and 6 (for those systems that are triggered into *Cryptosporidium* monitoring based on *E. coli* results).

[3] Activities associated with uncovered finished water reservoirs are assumed to have been completed in Years 1-3.

[4] Systems must begin to demonstrate compliance with technologies 42 months following the completion of *Cryptosporidium* monitoring.

[5] Disinfection profiling must be completed prior to changing the disinfection process. Thus, the schedule reflects treatment installation.

[6] Assessments for re-binning: A second round of *E. coli* and *Cryptosporidium* monitoring for re-binning will take place starting 6.5 years after the completion of initial monitoring.

[7] State rule start-up activities will parallel system activities.

[8] In the first round of monitoring, States will perform these activities for small systems only; States will perform these activities for all systems during future monitoring.

[9] States are assumed to have completed review of uncovered finished water reservoir reports during Years 2-3.

[10] State activities will parallel system activities.

[11] State activities will parallel system activities.

Exhibit F-C.3 Implementation Timeline for the LT2ESWTR

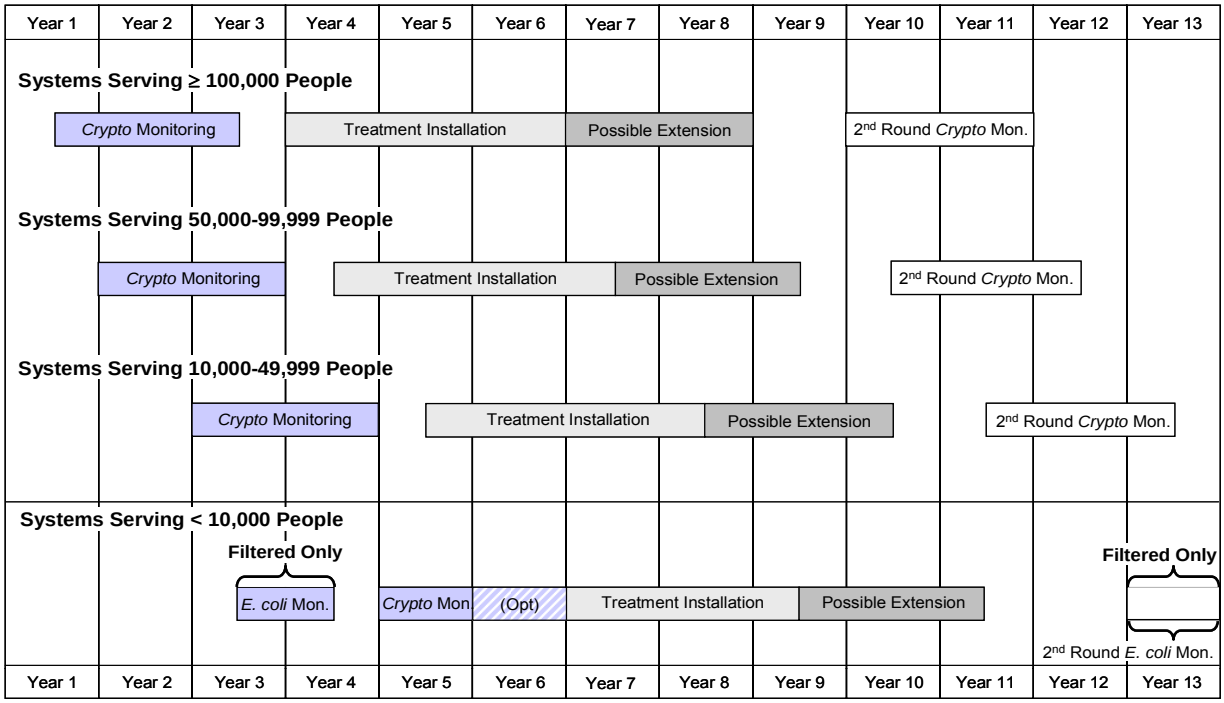

Exhibit F-D.1

Long Term 2 Enhanced Surface Water Treatment Rule (LT2) - Summary of Original and Revised Burden Estimates

Burden to PWSs Associated with Rule Start-Up Activities (Per PWS)			
2004 Burden	**Task**	**System Size**	**Revised Burden**
4 hrs	Read		35 hrs
4 hrs	Train	≤49,999	15 hrs
5 hrs	Train	≥50,000	30 hrs
	Compliance planning - eval of treatment alternatives (task added by commenter)	>50000	

Burden to State Associated with Rule Start-up		
2004 Burden	**Task**	**Revised Burden**
0.5 FTE	Regulation Adoption and Program Development	1 FTE
0.25 FTE	Training State Staff	0.5 FTE
0.10 FTE	Updating Data Management Systems	0.25 FTE

E. coli Monitoring Burden (Per Sample)		
2004 Burden	**Task**	**Revised Burden**
0.25 hr	Sampling	1 hr
0.5 hr	Sample Analysis	10 min
Assumes 25% of systems <10K, 75% of systems 10K-100K, and all system >100K will have lab capabilities.		

Cryptosporidium Monitoring Burden		
2004 Burden	**Task**	**Revised Burden**
0.5 hr	Sampling	1.375 hrs

Burden Associated with Reporting for Source Water Sampling Plan and Initial Bin Classification Monitoring			
2004 Burden	**Task**	**System Size**	**Revised Burden**
1.0 hr	Source Water Sampling Plan (Per Plant)	>100,000	10 hrs
5.5 hrs	Bin Classification	≤9,999	7 hrs
5 hrs	Bin Classification	≥10,000	16 hrs

Burden to States Associated with *E. coli* and *Cryptosporidium* Monitoring		
2004 Burden	**Task**	**Revised Burden**
6 hrs	Reviewing (Per Plant)	40 hrs

Burden for Preparing Reports Demonstrating Technology Compliance		
2004 Burden	**Task**	**Revised Burden**
36 hrs	Preparing Reports (Per Plant)	60 hrs

Burden for Disinfection Benchmarking Reports		
2004 Burden	**Task**	**Revised Burden**
4 hrs	Preparing Reports (Per Plant)	25 hrs

State Burden for Disinfection Benchmarking Reports		
2004 Burden	**Task**	**Revised Burden**
2 hrs	Reviewing Reports (Per Plant)	16 hrs

Appendix G

Ground Water Rule Spreadsheets

Exhibit G.1 Labor Rates

Cost Assumptions: Labor Rate Components

Cost Element	Base Hourly Labor Cost	ECI in Year of Data	ECI 2007	2007 Labor Cost
	A	B	C	D=A*(C/B)
Field Engineer	$ 31.00	139.8	192.3	$ 42.64
State Employee	$ 39.87	100.8	108.2	$ 42.80

Sources: (A) Wage rates for Field Engineer (1998$) from R.S. Means, 1998. State wage (2006$) from BLS SOC Code 19-2041, "State Government - Environmental Scientists and Specialists, Including Health." Multiplied by a loading rate of 1.6 to account for benefits.

(B) ECI for Field Engineer from BLS (2008) for 1998 (Civilian; Total compensation; Professional, specialty, and technical occupations, not seasonally adjusted). ECI for state employee from BLS (2008) from 2006 (State and local government; Total compensation; All workers, not seasonally adjusted). www.bls.gov.

(C) ECI for Field Engineer from BLS (2008) for 2007 recalculated to base of 1989 = 100 (Civilian; Total compensation; Professional, specialty, and technical occupations). ECI for state employee from BLS (2008) from 2007 (State and local government; Total compensation; All workers, not seasonally adjusted). www.bls.gov.

Technical Wage Rates by System Size

Rate	System size					
	25-100	101-500	500-3.3k	3.3k-10k	10k-100k	>100k
Base Wage Rate ($2006)	$ 17.87	$ 17.87	$ 17.87	$ 17.87	$ 17.87	$ 17.87
Loaded Wage Rate ($2006)	$ 28.59	$ 28.59	$ 28.59	$ 28.59	$ 28.59	$ 28.59
Loaded Wage Rate ($2007)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72

Source: 2006 Base Rates. Adjusted to 2007 values using ECI from www.bls.gov.

Managerial and Clerical Wage Rates by System Size

Rate	System size		
	25-100	101-500	>500
Base Manager Wage Rate ($2000)	$ 30.77	$ 30.77	$ 30.77
Loaded Manager Wage Rate ($2000)	$ 40.00	$ 43.08	$ 46.16
Loaded Manager Wage Rate ($2007)	$ 51.21	$ 55.16	$ 59.10
Base Clerical Wage Rate ($2000)	$ 10.61	$ 10.61	$ 10.61
Loaded Clerical Wage Rate ($2000)	$ 13.79	$ 14.85	$ 15.92
Loaded Clerical Wage Rate ($2007)	$ 17.95	$ 19.33	$ 20.72

Source: 2000 Base rates: Labor Costs for National Drinking Water Rules (USEPA, 2003). Adjusted to 2007 values using ECI recalculated to base of June 1989 = 100. For managerial rate used White Collar, Professional specialty and technical, not seasonally adjusted. For clerical used Administrative support, including clerical.

Cost Assumptions: Estimated System Labor Costs per Hour by System Size

Cost Component	Population Category					
	25-100	101-500	500-3.3k	3.3-10k	10k-100k	>100k
Labor cost (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 36.39	$ 36.39	$ 36.39

Notes:

EPA estimates that systems with population greater than 3,300 use a combination of operators (technical) and engineers (managerial), with an 80/20 ratio between the two, respectively.

Exhibit G.2 Number of Systems Subject to Sanitary Surveys

System Size (Population Served)	Systems	Systems Disinfecting	Systems Disinfecting; 4-log	Systems Not Disinfecting	Systems Performing Sanitary Survey
	A	B	C	D=A-B	E
Community Water Systems (CWSs)					
<100	12,134	6,407	2,877	5,727	12,134
101-500	14,120	10,999	5,353	3,121	14,120
501-1,000	4,511	3,789	1,762	722	4,511
1,001-3,300	5,915	4,714	2,218	1,201	5,915
3,301-10K	3,039	2,638	1,161	401	3,039
10,001-50K	1,530	1,476	727	54	1,530
50,001-100K	183	158	56	25	183
100,001-1 Million	116	112	50	4	116
> 1 Million	3	3	3	-	3
Totals	**41,549**	**30,296**	**14,206**	**11,254**	**41,549**
Nontransient Noncommunity Water Systems (NTNCWSs)					
<100	8,873	2,573	798	6,300	8,873
101-500	6,666	1,933	599	4,733	6,666
501-1,000	1,741	505	157	1,236	1,741
1,001-3,300	765	222	69	543	765
3,301-10K	100	29	9	71	100
10,001-50K	15	4	1	11	15
50,001-100K	-	-	-	-	-
100,001-1 Million	-	-	-	-	-
> 1 Million	-	-	-	-	-
Totals	**18,160**	**5,266**	**1,633**	**12,894**	**18,160**
Transient Noncommunity Water Systems (TNCWSs)					
<100	60,800	10,944	1,094	49,856	60,800
101-500	19,360	3,485	348	15,875	19,360
501-1,000	1,999	360	36	1,639	1,999
1,001-3,300	614	111	11	503	614
3,301-10K	80	14	1	66	80
10,001-50K	9	2	0	7	9
50,001-100K	3	1	0	2	3
100,001-1 Million	1	0	0	1	1
> 1 Million	-	-	-	-	-
Totals	**82,866**	**14,916**	**1,492**	**67,950**	**82,866**
Total All Systems	**142,575**	**50,478**	**17,330**	**92,098**	**142,575**

Notes: Detail may not add to totals due to independent rounding.

Sources: (A) Number of systems from SDWIS (USEPA, 2007).

(B) column (A) times percent disinfecting. Percent disinfecting from Third Edition of the Baseline Handbook, Table B1.3.3, except for systems serving >1 million people. The three ground water systems serving >1 million people all perform disinfection.

(C) Percentage of systems disinfecting to 4-log taken from Chapter 4, Exhibits 4.2 and 4.3 of the GWR EA, respectively. Systems disinfecting to 4-log based on 4-log percentages for entry points -- system level data on 4-log disinfection is not available.

(E) Based on rule requirements, all systems are subject to sanitary surveys.

Exhibit G.3 Number of Systems Subject to Triggered Monitoring

System Size (Population Served)	Entry Points Triggered Monitoring A	Mean Number of Samples per EP per Year B	Triggered Monitoring Samples/year C=A*B	Average Positive Triggered Monitoring Entry Points/year D
Community Water Systems (CWSs)				
<100	12,090	0.38	4,575	54
101-500	14,573	0.41	5,975	73
501-1,000	5,412	0.49	2,678	27
1,001-3,300	8,918	0.22	1,976	32
3,301-10K	5,940	0.58	3,442	30
10,001-50K	4,615	2.21	10,179	32
50,001-100K	1,412	6.56	9,262	11
100,001-1 Million	843	10.63	8,955	7
> 1 Million	-	10.63	-	-
Totals	**53,804**		**47,043**	**265**
Nontransient Noncommunity Water Systems (NTNCWSs)				
<100	8,078	0.22	1,770	29
101-500	6,065	0.23	1,365	24
501-1,000	1,585	0.28	446	6
1,001-3,300	696	0.70	489	4
3,301-10K	91	1.84	167	1
10,001-50K	14	6.99	95	0
50,001-100K	-	20.78	-	-
100,001-1 Million	-	33.67	-	-
> 1 Million	-	33.67	-	-
Totals	**16,528**		**4,332**	**64**
Transient Noncommunity Water Systems (TNCWSs)				
<100	59,712	0.47	27,929	297
101-500	19,008	0.48	9,128	94
501-1,000	1,963	0.60	1,179	10
1,001-3,300	603	1.10	664	4
3,301-10K	79	2.88	226	1
10,001-50K	9	10.97	97	0
50,001-100K	3	32.60	96	0
100,001-1 Million	1	52.83	52	0
> 1 Million	-	52.83	-	-
Totals	**81,377**		**39,371**	**404**
Grand Total	**151,709**		**90,747**	**734**

Notes: Detail may not add to totals due to independent rounding.
- (no PWSs of this size category).
Costs of repeat samples are not included. See Chapter 6, Section 6.6 of the GWR EA for discussion.

Source:

(A) Number of entry points from Chapter 6, Exhibit 6.5b of the GWR EA, updated to current values by multiplying by proportion of 2007 systems to original systems.
(B) Mean triggered samples per system calculated from Chapter 6, Exhibit 6.15 of the GWR EA.
(D) Values in Column D, Total systems divided by 22 years to obtain postive triggered monitoring EPs/year.

Exhibit G.4 Number of Systems Subject to Compliance Monitoring

System Size (Population Served)	Systems Subject to Compliance Monitoring	Entry Points Subject to Compliance Monitoring	Entry Points Achieving 4-log Prior to GWR	Entry Points Corrected to 4-log; partially disinfected	Entry Points Corrected to 4-log; previously nondisinfected
	A	B=C+D+E	C	D	E
Community Water Systems (CWSs)					
<100	3,373	4,921	3,740	338	842
101-500	5,681	10,163	8,564	902	697
501-1,000	1,830	4,113	3,523	349	241
1,001-3,300	2,256	6,035	5,322	396	317
3,301-10K	1,166	4,367	3,716	372	278
10,001-50K	728	4,765	4,072	580	114
50,001-100K	56	883	636	102	145
100,001-1 Million	50	767	614	106	48
> 1 Million	3	34	34	-	-
Totals	**15,143**	**36,049**	**30,223**	**3,145**	**2,682**
Nontransient Noncommunity Water Systems (NTNCWSs)					
<100	1,442	1,442	798	141	504
101-500	1,125	1,125	599	117	409
501-1,000	294	294	157	30	107
1,001-3,300	160	160	69	20	71
3,301-10K	23	23	9	3	11
10,001-50K	4	4	1	1	2
50,001-100K	-	-	-	-	-
100,001-1 Million	-	-	-	-	-
> 1 Million	-	-	-	-	-
Totals	**3,048**	**3,048**	**1,633**	**312**	**1,104**
Transient Noncommunity Water Systems (TNCWSs)					
<100	7,618	7,618	1,094	1,078	5,445
101-500	2,414	2,414	348	344	1,722
501-1,000	250	250	36	36	179
1,001-3,300	90	90	11	13	66
3,301-10K	14	14	1	2	10
10,001-50K	2	2	0	0	1
50,001-100K	1	1	0	0	0
100,001-1 Million	0	0	0	0	0
> 1 Million	-	-	-	-	-
Totals	**10,389**	**10,389**	**1,492**	**1,473**	**7,425**
Grand Total	**28,580**	**49,487**	**33,347**	**4,930**	**11,210**

Notes: Detail may not add to totals due to independent rounding.

Source: (A) Exhibit G17a, Column I

(C) Number of entry points from Chapter 4, Exhibit 4.3 of the GWR EA updated to current year using ratios of 2007 systems to original systems.

(D) Chapter 6 GWR EA, Exhibit 6.5b, Column E updated using ratio of 2007 systems to original systems.

(E) Chapter 6 GWR EA, Exhibit 6.5b, Column F updated using ratio of 2007 systems to original systems.

Exhibit G.5 Estimated System Burden and Costs for Start-Up Activities

Exhibit G.5a Microbial Source Water Monitoring & Compliance Monitoring Start-Up (CWSs)

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Read and Understand Rule	16	16	16	16	16	16	16	16	16
Planning and Mobilization	16	16	16	16	16	32	32	32	32
Total hours[1]	32	32	32	32	32	48	48	48	48
Labor cost[2] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 36.39	$ 36.39	$ 36.39	$ 36.39	$ 36.39
Total cost per system	$ 983	$ 983	$ 983	$ 983	$ 1,165	$ 1,747	$ 1,747	$ 1,747	$ 1,747
Number of Systems	12,134	14,120	4,511	5,915	3,039	1,530	183	116	3
Total labor burden	388,276	451,840	144,345	189,282	97,240	73,430	8,767	5,560	144
Total cost	$ 11,926,777	$ 13,879,294	$ 4,433,870	$ 5,814,222	$ 3,538,900	$ 2,672,397	$ 319,056	$ 202,360	$ 5,241

Exhibit G.5b Microbial Source Water Monitoring & Compliance Monitoring Start-Up (NCWSs)

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Read and Understand Rule	8	8	8	8	8	8	8	8	8
Planning and Mobilization	16	16	16	16	16	16	16	16	16
Total hours[1]	24	24	24	24	24	24	24	24	24
Labor cost[2] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 36.39	$ 36.39	$ 36.39	$ 36.39	$ 36.39
Total cost per system	$ 737	$ 737	$ 737	$ 737	$ 873	$ 873	$ 873	$ 873	$ 873
Number of Systems	69,673	26,026	3,740	1,379	180	24	3	1	-
Total labor burden	1,672,152	624,624	89,760	33,096	4,320	576	72	24	-
Total cost	$ 51,363,949	$ 19,186,746	$ 2,757,182	$ 1,016,619	$ 157,220	$ 20,963	$ 2,620	$ 873	$ -

Exhibit G.5c Sanitary Survey Start-Up

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Read and Understand Rule	2	2	2	2	2	2	2	2	2
Planning and Mobilization	1	1	1	1	1	1	1	1	1
Total hours[1]	3	3	3	3	3	3	3	3	3
Labor cost[2] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 36.39	$ 36.39	$ 36.39	$ 36.39	$ 36.39
Total cost per system	$ 92	$ 92	$ 92	$ 92	$ 109	$ 109	$ 109	$ 109	$ 109
Number of Systems	81,807	40,146	8,251	7,294	3,219	1,554	186	117	3
Total labor burden	245,420	120,438	24,752	21,882	9,656	4,661	557	351	9
Total cost	$ 7,538,629	$ 3,699,527	$ 760,323	$ 672,161	$ 351,424	$ 169,645	$ 20,269	$ 12,757	$ 328

Notes: 1) Labor hours for start-up activities reflect EPA estimate.
2) Labor rates from Exhibit G.1.

Exhibit G.6 Estimated State Burden and Costs for Start-Up Activities

Exhibit G.6a Microbial Source & Compliance Monitoring Start-Up

Compliance Activity	Labor Cost (per hour) A	Hours B	FTEs C=B/2,080	Cost D=A*B
Read and Understand Rule	$ 42.80	60	0.03	$ 2,568
Regulation Adoption and Program Development	$ 42.80	1,040	0.50	$ 44,511
Initial Laboratory Certification	$ 42.80	800	0.38	$ 34,239
Modify Data Management Systems	$ 42.80	2,080	1.00	$ 89,022
System Training and Technical Assistance	$ 42.80	2,080	1.00	$ 89,022
Staff Training	$ 42.80	520	0.25	$ 22,256
Per State Total		6,580		$ 281,618
National Totals (57 States/Primacy Agencies)		375,060		$ 16,052,235

Notes: Detail may not add due to independent rounding.

Sources: (A) Labor rate for state employee from Exhibit G.1

(B) Labor hours for start-up activities reflect EPA estimate.

(C) Full-time equivalent (FTE) assumes individual working 40 hours per week, 52 weeks per year.

Exhibit G.6b Annual Administrative Activities

Compliance Activity	Labor Cost (per hour) A	Hours B	FTEs C=B/2,080	Cost D=A*B
Coordination with EPA	$ 42.80	1,040	0.50	$ 44,511
Lab Certification	$ 42.80	1,040	0.50	$ 44,511
Ongoing Technical Assistance	$ 42.80	1,040	0.50	$ 44,511
SDWIS Reporting	$ 42.80	1,040	0.50	$ 44,511
Recordkeeping	$ 42.80	880	0.42	$ 37,663
Staff Training	$ 42.80	104	0.05	$ 4,451
Per State Total		5,144		$ 220,159
National Totals (57 States/Primacy Agencies)		293,208		$ 12,549,042

Notes: Detail may not add due to independent rounding.

Sources: (A) Labor rate for state employee from Exhibit G.1

(B) Labor hours for start-up activities reflect EPA estimate.

(C) Full-time equivalent (FTE) assumes individual working 40 hours per week, 52 weeks per year.

Exhibit G.7a PWS Unit Burden and Cost Estimates for Performing Full and Incremental Sanitary Surveys (Treatment)

System Size (Population Served)	Labor Cost (per hour)	Review/ Inspect Wells	Review/ Inspect Treatment	Review/ Inspect Distribution System	Report Review and Discussion w/ State	Total Unit Burden (hours)	Unit Cost (Full Survey)	Weighted Unit Cost (Incremental Survey)
	A	B	C	D	E	F=sum(B-E)	G=A*F	H=0.05*G
Community Water Systems (CWSs)								
<100	$ 30.72	1.1	0.8	1.2	1.1	4.3	$ 132	$ 7
101-500	$ 30.72	1.2	0.8	1.2	1.1	4.3	$ 132	$ 7
501-1,000	$ 30.72	1.5	1.1	1.7	1.2	5.4	$ 167	$ 8
1,001-3,300	$ 30.72	2.2	1.3	2.9	1.4	7.7	$ 237	$ 12
3,301-10K	$ 30.72	2.7	1.6	3.6	1.8	9.6	$ 293	$ 15
10,001-50K	$ 30.72	3.7	2.0	4.3	1.9	11.8	$ 363	$ 18
50,001-100K	$ 30.72	9.0	3.0	12.0	3.0	27.0	$ 829	$ 41
100,000-1M	$ 30.72	15.0	8.0	24.0	3.0	50.0	$ 1,536	$ 77
>1,000,000	$ 30.72	24.0	10.0	36.0	4.0	74.0	$ 1,536	$ 77
Nontransient Noncommunity Water Systems (NTNCWSs)								
<100	$ 30.72	1.0	0.8	1.0	1.3	4.0	$ 124	$ 6
101-500	$ 30.72	1.0	0.8	1.1	1.3	4.2	$ 128	$ 6
501-1,000	$ 30.72	1.1	0.9	1.3	1.2	4.5	$ 137	$ 7
1,001-3,300	$ 30.72	1.1	1.1	1.2	1.3	4.7	$ 144	$ 7
3,301-10K	$ 30.72	1.5	1.5	1.7	1.5	6.2	$ 189	$ 9
10,001-50K	$ 30.72	1.3	0.8	1.8	1.3	5.0	$ 154	$ 8
50,001-100K	$ 30.72	1.5	0.8	2.3	1.3	5.8	$ 177	$ 9
100,000-1M	$ 30.72	8.0	1.0	10.0	1.5	20.5	$ 630	$ 31
>1,000,000	$ 30.72	NA	NA	NA	NA	NA	NA	NA
Transient Noncommunity Water Systems (TNCWSs)								
<100	$ 30.72	0.7	0.6	0.6	0.9	2.7	$ 84	$ 4
101-500	$ 30.72	0.7	0.6	0.6	0.9	2.7	$ 84	$ 4
501-1,000	$ 30.72	1.0	0.8	1.0	0.9	3.7	$ 115	$ 6
1,001-3,300	$ 30.72	0.9	1.0	0.9	1.1	3.9	$ 120	$ 6
3,301-10K	$ 30.72	1.2	1.3	1.2	1.2	4.8	$ 148	$ 7
10,001-50K	$ 30.72	0.8	0.5	1.3	0.8	3.3	$ 100	$ 5
50,001-100K	$ 30.72	1.3	0.5	1.3	0.8	3.8	$ 115	$ 6
100,000-1M	$ 30.72	8.0	1.0	10.0	1.0	20.0	$ 614	$ 31
>1,000,000	$ 30.72	NA	NA	NA	NA	NA	NA	NA

Note: Weighted unit costs equal 5% of the unit costs. This factor accounts for 50% effort for an incremental survey and 10% of systems that do not already comply with rule requirements (see Chapter 6, Sec. 6.4.2 of the GWR EA for discussion).
(D) Unit costs for NTNCWSs may be over-estimated because some of these systems may not have a distribution system.

Exhibit G.7b PWS Unit Burden and Cost Estimates for Performing Full and Incremental Sanitary Surveys (No Treatment)

System Size (Population Served)	Labor Cost (per hour)	Review/ Inspect Wells	Review/ Inspect Distribution System	Report Review and Discussion w/ State	Total Unit Burden (hours)	Unit Cost (Full Survey)	Weighted Unit Cost (Incremental Survey)
	A	B	C	D	E=sum(B-D)	F=A*E	G=0.05*F
Community Water Systems (CWSs)							
<100	$ 30.72	1.1	1.2	1.1	3.5	$ 107	$ 5
101-500	$ 30.72	1.2	1.2	1.1	3.5	$ 107	$ 5
501-1,000	$ 30.72	1.5	1.7	1.2	4.4	$ 134	$ 7
1,001-3,300	$ 30.72	2.2	2.9	1.4	6.4	$ 198	$ 10
3,301-10K	$ 30.72	2.7	3.6	1.8	8.0	$ 245	$ 12
10,001-50K	$ 30.72	3.7	4.3	1.9	9.8	$ 302	$ 15
50,001-100K	$ 30.72	9.0	12.0	3.0	24.0	$ 737	$ 37
100,000-1M	$ 30.72	15.0	24.0	3.0	42.0	$ 1,290	$ 65
>1,000,000	$ 30.72	24.0	36.0	4.0	64.0	$ 1,290	$ 65
Nontransient Noncommunity Water Systems (NTNCWSs)							
<100	$ 30.72	1.0	1.0	1.3	3.3	$ 101	$ 5
101-500	$ 30.72	1.0	1.1	1.3	3.4	$ 105	$ 5
501-1,000	$ 30.72	1.1	1.3	1.2	3.6	$ 110	$ 6
1,001-3,300	$ 30.72	1.1	1.2	1.3	3.6	$ 111	$ 6
3,301-10K	$ 30.72	1.5	1.7	1.5	4.7	$ 143	$ 7
10,001-50K	$ 30.72	1.3	1.8	1.3	4.3	$ 131	$ 7
50,001-100K	$ 30.72	1.5	2.3	1.3	5.0	$ 154	$ 8
100,000-1M	$ 30.72	8.0	10.0	1.5	19.5	$ 599	$ 30
>1,000,000	$ 30.72	NA	NA	NA	NA	NA	NA
Transient Noncommunity Water Systems (TNCWSs)							
<100	$ 30.72	0.7	0.6	0.9	2.2	$ 66	$ 3
101-500	$ 30.72	0.7	0.6	0.9	2.2	$ 66	$ 3
501-1,000	$ 30.72	1.0	1.0	0.9	2.9	$ 89	$ 4
1,001-3,300	$ 30.72	0.9	0.9	1.1	2.9	$ 89	$ 4
3,301-10K	$ 30.72	1.2	1.2	1.2	3.5	$ 108	$ 5
10,001-50K	$ 30.72	0.8	1.3	0.8	2.8	$ 84	$ 4
50,001-100K	$ 30.72	1.3	1.3	0.8	3.3	$ 100	$ 5
100,000-1M	$ 30.72	8.0	10.0	1.0	19.0	$ 584	$ 29
>1,000,000	$ 30.72	NA	NA	NA	NA	NA	NA

Note: Weighted unit costs equal 5% of the unit costs. This factor accounts for 50% effort for an incremental survey and 10% of systems that do not already comply with rule requirements (see Chapter 6, Sec. 6.4.2 of the GWR EA for discussion).
(C) Unit costs for NTNCWSs may be over-estimated because some of these systems may not have a distribution system.

Exhibit G.7c State Unit Burden and Cost Estimates for Performing Full and Incremental Sanitary Surveys (Treatment)

System Size (Population Served)	Labor Cost (per hour)	Review/ Inspect Wells	Review/ Inspect Treatment	Review/ Inspect Distribution System	Report Documentation/ File Review	Report Development	Data Entry	Report Review and Discussion w/ PWS	Travel	Total Unit Burden (hours)	Unit Cost (Full Survey)	Weighted Unit Cost (Incremental Survey)
	A	B	C	D	E	F	G	H	I	J=sum(B-I)	K=A*J	L=0.05*K
Community Water Systems (CWSs)												
<100	$ 42.64	1.1	0.8	1.2	2.3	5.7	0.8	1.1	1.8	14.8	$ 629	$ 31
101-500	$ 42.64	1.2	0.8	1.2	2.3	5.8	0.8	1.1	1.8	14.9	$ 636	$ 32
501-1,000	$ 42.64	1.5	1.1	1.7	2.6	7.4	0.8	1.2	1.8	18.0	$ 766	$ 38
1,001-3,300	$ 42.64	2.2	1.3	2.9	3.4	8.8	1.2	1.4	1.8	22.8	$ 971	$ 49
3,301-10K	$ 42.64	2.7	1.6	3.6	3.7	9.6	1.3	1.8	1.8	25.9	$ 1,105	$ 55
10,001-50K	$ 42.64	3.7	2.0	4.3	5.3	10.1	1.4	1.9	1.8	30.3	$ 1,293	$ 65
50,001-100K	$ 42.64	9.0	3.0	12.0	12.0	12.0	2.0	3.0	1.8	54.8	$ 2,335	$ 117
100,000-1M	$ 42.64	15.0	8.0	24.0	18.0	18.0	3.0	3.0	1.8	90.8	$ 3,870	$ 193
>1,000,000	$ 42.64	24.0	10.0	36.0	18.0	18.0	4.0	4.0	1.8	115.8	$ 3,870	$ 193
Nontransient Noncommunity Water Systems (NTNCWSs)												
<100	$ 42.64	1.0	0.8	1.0	1.9	5.1	1.0	1.3	1.8	13.8	$ 588	$ 29
101-500	$ 42.64	1.0	0.8	1.1	2.0	5.3	1.0	1.3	1.8	14.2	$ 607	$ 30
501-1,000	$ 42.64	1.1	0.9	1.3	2.1	6.5	0.8	1.2	1.8	15.6	$ 666	$ 33
1,001-3,300	$ 42.64	1.1	1.1	1.2	2.1	6.2	0.8	1.3	1.8	15.6	$ 663	$ 33
3,301-10K	$ 42.64	1.5	1.5	1.7	2.2	6.7	0.8	1.5	1.8	17.6	$ 750	$ 37
10,001-50K	$ 42.64	1.3	0.8	1.8	2.5	5.0	0.8	1.3	1.8	15.0	$ 640	$ 32
50,001-100K	$ 42.64	1.5	0.8	2.3	2.5	5.0	0.8	1.3	1.8	15.8	$ 672	$ 34
100,000-1M	$ 42.64	8.0	1.0	10.0	8.0	10.0	1.0	1.5	1.8	41.3	$ 1,759	$ 88
>1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA
Transient Noncommunity Water Systems (TNCWSs)												
<100	$ 42.64	0.7	0.6	0.6	1.5	5.1	0.8	0.9	1.8	11.9	$ 506	$ 25
101-500	$ 42.64	0.7	0.6	0.6	1.5	5.3	0.8	0.9	1.8	12.1	$ 517	$ 26
501-1,000	$ 42.64	1.0	0.8	1.0	1.8	5.8	0.8	0.9	1.8	13.9	$ 591	$ 30
1,001-3,300	$ 42.64	0.9	1.0	0.9	1.7	4.7	0.8	1.1	1.8	12.9	$ 548	$ 27
3,301-10K	$ 42.64	1.2	1.3	1.2	1.5	5.2	0.8	1.2	1.8	14.1	$ 601	$ 30
10,001-50K	$ 42.64	0.8	0.5	1.3	1.3	3.8	0.8	0.8	1.8	10.8	$ 458	$ 23
50,001-100K	$ 42.64	1.3	0.5	1.3	1.3	3.8	0.8	0.8	1.8	11.3	$ 480	$ 24
100,000-1M	$ 42.64	8.0	1.0	10.0	3.0	8.0	0.5	1.0	1.8	33.3	$ 1,418	$ 71
>1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA

Note: Weighted unit costs equal 5% of the unit costs. This factor accounts for 50% effort for an incremental survey and 10% of systems that do not already comply with rule requirements (see Chapter 6, Sec. 6.4.2 of the GWR EA for discussion).

(D) Unit costs for NTNCWSs may be over-estimated because some of these systems may not have a distribution system.

Exhibit G.7d State Unit Burden and Cost Estimates for Performing Full and Incremental Sanitary Surveys (No Treatment)

System Size (Population Served)	Labor Cost (per hour) A	Review/ Inspect Wells B	Review/ Inspect Distribution System C	Report Documentation/ File Review D	Report Development E	Data Entry F	Report Review and Discussion w/ PWS G	Travel H	Total Unit Burden (hours) I=sum(B-H)	Unit Cost (Full Survey) J=A*I	Weighted Unit Cost (Incremental Survey) K=0.05*J
Community Water Systems (CWSs)											
<100	$ 42.64	1.1	1.2	2.3	5.7	0.8	1.1	1.8	13.9	$ 595	$ 30
101-500	$ 42.64	1.2	1.2	2.3	5.8	0.8	1.1	1.8	14.1	$ 601	$ 30
501-1,000	$ 42.64	1.5	1.7	2.6	7.4	0.8	1.2	1.8	16.9	$ 720	$ 36
1,001-3,300	$ 42.64	2.2	2.9	3.4	8.8	1.2	1.4	1.8	21.5	$ 916	$ 46
3,301-10K	$ 42.64	2.7	3.6	3.7	9.6	1.3	1.8	1.8	24.3	$ 1,038	$ 52
10,001-50K	$ 42.64	3.7	4.3	5.3	10.1	1.4	1.9	1.8	28.3	$ 1,208	$ 60
50,001-100K	$ 42.64	9.0	12.0	12.0	12.0	2.0	3.0	1.8	51.8	$ 2,207	$ 110
100,000-1M	$ 42.64	15.0	24.0	18.0	18.0	3.0	3.0	1.8	82.8	$ 3,529	$ 176
>1,000,000	$ 42.64	24.0	36.0	18.0	18.0	4.0	4.0	1.8	105.8	$ 3,529	$ 176
Nontransient Noncommunity Water Systems (NTNCWSs)											
<100	$ 42.64	1.0	1.0	1.9	5.1	1.0	1.3	1.8	13.0	$ 556	$ 28
101-500	$ 42.64	1.0	1.1	2.0	5.3	1.0	1.3	1.8	13.5	$ 575	$ 29
501-1,000	$ 42.64	1.1	1.3	2.1	6.5	0.8	1.2	1.8	14.8	$ 629	$ 31
1,001-3,300	$ 42.64	1.1	1.2	2.1	6.2	0.8	1.3	1.8	14.5	$ 616	$ 31
3,301-10K	$ 42.64	1.5	1.7	2.2	6.7	0.8	1.5	1.8	16.1	$ 686	$ 34
10,001-50K	$ 42.64	1.3	1.8	2.5	5.0	0.8	1.3	1.8	14.3	$ 608	$ 30
50,001-100K	$ 42.64	1.5	2.3	2.5	5.0	0.8	1.3	1.8	15.0	$ 640	$ 32
100,000-1M	$ 42.64	8.0	10.0	8.0	10.0	1.0	1.5	1.8	40.3	$ 1,716	$ 86
>1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Transient Noncommunity Water Systems (TNCWSs)											
<100	$ 42.64	0.7	0.6	1.5	5.1	0.8	0.9	1.8	11.3	$ 481	$ 24
101-500	$ 42.64	0.7	0.6	1.5	5.3	0.8	0.9	1.8	11.5	$ 492	$ 25
501-1,000	$ 42.64	1.0	1.0	1.8	5.8	0.8	0.9	1.8	13.0	$ 556	$ 28
1,001-3,300	$ 42.64	0.9	0.9	1.7	4.7	0.8	1.1	1.8	11.9	$ 505	$ 25
3,301-10K	$ 42.64	1.2	1.2	1.5	5.2	0.8	1.2	1.8	12.8	$ 544	$ 27
10,001-50K	$ 42.64	0.8	1.3	1.3	3.8	0.8	0.8	1.8	10.3	$ 437	$ 22
50,001-100K	$ 42.64	1.3	1.3	1.3	3.8	0.8	0.8	1.8	10.8	$ 458	$ 23
100,000-1M	$ 42.64	8.0	10.0	3.0	8.0	0.5	1.0	1.8	32.3	$ 1,375	$ 69
>1,000,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: Weighted unit costs equal 5% of the unit costs. This factor accounts for 50% effort for an incremental survey and 10% of systems that do not already comply with rule requirements (see Chapter 6, Sec. 6.4.2 of the GWR EA for discussion).

(C) Unit costs for NTNCWSs may be over-estimated because some of these systems may not have a distribution system.

Exhibit G.8 Estimated Burden and Costs for Performing Triggered Monitoring

Exhibit G.8a Estimated System Burden and Costs for Performing Triggered Monitoring

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Sampling									
Sampling labor (hours)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Labor cost[1] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72
Total sampling cost	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36
Laboratory Analysis[2]									
Commercial analysis cost	$ 71.99	$ 71.99	$ 71.99	$ 71.99	$ 71.99	$ 71.99	$ 71.99	$ 71.99	$ 71.99
In-house labor (hours)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Labor cost (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72
In-house materials cost	$ 8.61	$ 8.61	$ 8.61	$ 8.61	$ 8.61	$ 8.61	$ 8.61	$ 8.61	$ 8.61
Total analysis cost	$ 59.98	$ 59.98	$ 59.98	$ 59.98	$ 59.98	$ 35.97	$ 23.97	$ 23.97	$ 23.97
Reporting									
Monitoring report labor (hours)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Labor cost[3] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 36.39	$ 36.39	$ 36.39	$ 36.39	$ 36.39
Total reporting cost	$ 76.79	$ 76.79	$ 76.79	$ 76.79	$ 90.98	$ 90.98	$ 90.98	$ 90.98	$ 90.98
Total cost	$ 152.14	$ 152.14	$ 152.14	$ 152.14	$ 166.33	$ 142.32	$ 130.31	$ 130.31	$ 130.31

Notes:

1) Labor rates from Exhibit A.1. EPA assumes all sampling conducted by system operator.

2) EPA assumes that 25 percent of CWSs serving less than 10,000 individuals, 75 percent of systems serving 10,000 to 50,000 individuals, and all CWSs serving more than 50,000 conduct in-house analysis; the remaining CWSs contract a commercial laboratory. EPA assumes all NCWSs contract a commercial laboratory. Therefore, EPA uses the following ratios to determine total cost of analysis:

a) Total cost to system serving <10,000=.75*(Commercial analysis cost)+.25*(In-house labor*Labor cost+In-house materials cost)

b) Total cost to system serving 10,001-50,000=.25(Commercial analysis cost)+.75*(In-house labor*Labor cost+In-house materials cost)

c) Total cost to system serving >50,000=In-house labor*Labor cost+In-house materials cost

3) Labor rates from Exhibit A.1.

Exhibit G.8b Estimated State Burden and Costs for Reviewing Triggered Monitoring Report

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Triggered Monitoring Review and Processing[1] (hours)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Labor cost[2] (per hour)	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80
Total cost	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80

Notes:

1) Labor hours for triggered monitoring report review reflect EPA estimate.

2) Labor rate for state employee from Exhibit A.1.

Exhibit G.9 Estimated Burden & Costs for Corrective Action Plans

Exhibit G.9a Estimated System Burden and Costs for Corrective Action Plans

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Plan Development and Submission[1] (hours)	12	13	19	29	58	60	70	74	74
Labor cost[2] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 36.39	$ 36.39	$ 36.39	$ 36.39	$ 36.39
Unit Plan Cost	$ 368.61	$ 399.32	$ 583.63	$ 890.80	$ 2,110.83	$ 2,183.62	$ 2,547.55	$ 2,693.13	$ 2,693.13

Notes: 1) Labor hours for development and submission of corrective action plan for providing 4-log disinfection reflect EPA estimate.
2) Labor rates from Exhibit G.1.

Exhibit G.9b Estimated State Burden and Costs for Reviewing Corrective Action Plans

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Plan Review and Processing[1] (hours)	12	13	19	29	58	30	35	37	37
Labor cost[2] (per hour)	$ 42.64	$ 42.64	$ 42.64	$ 42.64	$ 42.64	$ 42.64	$ 42.64	$ 42.64	$ 42.64
Unit Plan Review Cost	$ 511.70	$ 554.34	$ 810.19	$ 1,236.61	$ 2,473.21	$ 1,279.25	$ 1,492.46	$ 1,577.74	$ 1,577.74

Notes: 1) Labor hours for reviewing corrective action plan for providing 4-log disinfection reflect EPA estimate.
2) Labor rates for field engineer from Exhibit G.1.

Exhibit G.10a PWS Compliance Monitoring Costs for Systems Serving 3,300 or Fewer People

Component	Unit Cost (1998)	PPI (1998)	PPI (2007)	Unit Cost (2003)	Labor burden (per day)	Annual Cost Frequency	Annual Labor Burden	Annual Total Cost
	A	B	C	D=A*(C/B)	E	F	G=E*F	H=D*E*F
Compliance Monitoring Labor								
25-100	N/A	N/A	N/A	$ 30.72	0.50	365	183	$ 5,606
101-500	N/A	N/A	N/A	$ 30.72	0.50	365	183	$ 5,606
500-3.3k	N/A	N/A	N/A	$ 30.72	0.50	365	183	$ 5,606
Chlorine Test Kits								
25-100	$ 34.00	143.7	161.7	$ 38.26	N/A	3.65	N/A	$ 140
101-500	$ 34.00	143.7	161.7	$ 38.26	N/A	3.65	N/A	$ 140
500-3.3k	$ 34.00	143.7	161.7	$ 38.26	N/A	3.65	N/A	$ 140
Totals								
25-100							183	$ 5,746
101-500							183	$ 5,746
500-3.3k							183	$ 5,746

Notes: Detail may not add to totals due to independent rounding.

Sources: (A) Unit cost for test kit from Products for Analysis, 1998 Hach Co. Model 2231-02. Unit cost derivation for system operator in Chapter 6, Section 6.2.1 of the GWR EA.

(B & C) Producer Price Index (PPI) Commodity Code 3500 (Finished goods less food and energy) from BLS (www.bls.gov).

(D) Labor rate from Exhibit A.1.

(E) Labor hours for compliance monitoring reflect EPA estimate.

(F) Monitoring performed daily. New test kit needed every 100 days.

Exhibit G.10b PWS Compliance Monitoring Costs for Systems Serving More than 3,300 People

Component	Unit Cost (1998)	PPI (1998)	PPI (2007)	Unit Cost (2001)	Quantity Purchased (units; hours)	Total Cost
	A	B	C	D=A*(C/B)	E	F=D*E
Capital Costs						
Chlorine analyzer (Hach CL17)	$ 2,375	121.0	113.7	$ 2,232	1	$ 2,232
Power cord	$ 10	121.0	113.7	$ 9	1	$ 9
Chart recorder (Honeywell 10" round)	$ 665	121.0	113.7	$ 625	1	$ 625
Installation labor (System Operator)						
3.3k-10k	N/A	N/A	N/A	$ 30.72	8	$ 246
10k-100k	N/A	N/A	N/A	$ 30.72	8	$ 246
>100k	N/A	N/A	N/A	$ 30.72	8	$ 246
Total Capital Cost						
3.3k-10k						$ 3,112
10k-100k						$ 3,112
>100k						$ 3,112
Annual Operation and Maintenance						
Compliance monitoring (hours/year)						
3.3k-10k	N/A	N/A	N/A	$ 30.72	80	$ 2,457
10k-100k	N/A	N/A	N/A	$ 30.72	80	$ 2,457
>100k	N/A	N/A	N/A	$ 30.72	80	$ 2,457
Maintenance kit	$ 140	143.7	161.7	$ 158	1	$ 158
Monthly reagents	$ 18	143.7	161.7	$ 20	12	$ 243
Charts	$ 15	143.7	161.7	$ 17	1	$ 17
Recorder pens	$ 52	143.7	161.7	$ 59	1	$ 59
Total Annual Operation and Maintenance Costs						
3.3k-10k						$ 2,933
10k-100k						$ 2,933
>100k						$ 2,933

Notes: Detail may not add to totals due to indpendent rounding.

Sources: (A) Unit costs for equipment (both capital and O&M) from Products for Analysis, 1998 Hach Co.

(B & C) Producer Price Index Commodity Code 117 (Electrical machinery and equipment) for Capital Costs and Commodity Code 3500 (Finished goods less food and energy) for Annual O&M, BLS (www.bls.gov). December values.

(D) Labor rate from Exhibit G.1.

Exhibit G.11 Estimated Burden and Costs for Compliance Monitoring

Exhibit G.11a Estimated System Burden and Costs for Compliance Monitoring Initial Notification

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Notification labor[1] (hours)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Labor cost[2] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72
Total cost	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36	$ 15.36

Notes: 1) Labor hours for compliance monitoring initial notification reflect EPA estimate.

2) Labor rates from Exhibit G.1.

Exhibit G.11b Estimated State Burden and Costs for Compliance Monitoring Notification Documentation

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Document notification[1] (hours)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Labor cost[2] (per hour)	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80
Total cost	$ 21.40	$ 21.40	$ 21.40	$ 21.40	$ 21.40	$ 21.40	$ 21.40	$ 21.40	$ 21.40

Notes: 1) Labor hours for documenting compliance monitoring reflect EPA estimate.

2) Labor rate for state employee from Exhibit G.1.

Exhibit G.11c Estimated System Burden and Costs for Compliance Monitoring Reporting (Disinfection Failure)

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Report labor[1] (hours)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Labor cost[2] (per hour)	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72	$ 30.72
Total cost	$ 76.79	$ 76.79	$ 76.79	$ 76.79	$ 76.79	$ 76.79	$ 76.79	$ 76.79	$ 76.79

Notes: 1) Labor hours for compliance monitoring reporting reflect EPA estimate.

2) Labor rates from Exhibit G.1.

Exhibit G.11d Estimated State Burden and Costs for Reviewing Compliance Monitoring Report (Disinfection Failure)

Cost Component	Service Population Category								
	<100	101-500	501-1,000	1,001-3,300	3,301-10,000	10,001-50,000	50,001-100,000	100,001-1,000,000	>1,000,000
Review report[1] (hours)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Labor cost[2] (per hour)	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80	$ 42.80
Total cost	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80	$ 149.80

Notes: 1) Labor hours for compliance monitoring report review reflect EPA estimate.

2) Labor rate for state employee from Exhibit G.1.

Exhibit G.12
Respondents for Full Implementation of the Rule Year by Year by Activity

PWSs

Respondents	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Microbial & Compliance Monitor Start-Up	47,525	47,525	47,525	-	-	-	-	-	-	-
Sanitary Survey Start-Up	47,525	47,525	47,525	-	-	-	-	-	-	-
Annual Activities										
Sanitary Survey	-	-	-	30,338	30,338	30,338	30,338	30,338	30,338	30,338
Triggered Monitoring (EPs)	-	-	-	6,896	6,896	6,896	6,896	6,896	6,896	6,896
Triggered Monitoring Reporting	-	-	-	734	734	734	734	734	734	734
Corrective Action Plans (systems) - from significant deficiences and TM	-	-	-	1,702	1,702	1,702	1,702	1,702	1,702	1,702
Compliance Monitoring - Initial Notification (systems)	-	-	-	17,330						
Compliance Monitoring (EPs)	-	-	-	482	964	1,446	1,927	2,409	2,891	3,373
Compliance Monitoring Reporting (Disinfection Failure Reports) (EPs)	-	-	-	2,278	2,302	2,326	2,350	2,374	2,398	2,422
PWSs with one/more Respondent Activities	47,525	47,525	47,525	7,378	7,860	8,341	8,823	9,305	9,787	10,269

States

Respondents	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Start-Up	57	57	57	-	-	-	-	-	-	-
Annual Activities										
Sanitary Survey	-	-	-	57	57	57	57	57	57	57
Triggered Monitoring - Review Report	-	-	-	57	57	57	57	57	57	57
Correction Action - Review Plans	-	-	-	57	57	57	57	57	57	57
Compliance Monitoring - Notification Documentation	-	-	-	57	57	57	57	57	57	57
Compliance Monitoring Report Review (Disinfection Failure)	-	-	-	57	57	57	57	57	57	57
Annual Administration	-	-	-	57	57	57	57	57	57	57

Sum for PWSs and States

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
PWSs	47,525	47,525	47,525	7,378	7,860	8,341	8,823	9,305	9,787	10,269
States and Territories	57	57	57	57	57	57	57	57	57	57
Yearly Total	**47,582**	**47,582**	**47,582**	**7,435**	**7,917**	**8,398**	**8,880**	**9,362**	**9,844**	**10,326**

Exhibit G.13
Responses for Full Implementation of the Rule Year by Year by Activity

PWSs

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Microbial & Compliance Monitor Start-Up	47,525	47,525	47,525	-	-	-	-	-	-	-
Sanitary Survey Start-Up	47,525	47,525	47,525	-	-	-	-	-	-	-
Annual Activities										
Sanitary Survey	-	-	-	30,338	30,338	30,338	30,338	30,338	30,338	30,338
Triggered Monitoring (samples)	-	-	-	90,747	90,747	90,747	90,747	90,747	90,747	90,747
Triggered Monitoring Reporting	-	-	-	734	734	734	734	734	734	734
Corrective Action Plans - from significant deficiences and TM	-	-	-	1,702	1,702	1,702	1,702	1,702	1,702	1,702
Compliance Monitoring - Initial Notification	-	-	-	45,076	-	-	-	-	-	-
Compliance Monitoring (samples)	-	-	-	175,873	351,746	527,619	703,492	879,365	1,055,238	1,231,112
Compliance Monitoring Reporting (Disinfection Failure)	-	-	-	2,278	2,302	2,326	2,350	2,374	2,398	2,422
Yearly Total	**95,050**	**95,050**	**95,050**	**346,748**	**477,569**	**653,466**	**829,363**	**1,005,260**	**1,181,157**	**1,357,054**

States

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Start-Up	57	57	57	-	-	-	-	-	-	-
Annual Activities										
Sanitary Survey	-	-	-	30,338	30,338	30,338	30,338	30,338	30,338	30,338
Triggered Monitoring - Review Report	-	-	-	734	734	734	734	734	734	734
Corrective Action - Review Plans	-	-	-	1,702	1,702	1,702	1,702	1,702	1,702	1,702
Compliance Monitoring - Notification Documentation	-	-	-	45,076	-	-	-	-	-	-
Compliance Monitoring Report Review (Disinfection Failure)	-	-	-	2,278	2,302	2,326	2,350	2,374	2,398	2,422
Annual Administration	-	-	-	57	57	57	57	57	57	57
Yearly Total	**57**	**57**	**57**	**80,185**	**35,133**	**35,157**	**35,181**	**35,205**	**35,229**	**35,253**

Sum for PWSs and States

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
PWSs	95,050	95,050	95,050	346,748	477,569	653,466	829,363	1,005,260	1,181,157	1,357,054
States and Territories	57	57	57	80,185	35,133	35,157	35,181	35,205	35,229	35,253
Yearly Total	**95,107**	**95,107**	**95,107**	**426,933**	**512,701**	**688,622**	**864,544**	**1,040,465**	**1,216,386**	**1,392,308**

Exhibit G.14
Burden for Full Implementation of the Rule Year by Year by Activity

PWSs

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Microbial & Compliance Monitor Start-Up	1,261,169	1,261,169	1,261,169	-	-	-	-	-	-	-
Sanitary Survey Start-Up	142,575	142,575	142,575	-	-	-	-	-	-	-
Annual Activities										
Sanitary Survey	-	-	-	27,653	27,653	27,653	27,653	27,653	27,653	27,653
Triggered Monitoring	-	-	-	60,630	60,630	60,630	60,630	60,630	60,630	60,630
Triggered Monitoring Reporting	-	-	-	1,834	1,834	1,834	1,834	1,834	1,834	1,834
Corrective Action Plans	-	-	-	25,582	25,582	25,582	25,582	25,582	25,582	25,582
Compliance Monitoring - Initial Notification	-	-	-	22,538	-	-	-	-	-	-
Compliance Monitoring	-	-	-	87,937	175,873	263,810	351,746	439,683	527,619	615,556
Compliance Monitoring Report (Disinfection Failure)	-	-	-	5,695	5,755	5,815	5,875	5,936	5,996	6,056
Yearly Total	**1,403,745**	**1,403,745**	**1,403,745**	**231,869**	**297,328**	**385,324**	**473,321**	**561,318**	**649,315**	**737,311**

States

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Start-Up	125,020	125,020	125,020	-	-	-	-	-	-	-
Annual Activities										
Sanitary Survey	-	-	-	95,996	95,996	95,996	95,996	95,996	95,996	95,996
Triggered Monitoring - Review Report	-	-	-	2,568	2,568	2,568	2,568	2,568	2,568	2,568
Correction Action - Review Plans	-	-	-	24,908	24,908	24,908	24,908	24,908	24,908	24,908
Compliance Monitoring - Notification Documentation	-	-	-	22,538	-	-	-	-	-	-
Compliance Monitoring Report Review (Disinfection Failure)	-	-	-	7,973	8,057	8,141	8,226	8,310	8,394	8,479
Annual Administration	-	-	-	293,208	293,208	293,208	293,208	293,208	293,208	293,208
Yearly Total	**125,020**	**125,020**	**125,020**	**447,190**	**424,737**	**424,821**	**424,905**	**424,990**	**425,074**	**425,158**

Sum for PWSs and States

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
PWSs	1,403,745	1,403,745	1,403,745	231,869	297,328	385,324	473,321	561,318	649,315	737,311
States and Territories	125,020	125,020	125,020	447,190	424,737	424,821	424,905	424,990	425,074	425,158
Yearly Total	**1,528,765**	**1,528,765**	**1,528,765**	**679,059**	**722,064**	**810,145**	**898,226**	**986,307**	**1,074,389**	**1,162,470**

Exhibit G.15
Costs for Full Implementation of the Rule Year by Year by Activity

PWSs

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Microbial & Compliance Monitor Start-Up	$39,099,430	$39,099,430	$39,099,430	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sanitary Survey Start-Up	$4,408,354	$4,408,354	$4,408,354	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Annual Activities										
Sanitary Survey	$ -	$ -	$ -	$ 849,417	$ 849,417	$ 849,417	$ 849,417	$ 849,417	$ 849,417	$ 849,417
Triggered Monitoring	$ -	$ -	$ -	$ 468,643	$ 468,643	$ 468,643	$ 468,643	$ 468,643	$ 468,643	$ 468,643
Triggered Monitoring Reporting	$ -	$ -	$ -	$ 465	$ 465	$ 465	$ 465	$ 465	$ 465	$ 465
Triggered Monitoring O&M	$ -	$ -	$ -	$ 5,753,522.31	$ 5,753,522.31	$ 5,753,522.31	$ 5,753,522.31	$ 5,753,522.31	$ 5,753,522.31	$ 5,753,522.31
Corrective Action Plans	$ -	$ -	$ -	$ 805,109	$ 805,109	$ 805,109	$ 805,109	$ 805,109	$ 805,109	$ 805,109
Compliance Monitoring - Initial Notification	$ -	$ -	$ -	$ 692,312	$ -	$ -	$ -	$ -	$ -	$ -
Compliance Monitoring	$ -	$ -	$ -	$ 2,701,171	$ 5,402,341	$ 8,103,512	$ 10,804,683	$ 13,505,853	$ 16,207,024	$ 18,908,195
Compliance Monitoring Report (Disinfection Failure)	$ -	$ -	$ -	$ 174,928	$ 176,778	$ 178,628	$ 180,478	$ 182,329	$ 184,179	$ 186,029
Chlorimeter Installation *(Capital + O&M)*	$ -	$ -	$ -	$ 302,080.81	$ 517,937	$ 733,793	$ 949,650	$ 1,165,506	$ 1,381,362	$ 1,597,219
Capital Cost	$ -	$ -	$ -	$ 153,512	$ 220,799	$ 288,086	$ 355,373	$ 422,660	$ 489,947	$ 557,234
Annual O&M	$ -	$ -	$ -	$ 148,569	$ 297,138	$ 445,708	$ 594,277	$ 742,846	$ 891,415	$ 1,039,985
Yearly Total	**$ 43,507,785**	**$ 43,507,785**	**$ 43,507,785**	**$ 11,747,647**	**$ 13,974,212**	**$ 16,893,089**	**$ 19,811,966**	**$ 22,730,844**	**$ 25,649,721**	**$ 28,568,598**

States

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Start-Up Activities										
Start-Up	$5,350,745	$5,350,745	$5,350,745	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Annual Activities										
Sanitary Survey	$ -	$ -	$ -	$ 4,093,394	$ 4,093,394	$ 4,093,394	$ 4,093,394	$ 4,093,394	$ 4,093,394	$ 4,093,394
Triggered Monitoring - Review Report	$ -	$ -	$ -	$ 109,897	$ 109,897	$ 109,897	$ 109,897	$ 109,897	$ 109,897	$ 109,897
Correction Action - Review Plans	$ -	$ -	$ -	$ 1,062,111	$ 1,062,111	$ 1,062,111	$ 1,062,111	$ 1,062,111	$ 1,062,111	$ 1,062,111
Compliance Monitoring - Notification Documentation	$ -	$ -	$ -	$ 964,615	$ -	$ -	$ -	$ -	$ -	$ -
Compliance Monitoring Report Review (Disinfection Failure)	$ -	$ -	$ -	$ 341,224	$ 344,833	$ 348,442	$ 352,051	$ 355,660	$ 359,269	$ 362,878
Annual Administration	$ -	$ -	$ -	$ 12,549,042	$ 12,549,042	$ 12,549,042	$ 12,549,042	$ 12,549,042	$ 12,549,042	$ 12,549,042
Yearly Total	**$5,350,745**	**$5,350,745**	**$5,350,745**	**$19,120,284**	**$18,159,278**	**$18,162,887**	**$18,166,496**	**$18,170,104**	**$18,173,713**	**$18,177,322**

Sum for PWSs and States

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
PWSs	$ 43,507,785	$ 43,507,785	$ 43,507,785	$ 11,747,647	$ 13,974,212	$ 16,893,089	$ 19,811,966	$ 22,730,844	$ 25,649,721	$ 28,568,598
States and Territories	$ 5,350,745	$ 5,350,745	$ 5,350,745	$ 19,120,284	$ 18,159,278	$ 18,162,887	$ 18,166,496	$ 18,170,104	$ 18,173,713	$ 18,177,322
Yearly Total	**$ 48,858,529**	**$ 48,858,529**	**$ 48,858,529**	**$ 30,867,931**	**$ 32,133,490**	**$ 35,055,976**	**$ 37,978,462**	**$ 40,900,948**	**$ 43,823,434**	**$ 46,745,920**

Exhibit G.16

Average Annual Burden per Repsonse and per Respondent and Average Annual Responses per Respondent

	Responses	Burden Hours	Labor Costs	O&M Costs	Capital Costs	Total Annual Costs
PWSs	274,772	176,399	8,573,953	148,569	124,770	8,573,953
States and Territories	38,439	290,642	12,426,520	0	0	12,426,520
Total	313,211	467,041	21,000,474	148,569	124,770	21,000,474

Note: Annual average burden and costs represent burden and costs for years 4 and 5 divided over the 3 year evaluation period. Year 3, which corresponds to the first year of the renewal ICR evaluation period, is covered under the stand-alone GWR ICR.

Exhibit G.17a - Number of Systems and Entry Points Subject to GWR Requirements

System Size (Population Served)	Systems Performing Implementation Activities	Systems Disinfecting	Systems Disinfecting; 4 log	Systems Receiving a Sanitary Survey	Systems Subject to HSAs	Systems Performing Triggered Monitoring	Systems Performing Assessment Monitoring	Systems Performing Corrective Action	Systems Performing Compliance Monitoring	Entry Points Performing HSAs	Entry Points Performing Triggered Monitoring	Entry Points Performing Assessment Monitoring	Entry Points Performing Compliance Monitoring
	A	B	C	D=A	E=0	F=A-C	G	H	I	J	K	L	M
Community Water Systems (CWSs)													
≤100	12,134	6,407	2,877	12,134	0	9,256	-	2,969	3,373	-	12,090	-	4,385
101-500	14,120	10,999	5,353	14,120	0	8,767	-	3,402	5,681	-	14,573	-	9,090
501-1,000	4,511	3,789	1,762	4,511	0	2,749	-	1,061	1,830	-	5,412	-	3,660
1,001-3,300	5,915	4,714	2,218	5,915	0	3,697	-	1,299	2,256	-	8,918	-	5,414
3,301-10K	3,039	2,638	1,161	3,039	0	1,877	-	722	1,166	-	5,940	-	3,730
10,001-50K	1,530	1,476	727	1,530	0	803	-	383	728	-	4,615	-	4,074
50,001-100K	183	158	56	183	0	126	-	53	56	-	1,412	-	636
100,001-1 Million	116	112	50	116	0	66	-	32	50	-	843	-	614
> 1 Million	3	3	3	3	0	-	-	0	3	-	-	-	34
Totals	**41,549**	**30,296**	**14,206**	**41,549**	**-**	**27,343**	**-**	**9,921**	**15,143**	**-**	**53,804**	**-**	**31,639**
Nontransient Noncommunity Water Systems (NTNCWSs)													
≤100	8,873	2,573	798	8,873	0	8,075	-	2,154	1,442	-	8,078	-	1,442
101-500	6,666	1,933	599	6,666	0	6,067	-	1,658	1,125	-	6,065	-	1,125
501-1,000	1,741	505	157	1,741	0	1,584	-	433	294	-	1,585	-	294
1,001-3,300	765	222	69	765	0	696	-	221	160	-	696	-	160
3,301-10K	100	29	9	100	0	91	-	31	23	-	91	-	23
10,001-50K	15	4	1	15	0	14	-	5	4	-	14	-	4
50,001-100K	-	-	-	-	0	-	-	0	0	-	-	-	-
100,001-1 Million	-	-	-	-	0	-	-	0	0	-	-	-	-
> 1 Million	-	-	-	-	0	-	-	0	0	-	-	-	-
Totals	**18,160**	**5,266**	**1,633**	**18,160**	**-**	**16,527**	**-**	**4,502**	**3,048**	**-**	**16,528**	**-**	**3,048**
Transient Noncommunity Water Systems (TNCWSs)													
≤100	60,800	10,944	1,094	60,800	0	59,706	-	16,892	7,618	-	59,712	-	7,618
101-500	19,360	3,485	348	19,360	0	19,012	-	5,362	2,414	-	19,008	-	2,414
501-1,000	1,999	360	36	1,999	0	1,963	-	554	250	-	1,963	-	250
1,001-3,300	614	111	11	614	0	603	-	183	90	-	603	-	90
3,301-10K	80	14	1	80	0	79	-	26	14	-	79	-	14
10,001-50K	9	2	0	9	0	9	-	3	2	-	9	-	2
50,001-100K	3	1	0	3	0	3	-	1	1	-	3	-	1
100,001-1 Million	1	0	0	1	0	1	-	0	0	-	1	-	0
> 1 Million	-	-	-	-	0	-	-	0	0	-	-	-	-
Totals	**82,866**	**14,916**	**1,492**	**82,866**	**-**	**81,374**	**-**	**23,022**	**10,389**	**-**	**81,377**	**-**	**10,389**
Grand Total	**142,575**	**50,478**	**17,330**	**142,575**	**-**	**125,245**	**-**	**37,445**	**28,580**	**-**	**151,709**	**-**	**45,076**

Notes: Detail may not add to totals due to independent rounding.

Sources: (A) Ground water system inventories for CWSs, NTNCWSs, and TNCWSs: SDWIS/FED Data, October 2007 (USEPA, 2007).

(B) Systems peforming implementation activities multiplied by percent of systems disinfecting.

(C) Systems disinfecting to 4-log based on 4-log percentages for entry points -- system level data on 4-log disinfection is not available.

(D) Based on rule requirements, all systems are subject to sanitary surveys.

(E) Based on rule requirements, systems not required to perform HSAs

(F) Based on rule requirements, systems that do not achieve 4-log disinfection are subject to triggered source water monitoring.

(G) Based on rule requirements, assessment monitoring is not required.

(H) Based rule requirements, systems found to have significant deficiencies during a sanitary survey, or those that detect source water contamination, must undergo corrective action. Number of systems undergoing corrective action from model output.

(I) Systems treating to 4-log inactivation or removal of viruses must undergo compliance monitoring. Number of systems subject to compliance monitoring is converted from entry points subject to compliance monitoring (column M), using entry points/system.

(J) Number of entry points subject to HSAs from column O, Exhibit 4.3

(K) Number of entry points subject to triggered monitoring is equal to number of systems subject to HSAs (column J).

(L) Based on rule requirements, assessment monitoring is not required.

(M) (Exhibit G.17b, Columns E+F) + (Number of Ground Water Entry Points Disinfecting to 4-Log)

Exhibit G.17b - Summary of Rule Implications

System Size	Systems Receiving Sanitary Survey	Systems with Corrective Actions for Significant Deficiencies	Entry Points with Triggered Monitoring	Entry Points with Corrective Actions for Triggered Monitoring	Entry Points with Viral Disinfection Increased from less than 4 logs to 4 logs	Previously Non-disinfecting Entry Points Taking Corrective Action	Entry Points with Incremental Compliance Monitoring
	A	B	C	D	E	F	G
Community Water Systems (CWSs)							
<100	12,134	2,061	12,090	1,180	338	842	234
101-500	14,120	2,403	14,573	1,599	902	697	287
501-1,000	4,511	766	5,412	590	349	241	102
1,001-3,300	5,915	1,002	8,918	713	396	317	130
3,301-10K	3,039	518	5,940	650	372	278	116
10,001-50K	1,530	259	4,615	694	580	114	57
50,001-100K	183	31	1,412	247	102	145	50
100,001-1 Million	116	20	843	153	106	48	23
> 1 Million	3	-	-	-	-	-	-
Nontransient Noncommunity Water Systems (NTNCWSs)							
<100	8,873	1,509	8,078	645	141	504	140
101-500	6,666	1,132	6,065	526	117	409	168
501-1,000	1,741	296	1,585	137	30	107	46
1,001-3,300	765	130	696	92	20	71	29
3,301-10K	100	17	91	14	3	11	4
10,001-50K	15	3	14	2	1	2	1
50,001-100K	-	-	-	-	-	-	-
100,001-1 Million	-	-	-	-	-	-	-
> 1 Million	-	-	-	-	-	-	-
Transient Noncommunity Water Systems (TNCWSs)							
<100	60,800	10,368	59,712	6,524	1,078	5,445	1,512
101-500	19,360	3,297	19,008	2,066	344	1,722	710
501-1,000	1,999	339	1,963	214	36	179	76
1,001-3,300	614	104	603	79	13	66	27
3,301-10K	80	14	79	13	2	10	4
10,001-50K	9	2	9	2	0	1	1
50,001-100K	3	1	3	1	0	0	0
100,001-1 Million	1	0	1	0	0	0	0
> 1 Million	-	-	-	-	-	-	-

Sources:

(A) Ground water system inventories for CWSs, NTNCWSs, and TNCWSs: SDWIS/FED Data, October 2007 (USEPA, 2007).

(B) - (G): Baseline information from the Final GWR EA was updated by multiplying the percentage of systems or entry points performing each rule component by column A.

Notes:

(G) indicates number of entry points with treatment corrective actions.

(F) - (G) indicates non treatment corrective actions.

Exhibit G.18

Ground Water Rule - Summary of Original and Revised Burden Estimates

Estimated System Burden for Start-up Activities			
2004 Burden	**Task**	**System Size**	**Revised Burden**
Microbial Source Water Monitoring & Compliance Monitoring Start-Up (CWSs)			
1 hr	Read and Understand Rule		16 hrs
2 hrs	Planning and Mobilization	≤10,000	16 hrs
3 hrs	Planning and Mobilization	>10,000	32 hrs
Microbial Source Water Monitoring & Compliance Monitoring Start-Up (NCWSs)			
1 hr	Read and Understand Rule		8 hrs
1 hr	Planning and Mobilization		16 hrs