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Providing Safe Drinking Water in America: 1998 National Public Water Systems Compliance Report - Fact Sheet

What is the purpose of the report? This report is the third in a series (beginning with calendar year 1996) of annual reports from EPA that summarizes drinking water violations at the nation's public water systems (PWSs) in calendar year 1998.

What is the scope/content of the report? This report (9 pages) summarizes drinking water violations in 1998, and summarizes similar annual reports each State must prepare discussing drinking water violations at public water systems in their jurisdictions (62 pages). The report also discusses the following: violations at public water systems on Indian reservations; EPA's enforcement and compliance assistance activities with respect to Tribal PWSs; and the financial assistance EPA has provided to facilitate the provision of safe drinking water to Tribes (6 pages). There is also a 5 page glossary of terms.

Who are potential users of the report? The target audiences for the report are State and EPA drinking water regulators and environmental professionals. Others who may find value in this guide include anyone else who may be interested in a summary of public water system compliance.

Who developed the report? The report was developed by EPA's Chemical, Commercial Services and Municipal Division (CCSMD) within the Office of Compliance (OC) with assistance from the EPA's Office of Groundwater and Drinking Water, EPA's Office of General Counsel, EPA's American Indian Environmental Office, EPA Regions, and the Association of State Drinking Water Administrators.

Where is the report available?

Electronic: An electronic version of the guide is available in on EPA's World Wide Web site containing compliance data and other information about Local Government Services/Operations: <http://es.epa.oeca/main/compasst/solid.html>.

Paper Copy: Also, a limited number of hard copies are available from the following EPA organization in Cincinnati, OH: National Service Center for Environmental Publications (NSCEP) at <http://www.es.epa.gov/ncepihom/index.html>, or call 1 (800) 490-9198 and request Document # EPA 305-R-00-002.

1998 National Summary of Public Water Systems Compliance

INTRODUCTION

1998's National Public Water Systems Compliance Report describes how the Environmental Protection Agency (EPA) and its State partners are meeting the goal of ensuring that Americans receive safe drinking water from public water systems. Limitations in the data we use to measure our success and the steps we are taking to increase its reliability and completeness will also be discussed.

EPA prepares a National Public Water Systems Compliance Report for every calendar year. The report presents an annual summary of violations at the nation's public water systems. The report also summarizes and evaluates annual reports prepared by the States.¹

Public Water Systems

A Public Water System (PWS) is a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals at least 60 days out of the year. A public water system can be one of three types:

- **Community Systems (CWS)** serve at least 15 service connections or 25 people year-round in their primary residences.
- **Non-transient Non-community Systems (NTNCWS)** serve at least 25 of the same persons over six months per year (e.g., schools or factories that have their own water source).
- **Transient Non-community Systems (TNCWS)** serve at least 25 persons (but not the same 25) over six months per year (e.g., campgrounds or highway rest stops that have their own water source).

The first part of this report draws from SDWIS/FED, EPA's national database, to provide a national picture of the maximum contaminant level, treatment technique, significant monitoring and reporting, and variance/exemption violations the States reported to EPA for 1998. EPA calculated rates of compliance after aggregating all reported violations at public water systems in States, Commonwealths, Territories and on Indian reservations.

The second part of this report presents information on public water systems on Indian reservations.

A glossary of terms used in this report appears in Appendix A.

Summaries and evaluations of the States' annual public water systems reports for 1998 are presented in Appendix B.

PWS COMPLIANCE

This report uses information from the Safe Drinking Water Information System/Federal System, SDWIS/FED. SDWIS/FED is the national database where EPA records information the States are required to report about their public water systems. For the national public water system compliance reports, EPA examines SDWIS/FED records of violations of regulations that specify: 1) safe levels (Maximum Contaminant Levels or MCLs) for contaminants in drinking water, 2) techniques for treating water to make it safe, and 3) monitoring and reporting requirements (how and when water must be tested and the results reported).

A recent EPA study showed that the data in SDWIS/FED (particularly those related to the number of public water systems, their size, and their type) are generally accurate. However, the study also revealed that many States did not report some apparent violations — either to their

¹ The term "State" includes 56 States, Commonwealths, and Territories. All but Wyoming and the District of Columbia have federal approval to implement the drinking water program within their jurisdictions. Federal approval to implement the drinking water program is called primary enforcement authority, or "primacy." In Wyoming, the District of Columbia, and on Indian reservations, EPA implements the drinking water program and is responsible for reporting violations to SDWIS/FED.

How Does The Public Find Out If Its Drinking Water Is Safe?

Information Sent to Customers:

Consumer Confidence Report — Every community water system is required to send its customers (each service connection) a yearly report identifying the contaminants detected in its water and the risks of exposure to those contaminants.

Public Notification Rule — Public water systems must notify their customers if there has been a violation of drinking water standards.

Information on the Internet:

Safewater Web Site (<http://www.epa.gov/safewater>) — provides information on the Safe Drinking Water Act, individual water systems, contaminants that may be in drinking water, and things individuals can do to help protect sources of their drinking water.

Additional Information:

Call the community water system — Billing statements should provide a number to call with questions.

State Public Water Systems Compliance Report — Each State's annual report discusses the violations at its public water systems. Most include a list of violating facilities.

National Public Water Systems Compliance Report (this report) — summarizes all reported violations at America's public water systems.

Safe Drinking Water Hotline (1-800-426-4791) — answers questions about drinking water, lets callers order documents from EPA, and can refer callers to EPA experts if they need more information.

Envirofacts Web Site (<http://www.epa.gov/enviro>) — allows the public to access EPA databases containing information on environmental activities that may affect air, water, and land anywhere in the United States.

own data systems or to EPA's SDWIS/FED. Until EPA has completed further analysis, the Agency cannot determine how many of these were actual violations that should have been reported and how many were appropriately left out of the database. Therefore, in recognition of ongoing data reliability efforts, this 1998 report offers broad national findings rather than detailed analysis.

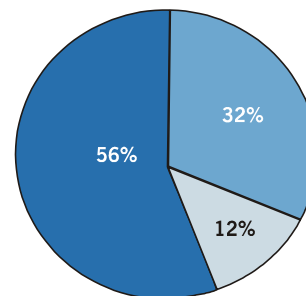
Discussions of data quality concerns and EPA's recommendations appear later in this report.

FINDINGS

In 1998, 168,690 public water systems together served 275 million users. The actual number of individuals served was smaller, because millions of Americans drank water from, and were counted as users of, more than one public water system during the course of the year.

- 54,150 community water systems served more than 252 million people in their primary residences.
- 20,229 non-transient non-community systems (schools, factories) served more than 6 million people in places they frequented.

Percentage of Systems by Type



■ CWS ■ NTNCWS ■ TNCWS

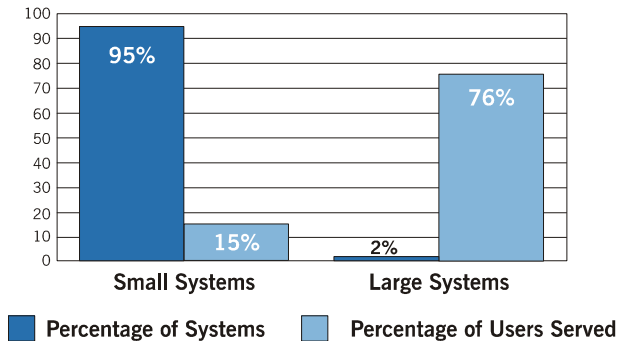
- 94,311 transient non-community systems (campgrounds, highway rest stops) served a constantly changing audience of almost 17 million people.

Most public water systems were small, but large systems served a majority of the people who drank water from a public water system.

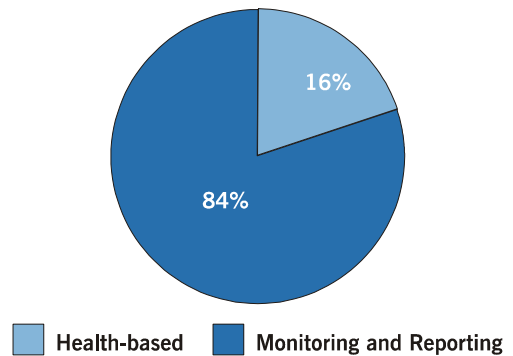
- 160,400 (95%) of America's public water systems (including nearly all of the transient non-community systems) each served 3,300 or fewer people.

- 3,700 (2%) of America's public water systems each served more than 10,000 people.

Size vs. Users Served



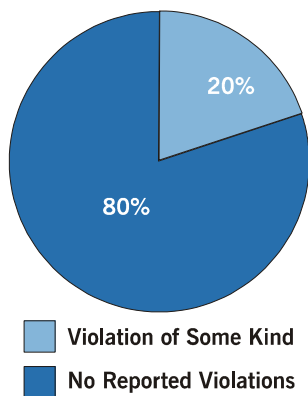
Type of Violation



- If a system did not monitor the quality of its water, it is impossible to know if it violated a health-based requirement.

SDWIS/FED recorded no violations for most of America's public water systems.

PWS with Violations

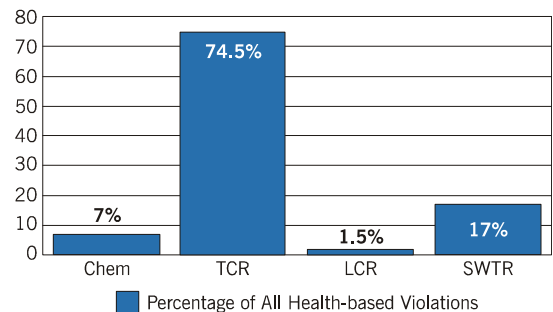


94% of America's public water systems reported no violations of a health-based drinking water standard in 1998.

- SDWIS/FED recorded 16,270 health-based violations in 1998. The MCL for the Total Coliform Rule (TCR), which must be met by all types and sizes of public water systems, was the health-based standard most frequently violated.²

The vast majority of the 102,437 violations the States reported to SDWIS/FED in 1998 were for a public water system's significant failure to monitor and report, rather than health-based MCL or treatment technique violations detected and reported by a system.

Percentage of Health-based Violations by Rule



² For the annual compliance reports, EPA tracks violations of the contaminant rules in four categories: 1) Chem — violations of rules for organic, inorganic (except for lead and copper), and radioactive contaminants — compliance with many organic and inorganic standards is determined on the basis of shared samples, with one missed sample resulting in a monitoring and reporting violation of many standards; 2) total coliform (TCR); 3) lead and copper (LCR); and 4) surface water treatment (SWTR). Coliform bacteria are usually not a threat to humans, but their presence in drinking water can indicate a lapse in treatment and the possible presence of other, more dangerous, microbes.

No violations of variances or exemptions were reported to SDWIS/FED during 1998.

- Under Federal law, States can grant variances or exemptions to public water systems in limited circumstances allowing them to install alternative technology or giving them more time to meet a standard if public health is adequately protected in the interim. In 1998, few public water systems were operating under a variance or exemption, and only 8 new variances or exemptions were granted.

EPA and its State partners continue to take enforcement actions against violators.³

- In 1998, the States issued a total of 1,468 formal enforcement actions, including 1,007 administrative orders without penalty, 399 administrative orders with penalty, and 62 civil referrals.
- During the same period, EPA issued 242 Federal administrative orders, 7 referrals for civil judicial action, and 8 consent orders with penalties.

DATA QUALITY

The data used in this report came from EPA's national SDWIS/FED database. SDWIS/FED is composed of data that States are required to submit to SDWIS/FED each quarter. EPA uses information in SDWIS/FED to assess progress in the implementation of regulations, to develop national enforcement and compliance priorities, and to provide information to the public.

EPA periodically conducts data verifications (independent, on-site audits) of State drinking water programs to ensure that the State is determining compliance in accordance with Federal regulations. Data verifications help detect differences between data in a State's files (whether electronic or hard copy), and data in SDWIS/FED.

As part of the ongoing data reliability efforts described in the 1997 National Public Water

Systems Compliance Report, EPA recently examined the results of data verifications conducted from 1996 through 1998. Those audits, which covered 27 States (including one where EPA itself administers the drinking water program) and one territory, analyzed data from almost 1,800 public water systems. The data audits reviewed inventory information (identifying systems, their number, their size, and their type), apparent violations that either were reported or should have been reported, and any enforcement actions initiated.

EPA's review showed that the information the States reported to SDWIS/FED is generally very accurate. The review also showed, however, that many States did not report all of the apparent violations at their systems. EPA's analysis of the data verifications found:

- 96% of all inventory data in SDWIS/FED was accurate and complete.
- Information in EPA's database regarding the reported MCL violations was 97% accurate.
- 55% of the apparent MCL violations had been reported to SDWIS/FED.
- Only 10% of apparent monitoring and reporting violations had been reported to SDWIS/FED.
- SDWIS/FED contained accurate and complete information on 72% of the enforcement actions found in the States' records.

EPA is investigating the cause of these omissions. Some appear to have been caused by errors in data entry or data transmission, but most seem to have resulted from a State's differing interpretation of what the regulation required. EPA found no information suggesting that these apparent discrepancies resulted in negative health effects. Further review is necessary to determine how many of the unreported violations were in fact violations — and if they were violations, whether the implementing authority and the public water system took appropriate action to address the violation, but then failed to document their activities.

³ There can be a difference between the number of violations and the number of follow-up formal enforcement actions to those violations. A violation discovered at the end of one year may not be formally addressed until the next year. States may choose to address some violations informally and return systems to compliance before EPA guidelines would require initiation of a formal enforcement response. Also, it is not uncommon for one system to have multiple violations — all of which would be addressed with a single enforcement action.

EPA and its State partners are committed to resolving any problems that may have produced data discrepancies and to ensuring that complete and accurate documentation is available to help assess the safety of our nation's drinking water.

EVALUATION AND SUMMARY OF STATE REPORTS

Appendix B of this report shows that in 1998 EPA received State Public Water System Compliance Reports from 51 of the 54 primacy States, Commonwealths, and Territories. As in past years, American Samoa, Guam, and Northern Mariana did not submit reports, and, with limited exceptions, did not supply information to SDWIS/FED. Appendix B supplies what information is available in SDWIS/FED to indicate violations at public water systems in those territories.

Because the District of Columbia, Wyoming, and Indian Tribes do not have primary enforcement responsibility for drinking water, EPA prepared reports for those jurisdictions.

An evaluation of these annual reports is found in three subsections:

- enforcement and compliance assistance programs;
- information on and evaluation of the State reports; and
- State-by-State summaries.

ENFORCEMENT AND COMPLIANCE ASSISTANCE PROGRAMS

States (and EPA, where it is the primary enforcement authority) engage in a variety of activities to help PWSs remain in and return to compliance, including formal enforcement actions, informal actions, and compliance and technical assistance. State and EPA compliance assistance efforts may include:

- conducting on-site visits and sanitary surveys at PWSs (i.e., an on-site review of the water sources, facilities, equipment, operations, and maintenance to evaluate their adequacy in producing and distributing safe drinking water);

- helping systems invest in preventive measures;
- providing financial assistance for system improvements through the Drinking Water State Revolving Fund and other State funding programs;
- reviewing water system plans and specifications;
- conducting training sessions;
- holding public information meetings;
- lending specialized monitoring equipment; and
- publishing informational bulletins and newsletters on training events, and other educational opportunities.

When a drinking water violation is detected, EPA guidelines require a response from the primacy agency. Acceptable responses include a variety of formal and informal actions as the State or EPA attempts to return a violating public water system to compliance as quickly as possible.

Generally, the primacy agency's first responses to violations are informal actions, such as:

- reminder letters;
- warning letters;
- notices of violation;
- field visits; and
- telephone calls.

If the violation continues or recurs, the primacy agency must initiate a formal enforcement response that requires the violating public water system to return to compliance. Formal enforcement responses include:

- citations;
- administrative orders with or without penalties;
- civil referrals to State Attorneys General or to the Department of Justice;
- other sanctions such as denying permission for system expansion; and
- filing criminal charges.

If a situation poses an imminent risk to public health, EPA and the State will issue an emergency order that requires the public water system to take the steps necessary to protect public health and return the system to compliance.

INFORMATION ON AND EVALUATION OF STATE REPORTS

EPA reviewed each 1998 annual State report to determine if it met the requirements of the 1996 Amendments to SDWA. The contents of the State reports are summarized in Table B-1 in Appendix B. Table B-1 shows whether a State:

- submitted a report to EPA;
- included all required elements;
- satisfied its statutory requirement to publish and distribute summaries of the report that inform the public of the availability of the full report;
- included additional information of interest to the public (such as the number of public water systems in the State, their sizes and types, the size and type of violating systems, and the compliance assistance and enforcement activities the State undertook in response to violations); and
- included a list of PWSs with MCL or treatment technique violations, as EPA recommended in its guidance to States on preparing their reports.

STATE-BY-STATE SUMMARIES

EPA provides a State-by-State summary of information reported in each State report in Appendix B. The standardized format includes an overall summary of the violations data States are required to report in Section 1414 of the 1996 SDWA Amendments (i.e., violations with respect to MCLs, treatment technique violations, significant monitoring and reporting violations, and variances and exemptions). The summary for each State also tells how to obtain a copy of the State's full report.

In some instances, the data reported by a State in July of 1999 may not agree with data currently in SDWIS/FED. EPA's and the States' ongoing

SDWIS/FED data reliability efforts may have resulted in updates and corrections to the data in SDWIS/FED since the State published its report.

CONCLUSIONS AND ACTIVITIES TO ADDRESS RECOMMENDATIONS

Most Americans, by far, received water from systems which reported no violations of health-based standards, and for which the States reported no significant violations of monitoring and reporting requirements.

The data for 1998 indicate that the Total Coliform Rule is the rule most frequently violated. This rule, which applies to all sizes and types of public water systems, was also the most violated rule in 1996 and 1997. In determining how best to direct resources to improve the compliance of public water systems, it is apparent that EPA and the States should focus efforts on reducing violations of the Total Coliform Rule. Beyond that, data completeness issues prevent EPA drawing firm conclusions about the numbers and types of violations.

It is also too soon to evaluate implementation of recommendations made two years ago in the first national public water systems compliance report. These recommendations were incorporated into EPA's enforcement and compliance assurance program planning, for upcoming Fiscal Years 2000 and 2001.

Accordingly, our recommendations are as follows:

States and EPA should continue working together to address significant violations of monitoring and reporting requirements.

States and EPA should continue working together to address violations of MCL and treatment technique requirements.

EPA designated compliance with the SDWA microbial rules (the Total Coliform Rule, and the Surface Water Treatment Rule) as a national priority for its enforcement and compliance assurance program in Fiscal Years 2000 and 2001.

In 2000 and 2001, EPA Regions will be working with States to evaluate how well public water systems, especially large systems, comply with the microbial rules and whether enforcement actions are being initiated when appropriate.

Regions and States will also identify and evaluate microbial risks to watersheds in an attempt to focus enforcement and compliance efforts on ensuring the safety of drinking water sources. Considerable effort will also be devoted to training and compliance assistance. EPA will work to build the capacity of small public water systems and Indian Tribes to maintain compliance both with established rules and with new microbial rules (the Interim Enhanced Surface Water Treatment Rule and the Ground Water Rule).

With respect to the rest of the drinking water program, States and EPA are continuing their efforts to implement the recommendations of the 1996 and 1997 national public water system reports:

- EPA provides funding to support nine technology assistance centers that help small systems with training, technical assistance, and technology demonstrations.
- States and EPA help promote compliance with existing drinking water requirements by conducting numerous assistance activities, such as on-site visits and the development and distribution of easy to read guides and checklists.
- EPA funding established and maintains the new Local Government Environmental Assistance Network (LGEAN), a source of free information on current and developing SDWA requirements (as well as technical assistance, peer counseling, and financial guidance). LGEAN can be accessed on the Internet at www.lgean.org or by calling, toll-free 1-877-TO-LGEAN (865-4326).
- States worked with EPA to ensure community water systems sent consumers the first Annual Consumer Confidence Reports in 1999, allowing the public to monitor the performance of local water systems.
- Revisions to the Public Notification Rule mean that public water systems will soon send their customers more timely notification of drinking water violations.
- EPA is developing a list of approved compliance technologies that will allow small

systems more flexibility in treating drinking water while still providing adequate public health protection.

- The States and EPA are pursuing enforcement actions against violating public water systems both to discourage violations and to level the playing field for systems that devote resources to maintaining compliance.

EPA and drinking water stakeholders should work cooperatively to improve the quality of compliance data.

Since September 1998, the findings and recommendations of the national public water systems reports have been incorporated into EPA's ongoing efforts to ensure the reliability of data in SDWIS/FED. In its first national report, EPA noted that compliance data in many individual state reports differed from the data reported to SDWIS/FED. During Fall 1998, EPA and its stakeholders — through a series of meetings — agreed that our data quality goal should be “100% complete, accurate, and timely data submitted by public water systems and primacy agencies, consistent with SDWA reporting requirements.” Further analysis and discussions among the stakeholders led to establishment of interim milestones for how soon that goal will be achieved. We expect that these milestones will be formally announced in 2000.

EPA and the drinking water stakeholders made significant progress on most of the data recommendations of the earlier national reports — in some instances achieving full implementation. Among the major accomplishments, EPA has:

- improved the display of drinking water data in Envirofacts;
- characterized and quantified the data quality problem;
- taken interim steps to improve data quality; and
- made a long-term commitment to achieve and maintain data quality goals.

More remains to be done to achieve the goal of 100% accurate, complete, and timely

information. Some of the next steps EPA and the drinking water stakeholders have agreed to undertake include:

- streamlining data reporting and reducing rule complexity;
- conducting more training to ensure regulatory staff can accurately determine compliance with drinking water rules and data entry staff can upload complete and accurate data to SDWIS/FED;
- making SDWIS/FED error reports more user friendly and understandable to State drinking water managers;
- performing more frequent data verification audits;
- encouraging States to issue annual reminders to water systems of their compliance monitoring schedules; and
- Providing States with individual, prioritized recommendations for improving their data quality.

1998 National Summary of Compliance for Public Water Systems on Indian Reservations

INTRODUCTION

This section of the 1998 National Public Water Systems Compliance Report describes how the Environmental Protection Agency (EPA) and federally-recognized Indian tribes (tribes) are meeting the goal of ensuring that public water systems on Indian reservations provide safe drinking water.

PUBLIC WATER SYSTEMS ON INDIAN RESERVATIONS

Tribes may apply for eligibility to receive primary enforcement responsibility (known as primacy) to administer the drinking water program provided they meet the requirements of Sections 1413 and 1451 of the Safe Drinking Water Act (SDWA). As of 1998, no tribe has received primacy. EPA, therefore, continues to administer the drinking water program in Indian country, including on Indian reservations.

A glossary of terms used in this report appears in Appendix A. A map of the areas covered by this report appears in Appendix C.

PUBLIC WATER SYSTEMS IN ALASKA AND OKLAHOMA

Compliance figures for Alaska Native Villages and tribes in Oklahoma are not included in this section of the report; they can be found in the Alaska and Oklahoma state reports. In addition, it is possible that some other tribal systems are not included in this section; they can also be found in other state reports. The state reports do not, however, contain separate information on tribal public water systems. As a result, comprehensive information on these systems is not covered in either the tribal or state section of the report.

EPA plans to review whether information on public water systems serving Alaska Native Villages and tribes in Oklahoma, as well as any other tribal systems not currently addressed in

this section of the report, should continue to be included in state reports. EPA will address this issue in the next report.

DATA QUALITY

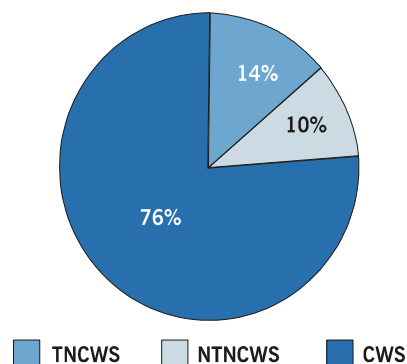
This report uses information from the Safe Drinking Water Information System/Federal System (SDWIS/FED). SDWIS/FED is the national database where EPA records information on public water systems on Indian reservations. Public water systems on Indian reservations are required to report laboratory data to EPA. EPA uses the information to determine compliance with the national primary drinking water regulations of SDWA.

This report also discusses the limitations in the data we use to measure our success and the steps we are taking to increase data reliability and completeness, as well as the Agency's compliance assistance, enforcement, and financial assistance programs. EPA plans to continue its data quality efforts during 2000 to ensure that SDWIS/FED contains complete and accurate information.

FINDINGS

In 1998, 983 public water systems on Indian reservations served approximately 500,000 people during the course of their day or year.

Percentage of Systems by Type



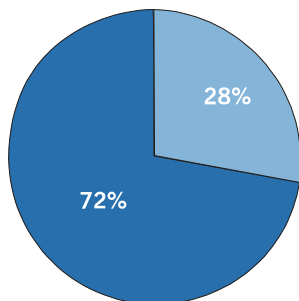
- 750 community water systems served more than 409,000 people in their primary residences.
- 141 transient non-community systems (schools and factories) served more than 72,000 people who passed through.
- 92 non-transient non-community systems (campgrounds and highway rest stops) served a constantly changing audience of more than 22,500 people.

Almost all public water systems on Indian reservations were small. These small systems provide drinking water to the majority of the public who drank water on Indian reservations.

- 98% of public water systems on Indian reservations serve 3,300 or fewer people. These 961 small systems served 68% of the people who received water from public water systems on Indian reservations.

SDWIS/FED records no violations for most public water systems on Indian reservations.

Systems with Violations



■ Violations of Some Kind
■ No Reported Violations

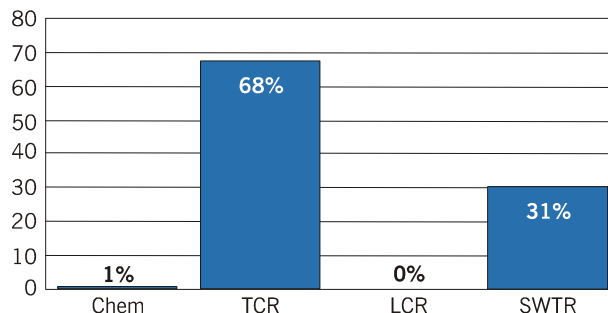
- 703 of 983 public water systems had no reported health-based or significant reporting violations.

94% of public water systems on Indian reservations reported no violations of a health-based drinking water standard in 1998.

- 115 health-based violations on Indian reservations were reported to SDWIS/FED in 1998. The Maximum Contaminant Level (MCL) for the Total Coliform Rule and the treatment technique requirement for the

Surface Water Treatment Rule were the health-based standards most frequently violated.

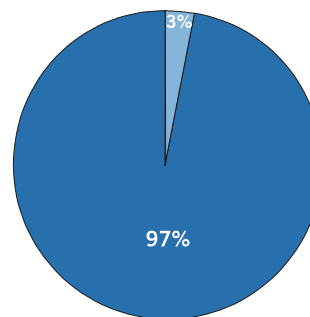
Percentage of Health-based Violations by Rule



■ Percentage of All Health-based Violations

The vast majority of violations reported to SDWIS/FED in 1998 were for a public water system's significant failure to monitor and report, rather than for a health-based MCL or a treatment technique violation detected and reported.

Type of Violation



■ Health-based
■ Monitoring and Reporting

- Of the 4,012 violations reported to SDWIS/FED in 1998, 3,897 (97%) were significant violations of monitoring and reporting requirements. If a system did not monitor the quality of its water, it is impossible to know if it has violated health-based requirements.
- Public water systems on Indian reservations represent 0.6% of all public water systems in the United States but were responsible for 4% of all monitoring and reporting violations at public water systems in the United States reported to SDWIS/FED in 1998.

COMPLIANCE ASSISTANCE AND ENFORCEMENT

EPA uses multiple approaches to ensure public water systems on Indian reservations comply with SDWA regulations.

EPA's tribal compliance assistance program is designed to help maintain compliance with SDWA by building cooperative working relationships with utility managers, operators, other tribal environmental staff, and tribal elected officials. The program emphasizes information exchanges, operation assistance, and water quality monitoring.

EPA gives information and assistance directly to tribal public water system operators, utility managers, and owners through training sessions, newsletters, telephone support, and system visits. On-site technical assistance is provided by engineers and qualified staff who work with tribes to assess current compliance status, develop monitoring schedules and compliance plans, and conduct sanitary surveys. EPA coordinates many of these activities with other federal agencies, including the Indian Health Service and the Bureau of Reclamation. Coordination also occurs with non-governmental organizations and inter-tribal consortia, including the Native American Water Association, the Rural Water Association, and the Rural Community Assistance Corporation.

EPA is also responsible for initiating enforcement actions against owners or operators of public water systems on Indian reservations if a system is not in compliance with SDWA. In most cases, EPA relies on compliance assistance and informal enforcement actions to facilitate a tribally owned or managed public water system's return to compliance. When an enforcement action is appropriate, EPA can initiate administrative orders and refer civil and criminal cases to the Department of Justice which results in either settlement agreements or litigation. The "EPA Policy for the Administration of Environmental Programs on Indian Reservations" (EPA Indian Policy) guides the Agency's approach to bringing civil administrative or judicial enforcement actions against systems owned or managed by tribal governments.

Table 1 shows the number of compliance assistance and enforcement activities directed

toward public water systems on Indian reservations. The information is drawn both from SDWIS/FED and separate records maintained by some EPA Regions. EPA Regions are only required to report to SDWIS/FED on violations and formal enforcement actions related to the resolution of violations of SDWA; these data are, however, currently incomplete. Some EPA Regions maintain separate records that contain information on both formal and informal enforcement actions and compliance assistance activities. These records indicate that the largest numbers of enforcement actions are federal voluntary reminder notices. Public water systems are required to monitor for 89 different contaminants and conduct analyses using a variety of EPA-approved analytical methods. Where a system fails to perform some or all of the required monitoring, a separate monitoring and reporting violation is recorded for each missed contaminant.

FINANCIAL ASSISTANCE

EPA provides financial assistance to public water systems on Indian reservations to help build tribal capacity to operate and maintain systems in compliance with SDWA. Capacity building is a long-term solution which focuses on giving tribes grants, training, and technical assistance as they develop their environmental programs. EPA's own General Assistance Program builds tribal capacity by providing grants to develop core environmental activities, including drinking water programs.

EPA also distributes funds for specific drinking water program priorities. About \$2.7 million (3% of the set-aside of public water systems appropriations) was allotted for implementing the Tribal Public Water System Supervision Program in fiscal year 1998. Through this program, EPA awarded a number of grants to tribes and tribal organizations to address various aspects of the drinking water program.

In addition to the 3% set-aside, EPA received \$3.8 million in fiscal years 1998 and 1999 for drinking water needs on Indian lands. EPA is focusing on activities such as:

- Tribal Public Water System Supervision Program primacy workshops to provide general outreach material to all tribes eligible

**TABLE 1: NUMBER OF PUBLIC WATER SYSTEMS
ON TRIBAL LANDS WITH VIOLATIONS BY RULE**

PUBLIC WATER SYSTEMS AND VIOLATIONS	
Total Number of Public Water Systems	983
Total Number of Public Water Systems with Violations	280
Total Number of Violations	4,012

COMPLIANCE AND ENFORCEMENT ACTIVITY	SDWIS/FED	SUPPLEMENTAL REGIONAL DATA
Federal Administrative Order issued	9	25
Federal Compliance Achieved	89	3
Federal 1431 (Emergency) Order	0	1
Federal Voluntary Reminder Notice	71	2,060
Federal Compliance Meeting Conducted	7	426
Federal Technical Assistance Visit	4	465
Federal Site Visit (including sanitary surveys)	4	167
Federal Public Notification Requested	21	2
Federal Public Notification Issued	0	26
Federal Public Notification Received	26	7
Federal Boil Water Order	0	13

to pursue primary enforcement responsibility;

- capacity development projects;
- source water and wellhead protection projects;
- development of a voluntary operator certification program for tribes; and
- provision of operator training and certification to tribal operators.

In the 1996 Amendments to SDWA, an infrastructure funding program was established to improve water supplies. Each year, 1.5% of the appropriation for the national Drinking Water State Revolving Fund program is set aside for American Indian communities and Alaska Native

Villages. The initial set-aside from the 1997 appropriation amounted to \$19.25 million, an additional \$10.87 million was set-aside from the 1998 appropriation, and \$11.625 million was set-aside from the 1999 appropriation. In 1998, EPA provided approximately \$7 million to the State of Alaska that targeted drinking water infrastructure improvement for rural and Native villages. A small portion of these funds were used to support technical assistance and training. Furthermore, EPA funds tribal multi-media compliance and enforcement programs, including drinking water system activities.

Finally, technical assistance and training for small tribally owned or operated public water systems is also provided. For example, EPA currently has two cooperative agreements with the National Rural Water Association to provide

support to small public water systems, including those owned or operated by tribes.

CONCLUSIONS AND RECOMMENDATIONS

In 1998, EPA Regions reported that 72% of the public water systems on Indian reservations did not report a violation of a health-based standard or a significant reporting violation. This represents an overall increase from 1997 when only 46% of facilities did not report a violation of a health-based standard or a significant reporting violation.

However, EPA is concerned with the number of reported violations of monitoring and reporting requirements. During 1998, there was a dramatic increase in the total number of significant violations of monitoring and reporting requirements on Indian reservations. EPA believes there are two major reasons for this dramatic increase. First, EPA expanded its efforts to revise existing information in SDWIS/FED and collect compliance data. Second, 1998 was the end of a three-year monitoring period for chemical contaminant monitoring by systems, including a number of new chemical contaminant monitoring requirements for small systems.¹ This report is, therefore, composed of data on chemical monitoring violations that occurred in 1998 and other chemical monitoring violations for the three-year monitoring period of 1996 through 1998.

EPA continues to implement two primary recommendations from the 1996 and 1997 reports: (1) improve collection and maintenance of compliance data for public water systems on Indian reservations; and (2) place a priority on decreasing the number of monitoring and reporting violations to gain a full understanding of whether health-based violations exist. EPA will accomplish these recommendations — and also respond to concerns about the increases in the number of monitoring and reporting violations — by:

- continuing to work cooperatively with tribal governments and their utility managers and

water system operators to improve compliance with monitoring and reporting requirements and for health-based standards, particularly the Total Coliform Rule and Surface Treatment Water Rule;

- increasing EPA's field presence, conducting more frequent sanitary surveys, and engaging in targeted technical and compliance assistance and enforcement;
- improving the inventory of public water systems on Indian reservations;
- improving the collection and entry into SDWIS/FED of compliance and enforcement information in a timely manner to avoid keeping multiple records;
- continuing to support and encourage capital improvements for public water systems to improve the infrastructure (and therefore compliance with SDWA requirements) of public water systems on Indian reservations, including grants provided under the Drinking Water Tribal Infrastructure Improvement Program; and
- focusing on small system compliance issues and the development of small system capacity.

Ultimately, EPA will continue to respond to compliance and enforcement issues at public water systems owned or managed by tribal governments in a manner consistent with SDWA and the EPA Indian Policy. As such, EPA will emphasize compliance assistance and the use of informal enforcement responses as the first step in returning these systems to compliance. Where compliance assistance is ineffective or a significant threat to human health or the environment exists, EPA will take appropriate steps to return systems to compliance, including formal enforcement actions.

¹ Systems must monitor for most contaminants one time within a standard three-year compliance period.

Appendix A

Glossary of Terms

Administrative Order

Formal enforcement actions issued by EPA or a State to address noncompliance at a public water system, usually by means of a compliance schedule with enforceable milestone dates.

Chemical Rules

Refers collectively to regulations that protect the public from unsafe levels of organic chemicals, inorganic chemicals (other than lead and copper), and radioactivity in drinking water.

Community Water System

A public water system that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents (e.g., homes, apartments and condominiums that are occupied year-round as primary residences).

Federally-recognized Indian Tribe

An Indian tribe, band, nation, pueblo, community, or Alaska Native Village that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. Section 479a. Maintained by the Department of the Interior, the list of federally-recognized tribes is updated periodically and published in the Federal Register. The latest list of federally-recognized Indian tribes is available at 65 Federal Register 12398 (March 13, 2000).

Health-based Violation

A violation of either a Maximum Contaminant Level or a Treatment Technique requirement.

Inorganic Chemicals

These non-carbon based compounds (such as metals, nitrates, and asbestos) can either occur naturally in some sources of drinking water or be introduced by human activity. EPA has established MCLs for 15 inorganic contaminants. Violations of standards for lead and copper are addressed separately.

Large System

A public water system that serves more than 10,000 people.

Lead and Copper Rule

Requires a public water system to take steps to minimize the risk of exposure to lead and copper in drinking water by monitoring for these contaminants, installing corrosion control where

required, and, where necessary, educating the public about ways to reduce exposure. A system may also be required to treat its source water or replace lead service lines.

Maximum Contaminant Level

The maximum permissible level of a contaminant in water delivered to any user of a public water system.

Monitoring and Reporting Violation

Refers to either a violation of a monitoring and reporting schedule or violation of contaminant-specific minimum testing schedules and operational reporting requirements. Those monitoring and reporting violations considered "significant" for the purposes of the State and national public water system compliance reports are described below in Table A-1.

Nitrate and Nitrite

Inorganic compounds that can enter water supplies, primarily from fertilizer runoff and sanitary wastewater discharges.

Non-transient Non-community Water System

A non-community public water system that regularly serves at least 25 of the same persons over six months per year. A typical example of a non-transient non-community water system is a school or an office building that has its own water source, such as a drinking water well.

Organic Chemicals

These carbon-based compounds, such as solvents and pesticides, can enter drinking water through a variety of means, including factory discharges or runoff from crop lands. EPA has established MCLs for 56 organic contaminants.

Primacy

The Safe Drinking Water Act requires EPA, States, and Tribes to work as partners to ensure delivery of safe drinking water to the public. Any State or Indian Tribe can request responsibility for operation and oversight of the drinking water program within its borders. In order to receive this responsibility (called "primary enforcement authority" or "primacy"), a State or Tribe must show, among other things, that it has adopted drinking water regulations that are at least as stringent as Federal regulations, and demonstrate its capacity both to enforce those regulations and to implement other activities necessary to ensure compliance.

In the absence of State or Tribal primacy, EPA assumes responsibility for administering the drinking water program for that area. Of the 56 eligible States (defined to include Commonwealths, Territories, and the District of Columbia), all but Wyoming and the District of Columbia have primacy. EPA Regional Offices administer the drinking water program within these two jurisdictions and on all Tribal lands.

Public Water System

A system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals at least 60 days out of the year. A public water system can be either a community water system, a non-transient non-community water system, or a transient non-community water system.

Radionuclides

Radioactive particles, such as radium-226, radium-228, gross alpha, and beta particle/photon radioactivity, can occur naturally in water or may result from human activity. EPA has established MCLs for beta/photon emitters, alpha emitters, and combined radium 226/228.

Regional Offices

Responsible for implementing Environmental Protection Agency programs within their respective jurisdictions. Regional Offices cooperate with Federal, State, interstate, and local agencies, as well as with industry, academic institutions, and other private groups to ensure that Regional needs are addressed and that Federal environmental laws are upheld.

Small Systems

Public water systems that serve no more than 3,300 people.

Surface Water Treatment Rule

The Surface Water Treatment Rule (SWTR) requires a public water system served by surface water or by ground water under the influence of surface water to take steps (such as disinfection, filtration followed by disinfection, or watershed control) to reduce potential exposure to microbiological contamination.

Total Coliform Rule

Establishes limits on coliform bacteria in water distribution systems. Although coliform bacteria, which are found in decaying organic material and

in the intestinal tract of humans and animals, are usually not harmful to human health, their presence may indicate the presence of other, more dangerous microbial contamination.

SDWIS/FED

EPA's database for collecting safe drinking water monitoring results from oversight agencies. SDWIS stands for Safe Drinking Water Information System. Public Water Systems are required to report all monitoring results to the primary enforcement authority. States with primacy, or EPA where it administers the program, analyze the monitoring results, determine compliance, and report violations to EPA on a quarterly basis. EPA maintains records of these violations in SDWIS/FED. SDWIS/FED records only violations, not results that demonstrate compliance with drinking water standards.

Total Trihalomethanes

These chemicals can be by-products of chemical processes used to disinfect drinking water.

Transient Non-community Water System

A non-community water system that regularly serves at least 25 people (but not the same 25) over six months per year. A typical example is a campground or a highway rest stop that has its own water source, such as a drinking water well.

Treatment Technique

In cases where EPA has determined it is not technically or economically feasible to establish an MCL, the Agency can instead specify a treatment technique. These are treatment methods required by EPA to minimize the level of a contaminant in drinking water.

Variances and Exemptions

A public water system that cannot comply with a drinking water standard because of poor source water quality, or, in the case of small systems, inadequate financial resources, can be granted a variance to comply with less stringent, but still protective standards based on a specific EPA-approved technology available to the system. An exemption allows a PWS with compelling circumstances (including economic considerations) additional time to achieve compliance with applicable SDWA requirements, so long as public health is adequately protected.

TABLE A-1: SIGNIFICANT MONITORING VIOLATIONS FOR ANNUAL STATE PUBLIC WATER SYSTEM REPORTS

Rule	Violation Type	Description	SDWIS Violation Code ¹	SDWIS Contaminant Code	
Total Coliform Rule	Major routine	No samples collected during a compliance period	23	3100	
	Major repeat	No follow-up samples collected after a positive total coliform sample or no speciation	25	3100	
Surface Water Treatment Rule	Major (filtered)	Collected less than 90% of samples required during a compliance period	31	None	
	Major (unfiltered)	Collected less than 90% of samples required during a compliance period	36	None	
Lead and Copper Rule	Initial lead and copper tap	Either failed to collect the initial tap samples, and then failed to correct that omission within a) 3 months for large systems, b) 6 months for medium systems, or c) 12 months for small systems; or failed to submit the associated report	51		
	Follow-up or routine lead and copper tap	Failed to collect 1 or more required samples	52		
C h e m	Phase I, II, IIB, and V Rules	Regular monitoring	Failed to collect any required samples ²	By contaminant	
	Total Trihalomethanes	Regular monitoring	Failed to collect any required samples	03	2950
	Radionuclides	Regular monitoring	Failed to collect any required samples	03	4000, 4101, 4010

- 1 EPA's Safe Drinking Water Information System (SDWIS/FED) makes no distinction between the sampling violations and the reporting violations associated with a sample collection requirement. Both violations are reported under the same violation code.
- 2 Failure to collect "any required samples" means none of the required samples were collected.

**TABLE A-2: SUMMARY OF DRINKING WATER REGULATIONS FOR
PUBLIC WATER SYSTEMS DURING 1998**

Applicability of Regulations			
Contaminant/Rule	Community Water Systems	Non-transient Non-Community Water Systems	Transient Non-Community Water Systems
Organic Contaminants	All	All	Some (Only epichlorohydrin and acrylamide)
Total Trihalomethanes (TTHM)	Some (Only systems serving more than 10,000)	None	None
Inorganic Contaminants	All	Some (All except arsenic and fluoride)	None
Nitrate and Nitrite	All	All	All
Radionuclides	All	None	None
Total Coliform	All	All	All
Surface Water Treatment	Some (Only PWSs using surface water sources or ground water sources under the direct influence of surface water)	Some (Only PWSs using surface water sources or ground water sources under the direct influence of surface water)	Some (Only PWSs using surface water sources or ground water sources under the direct influence of surface water)
Lead and Copper	All	All	None

Appendix B

Summaries of State Annual Compliance Reports

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Arkansas	B-11	New Jersey	B-39
California	B-12	New Mexico	B-40
Colorado	B-13	New York	B-41
Connecticut	B-14	North Carolina	B-42
Delaware	B-15	North Dakota	B-43
District of Columbia	B-16	Northern Mariana Islands	B-44
Florida	B-17	Ohio	B-45
Georgia	B-18	Oklahoma	B-46
Guam	B-19	Oregon	B-47
Hawaii	B-20	Pennsylvania	B-48
Idaho	B-21	Puerto Rico	B-49
Illinois	B-22	Rhode Island	B-50
Indiana	B-23	South Carolina	B-51
Iowa	B-24	South Dakota	B-52
Kansas	B-25	Tennessee	B-53
Kentucky	B-26	Texas	B-54
Louisiana	B-27	Utah	B-55
Maine	B-28	Vermont	B-56
Maryland	B-29	Virgin Islands	B-57
Massachusetts	B-30	Virginia	B-58
Michigan	B-31	Washington	B-59
Minnesota	B-32	West Virginia	B-60
Mississippi	B-33	Wisconsin	B-61
Missouri	B-34	Wyoming	B-62

In this Appendix, the U.S. Environmental Protection Agency (EPA) presents a summary of each State report in a standardized format. The format includes an overall summary of the violations data specified in Section 1414 of the 1998 Safe Drinking Water Act (SDWA) Amendments (i.e., violations with respect to maximum contaminant levels (MCLs), treatment technique violations, significant monitoring and reporting requirements, and variance and exemptions).

This Appendix summarizes the data reported by the States, but does not interpret it. Therefore, other factors must be taken into account before drawing conclusions about a State program. For example, public water systems are required to report all violations to the State, but State drinking water programs vary in the regulations they choose to emphasize. A State that decided to focus attention and resources on one particular rule may have discovered and reported many more violations of that rule than a State that chose to focus on a different rule. A disproportionate number of violations in a State could also indicate that the State needs to work with its public water systems to improve their compliance.

Readers are cautioned to view the violations data provided in the State summaries within the context of each State and its individual drinking water program.

Violations for 1998

EPA summarizes the number of MCL, treatment technique, and significant monitoring violations¹ reported by each State in four categories:

- Violations of chemical contaminant requirements²
- Violations of the Total Coliform Rule
- Violations of the Surface Water Treatment Rule

1 A comprehensive definition of significant monitoring and reporting violations including exceptions to the definition for the Total Coliform Rule and Lead and Copper Rule appears in Appendix A.

2 MCL and significant monitoring violations for organic, inorganic, total trihalomethane (TTHM), nitrate and nitrite, and radionuclide contaminants.

- Violations of the Lead and Copper Rule.

EPA summarizes the numbers of individual public water systems in violation in each of these four categories, as reported by the State.

If a State's report did not include information in a category, EPA's summary notes the omission.

1998 Totals

EPA also summarizes the total number of systems in each State, the total number of violations reported, and the total number of PWSs in violation, if the State reported this information.

Systems in Violation

Systems in Violation is defined as the number of different systems with a reported violation of this type. Some States counted a system with multiple violations or violations in more than one category as one violating system. Other States counted a violating system each time it had a violation, or once for each of the regulatory categories in which it had a violation. If EPA's review of a State's report indicated some violating systems were counted more than once, an asterisk notes that the State's number possibly overcounts violating systems.

Variations and Exemptions

There were no reported violations of variances and exemptions in 1998.

Where to Obtain 1998 Annual Public Water Systems Report

Each State's summary page provides information on how to obtain a copy of the State, if that information was included in the State's report.

TABLE B-1: SUMMARY OF ELEMENTS REPORTED BY STATES

State	Submitted Report	Reported On Violations Categories			Reported on V/E	Provided Inventory Information	Identified Size and Type of Violating Systems	Discussed Compliance and Enforcement Responses	Identified Each System with MCL and TT Violations	Provided Information to Public on Availability	Provided Additional Information ¹
		MCL	M/R	TT							
Alabama	x	x	x	x	x	x	x	x	x	x	x
Alaska	x	x	x	x		x		x	x	x	
American Samoa	Did not submit report.										
Arizona	x	x	x	x						x	
Arkansas	x	x	x	x	x	x	x	x	x	x	x
California	x	x	x	x	x			x	x	x	x
Colorado	x	x	x	x	x				x	x	
Connecticut	x	x	x	x		x		x	x	x	x
Delaware	x	x	x	x		x		x	x	x	x
District of Columbia	x	x	x	x	x	x	x	x	x	x	x
Florida	x	x	x	x	x					x	
Georgia	x	x	x	x	x				x	x	x
Guam	Did not submit report.										
Hawaii	x	x	x	x	x			x	x	x	
Idaho	x	x	x	x	x			x	x	x	x
Illinois	x	x	x	x				x	x	x	x
Indiana	x	x	x	x		x	x	x	x	x	x
Iowa	x	x	x	x	x	x		x	x	x	x
Kansas	x	x	x	x		x		x	x	x	x
Kentucky	x	x	x	x	x	x			x	x	x
Louisiana	x	x	x	x		x			x	x	
Maine	x	x	x	x		x	x	x	x	x	x
Maryland	x	x	x	x	x	x		x	x	x	x
Massachusetts	x	x	x	x	x	x	x	x	x	x	x
Michigan	x	x	x	x	x				x	x	
Minnesota	x	x	x	x		x	x			x	x
Mississippi	x	x	x	x	x	x		x	x	x	
Missouri	x	x	x	x	x	x		x	x	x	x
Montana	x	x	x	x	x	x		x		x	x
Nebraska	x	x	x	x	x	x		x		x	x
Nevada	x	x	x	x		x				x	

TABLE B-1: SUMMARY OF ELEMENTS REPORTED BY STATES (continued)

State	Submitted Report	Reported On Violations Categories			Reported on V/E	Provided Inventory Information	Identified Size and Type of Violating Systems	Discussed Compliance and Enforcement Responses	Identified Each System with MCL and TT Violations	Provided Information to Public on Availability	Provided Additional Information ¹
		MCL	M/R	TT							
New Hampshire	x	x	x	x	x	x		x	x	x	x
New Jersey	Violations information submitted. Remainder of report still pending.										
New Mexico	x	x	x	x	x				x	x	
New York	x	x	x	x	x				x	x	x
North Carolina	x	x	x	x	x	x				x	
North Dakota	x	x	x	x	x	x			x	x	x
Northern Mariana Islands	Did not submit report.										
Ohio	x	x	x	x	x	x	x	x	x	x	x
Oklahoma	x	x	x	x	x	x		x	x	x	x
Oregon	x	x	x	x		x		x		x	x
Pennsylvania	x	x	x	x	x	x	x		x	x	x
Puerto Rico	x	x	x	x		x		x	x	x	
Rhode Island	x	x	x	x		x				x	x
South Carolina	x	x	x	x	x	x		x	x	x	x
South Dakota	x	x	x	x	x	x				x	
Tennessee	x	x	x	x	x			x	x	x	
Texas	x	x	x	x	x	x			x	x	
Utah	x	x	x	x						x	
Vermont	x	x	x	x	x	x		x	x	x	
Virgin Islands	x	x	x	x	x		x		x	x	x
Virginia	x	x	x	x					x	x	
Washington	x	x	x	x	x	x			x	x	
West Virginia	x	x	x	x	x			x	x	x	
Wisconsin	x	x	x	x	x	x	x	x	x	x	x
Wyoming	x	x	x	x	x				x	x	x

1. An "x" in this column indicates the state submitted more information in its report than the minimum EPA recommends in guidance.

State of Alabama 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Significant Monitoring	
	Violations	Systems in Violation	Violations	Systems in Violation	Violations	Systems in Violation
Chemical Contaminant Group	3	3			496	46
Total Coliform Rule	50	47			57*	38
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			2	2	4	4

* This total appears in the text of the report and can be corroborated by counting major M/R violations listed in the State's Appendix A. The State's Appendix B indicates the number is 40.

Total Number of Regulated Systems	753
Total Number of Systems in Violation	120
Total Number of Violations	612

Where to Obtain 1998 Annual State Public Water Systems Report

Alabama's State Report is available by accessing the State's Web site at www.adem.state.al.us/viorep98.html and by written request to ADEM, Water Supply Branch, P.O. Box 301463, Montgomery, Alabama 36130-1463 or at e-mail address tsd@adem.state.al.us.

State of Alaska 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	3	3			6,131	360
Total Coliform Rule	38	34			1,234	647
Surface Water Treatment Rule			272	83	714	154
Lead and Copper Rule			0	0	51	51

Total Number of Regulated Systems	1,760
Total Number of Systems in Violation	886
Total Number of Violations	8,443

Where to Obtain 1998 Annual State Public Water Systems Report

Alaska's State Report is available by accessing the State's Web site at www.state.ak.us/dec/deh/water/dwvio98.htm or by contacting James Weise, Drinking Water/Waste Water Program Manager, Department of Environmental Conservation, 555 Cordova Street, Anchorage, AK 99501, phone (907) 269-7647.

American Samoa 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	79	10			16	3
Surface Water Treatment Rule			108	9	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	21
Total Number of Systems in Violation	11
Total Number of Violations	203

Where to Obtain 1998 Annual State Public Water Systems Report

American Samoa did not publish an annual report, and did not regularly submit data to SDWIS/FED. EPA generated these tables from data maintained by EPA's Regional office.

State of Arizona 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	170	80			966	966
Total Coliform Rule	48	42			62	62
Surface Water Treatment Rule			1	1	52	32
Lead and Copper Rule			Not Available	Not Available	Not Available	Not Available

Total Number of Regulated Systems	1,707
Total Number of Systems in Violation	1,064
Total Number of Violations	1,299

Where to Obtain 1998 Annual State Public Water Systems Report

Arizona's State Report is available by contacting the Drinking Water Section, Arizona Department of Environmental Quality, 3033 N. Central, Room 200, Phoenix, AZ 85012-2809, phone (602) 270-4644.

State of Arkansas 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique			
	Violations	Systems in Violation	Violations	Systems in Violation	Violations	
Chemical Contaminant Group	27	11*			0	0
Total Coliform Rule	102	75			204	135
Surface Water Treatment Rule			104	21	65	21
Lead and Copper Rule			1	1	0	0

Total Number of Regulated Systems	1,208
Total Number of Systems in Violation	264*
Total Number of Violations	503

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Arkansas' State Report is available by accessing the State's Web site at www.health.state.ar.us/eng/doe.htm or by contacting the Arkansas Department of Health, Division of Engineering, 4815 West Markham Street, Little Rock, AR 72205-2032, phone (501) 661-2623, fax (501) 661-2032, or scorder@mail.doh.state.ar.us.

State of California 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	45	42			0	0
Total Coliform Rule	688	512			711	519
Surface Water Treatment Rule			67	65	0	0
Lead and Copper Rule			Not Available	Not Available	Not Available	Not Available

Total Number of Regulated Systems	8,744
Total Number of Systems in Violation	1,130*
Total Number of Violations	1,511

* Although California's report did not provide a total number of systems in violation, the sum of the numbers the State reported for the separate rules is 1,139. EPA reduced that number by nine to account for systems that appeared more than once on California's list of violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

California's State Report is available by contacting the State at California Department of Health Services, Division of Drinking Water and Environmental Management, phone (916) 323-6111.
<http://www.dhs.ca.gov/org/ps/ddwem/pubindex.htm>

State of Colorado 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	1	1			360	81
Total Coliform Rule	64	48			509	356
Surface Water Treatment Rule			43	21	6	2
Lead and Copper Rule			9	9	5	5

Total Number of Regulated Systems	2,226
Total Number of Systems in Violation	523*
Total Number of Violations	997

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Colorado's State Report is available by contacting the State at Compliance Monitoring-Data Management, WQCO-CMDM-B2, 4300 Cherry Creek Drive South, Denver, CO 80246-1530.

State of Connecticut 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	18	10*			712	63*
Total Coliform Rule	143	81			179	135
Surface Water Treatment Rule			5	5	0	0
Lead and Copper Rule			3	3	14	54

Total Number of Regulated Systems	4,550
Total Number of Systems in Violation	287*
Total Number of Violations	1,074

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Connecticut's State Report is available for review at the public library or at the Water Supplies Section, Department of Public Health, 450 Capitol Avenue, Hartford, CT 06134. To schedule an appointment to review this document at the Water Supplies Section call (860) 509-7333.

State of Delaware 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	32	16			0	0
Total Coliform Rule	52	44			1	1
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			69	34	33	33

Total Number of Regulated Systems	566
Total Number of Systems in Violation	160*
Total Number of Violations	187

*Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Information on Delaware's public water systems may be found on the Internet in EPA's Envirofacts web page at the following address: www.epa.gov/enviro/html/sdwis/sdwis_query.html. Delaware's State Report is available by contacting the Division of Public Health, Office of Drinking Water, P.O. Box 639, Dover, DE 19903, or telephone (302) 739-5410.

District of Columbia 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	0	0			0	0
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	2
Total Number of Systems in Violation	0
Total Number of Violations	0

Where to Obtain 1998 Annual State Public Water Systems Report

The District of Columbia's State Report is available by contacting: George Rizzo, DC PWSS Program Manager, Drinking Water Branch (3WP22), U.S. EPA Region III, 1650 Arch Street, Philadelphia, PA 19103-2029, Telephone (215) 814-5781, Fax: (215) 814-2318, E-mail: rizzo.george@epa.gov.

State of Florida 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	16	15			1,414	1,391
Total Coliform Rule	259	243			1,141	841
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	2	1

Total Number of Regulated Systems	6,911
Total Number of Systems in Violation	2,491*
Total Number of Violations	2,832

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Florida's State Report Summary, State rules, forms, and drinking water inventory are available by accessing the State's Web site (www.dep.state.fl.us/water/Wf/dw/default.htm).

State of Georgia 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	6	4			419*	246
Total Coliform Rule	224	157			782	510
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	15	15

Total Number of Regulated Systems	NR
Total Number of Systems in Violation	NR
Total Number of Violations	1,446

* Georgia reports 419 violations in its report, 412 violations in an attached table.

Where to Obtain 1998 Annual State Public Water Systems Report

Georgia's State Report is available by contacting Doug Davenport, Department of Natural Resources, Environmental Protection Division, Drinking Water Program, Information Management Unit, 205 Butler St., SE Suite 1362, Atlanta, GA 30334, phone (404) 651-5162. Website: www.dnr.state.ga.us/dnr/environ/

Guam 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	0	0			0	0
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	12
Total Number of Systems in Violation	0
Total Number of Violations	0

Where to Obtain 1998 Annual State Public Water Systems Report

Guam did not publish an annual report, and did not submit violations data to SDWIS/FED during this period. EPA generated inventory data from SDWIS/FED.

State of Hawaii 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	9	5			4	4
Surface Water Treatment Rule			78	9	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	138
Total Number of Systems in Violation	17
Total Number of Violations	91

* The State of Hawaii issued a revised 1998 report on February 4, 2000 that added 15 chemical monitoring and reporting violations at one public water system. The State had not yet initiated its enforcement action in July of 1999, when it first published its annual report for 1998.

Where to Obtain 1998 Annual State Public Water Systems Report

Hawaii's State Report is available by the Safe Drinking Water Branch, Department of Health, 919 Ala Moana Blvd., Room 308, Honolulu, HI 96814-4920, phone (808) 586-4258, fax (808) 586-4370, email (waterbill@aol.com).

State of Idaho 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			439	357
Total Coliform Rule	379	279			948	655
Surface Water Treatment Rule			205	32	0	0
Lead and Copper Rule			0	0	0*	3

Total Number of Regulated Systems	2,075
Total Number of Systems in Violation	1,024**
Total Number of Violations	1,971*

* Idaho does not count violations at the three systems in violation because those violations began prior to 1998.

** Includes 3 systems whose violations began prior to 1998.

Where to Obtain 1998 Annual State Public Water Systems Report

Idaho's State Report is available by accessing the State's web site (www2.state.id.us/deq/) and by contacting the Idaho Division of Environmental Quality's six Regional Offices or the State's seven district health departments.

State of Illinois 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	174	129			2,122	73
Total Coliform Rule	208	159			442	253
Surface Water Treatment Rule			4	2	4	3
Lead and Copper Rule			12	12	79	74

Total Number of Regulated Systems	6,072
Total Number of Systems in Violation	581
Total Number of Violations	3,045

Where to Obtain 1998 Annual State Public Water Systems Report

Illinois' State Report is available by contacting the Illinois EPA's Division of Public Water Supplies, #13, P.O. Box 9276, Springfield, IL 62794-9276.

State of Indiana 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	52	22*			1,118	900*
Total Coliform Rule	274	249			2,613	1,417
Surface Water Treatment Rule			5	5	1	1
Lead and Copper Rule			0	0	48	40

Total Number of Regulated Systems	4,295
Total Number of Systems in Violation	1,713
Total Number of Violations	4,111

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Indiana's State Report is available via the Indiana Department of Environmental Management, Office of Water Management, Drinking Water Branch, at www.state.in.us/idem/owm/dwb/index.html, or by contacting the Drinking Water Branch at (317) 308-3280.

State of Iowa 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	146	47			389	303
Total Coliform Rule	262	190			472	303
Surface Water Treatment Rule			7	4	6	2
Lead and Copper Rule			54	42	17	16

Total Number of Regulated Systems	1,977
Total Number of Systems in Violation	697
Total Number of Violations	1,353

Where to Obtain 1998 Annual State Public Water Systems Report

Iowa's State Report is available by accessing the State's web site at www.state.ia.us/government/dnr/organiza/epd/wtrsuply/pwscmp97.htm or by contacting the Iowa Department of Natural Resources, Water Supply Section, Wallace State Office Building, 900 East Grand Avenue, Des Moines, IA 50319-0034.

State of Kansas 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	85	41			0	0
Total Coliform Rule	76	67			77	46
Surface Water Treatment Rule			8	5	15	8
Lead and Copper Rule			3	3	6	6

Total Number of Regulated Systems	1,122
Total Number of Systems in Violation	165
Total Number of Violations	270

Where to Obtain 1998 Annual State Public Water Systems Report

Kansas' State Report is available by accessing the State's web site at www.kdhe.state.ks.us or by contacting the State at Public Water Supply Section, Kansas Department of Health and Environment, Bldg. 283, Forbes Field, Topeka, KS 66620, Attn: Peter Armesto, phone (785) 296-6297.

State of Kentucky 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	49	29			611	198
Total Coliform Rule	19	19			139	56
Surface Water Treatment Rule			28	17	96	37
Lead and Copper Rule			0	0	9	7

Total Number of Regulated Systems	733
Total Number of Systems in Violation	323
Total Number of Violations	951

Where to Obtain 1998 Annual State Public Water Systems Report

Kentucky's State Report is available by accessing the State's Web site at water.nr.state.ky.us/dow/dwhome.htm and by contacting the Kentucky Division of Water, Drinking Water Branch, 14 Reilly Road, Ash Building, Frankfort, Kentucky, 40601, phone (502) 564-3410.

State of Louisiana 1998 PWS Compliance Report

Violations for 1998*

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	261	191			17	13
Surface Water Treatment Rule			11	7	4	2
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	2,000**
Total Number of Systems in Violation	208
Total Number of Violations	293

* Violations numbers drawn from Louisiana's list of violating systems. Numbers in the narrative portion of the report sometimes differ.

** This number is an estimate provided by the state.

Where to Obtain 1998 Annual State Public Water Systems Report

A specific source for obtaining a copy of this report has not been provided. General information on its availability may be obtained from: Division of Environmental and Health Services, Louisiana Department of Health and Hospital, Office of Public Health, P.O. Box 60630, New Orleans, LA 70160, phone (504) 568-5100. Also, information on the report can be obtained by contacting the Office of Public Health, Engineering Services, 6867 Bluebonnet Boulevard, Suite 222, Baton Rouge, LA, 70810.

State of Maine 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	21	NR			257	NR
Total Coliform Rule	371	NR			1,642	NR
Surface Water Treatment Rule			Not Available	Not Available	Not Available	Not Available
Lead and Copper Rule			26	NR	91	NR

Total Number of Regulated Systems	2,177
Total Number of Systems in Violation	NR
Total Number of Violations	2,408

Where to Obtain 1998 Annual State Public Water Systems Report

Maine's State Report is available by accessing the State's web site at www.state.me.us/dhs/eng/water/water.htm or by contacting the State at Drinking Water Program, 10 State House Station, Augusta, ME 04333, phone (207) 287-2070.

State of Maryland 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	17	13			33	33*
Total Coliform Rule	246	210			118	88
Surface Water Treatment Rule			16	13	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	3,706
Total Number of Systems in Violation	461*
Total Number of Violations	430

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Maryland's State Report and additional information on the Maryland program are available by contacting Nancy Reilman, MDE — Water Supply Program at (410) 631-3729.

State of Massachusetts 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	4	4			3,581	324
Total Coliform Rule	108	88			361	176
Surface Water Treatment Rule			54	54	1	1
Lead and Copper Rule			25	25	50	35

Total Number of Regulated Systems	1,579
Total Number of Systems in Violation	597
Total Number of Violations	4,184

Where to Obtain 1998 Annual State Public Water Systems Report

The Massachusetts report is available on the state's web site at www.state.ma.us/dep/brp/dws/dwspubs.htm. Hard copies are available at each of the four Massachusetts DEP regional offices:

- Western — 436 Dwight Street, Springfield, MA 01103
- Central — 627 Main Street, Worcester, MA 01608
- Northeast — 205A Lowell Street, Wilmington, MA 01887
- Southeast — 20 Riverside Drive, Lakeville, MA 02347

State of Michigan 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	13	12			2,798	826
Total Coliform Rule	525	459			2,517	1,929
Surface Water Treatment Rule			6	3	0	0
Lead and Copper Rule			0	0	140	134

Total Number of Regulated Systems	12,446
Total Number of Systems in Violation	3,363*
Total Number of Violations	5,999

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Michigan's State Report is available by accessing the Michigan Department of Environmental Quality, Drinking Water and Radiological Protection Division web page at www.deq.state.mi.us/us/dwr/. It can also be obtained by contacting the State at Michigan Department of Environmental Quality, Drinking Water & Radiological Protection Division, 3423 North Martin Luther King, Jr. Boulevard, P.O. Box 30630, Lansing, MI 48909-8130.

State of Minnesota 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	27*	27			11*	11
Total Coliform Rule	322*	322			89*	89
Surface Water Treatment Rule			9	9	0	0
Lead and Copper Rule			0	0	16*	16

Total Number of Regulated Systems	8,900
Total Number of Systems in Violation	494**
Total Number of Violations	494*

* Minnesota's report provided the number of systems in violation of each regulation, but did not provide the number of violations at those systems.

** Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Minnesota's State Report is available by contacting the Drinking Water Protection Section, Minnesota Department of Health, Box 64975, St. Paul, MN 55164-0975.

State of Mississippi 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			4	4
Total Coliform Rule	84	66			20	20
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	1,507
Total Number of Systems in Violation	83
Total Number of Violations	108

Where to Obtain 1998 Annual State Public Water Systems Report

Mississippi's State Report is available by accessing the State's web site at www.msdh.state.ms.us/OHR/watersup/wshome.htm or by contacting the Mississippi State Department of Health, Water Supply Division, P.O. Box 1700, Jackson, MS 39215-1700.

State of Missouri 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	11	8			525	146
Total Coliform Rule	633	377			1,140	665
Surface Water Treatment Rule			7	6	0	0
Lead and Copper Rule			0	0	38	38

Total Number of Regulated Systems	2,714
Total Number of Systems in Violation	1,240*
Total Number of Violations	2,354

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Missouri's State Report and additional information regarding Missouri's PWSs are available by contacting the Missouri Department of Natural Resources, Public Drinking Water Program, P.O. Box 176, Jefferson City, MO 65102, phone (573) 751-5331. Website: www.dnr.state.mo.us/deq/pdwp/homepdwp.htm.

State of Montana 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	17	14			1,173	1,056*
Total Coliform Rule	113	110			396	260
Surface Water Treatment Rule			67	20	90	18
Lead and Copper Rule			117	113	250	113

Total Number of Regulated Systems	1,950
Total Number of Systems in Violation	1,704*
Total Number of Violations	2,223

* Possibly overcounts violating of systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Montana's State Report is available on the Montana Department of Environmental Quality's web site at www.deq.mt.gov or by contacting the Public Water Supply Section, Community Services Bureau, Permitting and Compliance Division, Montana Department of Environmental Quality, Box 200901, Helena, MT 59624-0901, or telephone (406) 444-4400.

State of Nebraska 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	81	75*			10	10
Total Coliform Rule	608	377*			52	49
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	1,353
Total Number of Systems in Violation	511*
Total Number of Violations	751

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Nebraska's State Report is available by accessing the State's website www.hhs.state.ne.us/enh/enhindex.htm or by contacting the Nebraska Department of Health and Human Services, Regulation and Licensure, 301 Centennial Mall South, P.O. Box 95007, Lincoln, NE 68509, (402) 471-2541.

State of Nevada 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	6	6*			432	713*
Total Coliform Rule	13	10			27	24
Surface Water Treatment Rule			5	5	12	1
Lead and Copper Rule			9	9	160	152

Total Number of Regulated Systems	652
Total Number of Systems in Violation	609*
Total Number of Violations	664

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Nevada's State Report is available by contacting the Nevada State Health Division at 1179 Fairview Drive, Suite 101, Carson City, Nevada 89701. Copies of the report may be viewed at county libraries throughout the State and at State Health Division offices in counties that do not have a library.

State of New Hampshire 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	7	4			1,140	84
Total Coliform Rule	135	111			199	149
Surface Water Treatment Rule			16	6	1	1
Lead and Copper Rule			0	0	12	12

Total Number of Regulated Systems	2,190
Total Number of Systems in Violation	367*
Total Number of Violations	1,510

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

New Hampshire's State Report is available by contacting the NH Department of Environmental Services, Water Division, Water Supply Engineering Bureau, 6 Hazen Drive, P.O. Box 95, Concord, NH 03301, or by contacting Laurie K. Cullerot at Department of Environmental Services at (603) 271-2954, or via e-mail at l_cullerot@des.state.nh.us. The report is also available on the website www.des.nh.state.us/wseb.

State of New Jersey 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL*		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	48	41			13,480	759
Total Coliform Rule	138	106			1,736	972
Surface Water Treatment Rule			9	2	3	3
Lead and Copper Rule			1	1	50	20

Total Number of Regulated Systems	4,464
Total Number of Systems in Violation	1,502
Total Number of Violations	15,465

* New Jersey's totals include violations of State requirements that are more stringent than Federal requirements, such as standards for an additional five volatile organic compounds, and twelve MCLs more protective than Federal MCLs.

Where to Obtain 1998 Annual State Public Water Systems Report

New Jersey's State Report and Drinking Water Standards chart are available by contacting the State at New Jersey Department of Environmental Protection, Bureau of Safe Drinking Water, P.O. Box 426, Trenton, NJ 08625-0426. The report will also be sent to the State library for distribution through its system, and to the county and local health officers.

State of New Mexico 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	6	6*			1	1
Total Coliform Rule	144	98			282	172
Surface Water Treatment Rule			10	5	1	1
Lead and Copper Rule			0	0	10	10

Total Number of Regulated Systems	1,335
Total Number of Systems in Violation	246
Total Number of Violations	454

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

A specific source for obtaining a copy of this report has not been provided. General information on its availability may be obtained from: Keith Melton, Program Manager, Drinking Water Program, New Mexico Environment Department, 525 Camino De Los Marquez, Suite 4, P.O. Box 26110, Santa Fe, New Mexico 87502, Phone (505) 827-7536, e-mail: keith_melton@nmev.state.nm.us.

State of New York 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	12	12			730	719
Total Coliform Rule	93	93			1,105	1,105
Surface Water Treatment Rule			68	61	0	0
Lead and Copper Rule			1	1	5	5

Total Number of Regulated Systems	10,620
Total Number of Systems in Violation	1,996*
Total Number of Violations	2,014

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

New York's State Report is available by contacting the State at BPWSP — NYSDOH, Flanigan Square, 547 River Street, Room 400, Troy, NY 12180-2216.

State of North Carolina 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	22	20			10,582	8,743*
Total Coliform Rule	210	178			1,190	832
Surface Water Treatment Rule			6	6	0	0
Lead and Copper Rule			1	1	NR	NR

Total Number of Regulated Systems	8,235
Total Number of Systems in Violation	NR
Total Number of Violations	12,011

* This may overcount violating systems. North Carolina believes the actual number is 1,153.

Where to Obtain 1998 Annual State Public Water Systems Report

North Carolina's State Report is available by contacting the North Carolina Public Water Supply Section homepage at: www.deh.enr.state.nc.us/pws.

State of North Dakota 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	7	7	1	1	14	3
Total Coliform Rule	59	28			143	109
Surface Water Treatment Rule			2	1	1	1
Lead and Copper Rule			0	0	1	1

Total Number of Regulated Systems	564
Total Number of Systems in Violation	140
Total Number of Violations	228

Where to Obtain 1998 Annual State Public Water Systems Report

North Dakota's State Report is available by contacting the North Dakota Department of Health, Division of Municipal Facilities, P.O. Box 5520, 1200 Missouri Avenue, Bismarck, ND 58506-5520, Attention: Jeni Walsh (701) 328-5231 (phone) or (701) 328-5200 (fax), or e-mail jwalsh@state.nd.us.

Northern Mariana Islands 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	0	0			0	0
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	43
Total Number of Systems in Violation	0
Total Number of Violations	0

Where to Obtain 1998 Annual State Public Water Systems Report

The Northern Mariana Islands did not publish an annual report, and did not report violations to SDWIS/FED during this period. EPA generated inventory data from SDWIS/FED.

State of Ohio 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	18	15			5,628	1,030
Total Coliform Rule	1,711	802			1,721	1,158
Surface Water Treatment Rule			209	45	13	2
Lead and Copper Rule			19	18	190	187

Total Number of Regulated Systems	6,189
Total Number of Systems in Violation	2,391
Total Number of Violations	9,509

Where to Obtain 1998 Annual State Public Water Systems Report

A summary of Ohio's State Report is available by writing to the State of Ohio at PWS Annual Compliance Report, Ohio EPA — DDAGW, Lazarus Government Center, P.O. Box 1049, Columbus, OH 43216-1049. In addition, this summary report has been posted on the Ohio EPA's website at www.epa.state.oh.us/ddagw/annualreports.html. Additional contact sites include: David Greenwood, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207, (614) 728-3778.

State of Oklahoma 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	118	50*			0	0
Total Coliform Rule	186	146			591	312
Surface Water Treatment Rule			114	45	20	14
Lead and Copper Rule			90	90	32	32

Total Number of Regulated Systems	1,683**
Total Number of Systems in Violation	689*
Total Number of Violations	1,151

* Possibly overcounts violating systems.

** This is the total number of systems meeting the Federal definition of a PWS. The State also regulates 645 systems that do not meet the Federal definition of a PWS. The numbers above do not include violations at those 645 systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Oklahoma’s State Report is available by contacting the State at Oklahoma Department of Environmental Quality, Water Quality Division, 8th Floor, 707 North Robinson, Oklahoma City, OK, or by mail request at the Department of Environmental Quality, Water Quality Division, P.O. Box 1677, Oklahoma City, OK 73101-1677, or at the website www.deq.state.ok.us/water1/home/index.html.

State of Oregon 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	3	3			5,271	765*
Total Coliform Rule	220	158			2,089	1,063
Surface Water Treatment Rule			161	67	204	71
Lead and Copper Rule			84	84	0	0

Total Number of Regulated Systems	2,703
Total Number of Systems in Violation	1,489
Total Number of Violations	8,032

*Possibly overcounts systems in violation.

Where to Obtain 1998 Annual State Public Water Systems Report

Oregon's State Report is available by contacting Diane Weis at the Oregon Health Division, 800 NE Oregon Street, Portland, OR 97232. The Oregon drinking water homepage is www.ohd.hr.state.or.us/cehs/dwp.

State of Pennsylvania 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	122	81			2,975	512
Total Coliform Rule	289	217			1,293	958
Surface Water Treatment Rule			59	44	168	41
Lead and Copper Rule			11	11	82	79

Total Number of Regulated Systems	>10,500
Total Number of Systems in Violation	1,662
Total Number of Violations	4,999

Where to Obtain 1998 Annual State Public Water Systems Report

Pennsylvania's State Report, the list of public water systems having MCL violations during 1998, and additional information about the Pennsylvania Safe Drinking Water Program are available by contacting: Department of Environmental Protection, Bureau of Water Supply Management, P.O. Box 8467, 11th Floor RCSOB, Harrisburg, PA 17105-8467, phone (717) 787-5017. Website: www.dep.state.pa.us.

Puerto Rico 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	12	7			1,810	1,467*
Total Coliform Rule	1,242	445			1,265	360
Surface Water Treatment Rule			444	197	1,046	153
Lead and Copper Rule			0	0	57	43

Total Number of Regulated Systems	NR
Total Number of Systems in Violation	NR
Total Number of Violations	5,876

Where to Obtain 1998 Annual State Public Water Systems Report

Puerto Rico's Report is available at the following addresses:

Department of Health
 Public Water Supply Supervision Program
 Ramon Fernandez Marina Hospital — Third Floor
 Bo. Monacillos, Rio Piedras, Puerto Rico

Department of Health
 Public Water Supply Supervision Program
 P.O. Box 70184
 Rio Piedras, Puerto Rico 00936
 Telephone: (787) 754-6010 or (787) 754-6370

State of Rhode Island 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	3	2			5	4
Total Coliform Rule	29	24			7	7
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	NR
Total Number of Systems in Violation	37*
Total Number of Violations	44

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Additional information about Rhode Island's drinking water program is available on the State's website at www.health.state.ri.us or by contacting the Rhode Island Department of Health, Office of Drinking Water Quality, 3 Capitol Hill, Room 209, Providence, RI 02908, phone (401) 222-6867.

State of South Carolina 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	6	5			0	0
Total Coliform Rule	126	102			140	85
Surface Water Treatment Rule			15	13	7	3
Lead and Copper Rule			11	11	55	49

Total Number of Regulated Systems	1,562
Total Number of Systems in Violation	231
Total Number of Violations	360

Where to Obtain 1998 Annual State Public Water Systems Report

South Carolina's State Reports are available by contacting the Water Enforcement Division with SCDHEC's Bureau of Water at (803)898-4153 or by fax at (803) 898-3795 or by e-mail at betterva@columb32.dhec.state.sc.us or by writing to 2600 Bull Street, Columbia, SC, 29201. The report will also be made available on the Bureau of Water webpage at www.state.sc.us/dhec/eqc/water. For additional information not contained here, call the Freedom of Information Office at (803) 898-3880.

State of South Dakota 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	9	8			979	67
Total Coliform Rule	96	69			197	132
Surface Water Treatment Rule			9	3	0	0
Lead and Copper Rule			0	0	36	36

Total Number of Regulated Systems	744
Total Number of Systems in Violation	315
Total Number of Violations	1,326

Where to Obtain 1998 Annual State Public Water Systems Report

South Dakota's State Report is available by contacting the State at DENR, Drinking Water Program, 523 E. Capitol St., Pierre, SD 57501-3181.

State of Tennessee 1998 PWS Compliance Report

Violations for 1998*

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			356	67**
Total Coliform Rule	99	92			182	135
Surface Water Treatment Rule			95	21	9	1
Lead and Copper Rule			0	0	7	6

Total Number of Regulated Systems	1,187
Total Number of Systems in Violation	317**
Total Number of Violations	748

* Numbers drawn from Tennessee's Detailed Violations Report. Numbers in Summary Violations Report occasionally differ.

** Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Tennessee's State Report is available by contacting the Division Water Supply Central Office at: Division of Water Supply — Central Office, 401 Church Street, 6th Floor, L&C Tower, Nashville, TN 37423-1549, phone (615) 532-0152; or any of the six field offices: Division of Water Supply, Suite 550 — State Office Building, 540 McCallie Avenue, Chattanooga, TN 37402-2013, phone (888) 891-8332; Division of Water Supply, 121 South Willow, Cookeville, TN 38502; Division of Water Supply, 362 Carriage House Drive, Jackson, TN 38305-2222; Division of Water Supply, 2305 Silverdale Road, Johnson City, TN 37601-2162; Division of Water Supply, Suite 220-State Plaza, 2700 Middlebrook Pike, Knoxville, TN 37219; Division of Water Supply, 537 Brick Church Park Drive, Nashville, TN 37243-1550. Copies of Tennessee's State Report are also located in most public libraries in Tennessee, or at the website: www.state.tn.us/environment/dws/index.html.

State of Texas 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	192	166			N/A*	N/A*
Total Coliform Rule	208	188			1,322	970
Surface Water Treatment Rule			70	30	189	45
Lead and Copper Rule			3	3	4	3

Total Number of Regulated Systems	6,677
Total Number of Systems in Violation	1,405**
Total Number of Violations	1,988

* The state, not the system, collects samples for the chemical standards, minimizing monitoring violations.

** Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

A specific source for obtaining a copy of this report has not been provided. General information on its availability may be obtained from: Water Utilities Division, Texas Natural Resource Conservation Commission, P.O. Box 13087, Austin, TX 78711-3087, phone (512) 239-6020.

State of Utah 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			3,773	2,326*
Total Coliform Rule	171	123*			377	246
Surface Water Treatment Rule			27	12	8	2
Lead and Copper Rule			0	0	18	13

Total Number of Regulated Systems	NR
Total Number of Systems in Violation	2,714*
Total Number of Violations	4,374

* Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Utah's State Report is available by contacting the State at Utah Division of Drinking Water, P.O. Box 144830, Salt Lake City, UT 84114-4830, Attention: Ken Bousfield, phone (801) 536-4207.

State of Vermont 1998 PWS Compliance Report

Violations for 1998*

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	3	2			420	417*
Total Coliform Rule	92	81*			164	128*
Surface Water Treatment Rule			15	15	4	3
Lead and Copper Rule			1	1	47	47

Total Number of Regulated Systems	1,398
Total Number of Systems in Violation	694**
Total Number of Violations	746

* Numbers are drawn from Vermont's list of violations and violating facilities. Numbers in other parts of the report sometimes differ.

** Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

Vermont's State Report is available by contacting the State Water Supply Division, 103 S. Main St., Waterbury, VT 05671-0403, phone (802) 241-3400, in Vermont, dial (800) 823-6500. It is also available on the Internet at the following address: www.anr.state.vt.us/dec/watersup/vtrpt1998.pdf.

Virgin Islands 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	108	84			127*	59
Surface Water Treatment Rule**			N/A	N/A	N/A	N/A
Lead and Copper Rule			0	0	0	0

Total Number of Regulated Systems	460
Total Number of Systems in Violation	143***
Total Number of Violations	235

* State report contains two sets of numbers that do not always match.

** The Virgin Islands does not have any surface water sources of drinking water.

*** Possibly overcounts violating systems.

Where to Obtain 1998 Annual State Public Water Systems Report

The Virgin Islands Report can be obtained by contacting the DPNR, Division of Environmental Protection, 1118 Water Gut Homes, Christiansted, St. Croix, US Virgin Islands, 00820. The report is also available at public libraries, University of Virgin Island's Public Library, UVI's Water Resource Research Institute, and local libraries.

State of Virginia 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	8	5*			109	24*
Total Coliform Rule	169	146			425	266
Surface Water Treatment Rule			140	18*	0	0
Lead and Copper Rule			92	92	21	28**

Total Number of Regulated Systems	NR
Total Number of Systems in Violation	467
Total Number of Violations	964

* Possibly overcounts violating systems.

** Includes seven systems whose violations were not incurred in 1998.

Where to Obtain 1998 Annual State Public Water Systems Report

A summary of Virginia’s state report is available by accessing the following site:

<http://www.vdh.state.va.us/owp/97report.htm>. A complete copy of the report may be obtained by contacting one of the 6 field offices: Office of Water Programs, Abingdon Field Office — Field 1, 454 East Main Street, Abingdon, VA 24210, phone (540) 676-5650 and fax (540) 676-5659; Office of Water Programs, Lexington Field Office — Field 2, 131 Walker Street, Lexington, VA 24450, phone (540) 463-7136 and fax (540) 463-3892; Office of Water Programs, Southeast Virginia Field Office — Field 3, 5700 Thurston Avenue — Suite 203, Virginia Beach, VA 23455, phone (757) 363-3876 and fax (757) 363-3955; Office of Water Programs, East Central Field Office — Field 4, 300 Turner Road, Richmond, VA 23225, phone 1(804) 674-2880 and fax (804) 674-2815; Office of Water Programs, Danville Field Office — Field 5, 1347 Piney Forest Road, Danville, VA 24540, phone (804) 836-8416 and fax (804) 836-8424; Office of Water Programs, Culpeper Field Office — Field 6, 400 South Main Street — 2nd Floor, Culpeper, VA 22701-3318, phone (540) 829-7340 and fax (540) 829-7337.

State of Washington 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			0	0
Total Coliform Rule	588	453			1,289	780
Surface Water Treatment Rule			139	59	82	19
Lead and Copper Rule			2	2	72	215*

Total Number of Regulated Systems	4,250
Total Number of Systems in Violation	1,302
Total Number of Violations	2,172

* Includes 144 systems that were categorized in violation of significant monitoring requirements but did not incur the violation in 1998.

Where to Obtain 1998 Annual State Public Water Systems Report

Washington's State Report is available by accessing the State's Website at www.doh.wa.gov/ehp/dw/enflink.htm or by contacting the Department of Health, Division of Drinking Water, P.O. Box 47822, Olympia, Washington 98504-7822.

State of West Virginia 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	11	9			465	322
Total Coliform Rule	97	78			1,062	487
Surface Water Treatment Rule			4	3	0	0
Lead and Copper Rule			0	0	157	112

Total Number of Regulated Systems	1,215
Total Number of Systems in Violation	694
Total Number of Violations	1,796

Where to Obtain 1998 Annual State Public Water Systems Report

West Virginia did not provide a specific source for obtaining a copy of its report. For more information, contact the West Virginia Bureau for Public Health, Office of Environmental Health Services, 815 Quarrier Street, Suite 418, Charleston, West Virginia, 25301-2616; telephone (304) 558-2981.

State of Wisconsin 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	43	40			1,767	914
Total Coliform Rule	549	549			896	860
Surface Water Treatment Rule			0	0	0	0
Lead and Copper Rule			2	2	46	40

Total Number of Regulated Systems	11,807
Total Number of Systems in Violation	2,363
Total Number of Violations	3,303

Where to Obtain 1998 Annual State Public Water Systems Report

Wisconsin's State Report is available by contacting the Bureau of Drinking Water and Groundwater, State of Wisconsin Department of Natural Resources, P.O. Box 7921, Madison, WI 53707, telephone (608) 266-6669.

State of Wyoming 1998 PWS Compliance Report

Violations for 1998

Violations Category	MCL		Treatment Technique		Violations	
	Violations	Systems in Violation	Violations	Systems in Violation		
Chemical Contaminant Group	0	0			52	52*
Total Coliform Rule	70	56			194	144
Surface Water Treatment Rule			33	12	5	4
Lead and Copper Rule			0	0	2	2

Total Number of Regulated Systems	800**
Total Number of Systems in Violation	270*
Total Number of Violations	356

* Possibly overcounts violating systems.

** This number is an approximation provided by EPA.

Where to Obtain 1998 Annual State Public Water Systems Report

The report for the state of Wyoming is available from: John Gillis, EPA Region 8, 999 18th Street, Suite 500, Denver, CO 80202-2466, phone (303) 312-6229.

Appendix C

Map of Indian Lands

