



2008

NEW MEXICO

Annual
Public Water Systems
Compliance Report

**New Mexico Environment Department
Drinking Water Bureau**

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Introduction

Each year the New Mexico Environment Department's (NMED) Drinking Water Bureau (DWB) prepares the U.S. Environmental Protection Agency (EPA) required "Public Water Systems Compliance Report" (Report) listing the various types of drinking water violations accrued by public water systems during the previous calendar year. This Report is a mandated requirement for DWB as part of the federally funded Public Water System Supervision (PWSS) Program and encompasses violations of the Safe Drinking Water Act (SDWA) during calendar year 2008. The DWB protects drinking water quality by providing technical assistance, water system oversight, enforcement, and source water protection to New Mexico's public water systems.

In 2008, there were approximately 1,246 public water systems (System) that provided drinking water in New Mexico. These Systems provided drinking water to approximately 1,828,500 people. This is approximately 88% of the population of New Mexico. Of the total Systems in New Mexico, at that time, approximately 95% purchased or used ground water as the primary source of drinking water.

Number of PWSs in New Mexico by Type and Size (From 1/1/2008 to 12/31/2008) (Very Small: <500, Small: 501 - 3300; Medium: 3,301 - 10,000; Large >10,000)										
	Very Small		Small		Medium		Large		TOTAL	
	SYS	POP	SYS	POP	SYS	POP	SYS	POP	SYS	POP
C	436	75,598	128	179,165	36	236,944	25	1,208,370	625	1,700,077
NC	434	42,347	22	28,389	1	5,000	0	0	457	75,736
NTNC	142	21,283	20	23,452	2	7,895	0	0	164	52,630
TOTAL	1,012	139,228	170	231,006	39	249,839	25	1,208,370	1,246	1,828,443

Number of PWSs in New Mexico by Source and Population (From 1/1/2008 to 12/31/2008)														
	GU		GUP		GW		GWP		SW		SWP		TOTAL	
	SYS	POP	SYS	POP	SYS	POP	SYS	POP	SYS	POP	SYS	POP	SYS	POP
C	7	2,480	0	0	548	943,005	27	15,668	28	705,451	15	33,473	625	1,700,077
NC	6	2,116	2	450	431	66,714	8	2,304	7	2,335	3	1,817	457	75,736
NTNC	0	0	0	0	153	46,257	4	5,025	3	353	4	995	164	52,630
TOTAL	13	4,596	2	450	1,132	1,055,976	39	22,997	38	708,139	22	36,285	1,246	1,828,443

GU-Ground Water UDI Surface Water, GUP-Purchase Ground Water UDI Surface Water, GW-Ground Water, GWP-Ground Water Purchase, SW-Surface Water, SWP-Surface Water Purchase

The water quality of New Mexico's public water systems is generally very high, as documented by routine sampling and analysis. During calendar year 2008, the EPA Safe Drinking Water Information System (SDWIS/FED) showed that 500 Systems in New Mexico received at least one significant violation. Of this total, 148 Systems received health based violations. These violations consisted of 41 chemical Maximum Contaminant Level (MCL) violations, 83 total coliform MCL violations, 11 disinfection-by-product MCL violations, 10 surface water treatment technique rule violations, 1 Lead and Copper treatment violation, and 7 disinfection-by-product treatment technique violations. The remaining Systems received violations for non-water quality and/or non-health based requirements of the SDWA. These requirements include failure to:

- 1) perform routine monitoring, as required by the Total Coliform Rule;
- 2) perform lead and copper monitoring;
- 3) provide public notice of violations; and
- 4) publish a Consumer Confidence Report.

BACKGROUND

The EPA established the PWSS Program under the authority of the 1974 Safe Drinking Water Act (SDWA). The SDWA applies to the 50 States, the District of Columbia, Indian lands, Puerto Rico, the Virgin Islands, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands.

Under the SDWA and the 1986 Amendments, EPA has set national limits on contaminant levels in drinking water to ensure that drinking water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs) and the Maximum Residual Disinfectant Levels (MRDLs). For some regulations, EPA established treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water. EPA also regulates how often Systems monitor for contaminants and the reporting frequency of the results to the state or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements become. In addition, EPA requires Public Water Systems to monitor for unregulated contaminants to provide data for future regulatory development.

EPA requires each System to notify its consumers when it has violated these regulations. The 1996 Amendments to the SDWA require consumer notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the System is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

The SDWA allows each state and territory to seek EPA approval to adopt and administer its own PWSS Program. The authority to run a PWSS Program is referred to as primacy. To receive primacy, a state must meet certain requirements of the SDWA and federal regulations, including the adoption of drinking water regulations that are at least as stringent as the federal regulations and a demonstration that it can enforce the program requirements. The State of New Mexico has been a primacy state since 1976. Of the 57 states and territories, all but Wyoming and the District of Columbia have primacy. The EPA Regional Offices administer the PWSS Program within these two jurisdictions.

The 1986 SDWA Amendments authorized Indian Tribes the ability to obtain primacy. To receive primacy, a Tribe must meet the same requirements as a state. EPA currently administers PWSS Programs for all Indian lands except the Navajo Nation, which was granted primacy in late 2000.

ANNUAL PUBLIC WATER SYSTEMS COMPLIANCE REPORT REQUIREMENTS

As part of the primacy requirements, states submit data to the SDWIS/FED on a quarterly basis. The SDWIS/FED database is an automated database that is maintained by EPA. Data submitted includes System inventory information, the incidence of MCL, MRDL, monitoring, and treatment technique violations, and information on enforcement activity related to these violations. Section 1414(c)(3) of the Safe Drinking Water Act requires states to provide EPA with an annual report of violations of the primary drinking water standards. This Public Water Systems Compliance Report provides the number of violations in each of six categories:

- 1) MCLs,
- 2) MRDLs,
- 3) treatment techniques,

- 4) variances and exemptions,
- 5) significant monitoring violations, and
- 6) significant consumer notification violations.

The EPA regional offices report the information for Wyoming, the District of Columbia, and all Indian lands, with the exception of the Navajo Nation. EPA regional offices also report federal enforcement actions taken. Data retrieved from SDWIS/FED form the basis of this Report. The EPA Region 6 contact person for information related to Indian lands compliance reporting, not contained in this Report, is Blake Atkins, at (214) 665-2297.

PUBLIC WATER SYSTEM

A Public Water System (System) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. There are three types of Systems:

- 1) community (such as cities, towns, villages, and mobile home parks),
- 2) non-transient non-community systems (such as schools or factories) or
- 3) transient non-community systems (such as highway rest stops, campgrounds).

During calendar year 2008, approximately 1,828,500 consumers were served drinking water by Systems in New Mexico. The vast majority (93%) of this population was served by community water systems such as the City of Albuquerque and the City of Santa Fe. It is important to understand that community water systems have many more regulations and rules to follow in comparison to transient non-community water systems. This is significant because people who obtain drinking water from home are more likely to have an increased exposure to any health risks from that water supply in comparison to that of a rest stop along an isolated stretch of highway.

MAXIMUM CONTAMINANT LEVEL

Under the SDWA, EPA set national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption and protection of public health. These limits are known as MCLs.

MAXIMUM RESIDUAL DISINFECTANT LEVEL

The EPA also sets national limits on residual disinfectant levels in drinking water to reduce the risk of exposure to disinfectant byproducts formed when Systems add chemical disinfectant for either primary or residual treatment. These limits are known as MRDLs.

TREATMENT TECHNIQUES

For some regulations, the EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, some bacteria, and turbidity.

MONITORING

A System is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. If a System fails to have its water tested as required, then a monitoring violation occurs. A monitoring violation also includes the failure of a System to report test results correctly to the primacy agency (NMED).

SIGNIFICANT MONITORING VIOLATIONS

For this Report, significant monitoring violations are defined as any significant monitoring violation that occurred during the calendar year of the report (2008). A significant monitoring violation, with rare exceptions, occurs when no samples were taken or no results were reported during a compliance period.

CONSUMER NOTIFICATION

Every community water system is required to deliver to its customers a brief annual water quality report called a Consumer Confidence Report (CCR). The CCR includes some educational material and provides information on the source water, the level of any detected contaminants, and compliance with drinking water regulations.

SIGNIFICANT CONSUMER NOTIFICATION VIOLATIONS

For this Report, a significant public notification violation occurred if a community water system

failed to provide its customers the required annual water quality report (CCR).

VIOLATIONS TABLES AND SYSTEMS WITH REPORTED VIOLATIONS

As part of the annual compliance reporting requirements, this Report contains tables that summarize the significant violations and the number of Systems with reported violations during calendar year 2008. In addition, a list of Systems that received MCL or treatment technique violations is located in Appendix A of this Report. Data used in this Report was obtained from SDWIS/FED.

The tables on the following pages summarize the significant drinking water regulation violations and the number of Systems that incurred those violations during calendar year 2008.

Inorganic Contaminants (IOC)

Contaminants	MCL (mg/L)	# of Violations	# of Public Water Systems in Violation
Fluoride	4.0	35	11
Nitrate-Nitrite (as Nitrogen)	10	3	3
Arsenic	0.05	53	21
Totals		91	33*

* A single public water system could violate more than one IOC MCL

Violation	# of Violations	# of Public Water Systems in Violation
IOC Monitoring Routine	1	1
Totals Systems With IOC Monitoring	1	1

Public water systems are required to monitor for 15 inorganic compounds such as fluoride, heavy metals and nitrate. The majority of the inorganic MCL contaminant violations are suspected to be associated with naturally occurring sources. Nitrate MCL violations are likely to have originated from anthropogenic sources such as septic disposal systems.

Radionuclide Contaminants (RAD) MCL

Contaminants	MCL	# of Violations	# of Public Water Systems in Violation
Gross Alpha, Excl. Radon & Uranium	15 pCi/L	8	5
Combined Uranium	30 ug/L	19	11
Combined Radium (-226 & -228)	4 pCi/L	0	0
Totals		27	12*

*A single public water system could violate more than one RAD MCL

Radionuclide contaminants consist of radioactive particles such as radium-226, radium 228, gross alpha, and beta particle/photon radioactivity. The implementation of the Radionuclide Rule has significantly increased the total number of violations associated with radionuclide contaminants. These contaminants can occur naturally, or may result from human activity. It should be noted that the State of New Mexico is rich in naturally occurring radioactive uranium ore deposits such as those found in the San Juan Basin and the Pojoaque Valley.

Coliforms (TCR)

Violation Name	# of Violations	# of Public Water Systems in Violation
Coliform MCL, Acute	13	11
Coliform MCL, Monthly	102	82
Totals	115	83*

*A single public water system could violate more than one TCR MCL

Violation Name	# of Violations	# of Public Water Systems in Violation
Coliform Monitoring, Routine Major	166	123
Coliform Monitoring, Repeat Major	39	28
Totals	205	142*

*A single public water system could violate more than one TCR Monitoring and Reporting requirement

The Total Coliform Rule (TCR) requires all Systems to monitor for coliform bacteria. Although coliform bacteria tends to be found in decaying organic material and the intestinal tract of humans and animals, it is not usually harmful to human health. The presence of coliform bacteria in the distribution systems of public water supplies is used as an indicator that more dangerous microbiological contamination may be present. The total coliform MCL is the most frequently violated health-based standard in both New Mexico and the United States. The large

number of monitoring violations can be attributed in part to the complexity of this rule. The DWB recognizes the need to educate the System operators and has focused on individual and group training sessions by DWB staff and technical assistance providers to reduce these violations. These efforts will continue to assist with the reduction of TCR violations in future years.

Surface Water Treatment Rule/Interim Enhance Surface Water Treatment Rule (SWTR/IESWTR)

Violation Name	(SWTR/IESWTR)Treatment Technique Violation	# of Violations	# Public Water Systems in Violation
Treatment Technique (SWTR/IESWTR)	Treatment Technique Violation	6	3
Failure to Filter (SWTR/IESWTR)	Treatment Technique Violation	8	5
Treatment Technique	Exceeds Turbidity of 1 NTU	5	2
Treatment Technique	Exceeds Turbidity of 0.3 NTU	12	2
Totals		31	10*

*A single public water system could violate more than one treatment technique

Violation Name	SWTR Monitoring Violation	# of Violations	# of Systems with Violations
Monitoring, Routine/Repeat (SWTR/IESWTR-Filter)	Failure to Monitor	5	3
Monitoring and Reporting Filter Turbidity	Failure to Report	5	2
Totals		5	3*

*A single public water system could violate more than one monitoring requirement

The Surface Water Treatment Rule (SWTR) requires public water systems that are served by either surface water or ground water under the influence of surface water to treat the water by filtration and disinfection in an effort to reduce the potential exposure to microbiological contamination. This rule applies to approximately 51 Systems in New Mexico.

The Surface Water Treatment Rule/Interim Enhance Surface Water Treatment Rule (SWTR/IESWTR) is designed to address the health risks from microbial contaminants without significantly increasing the danger from chemical contaminants. The IESWTR applies to Systems that use surface water or ground water under the direct influence of surface water (GWUDI) as a source and serve 10,000 or more people.

Disinfection Byproducts Rule (DBP)

Violation Name	MCL Violation	# of Violations	# of Public Water Systems in Violation
MCL, Average	DBP MCL	27	10
Non-Acute	MRDL	1	1
Totals		28	11

Violation Name	Treatment Technique or Monitoring Violation	# of Violations	# of Public Water Systems in Violation
Monitoring & Reporting Stage 1	Failure to Monitor	27	12
Treatment Technique No Certified Operator	No Certified Operator	7	7
Totals		34	19

The Disinfection Byproducts Rule (DBP) applies to all Systems that add a chemical disinfectant, except for transient water systems that add a disinfectant other than chlorine dioxide. This rule requires these Systems monitor for disinfection byproduct contaminants and disinfectants within the system. The DBP is a new and complicated rule that is proving to be difficult for Systems to understand and maintain compliance.

Lead and Copper Rule (LCR)

Violation Name	Treatment Technique or Monitoring Violation	# of Violations	# of Public Water Systems in Violation
Pb & Cu, Initial Tap Sampling	Failure to Monitor	32	26
Pb & Cu, Follow up & Routine Tap Sampling	Failure to Monitor	119	97
Public Education	Failure to provide Public Education	1	1
Totals		152	120*

*A single public water system can have multiple violations of the PB & Cu rule.

The Lead and Copper Rule applies to all community and non-transient non-community water systems and requires them to monitor these contaminants in an effort to identify and minimize the risk of exposure in drinking water. If action levels are exceeded, the System may need to take steps to minimize exposure by installing corrosion control, providing public education, treat the source water or replace lead service lines. All of the violations of the Lead and Copper Rule for 2008 were for the System's failure to monitor and provide public education. Throughout the implementation history of this rule, very few water systems in New Mexico have been identified

to have significant lead and copper action level exceedance. The vast majority of historical violations associated with this rule pertain to failure to meet the monitoring requirements. A significant increase in the number of violations is attributable to increased efforts by DWB to identify these violations in 2008.

Public Notification Violation (PN)

Violation Name	Treatment Technique or Monitoring	# of Violations	# of Systems with Violations
PN Violation for NPDWR Violation	Failure to provide Public Notification	358	166
Totals		358	166

All Systems are required to notify its customers (1) when the System fails to comply with drinking water regulations, (2) when the System has a variance or exemption from drinking water regulations or (3) when the System is facing some other situation posing a public health risk.

Consumer Notification Violation (CCR)

Violation Name	# of Violations	# of Systems with Violations
CCR Failure to Report	216	134
Totals	216	134

All community water systems are required to prepare and provide their customers with an annual Consumer Confidence Report (CCR). The CCR summarizes the quality of the drinking water and any violations. Significant violations identified in this Report include the failure to prepare and provide an annual CCR. These violations persist each year until each annual CCR is prepared and provided to the consumers of the System.

CONCLUSIONS FOR 2008

The number of Systems receiving violations in 2008 increased when compared to violations in 2007. In 2008, there was also a slight increase of 3% in the number of Systems receiving an MCL and/or Treatment Technique violation. As shown in Table A below, this increase was primarily due to a change in the MCL for Arsenic. The rule change resulted in a 700% increase in the number of Systems in violation of the Arsenic Rule. It is also important to note a 14% decrease in the number of Systems with an MCL violation of the TCR.

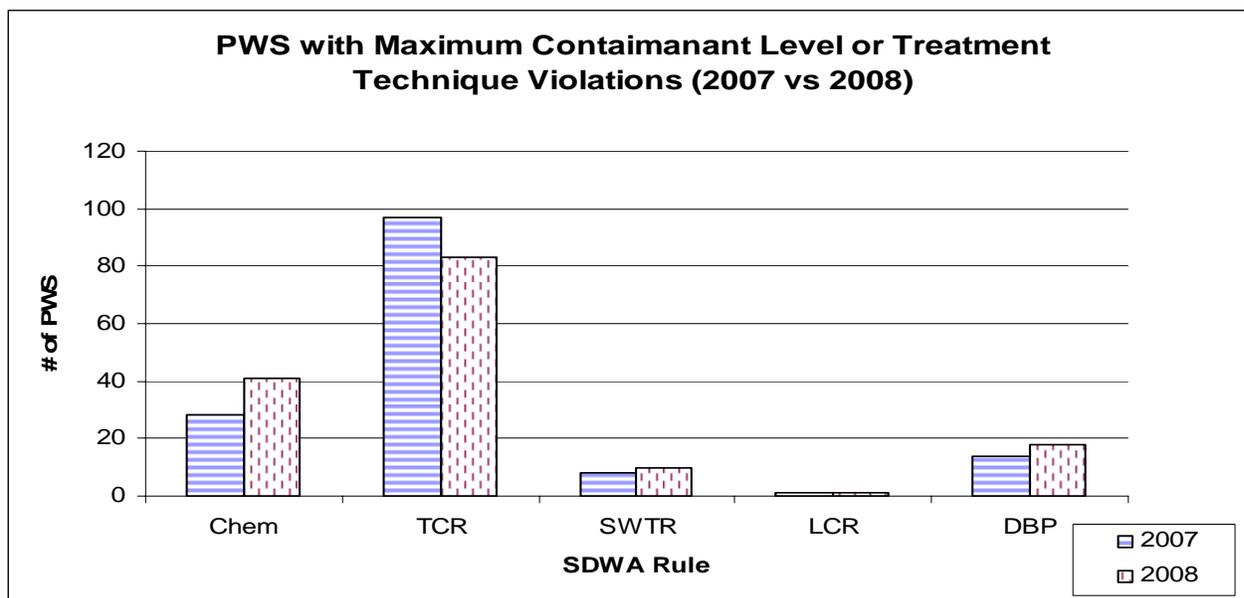


TABLE A

In 2008, there was an increase of 10% in the number of Systems receiving a monitoring or reporting violation. Table B on page 15 demonstrates that this increase was due to CCR and Public Notice compliance. The number of Systems that received a monitoring and reporting violation for the chemical rule, TCR, LCR, and DBP rule decreased by 14% from 2007 to 2008. This decrease indicates that Systems and DWB are making improvements in the collection of SDWA required sampling. A significant increase in the number of Systems receiving violations for failure to provide consumer notifications occurred in 2008. This increase appears to be the result of two factors; 1) an increased diligence by DWB staff in entering information into SDWIS and; 2) an increased ability to determine if Systems are providing public notice as required by the SDWA.

Compliance determination has improved through enhanced internal communication, expanded enforcement efforts, supplemental training on compliance and enforcement reporting, and the

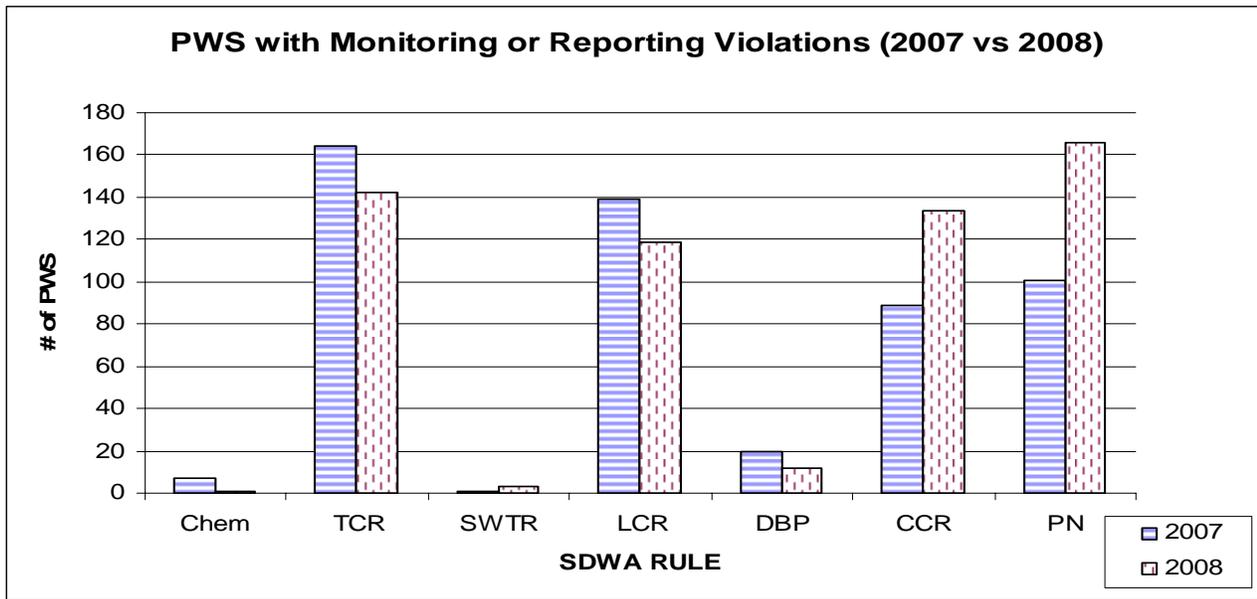


TABLE B

continued implementation of the SDWIS/State database. Of the 1,268 violations identified in 2008, 334 of the violations returned to compliance (26%). An increase in the identification of drinking water violations as well as improved reporting by staff ensures that safer drinking water is available for New Mexico citizens.

During 2008, escalated enforcement actions were used to return Systems that had a history of significant violations to compliance. Twenty-five formal enforcement actions were taken by DWB enforcement staff to address the violations in 2008. Of these enforcement actions, all 25 received technical assistance and 10 Systems returned to compliance. The increase in DWB's enforcement activities reflects a positive enhancement of the NMED's regulatory capabilities for the constituents identified in this report. Set-aside programs such as Capacity Development provided means to allow DWB and contracted assistance providers to identify needs and provide assistance in order to increase the technical, financial, and managerial capacity of many of these Systems.

The implementation of the Expense Reimbursement Grant and Training Program for Water System Operators increased the training available to certified operators in New Mexico. It is anticipated that this program will increase System compliance with drinking water regulations by offering the incentives of expense reimbursement and additional training opportunities to small water operators throughout rural New Mexico. All of these activities combined provide information demonstrating enhanced reporting mechanisms as well as enhanced support of SDWA compliance and oversight.

OBTAINING A COPY OF THE REPORT

As required by the SDWA, New Mexico has made the *2008 Public Water Systems Compliance Report* available to the public. Interested individuals can obtain a copy of the complete Report for New Mexico by contacting Danny Valenzuela of the NMED Drinking Water Bureau (DWB) at (505) 476-9649 or toll free at (877) 654-8720, or at the following Web site:

<http://www.nmenv.state.nm.us/dwb/dwbtop.html>