

Summary of Annual Drinking Water Compliance Report for 1999



prepared by the

Drinking Water Program
Municipal Facilities Division
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North Dakota Department of Health

June 2000

INTRODUCTION

The Federal Safe Drinking Water Act (SDWA) was significantly amended in 1996. The amended SDWA contains many new provisions, several of which are intended to improve consumer awareness on drinking water compliance issues. One such provision requires states to prepare and submit to the U.S. Environmental Protection Agency (EPA) an annual report on public water system (PWS) violations within their state. The EPA, in turn, is required to summarize the states' reports in an annual national report and make the report available to the public.

This report represents a summary of the full 1999 report provided to the EPA to satisfy the requirement. Please note that there are only minor differences between this summary report and the full report. The full report describes all other SDWA contaminants for which there were no violations incurred by North Dakota PWSs (including associated definitions). Otherwise, the reports are identical.

Public Water System

A PWS 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 PWSs. PWSs can be community (such as towns), nontransient noncommunity (such as schools or factories), or transient noncommunity systems (such as rest stops or parks). For this report, when the acronym "PWS" is used, it means systems of all types unless specified otherwise.

In North Dakota in 1999, 323 systems were classified as Community Water Systems (CWSs), 35 as Nontransient Noncommunity Water Systems (NTNCWSs), and 216 as Transient Noncommunity Water Systems (TNCWSs) for a total of 574 PWSs.

1999 SDWA Violations

The following tables depict SDWA violations incurred by North Dakota PWSs in calendar year 1999 and include: unresolved violations (from previous calendar years); and, violations that cross calendar year 1999 (i.e., violations determined in 2000 based on 1999 monitoring data). There were a total of 168 violations and 113 systems in violation in North Dakota for 1999.

State: North Dakota

Reporting Interval:

January 1999 - December 1999

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
ORGANIC CONTAMINANTS							
1,1,1-Trichloroethane						1	1
1,1,2-Trichloroethane						1	1
1,1-Dichloroethylene						1	1
1,2,4-Trichlorobenzene						1	1
1,2-Dichloroethane						1	1
1,2-Dichloropropane						1	1
Benzene						1	1
Carbon tetrachloride						1	1
Chlorobenzene						1	1
cis-1,2-Dichloroethylene						1	1
Dichloromethane						1	1
Ethylbenzene						1	1
o-Dichlorobenzene						1	1
para-Dichlorobenzene						1	1
Styrene						1	1
Tetrachloroethylene						1	1
Toluene						1	1
trans-1,2-Dichloroethylene						1	1

State: North Dakota

Reporting Interval:

January 1999 - December 1999

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Trichloroethylene						1	1
Vinyl chloride						1	1
Xylenes (total)						1	1
Subtotal						21	1
INORGANIC CONTAMINANTS							
Arsenic	0.05	2	2				
Selenium	0.05	1	1				
Total nitrate and nitrite	10 (as Nitrogen)					1	1
Subtotal		3	3			1	1
TOTAL COLIFORM RULE							
Acute MCL violation	Presence	8	7				
Non-acute MCL violation	Presence	31	18				
Major routine and follow up monitoring						92	71
Subtotal		39	28			92	71

State: North Dakota

Reporting Interval:

January 1999 - December 1999

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Minor routine and follow up monitoring NOTE: EPA does not require minor monitoring violations to be counted for the ACR.						7	7
SURFACE WATER TREATMENT RULE							
Filtered systems							
Monitoring, routine/repeat							
Treatment techniques				1	1		
Subtotal				1	1		
LEAD AND COPPER RULE							
Follow-up or routine lead and copper tap M/R						2	2
Subtotal						2	2
CONSUMER CONFIDENCE REPORT RULE							
CCR Report violation						2	2
Subtotal						2	2

1. Values are in milligrams per liter (mg/L), unless otherwise specified.

Definitions for Summary of Violations Table

The following definitions apply to the Summary of Violations Table.

Consumer Confidence Report (CCR) Rule: The CCR Rule requires all community water systems to issue annual drinking water quality reports to their customers. States are to report two categories of violations:

CCR Report Violation: A violation that exists when a PWS fails to produce and deliver the report to the public and provide a copy to the State by the annual due date or the State determines the report was grossly inadequate and must be regenerated and delivered providing a copy to the State.

CCR Adequacy/Availability/Content Violation: A violation where the State determines the report is deficient in language, content, and/or meeting availability requirements.

Filtered Systems: Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following six categories:

Initial lead and copper tap M/R: A violation where a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: A violation where a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment installation: Violations for a failure to install optimal corrosion control treatment or source water treatment which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in both categories].

Lead service line replacement: A violation for a system's failure to replace lead service lines on the schedule required by the regulation.

Public education: A violation where a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

Reporting Interval: The reporting interval for violations to be included in the Annual Compliance Report, which is to be submitted to EPA by July 1, 1998, is from January 1, 1997 through December 31, 1997.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the Surface Water Treatment Rule are to be reported for the following four categories:

Monitoring, routine/repeat (for filtered systems): A violation for a system's failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): A violation for a system's failure to properly treat its water.

Monitoring, routine/repeat (for unfiltered systems): A violation for a system's failure to carry out required water tests, or to report the results of those tests.

Failure to filter (for unfiltered systems): A violation for system's failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during one month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: A violation where the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

Non-acute MCL violation: A violation where the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

Major routine and follow-up monitoring: A violation where a system did not perform any monitoring. One number is reported for the sum of violations in these two categories.

Sanitary Survey: A major monitoring violation where a system fails to collect 5 routine monthly microbiological samples if a sanitary survey has not been performed during the previous 5 years.

Treatment Techniques: Treatment or other measures that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet operational and system requirements under the Surface Water Treatment Rule, the Lead and Copper Rule, and the Phase II Rule (Acrylamide and Epichlorohydrin) have been included in this category of violation for the purposes of this report.

Violation: A failure to meet any state or federal drinking water regulation.

VARIANCES AND EXEMPTIONS

North Dakota presently has no PWSs operating under a variance or exemption.

CONCLUSION

The vast majority of PWSs in North Dakota maintain an excellent SDWA compliance record. Annually, approximately 400 Certificates of Compliance are issued to operators who maintain full compliance.

The following tables illustrate the high compliance rate (for calendar year 1999) maintained by North Dakota PWSs. It is the responsibility of each PWS under the SDWA to properly comply with all drinking water monitoring, reporting, MCL and treatment technique requirements.

Under the TCR, all PWSs are required to collect and submit a prescribed number of microbiological samples (based on population served) each month or quarter to a certified laboratory for analysis on an ongoing basis. Under the SWTR, PWSs that utilize surface water (currently 29 in North Dakota) are required to maintain finished water turbidity at or below certain target levels. Such systems are also required to maintain residual disinfectant concentrations at or above certain target levels (applies both to water entering and within the distribution system).

As it is nationwide, North Dakota's predominant compliance problem is ensuring that all required microbiological samples are collected. The department will continue to work with the PWSs in the state to improve compliance.

	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations
Organic Contaminants						
Community Water Systems (CWS)	323	100%	323	100%	323	99.7%
Nontransient Noncommunity Water Systems (NTNCWS)	35	100%			35	100%
Transient Noncommunity Water Systems (TNCWS)	0				0	
Inorganic Contaminants						
CWS	323	99%			323	99.7%
NTNCWS	35	100%			35	100%
TNCWS	216	100%			216	100%

	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations	Total Number of Systems Required to Monitor	Percentage of Systems with <u>No</u> Violations
Radionuclides						
CWS	323	100%			323	100%
NTNCWS	35	100%			35	100%
TNCWS	0				0	
Total Coliform Rule						
CWS	323	95.7%			323	88.9%
NTNCWS	35	97.1%			35	97.1%
TNCWS	216	95.4%			216	84.3%
Surface Water Treatment Rule¹						
CWS			19	100%	19	100%
NTNCWS			8	87.5%	8	100%
TNCWS			2	100%	2	100%
Lead and Copper Rule						
CWS			323	100%	323	99.4%
NTNCWS			35	100%	35	100%
TNCWS			0		0	
Consumer Confidence Report Rule						
CWS					323	99.4%
NTNCWS					0	
TNCWS					0	

1. Only those systems that use surface water are required to monitor under and comply with the SWTR.

LIST OF SYSTEMS WITH VIOLATIONS IN 1999¹

Organic Violations

Community and Noncommunity Water Systems

1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethylene, 1,2,4-Trichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, Benzene, Carbon Tetrachloride, Chlorobenzene, Dichloromethane, Ethyl Benzene, Styrene, Tetrachloroethylene, Toluene, Trichloroethylene, Vinyl Chloride, Xylene(s), cis-1,2-Dichloroethylene, o-Dichlorobenzene, para-Dichlorobenzene, and trans-1,2-Dichloroethylene

Failure to Monitor

Colony Trailer Park (Ward County)

Inorganic Violations

Community and Noncommunity Water Systems

Arsenic MCL Violation

Galesburg - violation from previous calender year

Blending with water from Traill County Rural Water.

Returned to compliance 3/00.

Strasburg - violation from previous calender years

Drilling new well to blend in low arsenic water.

Returned to compliance 3/00.

Selenium MCL Violation

Steele - unresolved violation from previous calender year

Blending with other wells. Quarterly testing being done.

Total Nitrate and Nitrite Failure to Monitor Violation

Ryder

Microbiological Violations

Community Water Systems

Acute Maximum Contaminant Level Violations (MCLA)

Havana-South System - 2

Milnor

Rutland

Walcott

Maximum Contaminant Level Violations (MCL)

Benedict - 2

Berthold - 2

Cleveland

Dazey

Havana-North System

Havana-South System - 2

Milnor

Ransom-Sargent WU (Ransom County)

Rolette

Rolla

Rutland

Sibley

Walcott

Woodworth

Failure to Monitor Major and Follow-Up Monitoring Violations (FMma and MaR)

Abercrombie - 2

Almont

Battleground Addition (Ward County) - 2

Bowdon

Coleharbor - 2

Crary

Elliott - 2

Emerado

Forbes

Forest River Colony (Grand Forks County) - 2

Fradets Orchard Water System (Cass County)

FMma and MaR con't

Golva
Hankinson
Havana-North System - 2
Havana-South System - 2
Hazelton
Highland Park Homeowners Association (Cass County)
Hope
Horseshoe Bend Addition (Cass County)
Imperial Valley Water Co (Burleigh County)
Kenmare
Kulm
Lake Shure Homeowners Assoc (Cass County) - 2
Oriska
Plaza
Sanborn
Solen
Sundale Hutterian Assoc (Sargent County) - 3
Taylor
Tower City
University of Mary (Burleigh County) - 2
Venturia
Willow City
Wimbledon
Wing
Woodworth - 2

Failure to Monitor Minor and Follow-Up Monitoring Violations

(FMmi and MiR) NOTE: EPA does not require minor monitoring violations to be counted for the ACR.

Binford
Crary
Montpelier
New Town
Sibley

Microbiological Violations

Noncommunity Water Systems

Acute Maximum Contaminant Level Violations (MCLA)

Des Lacs NWR (Ward County)
Graner Park (Morton County)
Wangsness (Water Hauler) (Burke County)

Maximum Contaminant Level Violations (MCL)

American Legion Club (Benson County)
Camp Bentley (McHenry County)
Des Lacs NWR (Ward County)
Garden Valley School (Williams County) - 2
Graner Park (Morton County)
Jeffs Water Service (Burke County)
Lamoure County Memorial Park (Lamoure County)
Mouse River F U Camp (McHenry County) - 2
Park River Bible Camp (Walsh County)
Strawberry Lake Campground (Bottineau County)
Wangsness (Water Hauler) (Burke County) - 2

Failure to Monitor Major and Follow-Up Monitoring Violations (FMma and MaR)

Arnegard Ballpark (McKenzie County)
Asbury Camp Meeting Assoc (McLean County)
Beaver Lake State Park (Logan County)
Boat Ramp 74 (Bottineau County)
Carbury Rec Area (Bottineau County)
Crossroads Restaurant (Dunn County)
Driscoll Public School (Burleigh County)
Farmers Table Café (Cass County) - 2
Fort Buford State Historic Site (Williams County)
Four Corners Café (Billings County)
Franks Place (McHenry County) - 2
Grandview Motel (Williams County) - 3
Group Camp Complex 71 (Bottineau County)
Harvest Moon Restaurant & Lounge (Hettinger County)
formerly called The Curve Nite Club
Kite Café

FMma and MaR con't

Lamoure County Memorial Park (Lamoure County)
Lidgerwood Park (Richland County)
Long Lake NWR (Burleigh County)
Long X Saloon (McKenzie County) - 2
Maid O Moon Shine Campground (Bottineau County)
Mel's Marina (Dunn County)
Mr. G's Turtle Mountain Lodge (Bottineau County)
formerly called Turtle Mountain Lodge
Pilgrim Park (Bottineau County)
Riverside Supper Club (Dickey County)
Rugby Eagles Aerie #3834 (Pierce County)
The Big D (Kidder County)
The Hideout (Dunn County) - 2
Tioga Golf and Country Club (Williams County)
Tobacco Garden Rec Area (McKenzie County)
Trail's End Bar and Diner (Hettinger County) - 2
VFW Club (Williams County) - 2
Voyager Cove Camp (Mercer County)
Washegum Campground 72 (Bottineau County)
Wishek Livestock Market Café (McIntosh County) - 2
Woodland Resort (Ramsey County)

Failure to Monitor Minor and Follow-Up Monitoring Violations

(FMmi and MiR) NOTE: EPA does not require minor monitoring violations to be counted for the ACR.

American Legion Club (Benson County)
Strawberry Lake Campground (Bottineau County)

Surface Water Treatment Rule

Community and Noncommunity Water Systems Treatment Technique Violations

ProGold Corn Wet Milling Plant (Richland County)

Lead and Copper Rule

Community and Nontransient Noncommunity Water Systems

Follow-Up or Routine Lead and Copper Tap Failure to Monitor/Report Violations

Colony Trailer Park (Ward County)
Ryder

Consumer Confidence Report Rule

Community Water Systems

CCR Report Violations

Colony Trailer Park (Ward County)
Minot Mobile Estates (Ward County)

1. Multiple violations within a specified category are represented by a number following the system name (i.e., "Monango - 3" under Microbiological Violations, Community Water Systems, MCL Violations means Monango incurred 3 MCL violations during the reporting period).