

SUMMARY OF ANNUAL DRINKING WATER COMPLIANCE REPORT FOR 1998

prepared by the

Drinking Water Program
Municipal Facilities Division
Environmental Health Section
North Dakota Department of Health

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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 1998 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 1998, 319 systems were classified as Community Water Systems (CWSs), 32 as Nontransient Noncommunity Water Systems (NTNCWSs), and 213 as Transient Noncommunity Water Systems (TNCWSs) for a total of 564 PWSs.

1998 SDWA Violations

The following tables depict SDWA violations incurred by North Dakota PWSs in calendar year 1998 and include: unresolved violations (from previous calendar years); and, violations that cross calendar year 1998 (i.e., violations determined in 1999 based on 1998 monitoring data).

There were a total of 229 violations and 140 systems in violation in North Dakota for 1998.

State: North Dakota

Reporting Interval:

January 1998 - December 1998

	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							
Acrylamide				1	1		
Subtotal				1	1		
INORGANIC CONTAMINANTS							
Antimony	0.006					1	1
Arsenic	0.05	2	2			1	1
Barium	2					1	1
Beryllium	0.004					1	1
Cadmium	0.005					1	1
Chromium	0.1					1	1
Cyanide (as free cyanide)	0.2					1	1
Fluoride	4.0	1	1			1	1
Mercury	0.002					1	1
Selenium	0.05	1	1			1	1
Thallium	0.002					1	1
Total nitrate and nitrite	10 (as Nitrogen)	3	3			2	2
Subtotal		7	7			13	3

State: North Dakota

Reporting Interval:

January 1998 - December 1998

	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
RADIONUCLIDES							
Radium-226	5 pCi/L					1	1
Subtotal						1	1
TOTAL COLIFORM RULE							
Acute MCL violation	Presence	14	13				
Non-acute MCL violation	Presence	45	15				
Major routine and follow up monitoring						143	109
Subtotal		59	28			143	109
Minor routine and follow up monitoring						13	12
NOTE: EPA does not require minor monitoring violations to be counted for the ACR.							
SURFACE WATER TREATMENT RULE							
Filtered systems							
Monitoring, routine/repeat						1	1
Treatment techniques				2	1		
Subtotal				2	1	1	1

State: North Dakota

Reporting Interval:

January 1998 - December 1998

	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	Numer of Systems With Violations
LEAD AND COPPER RULE							
Follow-up or routine lead and copper tap M/R						1	1
Subtotal						1	1

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.

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 1998) 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)	319	100%	319	99.7%	319	100%
Nontransient Noncommunity Water Systems (NTNCWS)	32	100%			32	100%
Transient Noncommunity Water Systems (TNCWS)	0				0	
Inorganic Contaminants						
CWS	319	98.7%			319	99.7%
NTNCWS	32	100%			32	100%
TNCWS	213	98.6%			213	99.1%

	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	319	100%			319	99.7%
NTNCWS	32	100%			32	100%
TNCWS	0				0	
Total Coliform Rule						
CWS	319	94%			319	83.4%
NTNCWS	32	100%			32	87.5%
TNCWS	213	95.8%			213	75.6%
Surface Water Treatment Rule¹						
CWS			19	100%	19	100%
NTNCWS			8	87.5%	8	87.5%
TNCWS			2	100%	2	100%
Lead and Copper Rule						
CWS			319	100%	319	99.7%
NTNCWS			32	100%	32	100%
TNCWS			0		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 1998¹

Organic Violations

Community and Noncommunity Water Systems

Acrylamide Treatment Technique Violation

New Rockford

Inorganic Violations

Community and Noncommunity Water Systems

Arsenic MCL Violation

Galesburg - unresolved violation from previous calendar year
Blending with water from Traill County Rural Water.
Strasburg - unresolved violation from previous calendar years
Drilling new well to blend in low arsenic water.

Fluoride MCL Violation

Glen Ullin - unresolved violation from previous calendar years
Will be 100% consecutive user of Southwest Pipeline in 1999.

Selenium MCL Violation

Steele

Total Nitrate and Nitrite MCL Violations

The Lodge/The Nut Bar (Barnes County) - unresolved violation from
previous calendar years
Possible consecutive user to Valley City or Barnes Rural Water.
The Office (McCanna) (Grand Forks County)
Hooked up to rural water.
System deactivated in 10/98.
Towner State Nursery (McHenry County)
Irrigation wells put in to remediate contamination.

Total Nitrate and Nitrite Failure to Monitor Violation

Grandview Motel (Williams County)
Trail's End Bar & Diner (Hettinger County)

Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Mercury, Nickel, Selenium, Thallium, Radium- 226

Failure to Monitor

Sheyenne Mobile Home Park (Ransom County)

Microbiological Violations

Community Water Systems

Acute Maximum Contaminant Level Violations (MCLA)

Bowdon
Dazey - 2
Horseshoe Bend Addition (Cass County)
Kathryn
Mercer
Milnor
Solen
Tuttle

Maximum Contaminant Level Violations (MCL)

Battleground Addition (Ward County)
Berthold - 2
Bowdon - 2
Dazey - 2
Horseshoe Bend Addition (Cass County)
Kathryn
Mercer
Milnor
Minot Mobile Estates (Ward County)
Monango - 3
Oakes - 2
Oxbow
Sheyenne Mobile Home Park (Ransom County) - 3
Sibley - 2
Solen
Souris - 2
Talbot Trailer Court (Ward County)

Tuttle
Underwood - 2

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

Abercrombie
Aneta
Apple Valley Coop (Burleigh County)
Barney
Buffalo
Colony Trailer Park (Ward County)
Columbus
Country Acres Water Co. (Cass County)
Deering
Flaxton
Forbes
Fortuna
Fullerton
Golden Valley
Hague
Halliday
Hatton
Hazelton
Hope
Jud - 3
Karlsruhe
Kulm
Litchville - 2
Max
Medina
Medora
Mercer
Missouri River Correctional Center (Burleigh County)
Nekoma
New Town
Oberon
Oriska - 4
Pekin - 3

Portal - 5
Powers Lake
Selkirk Settlement - 2
FMma and MaR con't
Selz Water Users Assoc.
Sharon
Sibley
Solen - 2
Souris
Stanton
Surrey
Taylor
University of Mary - 3
West River Water & Sewer
Wildrose
Williams Rural Water Assoc.
Wimbledon - 2
Wing
Woodworth
Wyndmere
Zeeland

**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.

Buffalo
Forbes
Grand Forks
Montpelier
Oxbow
Ray & Tioga Water System
Selfridge
State Line Water Coop Inc.
Talbot Trailer Court
Wildrose - 2

Microbiological Violations

Noncommunity Water Systems

Acute Maximum Contaminant Level Violations (MCLA)

Cannonball Stage Station SH Site (Grant County)
Corrigidor Bar (Pierce County)
Garden Gate Golf Club (Rolette County)
Little Yellowstone Park (Barnes County)
Sand Dune Saloon (Ransom County)

Maximum Contaminant Level Violations (MCL)

Cannonball Stage Station SH Site (Grant County)
Corrigidor Bar (Pierce County)
Duane Jacques (Water Hauler) (Bottineau County) - 2
Garden Gate Golf Club (Rolette County) - 2
Lake Tschida Residence - 4 (Grant County)
Little Yellowstone Park (Barnes County)
Rimrock Rec Area (Grant County)
Rugby Eagles Aerie #3834 - 2 (Pierce County)
Sand Dune Saloon (Ransom County)

Failure to Monitor Major and Follow-Up Monitoring Violations

(FMma and MaR)

American Legion Club (Benson County)
formerly called All American Steakhouse Lounge - 3
Arnegard Ballpark (McKenzie County) - 2
Arnegard Café (McKenzie County)
Beaver Lake State Park (Logan County)
Behms Truck Stop Café (Ward County)
Big Coulee Dam Rec Area (Towner County)
Bottineau Winter Park Ski Area (Bottineau County)
Camp Bentley (McHenry County)
Contracting Unlimited (Stark County)
Corrigidor Bar (Pierce County)
Crappie Creek North (Grant County)
Crappie Creek Rec Area (Grant County)
Crossroads Restaurant (Dunn County) - 2
Dakota Prairie Café (McLean County)

Downstream Rec Area (Grant County)

FMma and MaR con't

Doyle Memorial State Park (McIntosh County)
Farmers Table Café (Cass County)
formerly called Leonard Café & Grocery - 2
Garden Gate Golf Club (Rolette County)
George's Gathering (Rolette County) - 2
Grandview Motel (Williams County)
Heart Butte F U Camp (Grant County) - 2
Henry Topolski (Water Hauler) (Burke County)
Jacks Bar (Cavalier County)
Kelvin Clinic Bar (Rolette County)
Lamoure County Memorial Park (Lamoure County) - 2
Lidgerwood Park (Richland County)
Little Yellowstone Park (Barnes County)
Long X Saloon (McKenzie County) - 3
North Central of Barnes (Barnes County)
Northside Trailer Area #1 (Grant County)
Pilgrim Park (Bottineau County)
Progold Corn Wet Milling Plant (Richland County)
Red Willow Lake Resort (Griggs County)
Rick's Place (Pierce County)
formerly called Wheel Inn Lounge - 2
Riverside Supper Club (Dickey County)
Ruds Interstate Standard (Morton County)
Rugby Golf Club (Pierce County)
Rugby Eagles Aerie #3834 (Pierce County)
Sand Dune Saloon (Ransom County)
Senior Citizen Building (Burke County)
Tappen Public School (Kidder County)
The Big D (Kidder County)
The Curve Nite Club (Hettinger County)
The Food Barn (Burke County) - 2
The Hideout (Dunn County)
Town & Country Grill (Foster County)
Trail's End Bar and Diner (Hettinger County)
formerly called Dakota's Bar and Diner - 3

Traynor Park (Mountrail County)
Triangle Y Camp (McLean County)

FMma and MaR con't

Turtle Mountain Lodge (Bottineau County)
Two Way Inn & Bar (Mountrail County)- 3
US Port of Entry-St. John (Rolette County)
VFW Club (Williams County) - 2
Voyager Cove Camp (Mercer County)
Wolford High School (Pierce County)
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.
Munich Café & Bowl (Cavalier County)
Sand Dune Saloon (Ransom County)

Surface Water Treatment Rule

Community and Noncommunity Water Systems

Treatment Technique Violations

ProGold Corn Wet Milling Plant (Richland County) - 2

Failure to Monitor Routine/Repeat Violations

Antelope Valley Station (Mercer County)

Lead and Copper Rule

Community and Nontransient Noncommunity Water Systems

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

Crary

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).