

# ANNUAL DRINKING WATER COMPLIANCE REPORT FOR 2019

prepared by the  
Drinking Water Program  
Municipal Facilities Division  
North Dakota Department of Environmental Quality

June 2020

## **INTRODUCTION**

This Annual Compliance Report has been developed to meet the requirement of section 1414 of the 1996 Amendments to the Safe Drinking Water Act (SDWA). The time period covered in this report is January 1, 2019 through December 31, 2019.

### **The Drinking Water Program: An Overview**

The Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under the authority of the 1974 SDWA. Under the SDWA and the 1986 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water. The Agency also regulates how often public water systems (PWSs) monitor their water for contaminants and report the monitoring results to the States or EPA. Generally, the larger the population served by a water system, the more frequent the monitoring and reporting (M/R) requirements. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. Finally, EPA requires PWSs to notify the public when they have violated these regulations. The 1996 Amendments to the SDWA require public notification to include a clear and understandable explanation of the nature of the violation, its potential adverse health effects, steps that the PWS is undertaking to correct the violation and the possibility of alternative water supplies during the violation.

The SDWA applies to the 50 States, the District of Columbia, Indian Lands, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau.

The SDWA allows States and Territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. To receive primacy, States must meet certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. Of the 57 States and Territories, all but Wyoming and the District of Columbia have primacy. The EPA Regional Offices administer the PWSS Programs within these two jurisdictions.

The 1986 SDWA Amendments gave Indian Tribes the right to apply for and receive primacy. To receive primacy, a Tribe must meet the same requirements as a State. To date, no Tribes have been granted primacy. Currently, EPA administers PWSS Programs on all Indian lands.

## **Annual State PWS Report**

An automated database called the Safe Drinking Water Information System (SDWIS) has been developed by the EPA to store drinking water information. Primacy States submit data to the federal version of SDWIS (SDWIS/FED) on a quarterly basis. Data include PWS inventory statistics, the incidence of MCLs, Major Monitoring and Treatment Technique violations, and the enforcement actions taken against violators. The annual compliance report that States are required to submit to EPA will provide a total annual representation of the numbers of violations for each of the four categories listed in section 1414 (c)(3) of the SDWA reauthorization. These four categories are: MCLs, treatment techniques, variances and exemptions, and significant monitoring violations. The EPA Regional Offices report the information for Wyoming, the District of Columbia, and all Indian Lands. Regional offices also report Federal enforcement actions taken. EPA stores this data in SDWIS/FED. This report is based largely on data retrieved from SDWIS/FED.

## **Public Water System**

A Public Water System (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 2019, 317 systems were classified as Community Water Systems (CWSs), 7 as Nontransient Noncommunity Water Systems (NTNCWSs), and 73 as Transient Noncommunity Water Systems (TNCWSs) for a total of 397 PWSs.

## **2019 SDWA Violations**

The following tables depict SDWA violations incurred by North Dakota PWSs in calendar year 2019 and include violations that cross calendar year 2020 (i.e., violations determined in 2020 based on 2019 monitoring data). During 2019, a total of 108 major drinking water violations were issued. A total of 56 out of 397 systems incurred these violations in North Dakota for 2019. EPA requires the reporting of these major drinking water violations in the Annual Compliance Report.

In addition to the major violations discussed above, the State of North Dakota also issued 4 minor drinking water violation, and 14 non-classified (neither major nor minor) consumer notice certification violations during 2019. While EPA does not require the reporting of these minor and non-classified drinking water violations in the Annual Compliance Report, the State of North Dakota does include them throughout the report for public information. Overall, 65 out of 397 systems incurred major, minor, and non-classified drinking water violations during 2019.

## **Availability of Annual Compliance Report (ACR)**

A legal notice stating the availability of North Dakota’s 2019 ACR was published in seven of the state’s major newspapers. A press release was also sent to all fifty-three county newspapers. The ND Drinking Water Program will provide a copy of this report to all inquiries. North Dakota’s State Report is available by contacting the North Dakota Department of Environmental Quality, Division of Municipal Facilities, 918 E Divide Ave-3rd Floor, Bismarck, ND 58501-1947, Attention: LeeAnn Tillotson (701)328.5211 (phone), (701)328.5200 (fax), or [ltillots@nd.gov](mailto:ltillots@nd.gov) (e-mail).

**State:** North Dakota

**Reporting Interval:** January 2019 – December 2019

	MCL/ MRDL (mg/L) <sup>1</sup>	MCLs/MRDLs		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
<b>Organic Contaminants</b>							
1,1,1-Trichloroethane	0.2	0	0			0	0
1,1,2-Trichloroethane	0.005	0	0			0	0
1,1-Dichloroethylene	0.007	0	0			0	0
1,2,4-Trichlorobenzene	0.07	0	0			0	0
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			0	0
1,2-Dichloroethane	0.005	0	0			0	0
1,2-Dichloropropane	0.005	0	0			0	0
2,3,7,8-TCDD (Dioxin)	3x10 <sup>-8</sup>	0	0			0	0
2,4,5-TP	0.05	0	0			0	0
2,4-D	0.05	0	0			0	0
Acrylamide				0	0	0	0
Alachlor	0.002	0	0			0	0
Atrazine	0.003	0	0			0	0
Benzene	0.005	0	0			0	0
Benzo[a]pyrene	0.0002	0	0			0	0
Carbofuran	0.04	0	0			0	0
Carbon tetrachloride	0.005	0	0			0	0
Chlorobenzene	0.1	0	0			0	0
Chlordane	0.002	0	0			0	0
cis-1,2-Dichloroethylene	0.07	0	0			0	0
Dalapon	0.2	0	0			0	0
Di(2-ethylhexyl)adipate	0.4	0	0			0	0

**State:** North Dakota

**Reporting Interval:** January 2019 – December 2019

	MCL/ MRDL (mg/L) <sup>1</sup>	MCLs/MRDLs		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
Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
Dichloromethane	0.005	0	0			0	0
Dinoseb	0.007	0	0			0	0
Diquat	0.02	0	0			0	0
Endothall	0.1	0	0			0	0
Endrin	0.002	0	0			0	0
Epichlorohydrin				0	0		
Ethylbenzene	0.7	0	0			0	0
Ethylene dibromide	0.00005	0	0			0	0
Glyphosate	0.7	0	0			0	0
Heptachlor	0.0004	0	0			0	0
Heptachlor epoxide	0.0002	0	0			0	0
Hexachlorobenzene	0.001	0	0			0	0
Hexachlorocyclopentadiene	0.05	0	0			0	0
Lindane	0.0002	0	0			0	0
Methoxychlor	0.04	0	0			0	0
Monochlorobenzene	0.1	0	0			0	0
o-Dichlorobenzene	0.6	0	0			0	0
Oxamyl (Vydate)	0.2	0	0			0	0
para-Dichlorobenzene	0.075	0	0			0	0
Pentachlorophenol	0.001	0	0			0	0
Picloram	0.5	0	0			0	0
Simazine	0.004	0	0			0	0
Styrene	0.1	0	0			0	0

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Tetrachloroethylene	0.005	0	0			0	0
Toluene	1	0	0			0	0
Total polychlorinated biphenyls	0.0005	0	0			0	0
Toxaphene	0.003	0	0			0	0
trans-1,2-Dichloroethylene	0.1	0	0			0	0
Trichloroethylene	0.005	0	0			0	0
Vinyl chloride	0.002	0	0			0	0
Xylenes (total)	10	0	0			0	0
<b>Inorganic Contaminants</b>							
Antimony	0.006	0	0			0	0
Arsenic	0.01	2	1			0	0
Asbestos	7 million fibers/L < 10 µm long	0	0			0	0
Barium	2	0	0			0	0
Beryllium	0.004	0	0			0	0
Cadmium	0.005	0	0			0	0
Chromium	0.1	0	0			0	0
Cyanide (as free cyanide)	0.2	0	0			0	0
Fluoride	4.0	0	0			0	0
Mercury	0.002	0	0			0	0

**State:** North Dakota

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Nitrate	10 (as Nitrogen)	0	0			0	0
Nitrite	1 (as Nitrogen)	0	0			0	0
Selenium	0.05	0	0			0	0
Thallium	0.002	0	0			0	0
Total nitrate and nitrite	10 (as Nitrogen)	0	0			0	0
<b>Subtotal</b>		2	1			0	0

**Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of ‘NUMBER OF PWS’s IN VIOLATION’, over the various violation types or contaminants, may not add up to the total number of violations.**

<b>Radionuclide MCLs</b>							
Gross alpha	15 pCi/L	0	0			0	0
Radium-226 and radium-228	5 pCi/L	0	0			0	0
Gross beta	4 mrem/yr	0	0			0	0
Uranium	30 ug/L	0	0			0	0
<b>Subtotal</b>		0	0			0	0

**Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of ‘NUMBER OF PWS’s IN VIOLATION’, over the various violation types or contaminants, may not add up to the total number of violations. \* (Violations are reported as failing to monitor a radionuclide group.)**

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
<b>Revised Total Coliform Rule *</b>							
<b>E. coli MCL violation</b>	<b>Presence</b>	0	0				
<b>Level 1 or Level 2 Assessment or Corrective Actions or Seasonal Start-up Procedures</b>	<b>Failure to Monitor or Report</b>			4	4		
<b>Routine and follow-up monitoring, Assessment and Start-up Reporting</b>	<b>Failure to Monitor or Report</b>					69	43
<b>Subtotal</b>		0	0	4	4	69	43
*The Revised Total Coliform Rule replaced the Total Coliform Rule on April 1, 2016. The new RTCR rule as adopted in North Dakota requires all Public Water Systems to sample at least monthly.							
<b>Ground Water Rule</b>							
<b>Monitoring, Source, major</b>	<b>Presence</b>	0	0	0	0	2	2
<b>Compliance Monitoring</b>		0	0	0	0	0	0
<b>Corrective Actions</b>		0	0	0	0	0	0
<b>Subtotal</b>		0	0	0	0	2	2
Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of 'NUMBER OF PWS's IN VIOLATION', over the various violation types or contaminants, may not add up to the total number of violations.							
<b>Ground Water Rule Compliance Monitoring Chlorine Routine/Reporting Routine/Reporting MINOR</b> NOTE: EPA does not require minor monitoring violations to be counted for the ACR						0	0

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
<b>Surface Water Treatment Rule (SDWA 1993)</b>							
Filtered systems							
Monitoring routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring routine/repeat							
Failure to filter							
<b>Subtotal</b>				0	0	0	0
<b>Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)</b>							
Filtered systems							
Monitoring routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring routine/repeat							
Failure to filter							
<b>Subtotal</b>				0	0	0	0



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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
<b>Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)</b>							
Filtered systems							
Monitoring routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring routine/repeat							
Failure to filter							
<b>Subtotal</b>				0	0	0	0
<b>LT1ESWTR Failure to Monitor Minor</b>							
<b>NOTE. EPA does not require minor monitoring violations to be counted in the ACR</b>							

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
<b>Surface Water Treatment Rule (SDWA 1993)</b>							
<b>Record keeping for Ind. Filter</b>							
<b>Failure to Produce Filter Assessment Failure to Produce CPE</b>							
<b>Failure to Profile/Consult</b>							
<b>Failure to Monitor/Routine, Major</b>						0	0
<b>Single Combined Filter Effluent</b>				0	0		
<b>Monthly Combined Filter Effluent</b>				0	0		
<b>Uncovered Storage Facility</b>				0	0		
<b>Subtotal</b>				0	0	0	0

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
<b>Long Term 1 Enhanced Surface Water Treatment Rule</b>						0	0
<b>Record keeping for Ind. Filter</b>						0	0
<b>Failure to Produce Filter Assessment Failure to Produce CPE</b>						0	0
<b>Failure to Profile/Consult</b>						0	0
<b>Failure to Monitor/Routine, Major</b>						0	0
<b>Single Combined Filter Effluent</b>				0	0		
<b>Monthly Combined Filter Effluent</b>				0	0		
<b>Uncovered Storage Facility</b>				0	0		
<b>Subtotal</b>				0	0	0	0

**State:** North Dakota

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	MCL/ MRDL (mg/L) <sup>1</sup>	MCLs/MRDLs		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
<b>Long Term 2 Enhanced Surface Water Treatment Rule</b>						0	0
Failure to meet sampling schedule requirements						0	0
Failure to meet sampling location requirements						0	0
Failure to meet analytical laboratory requirements						0	0
Failure to meet reporting requirements						0	0
<b>Subtotal</b>						0	0
<b>Filter Backwash Recycle Rule</b>							
Failure to Properly Recycle				0	0		
Recordkeeping						0	0
<b>Subtotal</b>				0	0	0	0

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
<b>Stage 1 Disinfectants and Disinfection By-products Rule</b>							
	Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled						
Haloacetic Acids	0.060	0	0			0	0
Total Trihalomethane	0.080	0	0			0	0
Total Organic Carbon				0	0	0	0
Alkalinity				0	0	0	0
Chlorine/Chloramine	MRDL = 4	0	0			0	0
Bromate/Bromide	0.01	0	0			0	0
<b>Subtotal</b>		0	0	0	0	0	0
<b>Stage 2 Disinfectants and Disinfection By-products Rule</b>							
	Note: Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, *PWS counted no more than once within the population being totaled.						
Haloacetic Acids	0.060	0	0			0	0
Total Trihalomethane	0.080	0	0			0	0
Total Organic Carbon				0	0	0	0
Alkalinity				0	0	0	0
Chlorine/Chloramine	MRDL = 4	2	1			23	20
Bromate/Bromide	0.01	0	0			0	0
<b>Subtotal</b>		2	1	0	0	23	20

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
<b>Lead and Copper Rule</b>							
Initial lead and copper tap M/R						2	1
Follow up or routine lead and copper tap M/R						2	2
Treatment installation				0	0		
Public education						1	1
<b>Subtotal</b>				0	0	5	4
<b>Lead Rule</b>							
Consumer Notice Violation**						14	14
<p><b>Note:</b> Although a PWS may be out of compliance with more than one contaminant or violation type, when calculating totals, it is counted no more than once within the population being totaled. So, the sum of ‘NUMBER OF PWS’S IN VIOLATION’, over the various violation types or contaminants, may not add up to the total.      **Lead Consumer Notice violations are not currently classified as Major or Minor violations.</p>							
<b>Consumer Confidence Rule (CCR)</b>							
CCR Report Violation						2	2
<b>Subtotal</b>						2	2

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
CCR Adequacy/Availability/ Content Violation (MINOR Violation) NOTE: EPA does not require reporting of minor violations of Adequacy/Availability/ Content to be included in the ACR.						4	4
<b>Public Notification Rule</b>							
<b>Public Notice Violations</b>						0	0
<b>Subtotal</b>						0	0
<b>Public Notice Violations for MINOR and/or ON-GOING Violations</b> NOTE: EPA does not require Public Notice Violations pertaining to minor monitoring or on-going violations to be counted for the ACR						0	0

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 or if a community public water system fails to submit a completed certification form.

**Stage 1 Disinfectants/Disinfection By-products (D/DBP) Rule:** The D/DBP Rule requires community and non-transient non-community water systems to test for the regulated by-products potentially produced from the use of the disinfectants ozone, chlorine dioxide and chlorine.

**Stage 2 Disinfectants/Disinfection By-products (D/DBP) Rule:** The Stage 2 D/DBP Rule builds upon and will eventually replace the Stage 1 DBPR to provide increased health protection through required testing. Stage 2 applies to all community and non-transient non-community public water systems that produce, purchase and/or deliver water that has been treated with a primary or residual disinfectant other than ultraviolet (UV) light.

**Filter Backwash Recycle Rule (FBRR):** The Filter Backwash Recycle Rule requires monitoring/reporting and treatment techniques for those public water systems that use surface water or ground water under the influence of surface water, practice conventional or direct filtration, and recycle spent filter backwash, thickener supernatant, or liquids from de-watering processes.

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

**Ground Water Rule (GWR):** The Groundwater Rule (GWR) is in place to provide increased protection against microbial pathogens, specifically bacterial and viral pathogens, in public water systems that use ground water. Instead of requiring disinfection for all ground water systems (GWS), the GWR establishes a risk-targeted approach to identifying GWSs that are susceptible to fecal contamination. The GWR requires systems at risk of microbial contamination to take corrective action to protect consumers from harmful bacteria and viruses. The basic requirements of the GWR for the GWSs are source water monitoring, compliance monitoring and corrective actions.

**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].



**Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR):** The Long Term 1 Enhanced Surface Water Treatment Rule requires monitoring and treatment to improve control of microbial pathogens, specifically the protozoan cryptosporidium, in drinking water and to address risk trade-offs with disinfection by-products.

**Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR):** The Long Term 2 Enhanced Surface Water Treatment Rule requires monitoring data be collected so systems can categorize the source water cryptosporidium concentration into one of four bin classifications as associated with the rule.

**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 issued when a system did not provide required public education about reducing or avoiding lead intake from water.

*Lead Consumer Notice:* A violation for a system's failure to certify that lead sampling results and lead health information were provided to the consumer whose home was used for lead and copper sampling. The requirement applies to each sample result regardless of whether or not lead was found in the home's drinking 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.

**Maximum Residual Disinfectant Level (MRDL):** The EPA sets national limits on residual disinfectant levels in drinking water to reduce the risk of exposure to disinfectant byproducts formed, when public water systems add chemical disinfectant for either primary or residual treatment. These limits are known as Maximum Residual Disinfectant Levels.

**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 53 organic contaminants that are to be reported [40 CFR 141.61].

**Public Notification Rule:** This rule requires a public water system to notify the public anytime the system violates national primary drinking water regulations or has other situations posing a risk to public health.

**Radionuclides:** Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are to be reported using the following three categories:

*Gross alpha:* A violation for alpha radiation above the MCL of 15 picocuries/liter (pCi/L). Gross alpha includes radium-226 but excludes radon and uranium.

*Combined radium-226 and radium-228:* A violation for combined radiation from these two isotopes above the MCL of 5 pCi/L.

*Gross beta:* A violation for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

*Uranium:* A violation for uranium above the MCL of 30 ug/l.

**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, 2020, is from January 1, 2019 through December 31, 2019.

**Revised Total Coliform Rule:** This rule replaced the Total Coliform Rule on April 1, 2016. The RTCR, as was the case with its predecessor the Total Coliform Rule, is the only microbial drinking water regulation that applies to all PWSs. The rule established regulations for microbiological contaminants in drinking water. EPA anticipates greater public health protection under the RTCR, as it requires PWSs that are vulnerable to microbial contamination to identify and fix problems. These problems are identified through Level 1 and Level 2 assessments of the system.

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and /or why Total Coliform bacteria have been found in our water system on multiple occasions.

States are to report the following categories of violations:

*E. coli Maximum Contaminant Level exceedance:* A violation where the system found E. coli, a potentially harmful bacteria in its water, thereby violating the rule; or, when the system fails to take repeat samples, as required.

*Treatment Technique Violations:* A violation that occurs when a system fails to conduct a required Level 1 or Level 2 assessment, or to correct any sanitary defect found through the Level 1 or Level 2 assessment within 30 days of learning of the trigger for this action, or in accordance with a schedule approved by the state. This violation may also be incurred if a seasonal system fails to complete state-approved start-up procedures prior to serving water to the public.

*Monitoring Violations:* A violation where the system did not perform any required routine or additional routine monitoring samples, or failure to analyze for E. coli following a total coliform positive routine sample.

*Reporting Violations:* A violation when a system fails to submit a monitoring report or completed assessment form after the system properly conducts monitoring or an assessment in a timely manner; fails to notify the state of an EC+ sample; or fails to submit certification of completion of state approved start-up procedures by a seasonal system.

**SDWIS Code:** Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements.

**Surface Water Treatment Rule (SDWA 1993):** 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.

**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.

**Unfiltered Systems:** Water systems (using surface water or groundwater under the direct influence of surface water) that are not required to filter their water prior to disinfection due to source and site-specific conditions [40 CFR, Subpart H].

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

## **CONCLUSION**

The vast majority of PWSs in North Dakota maintain an excellent SDWA compliance record. During 2019, 268 certificates of compliance were issued to public water systems that maintained full compliance.

The following tables illustrate the high compliance rate (for calendar year 2019) 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 RTCR as adopted in North Dakota, all Public Water Systems are required to submit a prescribed number of microbiological samples (based on population served) at least monthly to a certified laboratory for analysis on an ongoing basis. Under the SWTR, PWSs that utilize surface water (currently 16 systems 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
<b>Organic Contaminants<sup>1</sup></b>						
Community Water Systems (CWS)	121	100%	121	100%	121	100%
Nontransient Noncommunity Water Systems (NTNC)	6	100%	6	100%	6	100%
Transient Noncommunity Water Systems (TNCWS)	0				0	100%
<b>Inorganic Contaminants<sup>1</sup></b>						
CWS	121	99.17%			121	100%
NTNCWS	6	100%			6	100%
TNCWS	65	100%			65	100%
<b>Radionuclides<sup>1</sup></b>						
CWS	121	100%			121	100%
NTNCWS	0				0	
TNCWS	0				0	
<sup>1</sup> Only those systems covered by each rule and using their own source water are required to monitor for and comply with Organic, Inorganic Contaminant and Radionuclide Rules under the SDWA. All consecutive systems purchasing water from these source systems receive water that has been monitored for these contaminants.						
<b>Revised Total Coliform Rule</b>						
CWS	317	100%	317	100%	317	94.0%
NTNCWS	7	100%	7	100%	7	85.7%
TNCWS	73	100%	73	94.5%	73	67.1%

	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
<b>Surface Water Treatment Rule<sup>2</sup> SDWA 1993</b>						
CWS			15	100%	0	100%
NTNCWS			1		0	
TNCWS			0		0	
2. Only those systems that use surface water are required to monitor under and comply with the SWTR.						
<b>Long Term 1 Enhanced Surface Water Treatment Rule</b>						
CWS			15	100%	15	100%
NTNCWS			1	100%	1	100%
TNCWS			0		0	
<b>Long Term 2 Enhanced Surface Water Treatment Rule</b>						
CWS			15	100%	15	100%
NTNCWS			1	100%	1	100%
TNCWS			0		0	

	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
<b>Stage 1 Disinfectants/Disinfection By-products Rule</b>						
CWS	0	100%	0	100%	0	100%
NTNCWS	0	100%	0	100%	0	100%
TNCWS						
	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
<b>Stage 2 Disinfectants/Disinfection By-products Rule</b>						
CWS	302	99.67%	9	100%	302	93.38%
NTNCWS	3	100%	0	100%	3	100%
TNCWS						
<b>Lead and Copper Rule</b>						
CWS			317	100%	317	98.7%
NTNCWS			7	100%	7	100%
TNCWS			0		0	



	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
<b>Consumer Confidence Rule</b>						
CWS					317	99.36%
NTNCWS					0	
TNCWS					0	
	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
<b>Ground Water Rule</b>						
CWS	218	100%	218	100%	218	99.5%
NTNCWS	5	100%	5	100%	5	100%
TNCWS	65	100%	65	100%	65	98.46%

## LIST OF SYSTEMS WITH VIOLATIONS IN 2019<sup>1</sup>

### **Organic Contaminants**

No violations for organic contaminants were issued in 2019.

### **Radionuclide Contaminants**

#### **Community and Noncommunity Water Systems**

##### **Maximum Contaminant Level Exceedance –**

##### **Combined Radium Average**

No violations were issued in 2019.

### **Failure to Monitor/Report Violation**

No violations were issued in 2019.

### **Inorganic Contaminant Violations**

#### **Community and Noncommunity Water Systems**

##### **Arsenic**

R & R Trailer Court (Williams) - 2

### **Fluoride**

No violations for Fluoride were issued in 2019.

### **Nitrate/Nitrite**

#### **Maximum Contaminant Level Exceedance, Average**

No Nitrate/Nitrite violations were issued in 2019.

### **Lead and Copper Rule Violations**

#### **Community and Nontransient Noncommunity Water Systems**

##### **Failure to Perform Initial Tap Sampling**

Forbes, City of - 2

##### **Failure to Follow-up or Routine Tap Monitor/Report**

Badlands Development Long X TC (McKenzie)

Cathay, City of

### **Lead Public Education**

M & M Park (McKenzie)

### **Lead Consumer Notice Certification**

Benedict, City of

Cando, City of

Crary, City of

Fairmount, City of

Forest River Colony (Grand Forks)

Grenora, City of

Hillsboro, City of

Manning Water Board (Dunn)

Maple River Hutterian Association (Dickey)

New Hradec Waterworks

Oberon, City of

Pembina, City of

Regent, City of

Whiting Oil & Gas (Mountrail)

**Microbiological Violations (RTCR)**

**Community Water Systems**

**E. coli MCL Violations**

No violations issued in 2019

**Level 1 or 2 Assessment**

**Failure to Perform Corrective/Expedited Actions**

No violations issued in 2019.

**Microbiological Violations**

**Community Water Systems**

**Failure to Monitor Violations**

Almont, City of

Badlands Development Long X TC - 2

Bisbee, City of

Cando, City of

Forbes, City of

Forest River Colony

Golva, City of

Hannaford, City of

Inspire Communities-Springbrook (Williams)

Karlsruhe, City of

Maxbass, City of

Mohall, City of

Oriska, City of

Regent, City of

Riverview Heights (Morton)

Robinson, City of

Sleepy Hollow Water Company (Cass)

Solen, City of

Stanton, City of

Trenton Water Users Assoc.

**Microbiological Violations**

**Noncommunity Water Systems**

**E. coli MCL Violations**

No violations in 2019.

**Level 1 & 2 Assessment**

**Failure to Perform Corrective/Expedited Actions**

No violations issued 2019.

**Failure to Perform/Certify Start-up Procedures**

Hahns Bay Recreation Area (Bottineau)

Metigoshe Drive Inn (Bottineau)

Pelican Lake Campground (Bottineau)

Strawberry Lake Campground (Bottineau)

Twin Oaks Resort (Bottineau)

**Failure to Monitor Violations**

Allstate Peterbilt (Williams)

Ar-kota RV Park (Williams) (Inactive)

Bayside Oahe Resort (Emmons) (Inactive) – 2

Beulah Bay Rec Area (Mercer)

Beulah Bay Rec Area #2 (Mercer)

Blue Sky Lodging (McKenzie)

Burning Hills Amphitheater (Billings)

Family Dollar (Rolette) – 11

Glacier Potable Water (Williams)

Kelvin Clinic Bar (Rolette)

Larsons Drive Inn (Grand Forks)

Legacy Co-op (Rolette) – 3

Medicine Hole Golf Course (Dunn)

Metigoshe Drive Inn (Bottineau)

Oakes Golf Club (Dickey)

PDQ Club (McKenzie) (Inactive) - 2

**Failure to Monitor Violations**

**Noncommunity Water Systems- continued**

Sandstone Development (McKenzie) -3  
Short Stop Convenience Store (McKenzie)  
Sweet Crude Travel Center (McKenzie) - 2  
Twin Oaks Resort (Bottineau) - 2  
Vac Tec Septic & Water (Williams) -3  
Vesta Housing (McKenzie) – 4  
White Horse Hill Nat’l Game Preserve (Benson)  
Whiting Oil & Gas (Mountrail)

**Groundwater Rule**

**Community and Noncommunity**

**Failure to Monitor Triggered Source Major**

Oakes Golf Course (Dickey)  
Selfridge, City of

**Long Term Interim Enhanced Surface Water**

**Treatment Rule Violations**

**Failure to Maintain Microbial Treatment LT2**

No violations issued 2019.

**Surface Water Treatment Rule Violations**

**Failure to Maintain Residual Disinfectant Concentration**

No violations issued 2019.

**Stage 1 & 2 Disinfection By-Products Rule Violations**

**Community and Noncommunity**

**Total Haloacetic Acids (HAA5)**

**Maximum Contaminant Level Violation (MCL), Average**

**Locational Running Annual Average Exceedance**

No violations issued 2019.

**Total Trihalomethanes (TTHM)**

**Maximum Contaminant Level Violation (MCL)-**

**Locational Running Annual Average**

No violations issued 2019

**Bromate**

**Maximum Contaminant Level Exceedance**

No violations issued 2019.

**Failure to Monitor/Report Major Violations**

No violations issued 2019.

**Chloramine**

**Maximum Residual Disinfectant Level Exceedance**

New Hradec, City of - 2

**Failure to Monitor/Report Major Violations**

Almont, City of  
Forbes, City of  
Golva, City of  
Inspire Communities-Springbrook (Williams)  
Maxbass, City of – 2  
Mohall, City of  
Regent, City of  
Riverview Heights (Morton) -2

Solen, City of  
Stanton, City of  
Trenton Water Users Assoc  
West River Water And Sewer (Ward)

**Chlorine**

**Failure to Monitor/Report Major Violations**

Badlands Development Long X TC (McKenzie)  
Cando, City of  
Galesburg, City of  
Hannaford, City of  
Karlsruhe, City of  
Oberon, City of  
Robinson, City of  
Selfridge, City of - 2

**Stage 2 Disinfection By-Products Rule Violations**

**Total Haloacetic Acids & Total Trihalomethane**

**Failure to Monitor/Report Major-Annual**

No violations issued 2019.

**Total Haloacetic Acids (HAA5)**

**Failure to Monitor/Report Major-Quarterly**

No violations issued 2019.

**Total Trihalomethane (TTHM)**

**Failure to Monitor/Report Major-Quarterly**

No violations issued in 2019.

**Consumer Confidence Rule Report Violations**

**Failure to Submit Report Major**

Regent, City of  
Sentinel Butte, City of

**Adequacy/Availability/Content - Minor**

**NOTE: EPA does not require minor monitoring/reporting violations to be counted for the Annual Compliance Report.**

Regent, City of  
Robinson, City of  
Sentinel Butte, City of  
Warwick, City of

**Public Notification Rule Violations**

**Community Water Systems**

No violations issued 2019.

**Public Notification Rule Violations**

**Noncommunity Water Systems**

1. Multiple violations within a specified category are represented by a number following the system name (i.e. 'System Name- 2' means that the System incurred two violations during the reporting period). Counties are in parentheses.

Note: A PWS is counted no more than once within the population being counted.