MICHELLE LUJAN GRISHAM
Governor
HOWIE C. MORALES
Lt. Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT
Drinking Water Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469
Tel. 505-476-8648 • Fax 505-476-8656
www.env.nm.gov/drinking_water/

JAMES C. KENNEY
Cabinet Secretary
JENNIFER J. PRUETT
Deputy Secretary

SENT VIA ELECTRONIC MAIL

July 1, 2019

U.S. Environmental Protection Agency
Mail Code: 2227A
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Attn: Raquel Taveras

Re: New Mexico 2018 Annual Compliance Report

Dear Ms. Taveras:

Enclosed please find the New Mexico Environment Department Drinking Water Bureau's 2018 Annual Compliance Report.

If you have any questions or comments regarding the report, please contact me at (505) 476-8635 or email me at joe.martinez@state.nm.us.

Sincerely,

Joe R. Martinez, Chief (Acting)
Drinking Water Bureau
Water Protection Division

Enclosure

NEW MEXICO'S

ANNUAL

PUBLIC WATER SYSTEMS

COMPLIANCE REPORT

-2018-

Drinking Water Bureau
New Mexico Environment Department
Submitted to
United States Environmental Protection Agency

July 2019

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Table of Contents

List of Acronyms

C	Community System
CCR	Consumer Confidence Report
CN	Consumer Notice
DBPR	Disinfectant and Disinfection Byproduct Rule
DWB	Drinking Water Bureau
EPA	Environmental Protection Agency
GWR	Ground Water Rule
GWUDI	Ground Water Under the Direct Influence (of Surface Water)
IESWTR	Interim Enhanced Surface Water Treatment Rule
IOC	Inorganic Contaminant
LCR	Lead and Copper Rule
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
mrem/yr	millirem per year
M/R	Monitoring and Reporting
MRDL	Maximum Residual Disinfectant Level
NC	Non-Community System
NM	New Mexico
NMED	New Mexico Environment Department
NTNC	Non-Transient, Non-Community System
pCi/L	picoCuries per liter
PN	Public Notice
PWS	Public Water System
PWSS	Public Water System Supervision
RTCR	Revised Total Coliform Rule
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SOC	Synthetic Organic Contaminant
SWTR	Surface Water Treatment Rule
TT	Treatment Technique
TCR	Total Coliform Rule
µg/L	micrograms per litter
V/E	Variances and Exemptions
VOC	Volatile Organic Contaminant

Introduction

The Safe Drinking Water Act (SDWA) is the primary federal law originally enacted in 1974 to protect public health by regulating the nation's public water supplies. 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. It was amended in 1986 and 1996 to ensure protection of the nation's water supplies from the source (rivers, lakes, reservoirs, springs, and ground water wells) to the tap. Contaminants can enter public water supplies from many sources, including improper disposal of chemicals; animal wastes; pesticide applications; human wastes; wastes injected deep underground; and naturally-occurring substances. Additionally, drinking water that is not properly treated or disinfected, or which travels through an improperly maintained distribution system, may also pose a health risk. The SDWA establishes national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water and authorizes the Public Water System Supervision (PWSS) Program to ensure proper implementation of the SDWA.

The SDWA allows States and Territories to seek United States Environmental Protection Agency (EPA) approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. To receive primacy, States (or tribes or territories) must meet certain requirements laid out in the SDWA and the federal 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. EPA currently administers PWSS Programs on all Indian lands except the Navajo Nation, which was granted primacy in late 2000. The State of New Mexico (NM) has been a primacy state since 1976 with the New Mexico Environment Department (NMED) Drinking Water Bureau (DWB) as the lead agency responsible for implementing the PWSS Program. The DWB protects drinking water quality by providing technical assistance, water system oversight, enforcement, and source water protection to NM's public water systems (PWSs).

Primacy states must implement a PWSS program adequate to enforce the requirements of the SDWA and ensure that PWSs comply with the National Primary Drinking Water Regulations. Key activities carried out by the NMED DWB under NM's PWSS program include:

- developing and maintaining state drinking water regulations;
- developing and maintaining an inventory of PWSs throughout the state;
- developing and maintaining a database to hold compliance information on PWSs;
- conducting sanitary surveys of PWSs;
- reviewing PWS plans and specifications;
- providing technical assistance to managers and operators of PWSs;
- ensuring that the PWSs regularly inform their consumers about the quality of the water that they are providing;
- certifying laboratories that can perform the analysis of drinking water that will be used to determine compliance with the regulations; and
- carrying out an enforcement program to ensure that PWSs comply with all of the state's requirements.

Each year the NMED DWB prepares and submits to EPA *New Mexico's Annual Public Water Systems Compliance Report* (this report). The purpose of the report is to provide the public with a summary of the different types of drinking water violations accrued by PWSs during the previous calendar year. This report is a mandated requirement of the federally funded PWSS Program and encompasses drinking water violations that were verified during calendar year 2018. NM is required by the SDWA to make this report available to the public. The DWB posts the report on their website at: www.env.nm.gov/drinking_water/pws-info/. Interested individuals can also obtain a copy upon request to the DWB by calling toll free (877) 654-8720.

Public Water Systems in New Mexico

PWSs and the types of systems in NM are defined in the table below. A PWS must have the ability to achieve and maintain compliance with applicable drinking water standards so that it can provide safe and affordable water to their customers. PWSs are responsible for complying with all regulations including sampling, monitoring, reporting, performing treatment techniques, record keeping, and public notice requirements. To meet these requirements, it must perform routine monitoring and report results to the State regulatory agency. Violations must also be reported to the public and corrected. Failure to perform any of these functions can result in enforcement actions and penalties. NM's PWSS Program

provides oversight of PWSs, determines whether the systems are in compliance with federal and state drinking water laws and regulations and takes enforcement actions when necessary to protect public health.

Public Water System Types and Definitions		
Public Water System	**PWS**	A system that provides water for human consumption, if such system has at least 15 service connections or regularly serves at least 25 individuals at least 60 days out of the year.
Community	**C**	A system that serves at least 15 service connections (which may include factories, schools, or places of housing that are on the same distribution system as residences) used by year-round residences or regularly serve at least 25 year-round residents.
Non-Transient Non-Community	**NTNC**	A system that serves at least 25 of the same persons over six months per year not at their residence (e.g., schools or factories that have their own water source).
Transient Non-community	**NC**	A system that serves at least 25 persons (but not the same 25) over six months per year not at their residence (e.g., campgrounds or highway rest stops that have their own water source).

Figure 1 Public Water System Types

Public Water System Source and Definitions		
Groundwater Under the Direct Influence of Surface Water	**GUDI**	Water beneath the surface of the ground can be considered under the direct influence of surface water if that water exhibits: • A significant occurrence of insects or other macro-organisms, algae or large diameter pathogens, including Giardia Lamblia and Cryptosporidium' OR • Significant and relatively rapid shifts in water characteristics, including turbidity, temperature, conductivity or pH factors, that closely correlate to climatological or surface water conditions.
Ground Water	**GW**	Any water that is located beneath the surface of the ground and is not under the direct influence of surface water.
Surface Water	**SW**	The water that systems pump and treat from sources open to the atmosphere, such as rivers, lakes, and reservoirs.

Figure 2 Public Water System Sources

In 2018, there were approximately 1,080 PWSs that provided drinking water in NM. See tables below for specific inventories by type, population and sources. These PWSs provide drinking water to approximately 2,011,378 people. This is approximately 98% of the total population of NM (based on 2010 U.S Census Bureau population data (2,059,179 people), http://www.census.gov/2010census). Of the total PWSs in NM, approximately 95% of the public water systems purchase or use ground water as the primary source of drinking water and supply water to 1,129,854 consumers, or approximately 56% of consumers who receive water from a PWS.

Table 1

Number of PWSs in NM by Type and Population (as of 12/31/2018)										
PWS Type	**Very Small (≤ 500)**		**Small (501-3,300)**		**Medium (3,301-10,000)**		**Large (>10,000)**		**TOTAL**	
C	384	64,177	120	157,687	35	216,348	30	1,462,595	**569**	**1,900,807**
NTNC	118	19,453	15	19,229	1	4,000	0	0	**134**	**42,682**
NC	359	39,926	17	23,463	1	4,500	0	0	**377**	**67,889**
TOTAL	**861**	**123,556**	**152**	**200,379**	**37**	**224,848**	**30**	**1,462,595**	**1,080**	**2,011,378**

Table 2

Number of PWSs in NM by Source and Population (as of 12/31/2018)														
PWS Type	**GWUDI** *Ground Water Under the Direct Influence of Surface Water*		**GWUDIP** *Ground Water Under Direct Influence of Surface Water - Purchased*		**GW** *Ground Water*		**GWP** *Ground Water - Purchased*		**SW** *Surface Water*		**SWP** *Surface Water - Purchased*		**TOTAL**	
	SYS	**POP**	**SYS**	**POP**	**SYS**	**POP**	**SYS**	**POP**	**SYS**	**POP**	**SYS**	**POP**	**SYS**	**POP**
C	4	684	0	0	495	1,010,799	26	13,613	26	839,683	18	36,028	**569**	**1,900,807**
NTNC	0	0	0	0	120	34,074	8	6,405	2	153	4	2,050	**134**	**42,682**
NC	5	627	0	0	357	62,931	8	2,032	6	2,199	1	100	**377**	**67,889**
TOTAL	**9**	**1,311**	**0**	**0**	**972**	**1,107,804**	**42**	**22,050**	**34**	**842,035**	**23**	**38,178**	**1,080**	**2,011,378**

The vast majority of NM's 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 the community water systems have many more regulations and rules to follow in comparison to transient non-community water systems. This is important because people typically obtain the majority of their water at home and would have an increased exposure to any health risks from the home water supply, should it become contaminated, compared to that of a rest stop along an isolated stretch of highway.

PWS Compliance with SDWA Requirements

Under the SDWA and the 1986 Amendments, EPA has set 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) and the Maximum Residual Disinfectant Levels (MRDLs) and apply to all PWSs. For some regulations, EPA has established treatment techniques (TTs) in lieu of a MCL to control unacceptable levels of contaminants in water. The Agency also regulates how often PWSs monitor their water for contaminants and when they need to report the monitoring results to the

states or EPA. Generally, the larger the population served by a PWS, the more frequent the monitoring and reporting (M/R) requirements become. In addition, EPA requires PWSs to monitor unregulated contaminants to provide data for future regulatory development; however, this report only includes violations pertaining to promulgated rules and regulations. Finally, EPA requires PWSs to notify their consumers when they have 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 PWS is undertaking to correct the violation, and the possibility of alternative water supplies during the violation.

All of the information described above must be tracked by the primacy agency for each PWS in the state/territory. NM uses the Safe Drinking Water Information System (State) (SDWIS/State), an automated database developed by EPA, to track inventory, sampling, monitoring and enforcement information. EPA also maintains the federal version of the database, SDWIS/FED. These databases are important tools which help states and EPA regions manage their drinking water programs and fulfill EPA reporting requirements. Primacy agencies are required to submit all of this information to EPA on a quarterly basis and these databases facilitate that process. In accordance with EPA's *Guidance for States on Preparing Annual Public Water System Compliance Reports 2017*, the DWB uses SDWIS/FED records of violations and the data retrieved from SDWIS/FED Reporting Services *Summary Annual Compliance* and Internal *Ad hoc* Reports to compile this document.

This report, produced annually, provides a representation of the numbers of violations for the following categories: MCLs (includes MRDLs), TT, variances and exemptions (V/E), M/R, public notification (PN) and consumer notification (CN). Each category is described in more detail in the table below. This report provides the number of violations in each of these categories that were verified during 2018, typically organized by regulated contaminant type or by Rule and then further divided by violation type (MCL, TT, M/R, PN and CN).

Violation Type		Description
Maximum Contaminant Levels	**MCL**	Under the SDWA and State Drinking Water Regulations, federal and state governments both set limits on the level of contaminants in drinking water. These limits, called maximum contaminant levels, which also includes maximum residual disinfection levels, are established to ensure that the water is safe for people to drink. Each public water system is tested according to sample schedules to verify that no contaminants are above the prescribed limits. If a public water system test result exceeds a MCL, a violation has occurred.
Treatment Techniques	**TT**	In some cases, techniques to treat the water have been established in lieu of a MCL to control viruses, some bacteria, turbidity and total organic carbon. Filtration of surface water sources, such as reservoirs, rivers and lakes is an example of a water supply treatment technique. Each system is monitored to ensure that all required treatment technologies are properly designed, installed and operated. If a system fails to follow the required TT, a violation has occurred.
Variances and Exemptions	**V/E**	Variances and exemptions to specific requirements may be granted if a public water system cannot meet MCLs due to reasons beyond the system's control and there is no unreasonable risk to public health. Each exemption includes a schedule to bring the system into full compliance. If a system fails to meet the conditions outlined in the variance and exemption, then a violation has occurred. **During this reporting period, NM has not issued any exemptions or variances.**
Monitoring and Reporting Requirements	**M/R**	A public water system is required to periodically monitor the water quality to verify that MCLs are not being exceeded. If a public water system fails to take the required tests and/or fails to report the results of the tests to the primacy agency, then a violation has occurred.
Public Notification Requirements	**PN**	SDWA prescribes specific public notification requirements based on the potential of a violation to cause serious effects. When a water system fails to properly notify its customers, then a violation has occurred.
Consumer Notification	**CN**	Every community water system is required to deliver to its customers a brief annual water quality report. This report is to include some educational material, and will provide information on the source water, the levels of any detected contaminants and compliance with drinking water regulations. When a water system fails to produce this report a violation has occurred.

Figure 3 Violation Types

Water System Violations

The following sections summarize the significant violations and the number of PWSs with reported violations that were verified during calendar year 2018. This includes violations that began before January 1 of the year and continued into the year covered by the report; violations that ended during the year covered by the report; and violations at a PWS that operated for only part of, or permanently ceased operations during the year covered by the report. If a system returned to compliance before the year covered by the report and remained in compliance throughout the year covered by the report, its violations are not counted.

All MCL and TT violations are included in this report; however, only those violations that are considered "significant" are reported for M/R, PN and CN categories. A significant M/R violation occurs, with rare exceptions, when no samples are taken or no results are reported during a compliance period. A significant PN violation occurs when a community water system fails to properly notify its users according to the procedures specified in the drinking water regulations. A significant CN violation occurs when a community water system fails to provide the required annual Consumer Confidence Report by the designated due date.

Chemical Phase Rules (IOC, SOC, VOC)

This series of rules are known as the Chemical Phase Rules and they define regulations for three contaminant groups: Inorganic Chemicals (IOCs), Synthetic Organic Chemicals (SOCs), and Volatile Organic Chemicals (VOCs).

The Chemical Phase rules provide public health protection through the reduction of chronic risks from: cancer; organ damage; and circulatory, nervous, and reproductive system disorders.

They also help to reduce the occurrence of Methemoglobinemia or "blue baby syndrome" from ingestion of elevated levels of nitrate or nitrite. All public water systems must monitor for Nitrate and Nitrite. Community water systems and Non-transient non-community water systems must also monitor for IOCs, SOCs, and VOCs.

Inorganic Chemical (IOC) Contaminants

PWSs are required to monitor 15 inorganic compounds such as fluoride, heavy metals and nitrate. Inorganic contaminants are metals, salts, and other compounds that do not contain carbon. These chemicals sometimes contaminate water supplies as a result of human activity; however, many are naturally occurring in certain geographic areas. The majority of the inorganic MCL contaminant violations in NM is suspected to be associated with naturally occurring sources; however, nitrate MCL violations are likely to have originated from anthropogenic sources such as septic disposal systems.

Table 3

IOC Contaminant MCL Violations	MCL (mg/L)	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Arsenic	0.01	31	2	10*
Fluoride	4.0	1	0	1
Nitrate-Nitrite (as Nitrogen)	10	14	0	5*
Totals		**46**	**2**	**16***

*A single water system could violate more than one MCL.

Table 4

Inorganic Chemical Contaminants Monitoring & Reporting Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Routine Monitoring	1	0	1
Totals	**1**	**0**	**1**

*A single water system could violate more than one MCL.

Organic Chemical (SOC/VOC) Contaminants

Organic chemicals are compounds that contain one or more carbon atoms. Sources of organic chemical compounds can be natural, such as from decaying vegetation, or anthropogenic. Organic chemicals that are regulated in drinking water typically come from industrial and agricultural activities and include substances such as components of pesticides and industrial and commercial products.

There were no Maximum Contaminant Level violations or Monitoring & Reporting violations that were validated for Synthetic or Volatile Organic Chemical Contaminants for any Public Water System in New Mexico during 2018.

Radionuclides Rule

Radionuclide contaminants consist of radioactive particles such as radium-226, radium-228, gross alpha, and beta particle/photon radioactivity. The implementation of the Radionuclides 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 NM is geologically rich in naturally occurring radioactive uranium ore deposits such as those found in the San Juan Basin and the Pojoaque Valley.

Table 5

Violation Code	Radionuclide Contaminant MCL Violations	MCL	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 02	Gross Alpha, Excluding Radon & Uranium	15 (pCi/L)	3	0	1*
Violation Code 02	Combined Uranium	30 (µg/L)	22	0	5*
Violation Code 02	Combined Radium (226 & 228)	5 (pCi/L)	4	0	1*
Violation Code 02	Beta/photon emitters**	4 (mrem/yr)***	0	0	0
	Totals		**29**	**0**	**7***

*A single water system could violate more than one MCL.
**Most systems will never need to monitor for beta particle and photon radioactivity. These emitters generally come from nuclear facilities; commercial nuclear power plants; institutional sources such as research facilities, hospitals, and universities; and from industrial sources such as laboratories and pharmaceutical companies. Unless a system is vulnerable to this type of contamination, or is already contaminated by beta and photon emitters, systems are not required to monitor for these contaminants.
*** mrem/yr is defined as a Measure of radiation absorbed by the body

Table 6

Radionuclides Rule Monitoring & Reporting Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Routine Monitoring	0	0	0
Totals	**0**	**0**	**0**

*A single water system could violate more than one monitoring and reporting requirement.

Revised Total Coliform Rule (RTCR)

On February 13, 2013, the EPA adopted the Revised Total Coliform Rule (RTCR). The new RTCR applies to **all** Public Water Systems (PWS) and was implemented on April 1, 2016. The NMED DWB received interim primacy of the RTCR on March 15, 2016 and final primacy on November 12, 2016.

In addition to requiring monitoring for coliform bacteria, the RTCR requires that seasonal public water systems conduct "start-up procedures" prior to opening for the year. Additionally, the RTCR requires that PWS conduct assessments when their system tests positive for coliform or E.coli bacteria.

Table 7

Violation Code	RTCR MCL Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 1A	E.coli MCL (Violation Code 1A)	6	3	6
	Totals	**6**	**3**	**6**

*A single water system could violate more than one MCL.

Table 8

Violation Code	RTCR Monitoring & Reporting Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 3A	Monitoring, Routine (RTCR)	246	156	100*
Violation Code 5A	Sample Siting Plan Errors (RTCR)	27	20	27
	Totals	**273**	**176**	**127***

*A single water system could violate more than one monitoring and reporting requirement.

Table 9

Violation Code	RTCR Treatment Technique Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 2A	Treatment Technique, Level 1 Assessment (RTCR)	25	12	22*
Violation Code 2B	Treatment Technique, Level 2 Assessment (RTCR)	16	9	15*
	Totals	**41**	**21**	**37***

*A single water system could violate more than one monitoring and reporting requirement.

Disinfectants and Disinfection Byproducts Rule (DBPR)

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

The NMED DWB has assigned a Disinfection By-Products Rule Administrator to oversee the DBP rule for all systems across the state. This assignment has allowed the NMED DWB to implement this very complex rule consistently for all systems in New Mexico.

Table 10

Violation Code	STAGE 2 DBP MCL Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 02	DBP2 MCL Violations	46	3	13
	Totals	**46**	**3**	**13**

Table 11

Violation Code	STAGE 2 DBP Treatment Technique Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 12	No Certified Operator	1	1	1
Violation Code 46	Precursor Removal	6	0	2*
	Totals	**7**	**1**	**3***

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

Table 12

Violation Code	STAGE 2 DBP Monitoring & Reporting Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 27	Routine Monitoring	82	10	37
	Totals	**82**	**10**	**37**

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

The Surface Water Treatment Rule (SWTR) requires PWSs that are served by either surface water or ground water under the direct influence (GWUDI) 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 43 PWSs in NM.

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 PWSs 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. This rule applies to approximately 6 PWSs in NM.

The NMED DWB has assigned a Surface Water Rule Administrator to oversee all aspects of the SWTR & IESWTR for all Subpart H systems across the state. This assignment has allowed NMED DWB to implement these rules consistently for all Subpart H systems in New Mexico.

Table 13

Violation Code	SWTR/IESWTR Treatment Technique Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 41	Treatment Technique (SWTR and GWR)	2	2	2
Violation Code 42	Failure to Filter (SWTR)	2	0	2
Violation Code 43	Single combined filter effluent – maximum turbidity value exceeded 1.0 NTU	2	2	2
Violation Code 44	Monthly combined filter effluent – 95th percentile turbidity value exceeded 0.3 NTU	9	8	3*
	Totals	**15**	**12**	**9***

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

Table 14

Violation Code	SWTR/IESWTR Monitoring & Reporting Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 36	Monitoring of Treatment (SWTR-Filter)	11	7	10*
Violation Code 33	Failure to Submit Treatment Requirement Report	5	1	5
Violation Code 38	Monitoring, Turbidity (Enhanced SWTR)	8	7	7*
	Totals	**24**	**15**	**22***

*A single water system could violate more than one monitoring and reporting requirement.

Lead and Copper Rule (LCR)

The Lead and Copper Rule (LCR) applies to all community and non-transient non-community water systems and requires them to monitor lead and copper in an effort to identify and minimize the risk of exposure to lead and copper in drinking water. If action levels are exceeded, the PWS may need to take steps and apply various TTs to minimize exposure such as installing corrosion controls, providing public education, treating the source water or replacing lead service lines. All of the violations of the LCR were for the water system's failure to monitor/report. Throughout the implementation history of this rule, very few PWSs in NM have been identified to have significant lead and copper action level exceedances. The vast majority of historical violations associated with this rule pertain to failing to meet the monitoring requirements.

The NMED DWB has assigned a Lead & Copper Rule Administrator to oversee the LCR rule for all systems across the state. This assignment will allow NMED DWB to implement this very complex rule consistently for all systems in New Mexico.

Table 14

Violation Code	LCR Monitoring & Reporting Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 51	Initial Tap Sampling for lead (Pb) and copper (Cu) (Violation Code 51)	13	8	11*
Violation Code 52	Routine Tap or Follow-Up Sampling (Violation Code 52)	150	83	86*
Violation Code 66	Lead Consumer Notice (Violation Code 66)	2	0	2
	Totals	**165**	**91**	**99***

*A single water system could violate more than one monitoring and reporting requirement.

Groundwater Rule (GWR)

The Groundwater Rule (GWR) applies to all systems that use ground water as a source of drinking water, including systems that purchase groundwater and mix groundwater and surface water. The purpose of the rule is to reduce disease incidence associated with disease-causing microorganisms in drinking water. The rule establishes a risk-based approach to target ground water systems that are vulnerable to fecal contamination. Ground water systems that are identified as being at risk of fecal contamination must take corrective action to reduce potential illness from exposure to microbial pathogens.

Table 15

Violation Code	GWR Treatment Technique Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 45	Treatment Technique (SWTR and GWR)	1,098	701	277*
	Totals	**1,098**	**701**	**277***

Table 16

Violation Code	GWR Monitoring & Reporting Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 34	Routine Monitoring	84	23	67*
	Totals	**84**	**23**	**67***

Public Notification Rule (PNR)

All PWSs are required to notify its customers when: (1) the system fails to comply with drinking water regulations, (2) the system has a variance or exemption from drinking water regulations or (3) the system is facing some other situation posing a public health risk. Violations identified in this report are for PWSs that failed to properly inform their customers regarding one of these topics.

In calendar year 2018, the NMED DWB began the process of addressing legacy Public Notice Rule data. This included reviewing thousands of old public notice information and issuing Notice of Violations to public water systems that had not provided public notice information to NMED DWB. This effort resulted in a significant increase in public notice violations than previous years. NMED DWB will continue this effort in calendar year 2019.

Table 17

Violation Code	Public Notification Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 75	Failure to provide proper public notification linked to a drinking water regulation violation	2,104	484	422*
Violation Code 76	Failure to provide proper public notification not linked to a drinking water regulation violation	0	0	0
	Totals	**2,104**	**484**	**422***

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

Consumer Confidence Report Rule (CCR)

All community water systems are required to prepare and provide to their customers an annual Consumer Confidence Report (CCR). The CCR summarizes the quality of the drinking water and any violations. It also includes some educational material, provides information on the source water, the level of any detected contaminants, and compliance with drinking water regulations. These violations persist each year until every CCR is prepared properly and provided to the consumers of the PWS. The NMED DWB has assigned a Consumer Confidence Rule Administrator to oversee the CCR rule for all systems across the state. This assignment will allow NMED DWB to implement this rule consistently for all systems in New Mexico.

Table 18

Violation Code	Consumer Confidence Report (CCR) Violations	# of Violations	# Return to Compliance Violations	# of PWSs in Violation
Violation Code 71	Failure to provide CCR	204	108	121*
Violation Code 72	Inadequate Reporting of CCR	0	0	0
	Totals	**204**	**108**	**121***

*A single water system could violate more than one CCR requirement.

Summary of Violations

All the violations presented in this report are summarized in Table 19 below:

Table 19

Summary of NM Public Water System Violations												
Contaminant Type or Rule	**MCLs**			**Monitoring and Reporting**			**Treatment Technique**			**Public Notification and Consumer Confidence Reporting**		
	# of Violations	**# of RTC Violations**	**# PWS in Violation**	**# of Violations**	**# of RTC Violations**	**# PWS in Violation**	**# of Violations**	**# of RTC Violations**	**# PWS in Violation**	**# of Violations**	**# of RTC Violations**	**# PWS in Violation**
IOC	46	2	16	1	0	1						
RAD	29	0	7	0	0	0						
SOC	0	0	0	0	0	0						
VOC	0	0	0	0	0	0						
Contaminant Sub-Totals	**75**	**2**	**23**	**1**	**0**	**1**						
RTCR	6	3	6	273	176	127	41	21	37			
SWTR/ IESWTR				24	15	22	15	12	9			
LCR				165	91	99	0	0	0			
DBP1	0	0	0	0	0	0	0	0	0			
DBP2	46	3	13	82	10	37	7	1	3			
GWR*				84	23	67	1098	701	277			
CCR										204	108	121
PN										2,104	484	422
Grand Totals	**127**	**8**	**42**	**629**	**315**	**353**	**1,161**	**735**	**326**	**2,308**	**592**	**543**

Conclusions

The NMED DWB has continued to make significant changes and progress in 2018 in an effort to be more consistent in its implementation of drinking water regulations throughout the state. During 2018 895, or 83%, of PWSs received at least one significant violation resulting in a grand total of 4,225 significant violations being reported for NM. Three hundred sixty-eight (368), or 34%, of the PWSs in NM had health based violations of a MCL or treatment technique. Of the health based violations, 42 PWSs had 127 chemical, or radionuclide MCL violations; and 6 PWSs had 6 RTCR MCL violations. These MCL violations account for 3% of the total number of violations. The majority of violations that occurred during 2018 were associated with non-water quality and non-health based requirements such as failing to monitor routinely as required by the Revised Total Coliform Rule (RTCR) or failing to provide public notice. One Hundred Twenty-seven (127) PWSs had a total of 273 M/R violations accounting for 6% of the total number of violations. Three Hundred Twenty-six (326) PWSs had 1,161 TT violations accounting for 27% of the total violations. Five Hundred Forty-three (543) PWSs had 2,308 PN violations accounting for 55% of the total number of violations and 121 PWSs had 204 CCR violations, accounting for 5% of the total number of violations.

In 2018 the NMED DWB faced some significant challenges. These included challenges such as retirements and other types of staffing turnover. In 2018 NMED DWB issued more Notice of Violations (4,225) than it has over the past several years. In July of 2015, NMED DWB began implementing various solutions in order to try to improve oversight of public water systems in New Mexico. Compliance determination has improved through significant staffing changes within the NMED DWB. The NMED DWB implemented "Rule Administrators" which has allowed DWB to assign certain staff members to concentrate their compliance determination efforts on specific rules and in turn provide better consistency with compliance determinations for public water systems across the state. Currently, Rule Administrators for Surface Water Treatment Rules, Lead & Copper Rules, Disinfection Byproduct Rules, and Consumer Confidence Report rules have been implemented by the NMED DWB. This has resulted in an increase in the identification of drinking water violations as well as better reporting by staff which ensures that safer drinking water will be available for NM citizens.

During 2018 escalated enforcement actions were used to bring PWSs that had a history of significant violations back into compliance. The continued increase in the DWB's enforcement activities reflects a

positive enhancement of the NMED's regulatory capabilities for the constituents identified in this report. Programs such as the Capacity Development program, has provided means to allow the DWB to identify needs and provide assistance in order to increase the technical, financial, and managerial capacity of many of these systems.

Although the changes that the NMED DWB has made over the past several years have significantly increased the NMED DWB's consistency with regulating public water systems in New Mexico, it has become increasingly clear that significantly more staff are needed to oversee these rules as well as other portions of our compliance and assistance programs. Staff are required to take on additional tasks in order to meet workload demands and these additional tasks often times interfere NMED DWB's ability to fully implement all components of the compliance requirements.

NMED DWB will continue to look at efficiency improvements within its PWSS program in order to best utilize the resources available, however, in order to fully implement all of the requirements of the SDWA, additional resources will be needed.