State of Texas
Public Drinking Water Program
2015 Annual Compliance Report

Fort Worth Water Gardens, Fort Worth, TX

Texas Commission on Environmental Quality (TCEQ)
Office of Water
Water Supply Division

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Introduction

The Texas Commission on Environmental Quality (TCEQ) administers the Public Drinking Water Program in Texas under primacy authority from the United States Environmental Protection Agency (EPA). Section 1414(c)(3) of the Safe Drinking Water Act (SDWA) requires that each state that has been granted primacy prepare an annual report on violations of national primary drinking water regulations within the state, make the report readily available to the public, and submit it to the EPA. The TCEQ 2015 Annual Compliance Report fulfills this responsibility for Texas, and includes violations of Maximum Contaminant Levels (MCLs), maximum residual disinfectant levels (MRDLs), treatment technique requirements, variances and exceptions, significant monitoring and consumer notification violations.

Each quarter, primacy States submit data to the Federal Safe Drinking Water Information System (SDWIS/FED), an automated database maintained by EPA. This report is based on data retrieved from the Texas installation of SDWIS/STATE. This report contains data from the following time periods:

- The beginning date of a given violation compliance period on or before December 31, 2015.
- The ending date of a given violation compliance period on or after January 1, 2015.

By using these criteria, some violations which began prior to calendar year 2015 are included in this report.

Definitions and Terms

The following are definitions and terms used in this report.

Public Water System - A public water system (PWS), as defined by the State of Texas, is a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves at least 25 people for at least 60 days each year. There are three types of PWSs:

- Community PWSs such as towns or other communities where people live.
- Non-Transient Non-Community PWSs such as schools or factories where people work but do not live.
- Transient Non-Community systems -- such as rest stops, parks, and restaurants --where people frequently come and go.

For this report, the acronym PWS means systems of all types unless specified in greater detail.

Maximum Contaminant Level - Under the Safe Drinking Water Act (SDWA), the 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).

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

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

Variances and Exemptions - The State of Texas does not grant variances or exemptions.

Monitoring- A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agency, a monitoring/reporting violation occurs.

Sampling - The TCEQ collects and pays for chemical compliance samples for public water systems using a third party contractor, Antea USA. The samples collected include inorganic and organic chemicals, disinfection by-products and radionuclides. These samples are collected either at the entry point or in the distribution system. Using a third party to collect samples ensures greater quality assurance, unbiased sample results and a very high collection rate. In 2015, 99.9% of samples scheduled were collected, or the sample sites were accounted for as inactive or unavailable for sampling. The public water systems comply with the chemical compliance sampling requirement by paying the lab analysis expense.

Public water systems are required to collect additional compliance samples. All public water systems are responsible for the routine collection of bacteriological samples and disinfection residual data from their distribution system. Most water systems have to perform sampling for compliance for the Lead and Copper Rule. Systems that utilize a ground water source must monitor their raw well water when applicable. Systems that utilize surface water or ground water under the influence of surface water must monitor routinely for turbidity and are also required to perform source water monitoring for *Cryptosporidium*. Also, systems that use specific treatments (such as chlorine dioxide or ozone) in their drinking water production are required to perform specialized monitoring.

Significant Monitoring Violations - For this report, significant monitoring violations are defined as any significant monitoring violation that occurred during the calendar year of the report. A significant monitoring violation, with rare exceptions, occurs when the required number of samples either were not collected or were not reported during a compliance period.

Consumer Notification - Every Community water system is required to deliver to its customers a brief annual water quality report, referred to as the Consumer Confidence Report (CCR). 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.

Significant Consumer Notification Violations - For this report, a significant public notification violation occurred if a community water system completely failed to provide its customers the required annual water quality report. This type of violation is designated as "CCR Failure to Report" in SDWIS/STATE.

Public Notification - Public Notification is intended to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a problem with their drinking water that may pose a risk to public health. They also notify customers if their water does not meet drinking water standards or if the water system fails to test its water.

Public Water Systems in Texas

As of July 1st, the State of Texas regulates 6,915 public water systems, providing drinking water to 27,228,245 customers.

Approximately 26,435,593 people receive drinking water from 4,642 Community water systems.

Approximately 518,075 people receive drinking water from 886 Non-Transient Non-Community water systems.

Approximately 274,577 people receive drinking water from 1,387 Transient Non-Community water systems.

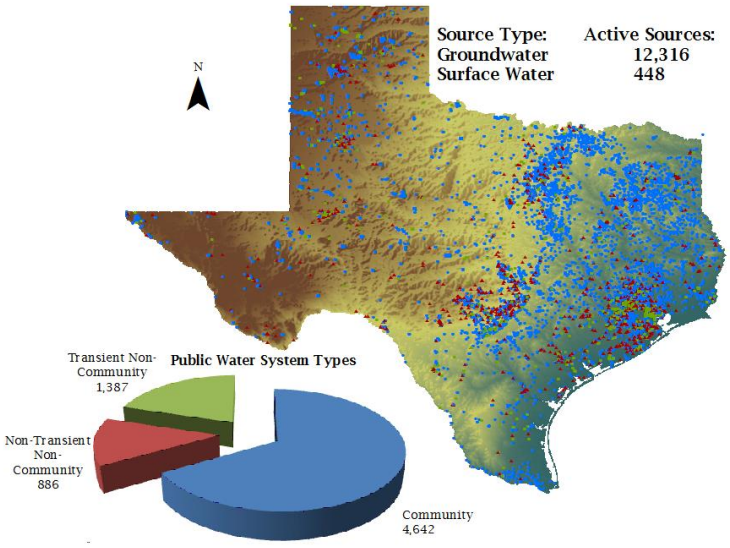
State regulations require all public water systems in Texas to disinfect their drinking water. All systems must properly disinfect water before it is distributed to any customer and must maintain acceptable disinfectant residuals within their distribution system. Systems are required to maintain a disinfectant residual concentration of at least 0.2 milligrams per liter (mg/L) of free chlorine or 0.5 mg/L of chloramine (chlorine + ammonia) in the water entering their distribution system as well as throughout the distribution system.

All public water systems that utilize surface water or ground water under the influence of surface water as a drinking water source, must use filtration as a treatment in their potable water production. Filtration is used along with other treatments as applicable.

Drinking Water Sources

Sources for drinking water within Texas include both groundwater and surface water originating from numerous aquifers, rivers, and reservoirs throughout the state. An illustration of public drinking water sources in Texas is shown below in Figure 1.

Figure 1: Active Public Water System Sources in Texas

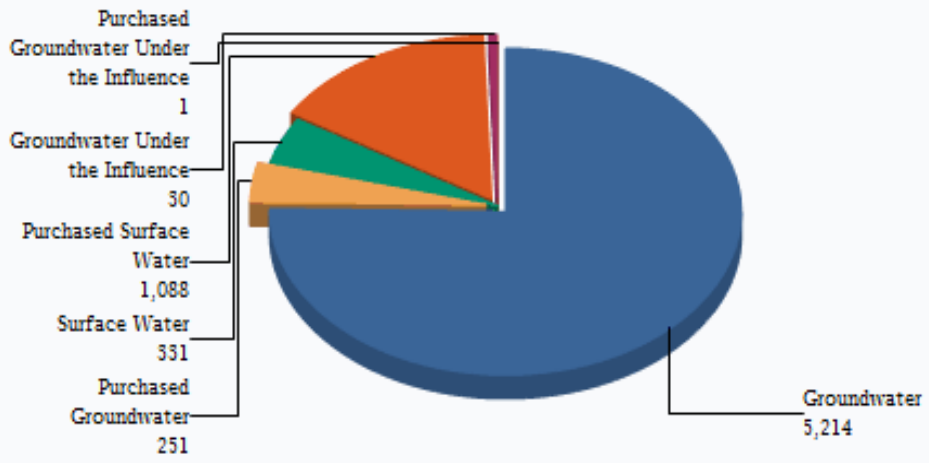


Primary source types for PWSs in Texas include the following:

- Groundwater - Wells that withdraw water from aquifers.
- Purchased Groundwater - Water purchased from another PWS where the source is one or more wells.
- Surface water - Intakes that withdraw water from creeks, rivers, streams, lakes, and reservoirs.
- Purchased surface water – Water that is purchased from another PWS where the source is one or more intakes.
- Groundwater Under the Influence of Surface Water - Wells that withdraw water from aquifers where surface water may be present.
- Purchased Groundwater Under the Influence of Surface Water - Water is purchased from another PWS where the source is one or more aquifers where surface water may be present.

The number of PWSs by primary source type are included in Figure 2.

Figure 2. Number of PWS by Source Type



Public Water System Size

The EPA defines water system size based on the following population classifications:

- Very small systems - Serve 25 to 500 people
- Small systems - Serve 501 to 3,300 people
- Medium systems - Serve 3,301 to 10,000 people
- Large systems - Serve 10,001 to 100,000 people
- Very Large systems - Serve more than 100,000 people

The population served by public water systems in Texas is shown in Table 1 below.

Table 1. Texas Public Water System Population by EPA Classification

Population Served	EPA Classification	Number PWS	Total Population Served
25 - 500	Very Small	4,112	670,739
501 - 3,300	Small	1,781	2,586,767
3,301 - 10,000	Medium	686	3,859,917
10,001 - 100,000	Large	300	7,744,183
Over 100,000	Very Large	36	12,366,639
	Total	6,915	27,228,245

Alternative Water Sources

With Texas' population expected to reach almost 46 million by the year 2060 as well as the lasting effects of the drought, Texans have had to plan far in advance to sustain their communities, businesses, industries, and environment. Because of these challenges, public water systems have had to begin to utilize less conventional sources of water.

Desalination: In the search to find alternate water sources desalination continues to gain attention as some communities seek to treat saline groundwater, or brackish water, to make it potable. Brackish water sources often need treatment to be used as drinking water, and desalination is the most typical treatment utilized by water systems. For this reason, the agency initiated rulemaking to streamline construction approval for public water systems asking to conduct brackish-water desalination.

In July 2015, after extensive input from the regulated community and interested stakeholders, the rules for desalination using either reverse osmosis (RO) or nanofiltration (NF) membranes became effective. In the past, the use of RO membranes or other desalination techniques required either a site-specific pilot test, a pilot test at a site with similar water quality, or full-scale performance data at a site with similar water quality. The streamlined approach in the new rules allows the use of desalination technologies without an exception request, which is required when approving the use of innovative and alternative treatment technologies. To further assist communities with decreased water supplies, the TCEQ offers concurrent reviews of designs and computer models.

Reuse/reclaimed water: As public water systems search for new sources of water, some public water systems began to explore strategies not previously considered. One alternative involves not just reclaiming effluent from municipal wastewater treatment plants for non-potable uses such as irrigation and industry, but also additional treatment to remove chemical and microbiological contaminants found in effluent. The TCEQ has engineers and scientists with the expertise to guide public water systems through the process of selecting innovative treatment technologies and receiving approval for these technologies while ensuring the treated water is safe for human consumption. Texas is the first state to have a Direct Potable Reuse Treatment Plant (DRP).

2015 Compliance Results

Annual compliance information was determined using the State of Texas Safe Drinking Water Information System (SDWIS) State, version 3.33.

Health-Based Standards

In 1974 Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. These non-enforceable health goals, based solely on possible health risks and exposure over a lifetime, with an adequate margin of safety, are called maximum contaminant level goals (MCLG). Contaminants are any physical, chemical, biological or radiological substances or matter in water. EPA sets MCLGs based on the best available science to prevent potential health problems.

For most contaminants, EPA sets an enforceable regulation called a maximum contaminant level (MCL) based on the MCLG. MCLs are set as close to the MCLGs as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies. When there is no reliable method that is economically and technically feasible to measure a contaminant at particularly low concentrations, a treatment technique is set rather than an MCL. A treatment technique is an enforceable procedure or level of technological performance which public water systems must follow to ensure control of a contaminant. States may set a more stringent MCL or treatment technique level for pathogens and indicators in drinking water than EPA.

Health based contaminants are those that may pose an acute or long term risk to human health if they are found in drinking water. These contaminants include: fecal coliform bacteria, E. coli, turbidity, nitrate, nitrite, chlorine dioxide, inorganic chemicals, organic chemicals, disinfection byproducts, radionuclides and disinfectants.

Total coliforms, fecal coliforms, E. coli and turbidity are indicators that inadequately treated water may contain disease causing organisms. Pathogens include various types for bacteria, viruses, protozoan parasites and other organisms. Indicators are physical, chemical, or other parameters whose presence at a level outside of specified limits may reflect a problem in the treatment process or in the integrity of the distribution system. These pathogens can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Nitrate and nitrite contamination can occur from several sources: the natural decay of organic materials such as leaves and crop residue, use of commercial fertilizers, contamination by human sewage and wastes from farm animals, and the nitrification of ammonia in the treatment and distribution system. Excessive levels of nitrate and nitrite in drinking water can cause serious illness and sometimes death in infants less than six months of age and may also cause adverse health effects in pregnant women through the risk of miscarriage and in people with specific metabolic diseases.

Chlorine dioxide is a chemical added to drinking water for the purposes of microbial disinfection and oxidation of dissolved organic carbon to reduce formation of disinfection byproducts. Some infants, young children and pregnant women who drink water containing chlorine dioxide in excess of the Maximum Residual Disinfection Level (MRDL) could experience nervous system effects.

Inorganic contaminants can leach into drinking water after dissolving from naturally occurring

minerals in the ground, or from runoff from industrial sources or landfills. Lead and copper enter drinking water primarily through plumbing materials. Exposure to lead and copper may cause health problems ranging from stomach problems to brain damage. Lead and copper levels are controlled by treatment techniques and regulated by action level.

Organic contaminants come from petroleum solvents, paint removers, degreasers, cleaning fluids, pesticides, gasoline, electrical transformers, manufacturing processes, chemical production, byproducts from disinfection, the production of plastics, agricultural runoff, improper waste disposal, and improper handling and storage techniques. These contaminants may damage organs such as the heart, liver, and kidneys, damage the central nervous and immune systems, and cause cancer.

Disinfection byproducts are organic chemicals that form as a result of adding disinfectant to water containing organic matter. Trihalomethanes, haloacetic acids, chlorite and bromate are byproducts of disinfection. These contaminants may damage organs such as the kidneys and liver, damage the cardiovascular system and central nervous system, and are sometimes associated with high blood pressure and cancer.

Radionuclides include radium and uranium, which occur naturally in some ground water due to geological formations, particularly in deeper aquifers. Radionuclide contaminants may cause cancer.

Disinfectants are chemicals added to drinking water during treatment to provide disinfection at the treatment plant and in the distribution system. If disinfectants are not dosed and managed appropriately, they may cause health effects from chlorine and chloramines which can include irritating effects to the eyes and nose, stomach discomfort, and (chloramine only) anemia. Chlorine dioxide can cause nervous system effects and anemia.

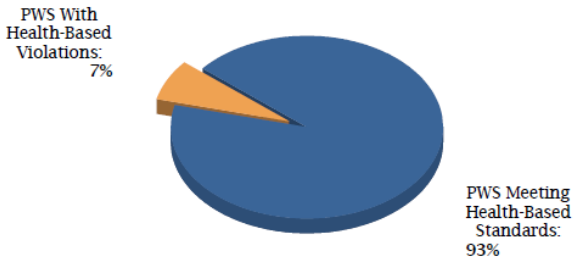
To find more information regarding drinking water contaminants regulated by the EPA, and their potential health effects, go to the following website:
<http://water.epa.gov/dwstandardsregulations/>

Health-Based Standards Results

For 2015, health based standards were met by 93% of the 6,915 PWS in the State of Texas. The percentage of total population served by PWS meeting health based standards was 93%.

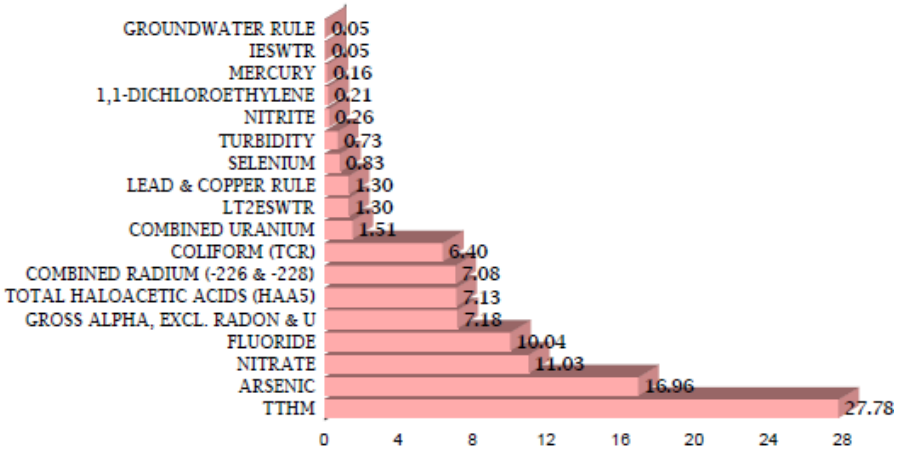
Figure 3 below shows the percentage of PWSs which are in compliance with health based standards.

Figure 3. Percent of PWS in Compliance with Health-Based Standards



Maximum Contaminant Level and Treatment Technique Rule violations, as a percentage of total health based violations are shown in Figure 4 below.

Figure 4. Percent of Health-Based Standards Violation, by Contaminant/Rule



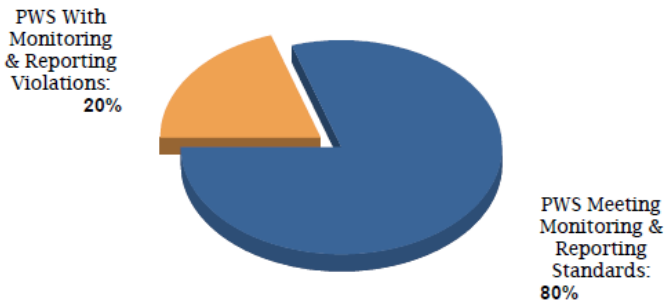
Significant Monitoring and Reporting Regulations

Monitoring and reporting regulations provide a mechanism to ensure that Public Water Systems (PWS) evaluate contaminants in order to meet health based standards.

For 2015, 80% of the **6,915** PWSs in Texas were in compliance with major monitoring and reporting regulations. The total population served by PWSs meeting monitoring and reporting regulations is 88%.

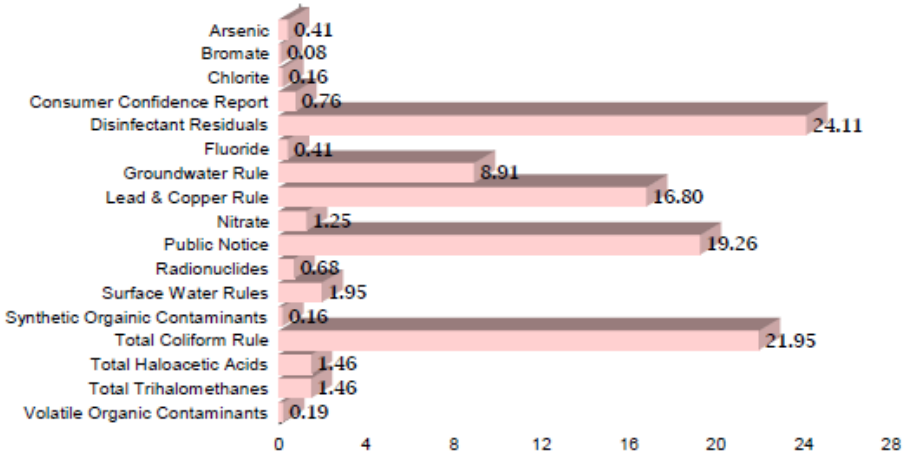
Figure 5 below shows the percent of PWSs which are in compliance with monitoring and reporting regulations.

Figure 5. Percent of PWS in Compliance with Monitoring & Reporting Regulations



Percent of PWSs with monitoring and reporting violations, by contaminant and rule are shown in Figure 6 below.

Figure 6. Percent of Monitoring & Reporting Violations by Contaminant or Rule



Violations by Rule and Type

A summary of the number of violations by rule and type is shown below in Table 2. Violations included here are only those that did not return to compliance in 2015. See Appendix A for the total number of violations and those violations that returned to compliance.

Table 2. PWS Violations by Rule & Type

RULE	Violation Type Code	Violation Name	Violations Not RTC'd	Number of PWS in Violation
CCR	71	CCR REPORT	28	15
Chem	02	MCL, AVERAGE	546	111
Chem	01	MCL, SINGLE SAMPLE	213	73
Chem	03	MONITORING, ROUTINE MAJOR	13	5
DBP	02	MCL, LRAA	671	169
DBP	27	MONITORING, ROUTINE (DBP), MAJOR	1,007	560
GWR	48	FAILURE TO ADDRESS CONTAMINATION (GWR)	1	1
GWR	34	MONITOR GWR TRIGGERED/ADDITIONAL, MAJOR	302	220
GWR	34	MONITOR GWR TRIGGERED/ADDITIONAL, MINOR	27	23
LCR	52	FOLLOW-UP OR ROUTINE TAP M/R (LCR)	995	995
LCR	51	INITIAL TAP SAMPLING (LCR)	130	99
LCR	56	INITIAL/FOLLOW-UP/ROUTINE SOWT M/R (LCR)	22	22
LCR	66	LEAD CONSUMER NOTICE (LCR)	247	243
LCR	57	OCCT/SOWT RECOMMENDATION/STUDY (LCR)	2	1
LCR	65	PUBLIC EDUCATION (LCR)	23	20
LCR	53	WATER QUALITY PARAMETER M/R (LCR)	107	27
PN	75	PUBLIC NOTICE RULE LINKED TO VIOLATION	711	300
Rad	02	MCL, AVERAGE	303	49
Rad	03	MONITORING, ROUTINE MAJOR	25	8
SWTR	41	FAILURE MAINTAIN MICROBIAL TREAT.(LT2)	6	1
SWTR	42	FAILURE TO PROVIDE LT2 TREATMENT	19	3
SWTR	CT	LOW CT GREATER THAN 4 HOURS	1	1
SWTR	38	MONITORING, ROUTINE (IESWTR/LT1), MAJOR	72	19
SWTR	44	MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	7	7
SWTR	43	SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	6	5
SWTR	T2	TX CFE TURBIDITY ABOVE 5.0 NTU	1	1
TCR	21	MCL (TCR), ACUTE	9	9
TCR	22	MCL (TCR), MONTHLY	114	109
TCR	25	MONITORING (TCR), REPEAT MAJOR	55	50
TCR	23	MONITORING (TCR), ROUTINE MAJOR	755	302

Rule Abbreviations:

CCR	Consumer Confidence Report	LCR	Lead and Copper Rule
CHEM	Chemical (Inorganics and Organics)	PN	Public Notice Rule
DBP	Disinfection By-Products	SWTR	Surface Water Treatment Rules
GWR	Groundwater Rule	TCR	Total Coliform Rule
HAA5	Haloacetic Acids	TTHM	Total Trihalomethanes

MCL/MRDL, Monitoring/Reporting, and Treatment Technique Violations

The following tables provide a summary for MCL/MRDL, Treatment Techniques, and Monitoring/Reporting. Violations included in these tables are only those that did not return to compliance in 2015.

Synthetic Organic Compounds

Contaminant	MCL/MRDL	MCLs/MRDLs		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation
2,3,7,8-TCDD	3x10-8mg/L	0	0	0	0
2,4,5-TP	0.05MG/L	0	0	6	2
2,4-D	0.07MG/L	0	0	6	2
ALACHLOR	0.002MG/L	0	0	6	3
ATRAZINE	0.003MG/L	0	0	6	3
BENZO(A)PYRENE	0.0002MG/L	0	0	6	3
CARBOFURAN	0.04MG/L	0	0	6	2
CHLORDANE	0.002MG/L	0	0	6	3
DALAPON	0.2MG/L	0	0	6	2
DI(2-ETHYLHEXYL) ADIPATE	0.4MG/L	0	0	6	3
DI(2-ETHYLHEXYL) PHTHALATE	0.006MG/L	0	0	6	3
DINOSEB	0.007MG/L	0	0	6	2
DIQUAT	0.02MG/L	0	0	0	0
ENDOTHALL	0.1MG/L	0	0	0	0
ENDRIN	0.002MG/L	0	0	6	3
ETHYLENE DIBROMIDE	0.00005MG/L	0	0	6	2
GLYPHOSATE	0.7MG/L	0	0	0	0
HEPTACHLOR	0.0004MG/L	0	0	6	3

Synthetic Organic Compounds (continued)

Contaminant	MCL/MRDL	MCLs/MRDLs		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation
HEPTACHLOR EPOXIDE	0.0002MG/L	0	0	6	3
HEXACHLOROBENZENE	0.001MG/L	0	0	6	3
HEXACHLOROCYCLOPENTADIENE	0.05MG/L	0	0	6	3
METHOXYCHLOR	0.04MG/L	0	0	6	3
OXAMYL	0.2MG/L	0	0	6	2
PENTACHLOROPHENOL	0.001MG/L	0	0	6	3
PICLORAM	0.5MG/L	0	0	6	2
SIMAZINE	0.004MG/L	0	0	6	3
TOTAL POLYCHLORINATED BIPHENYLS (PCB)	0.0005MG/L	0	0	0	0
TOXAPHENE	0.003MG/L	0	0	6	3
Subtotal		**0**	**0**	6	4

Volatile Organic Compounds

Contaminant	MCL_MRDL	MCLs/MRDLs		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation
1,1,1-TRICHLOROETHANE	0.2MG/L	0	0	7	3
1,1,2-TRICHLOROETHANE	0.005MG/L	0	0	7	3
1,1-DICHLOROETHYLENE	0.007MG/L	4	1	7	3
1,2,4-TRICHLOROBENZENE	0.07MG/L	0	0	7	3
1,2-DICHLOROETHANE	0.005MG/L	0	0	7	3
1,2-DICHLOROPROPANE	0.005MG/L	0	0	7	3

Volatile Organic Compounds (continued)

Contaminant	MCL_MRDL	MCLs/MRDLs		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation
BENZENE	0.005MG/L	0	0	7	3
CARBON TETRACHLORIDE	0.005MG/L	0	0	7	3
CIS-1,2-DICHLOROETHYLENE	0.07MG/L	0	0	7	3
DICHLOROMETHANE	0.005MG/L	0	0	7	3
ETHYLBENZENE	0.7MG/L	0	0	7	3
O-DICHLOROBENZENE	0.6MG/L	0	0	7	3
STYRENE	0.1MG/L	0	0	7	3
TETRACHLOROETHYLENE	0.005MG/L	0	0	7	3
TOLUENE	1MG/L	0	0	7	3
TRANS-1,2-DICHLOROETHYLENE	0.1MG/L	0	0	7	3
TRICHLOROETHYLENE	0.005MG/L	0	0	7	3
VINYL CHLORIDE	0.002MG/L	0	0	7	3
XYLENES, TOTAL	10MG/L	0	0	7	3
Subtotal		4	1	7	3

Inorganic Compounds

Contaminant	MCL/MRDL	MCLs/MRDLs		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation
ANTIMONY, TOTAL	0.006MG/L	0	0	0	0
ARSENIC	0.010MG/L	326	83	15	7
ASBESTOS	7MFL	0	0	0	0
BARIUM	2MG/L	0	0	0	0
BERYLLIUM, TOTAL	0.004MG/L	0	0	0	0
CADMIUM	0.005MG/L	0	0	0	0
CHROMIUM	0.1MG/L	0	0	0	0
CYANIDE	0.2MG/L	0	0	0	0
FLUORIDE	4.0MG/L	193	45	15	4
MERCURY	0.002MG/L	3	1	0	0
NITRATE	10MG/L	212	73	46	17
NITRATE-NITRITE	10MG/L	0	0	0	0
NITRITE	1MG/L	5	3	0	0
SELENIUM	0.05MG/L	16	4	0	0
THALLIUM, TOTAL	0.002MG/L	0	0	0	0
Subtotal		755	171	76	22

Radionuclides

Contaminant	MCL/MRDL	MCLs/MRDLs		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation
Combined Radium (-226 & Radium 228)	5PCI/L	136	31	25	8
Combined Uranium	30UG/L	29	9	25	8
Gross Alpha, excluding Radon & Uranium	15PCI/L	138	37	25	8
Subtotal		303	49	25	8

Total Coliform Rule

Violation Type	MCL/MRDL	MCLs/MRDLs		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation
MCL (TCR), ACUTE	Presence	9	9		
MCL (TCR), MONTHLY	Presence	114	109		
MONITORING (TCR), REPEAT MAJOR				55	50
MONITORING (TCR), ROUTINE MAJOR				755	302
Subtotal		123	117	810	348

Surface Water Treatment Rules

Violation Type	Treatment Techniques		Significant Monitoring/Reporting	
	Violations	PWS in Violation	Violations	PWS in Violation
MONITORING, ROUTINE (IESWTR/LT1), MAJOR	0	0	72	19
MONITORING, RT MINOR (LT2-UNFILTERED)	0	0	0	0
FAILURE TO PRODUCE FILTER ASSESSMENT	0	0	0	0
COVER OR TREAT STORAGE FACILITY (LT2)	0	0	0	0
MONITORING, SOURCE (LT2), MAJOR	0	0	0	0

Surface Water Treatment Rules (continued)

Violation Type	Treatment Techniques		Significant Monitoring/Reporting	
	Violations	PWS in_Violation	Violations	PWS in Violation
MONITORING, ROUTINE (IESWTR/LT1), MINOR	0	0	0	0
FAILURE MAINTAIN MICROBIAL TREAT.(LT2)	6	1	0	0
FAILURE TO PROVIDE GWR TREATMENT	0	0	0	0
FAILURE TO PROFILE/CONSULT	0	0	0	0
FAILURE MAINTAIN MICROBIAL TREAT.(GWR)	0	0	0	0
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	6	5	0	0
RES DISINFECT CONCENTRATION (SWTR)	0	0	0	0
UNCOVERED STORAGE FACILITY (IESWTR/LT1)	0	0	0	0
FAILURE TO FILTER (SWTR)	0	0	0	0
MONITORING, SOURCE (LT2), MINOR	0	0	0	0
MONITORING, RTN/RPT MAJOR (GWR)	0	0	0	0
CPE FAILURE (EI/LT1 SWTR)	0	0	0	0
FAILURE TO PROVIDE LT2 TREATMENT	19	3	0	0
MONITORING, RT MAJOR (LT2-UNFILTERED)	0	0	0	0
FAILURE SUBMIT MICROBIAL TOOLBOX	0	0	0	0
FAILURE TO HAVE MONITORING PLAN (LT2)	0	0	0	0
MONITORING, RTN/RPT MAJOR (SWTR-UNFILT)	0	0	0	0
MONTHLY COMB. FILTER EFFLUENT (SWTR	0	0	0	0
FAILURE SUBMIT BIN/TREAT REQUIRE (LT2)	0	0	0	0

Surface Water Treatment Rules (continued)

Violation Type	Treatment Techniques		Significant Monitoring/Reporting	
	Violations	PWS in Violation	Violations	PWS in Violation
MONITORING, RTN/RPT MINOR (SWTR-UNFILT)	0	0	0	0
SINGLE COMB. FILTER EFFLUENT (SWTR)	0	0	0	0
MONITORING, RTN/RPT MINOR (GWR)	0	0	0	0
LOW CT GREATER THAN 4 HOURS	1	1	0	0
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	7	7	0	0
TX RES DISINFECT CONCENTRATION (SWTR)	0	0	0	0
TX CFE TURBIDITY ABOVE 5.0 NTU	1	1	0	0
Subtotal	40	12	72	19

Disinfectants and Disinfection By-Products Rule (DBP1 & DBP2)

Analyte	MCL/MRDL	MCLs/MRDLs		Treatment Techniques		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation	Violations	PWS in Violation
BROMATE	0.010MG/L	0	0	0	0	3	2
CARBON, TOTAL	N/A	0	0	0	0	0	0
Disinfectant Residual	Chlorine (Free) 0.2, Chloramine 0.5, Both 0.5 MG/L	0	0	0	0	890	526
CHLORITE	1.0MG/L	1	1	0	0	6	5

Disinfectants and Disinfection By-Products Rule (DBP1 & DBP2) (continued)

Analyte	MCL/MRDL	MCLs/MRDLs		Treatment Techniques		Significant Monitoring/Reporting	
		Violations	PWS in Violation	Violations	PWS in Violation	Violations	PWS in Violation
TOTAL HALOACETIC	0.060MG/L	137	44	0	0	54	46
Trihalomethanes (TTHM)	.080MG/L	534	155	0	0	54	46
Subtotal		672	170			1,007	561

Lead and Copper Rule

Violation Type	Treatment Techniques		Significant Monitoring/Reporting	
	Violations	PWS in Violation	Violations	PWS in Violation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	0	0	995	995
INITIAL TAP SAMPLING (LCR)	0	0	130	99
INITIAL/FOLLOW-UP/ROUTINE SOWT M/R (LCR)	0	0	22	22
LEAD CONSUMER NOTICE (LCR)	0	0	247	243
WATER QUALITY PARAMETER M/R (LCR)	0	0	107	27
WOP LEVEL NON-COMPLIANCE (LCR)	0	0	0	0
LEAD SERVICE LINE REPLACEMENT (LCR)	0	0	0	0
PUBLIC EDUCATION (LCR)	23	20	0	0
MPL LEVEL NON-COMPLIANCE (LCR)	0	0	0	0
OCCT/SOWT RECOMMENDATION/STUDY	2	1	0	0
OCCT/SOWT INSTALL DEMONSTRATION (LCR)	0	0	0	0
Subtotal	25	21	1,501	1,326

Groundwater Rule

Violation Type	Significant Monitoring/Reporting	
	Violations	PWS in Violation
MONITOR GWR TRIGGERED/ADDITIONAL, MAJOR	302	220
MONITOR GWR TRIGGERED/ADDITIONAL, MINOR	27	23
FAILURE TO ADDRESS CONTAMINATION (GWR)	1	1
MONITORING, RTN/RPT MAJOR (GWR)	0	0
MONITOR GWR ASSESSMENT, MINOR	0	0
SANITARY SURVEY COOPERATION FAILURE	0	0
FAILURE TO PROVIDE GWR TREATMENT	0	0
FAILURE TO CONSULT, GWR	0	0
FAILURE MAINTAIN MICROBIAL TREAT. (GWR)	0	0
MONITORING, RTN/RPT MINOR (GWR)	0	0
NOTIFICATION, STATE, GWR	0	0
FAILURE ADDRESS DEFICIENCY (GWR)	0	0
RECORD KEEPING, WITH RULE CODE	0	0
MONITOR GWR ASSESSMENT, MAJOR	0	0
RECORD KEEPING, WITHOUT RULE CODE	0	0
FAILURE TO NOTIFY OTHER PWS	0	0
PUBLIC NOTICE RULE NOT LINKED VIOLATION	0	0
Subtotal	330	246

Consumer Confidence Reports

Rule	Significant Monitoring/Reporting	
	Violations	PWS In Violation
CONSUMER CONFIDENCE RULE	28	15
Subtotal	28	15

Public Notification Rule

Rule	Significant Monitoring/Reporting	
	Violations	PWS in Violation
Public Notice Rule	711	300
Subtotal	711	300

Appendix A. Return To Compliance By Rule

Data included in Table 3 represent all violations starting prior to the end of 2015 and ending after the beginning of 2015. Violations that returned to compliance (RTC) in Table 3 are those violations starting prior to the end of 2015 and ending after the beginning of 2015 and returning to compliance in 2015.

Table 3. Violations Returned to Compliance

RULE	Violation Type Code	Violation Name	All Violations	RTC'd Violations
CCR	71	CCR REPORT	269	241
Chem	02	MCL, AVERAGE	546	0
Chem	01	MCL, SINGLE SAMPLE	215	2
Chem	03	MONITORING, ROUTINE MAJOR	50	37
DBP	02	MCL, LRAA	945	274
DBP	27	MONITORING, ROUTINE (DBP), MAJOR	1,144	137
GWR	48	FAILURE TO ADDRESS CONTAMINATION (GWR)	1	0
GWR	73	FAILURE TO NOTIFY OTHER PWS	1	1
GWR	34	MONITOR GWR TRIGGERED/ADDITIONAL, MAJOR	307	5
GWR	34	MONITOR GWR TRIGGERED/ADDITIONAL, MINOR	29	2
GWR	76	PUBLIC NOTICE RULE NOT LINKED VIOLATION	4	4
LCR	52	FOLLOW-UP OR ROUTINE TAP M/R (LCR)	996	1
LCR	51	INITIAL TAP SAMPLING (LCR)	167	37
LCR	56	INITIAL/FOLLOW-UP/ROUTINE SOWT M/R (LCR)	26	4
LCR	66	LEAD CONSUMER NOTICE (LCR)	960	713
LCR	57	OCCT/SOWT RECOMMENDATION/STUDY (LCR)	10	8
LCR	65	PUBLIC EDUCATION (LCR)	57	34
LCR	53	WATER QUALITY PARAMETER M/R (LCR)	115	8
PN	75	PUBLIC NOTICE RULE LINKED TO VIOLATION	1,997	1,286
Rad	02	MCL, AVERAGE	311	8
Rad	03	MONITORING, ROUTINE MAJOR	25	0
SWTR	41	FAILURE MAINTAIN MICROBIAL TREAT.(LT2)	6	0
SWTR	42	FAILURE TO PROVIDE LT2 TREATMENT	19	0
SWTR	CT	LOW CT GREATER THAN 4 HOURS	8	7
SWTR	38	MONITORING, ROUTINE (IESWTR/LT1), MAJOR	116	44
SWTR	44	MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	27	20
SWTR	43	SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	12	6
SWTR	T2	TX CFE TURBIDITY ABOVE 5.0 NTU	3	2
TCR	21	MCL (TCR), ACUTE	14	5
TCR	22	MCL (TCR), MONTHLY	168	54
TCR	25	MONITORING (TCR), REPEAT MAJOR	80	25
TCR	23	MONITORING (TCR), ROUTINE MAJOR	1,188	433

Obtaining a Copy of the 2015 Public Drinking Water Annual Compliance Report

As required by the Safe Drinking Water Act, the State of Texas has made the *2015 Public Drinking Water Annual Compliance Report* available to the public. Interested parties can obtain a copy of the *2015 Annual Public Water Systems Compliance Report* for Texas by accessing the TCEQ website at <http://www.tceq.texas.gov>

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