



*The 2014 Annual Report on Violations of the U.S. Safe  
Drinking Water Act in the State of Florida*

**Office of Water Resource Management  
Florida Department of Environmental Protection  
July 1, 2015**

2600 Blairstone, Rd., MS 3520  
Tallahassee, Florida 32399  
[www.dep.state.fl.us](http://www.dep.state.fl.us)



In accordance with the Safe Drinking Water Act (SDWA) Amendments of 1996, this summary has been compiled to reflect violations of national primary drinking water regulations by public water systems in the State of Florida.

As required by the Safe Drinking Water Act, the State of Florida has made the 2014 Public Water Systems report available to the public. Interested individuals can obtain a copy of the 2014 Annual Public Water Systems Report for Florida by accessing our website at the following address: [www.dep.state.fl.us/water/drinkingwater](http://www.dep.state.fl.us/water/drinkingwater)

Alternatively write to us at:

Attn: Drinking Water Program  
2600 Blairstone Road, MS 3520  
Tallahassee, Florida 32399-2400

2600 Blairstone, Rd., MS 3520  
Tallahassee, Florida 32399  
[www.dep.state.fl.us](http://www.dep.state.fl.us)



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

The EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act (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) and the Maximum Residual Disinfectant Levels (MRDLs). 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 monitoring and reporting (M/R) requirements increase with population size and susceptibility. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data for future regulatory development. 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.

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. For a state to receive primacy, EPA must determine that the state meets 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.

## **Florida's Drinking Water Program**

The Florida Drinking Water Program is a subsection of the Florida Department of Environmental Protection (DEP) and involves six statewide district offices, eight Department of Health (DOH) county programs, the DOH's Laboratory Program, and both the DEP and DOH headquarter offices located in Tallahassee. The program's mission is to provide safe drinking water to the residents and visitors of Florida through the implementation of the federal and state Safe Drinking Water Acts. In 2014, the State of Florida had 1,660 community, 800 nontransient-noncommunity and 2,850 transient- noncommunity systems that were active during 2014. Florida's regulations can be found in the Florida Administrative Code, Chapters 62-550, 62-555, and 62-560.

The information provided in this report is based on Florida's drinking water database as well as the data stored in the Safe Drinking Water Information System (SDWIS/FED). Although the two databases are mostly synchronized, this report does not include Lead & Copper and Consumer Confidence violations already reported in prior years' ACRs. This report also does not include return to compliance counts since unlike violations, those

counts are soon out of date. The violations enumerated herein occurred in the calendar year 2014, which is the 1st year in the 3-year 2014-2016 compliance period.

## **Definitions**

### **Annual State PWS Report**

Each calendar quarter, primacy states submit data to EPA's Safe Drinking Water Information System (SDWIS/FED), a database owned and maintained by EPA. The data submitted include, but are not limited to, PWS inventory information; the incidence of Maximum Contaminant Level, Maximum Residual Disinfectant Level, monitoring, and treatment technique violations; and information on enforcement activity related to these violations. This report provides the numbers of violations in each of the six categories: MCLs, MRDLs, treatment techniques, variances and exemptions, significant monitoring violations, and significant consumer notification violations.

### **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 refers to 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).

### **Action Level**

The level of lead and copper which, if exceeded, triggers treatment or other requirements that a water system must follow.

## **Disinfectant**

A chemical (commonly chlorine, chloramines, or ozone) or physical process (e.g., ultraviolet light) that kills microorganisms such as viruses, bacteria, and protozoa.

## **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, some bacteria, and turbidity.

## **Monitoring**

A PWS is required to monitor and verify that the levels of contaminants present in the water do not exceed the MCL, Action Level, or Treatment Technique. If a PWS fails to have its water tested as required or fails to report test results correctly to the primacy agent, a monitoring (MNR) violation occurs.

## **Significant Monitoring Violations**

For this report, a significant monitoring violation, with rare exceptions, occurs when no samples were taken or no results were reported during a compliance period within the calendar year. Depending upon the contaminant and previously reported results, a compliance period is typically monthly, quarterly, annually, or triennially.

## **Variations and Exemptions**

A primacy state can grant a PWS a variance from a primary drinking water regulation if the characteristics of the raw water sources reasonably available to the PWS do not allow the system to meet the MCL. To obtain a variance, the system must agree to install the best available technology, treatment techniques, or other means of limiting drinking water contamination that the Administrator finds are available (taking costs into account), and the state must find that the variance will not result in an unreasonable risk to public health. The variance shall be reviewed not less than every five years to determine if the system remains eligible for the variance.

A primacy state can grant an exemption temporarily relieving a PWS of its obligation to comply with an MCL, treatment technique, or both if the system's noncompliance results from compelling factors (which may include economic factors) and the system was in operation on the effective date of the MCL or treatment technique requirement. The state will require the PWS to comply with the MCL or treatment technique as expeditiously as practicable, but not later than 3 years after the otherwise applicable compliance date.

Florida did not issue any variances or exemptions that would be subject to compliance monitoring.

## Violations

### Total Coliform Rule

There are 5,310 active public water systems in Florida. Approximately one-half are required to monitor monthly, the other half (transient-noncommunities) are required to sample quarterly. The number of samples required varies from a low of 2 each quarter to 400 each month, depending upon population served.

Below are the three types of violations: (1) acute (presence of fecal coliform or E. coli) MCL violations, (2) non-acute (presence of total coliform in more than 5% of the samples) MCL violations, and (3) major monitoring (failure to take any samples on time, or failure to take any necessary repeat samples).

TCR: Coliforms Table

TCR Violation Types	MCL of Contaminant	# of MCL Violations	# of MCL Systems	# of MNR Violations	# of MNR Systems
Acute MCL Violation	Presence	5	5		
Non-Acute MCL Violation	Presence	135	117		
Major Routine and Follow Up Monitoring	N/A			444	359

### Ground Water Rule

The Ground Water Rule applies to all public water systems that use ground water, including consecutive systems, except that it does not apply to systems that combine all of their ground water with surface water or with ground water under the direct influence of surface water prior to treatment. The Ground Water Rule establishes a risk-targeted approach to target ground water systems that are susceptible to fecal contamination. The occurrence of fecal indicators in a drinking water supply is an indication of the potential presence of microbial pathogens that may pose a threat to public health. Below are two types of violations: Assessment Monitoring and Triggered/Additional Monitoring. Assessment violations occur when a public water system fails to collect routine source water samples. Triggered/Additional violations occur when a water system failed to collect necessary repeat source water samples in response to a Total Coliform positive distribution sample or a Fecal Indicator positive source sample.

GWR: Coliforms Table

Ground Water Rule	MCL	Assessment Monitoring Violations	Assessment Monitoring Systems	Triggered/Additional Monitoring Violations	Triggered/Additional Systems
Total GWR Violations	N/A	336	270	70	35

## Surface Water Treatment

Florida has 17 surface water systems (this also includes ground water systems under the direct influence of surface water). Violations fall into two categories: Treatment Techniques and Monitoring/Reporting violations.

Surface Water and UDI Table

Surface Water Treatment Rule	MCL	Treatment Technique Violations	Treatment Technique Systems	# of MNR Violations	# of MNR Systems
Total Surface Water Treatment Violations	N/A	0	0	0	0

## Inorganic Contaminants

These compounds are naturally-occurring in some water, but can also get into water through farming, chemical manufacturing, and other human activities. Inorganics are routinely monitored every three years except that nitrite/nitrate, which poses an acute risk to health, is monitored annually. Community and non-transient systems are required to increase their nitrate/nitrite monitoring frequency to quarterly if they exceed ½ the MCL during routine monitoring. Noncommunity water systems must monitor quarterly if a sample is greater than ½ the MCL for nitrite or exceeds the MCL for nitrate. For the rest of the inorganics, quarterly monitoring is not required unless the MCL is exceeded. Surface water systems are the exception to the frequencies given above. They monitor annually instead of every three years, and quarterly for nitrates even if < ½ the MCL.

Inorganic Contaminants (IOC) Table

ID No.	Contaminant Name	MCL (mg/L)	# of MCL Violations	# of MCL Systems	# of MNR Violations	# of MNR Systems
1005	Arsenic	0.010	0	0	1	1
1010	Barium	2	0	0	1	1
1015	Cadmium	0.005	0	0	1	1
1020	Chromium	0.1	0	0	1	1
1024	Cyanide	0.2	0	0	2	2
1025	Fluoride	4.0	0	0	1	1
1030	Lead	0.015	1	1	2	2
1035	Mercury	0.002	0	0	1	1
1036	Nickel	0.1	0	0	2	2
1040	Nitrate	10	2	2	155	82
1041	Nitrite	1	3	2	**	**
1045	Selenium	0.05	0	0	1	1
1074	Antimony	0.006	0	0	2	2
1075	Beryllium	0.004	0	0	1	1
1085	Thallium	0.002	0	0	1	1
1094	Asbestos	7 MFL	0	0	10	2

*\*\*Nitrite monitoring and reporting violations are consolidated with nitrate monitoring and reporting violations.*

## Organic Contaminants

This category of carbon-based compounds includes groups which Florida refers to as the SOCs and the VOCs. In most cases, these groups are monitored every three years except when required to monitor more frequently due to detections or MCL exceedances.

Synthetic Organic Contaminants (SOC) Table

ID No.	Contaminant Name	MCL (mg/L)	# of MCL Violations	# of MCL Systems	# of MNR Violations	# of MNR Systems
2005	Endrin	0.002	0	0	4	3
2010	Lidane	0.0002	0	0	4	3
2015	Methoxychlor	0.04	0	0	4	3
2020	Toxaphene	0.003	0	0	4	3
2031	Dalapon	0.2	0	0	13	10
2032	Diquat	0.02	0	0	7	5
2033	Endothall	0.1	0	0	4	3
2034	Glyphosate	0.7	0	0	4	3
2035	Di(2-ethylhexyl)adipate	0.4	0	0	5	4
2036	Oxyamyl	0.2	0	0	4	3
2037	Simazine	0.004	0	0	4	3
2039	Di(2-ethylhexyl)phthalate	0.006	0	0	16	14
2040	Picloram	0.5	0	0	4	3
2041	Dinoseb	0.007	0	0	5	4
2042	Hexachlorocyclopentadiene	0.05	0	0	4	3
2046	Carbofuran	0.04	0	0	4	3
2050	Atrazine	0.003	0	0	4	3
2051	Alachlor/Lasso	0.002	0	0	4	3
2065	Heptachlor	0.0004	0	0	4	3
2067	Heptachlor epoxide	0.0002	0	0	4	3
2105	2,4-D	0.07	0	0	4	3
2110	2,4,5-TP	0.05	0	0	4	3
2274	Hexachlorobenzene	0.001	0	0	4	3
2306	Benzo(a)pyrene	0.0002	0	0	4	3
2326	Pentachlorophenol	0.001	0	0	4	3
2383	Polychlorinated biphenyls (PCBs)	0.0005	0	0	4	3
2931	1,2-DiBromo-3-ChloroPropane	0.0002	0	0	4	3
2946	Ethylene DiBromide	0.00005	0	0	4	3
2959	Chlordane	0.002	0	0	4	3



Volatile Organic Contaminants (VOC) Table

ID No.	Contaminant Name	MCL (mg/L)	# of MCL Violations	# of MCL Systems	# of MNR Violations	# of MNR Systems
2378	1,2,4-Trichlorobenzene	0.07	0	0	8	7
2380	Cis-1,2-Dichloroethylene	0.07	0	0	8	7
2955	Xylenes (total)	10.0	0	0	22	17
2964	Dichloromethane	0.005	0	0	10	9
2968	o-Dichlorobenzene	0.60	0	0	8	7
2969	p-Dichlorobenzene	0.075	0	0	8	7
2976	Vinyl Chloride	0.002	0	0	8	7
2977	1,1-Dichloroethylene	0.007	0	0	9	8
2979	Trans-1,2-Dichloroethylene	0.10	0	0	8	7
2980	1,2-Dichloroethane	0.005	0	0	8	7
2981	1,1,1-Trichloroethane	0.20	0	0	8	7
2982	Carbon Tetrachloride	0.005	0	0	8	7
2983	1,2-Dichloropropane	0.005	0	0	8	7
2984	Trichloroethylene	0.005	0	0	8	7
2985	1,1,2-Trichloroethane	0.005	0	0	8	7
2987	Tetrachloroethylene	0.005	0	0	9	8
2989	Chlorobenzene	0.10	0	0	8	7
2990	Benzene	0.005	0	0	8	7
2991	Toluene	1.00	0	0	11	8
2992	Ethylbenzene	0.70	0	0	14	13
2996	Styrene	0.10	0	0	8	7

**Radionuclide Contaminants**

Radioactive particles can occur naturally or as a result of human activity. The monitoring requirement is typically a 3-year or 6-year schedule in Florida.

Radionuclides (RAD) Table

ID No.	Contaminant Name	MCL (pCi/L)	# of MCL Violations	# of MCL Systems	# of MNR Violations	# of MNR Systems
4000	Gross Alpha, Excl. Radon & Uranium	15	5	2	1	1
4006	Uranium	30	4	1	2	2
4010	Combined Radium (-226 & -228)	5	17	7	0	0

## Disinfection By-Products

Disinfection By-Products, DBPs, occur as a result of organic matter reacting with the disinfection chemicals (chlorine), present in drinking water. Typically, systems monitor the DBP group either annually or quarterly depending upon source, size of population, and/or previous results. Systems are also required to report a monthly disinfection residual and those systems using ozone also monitor for bromate.

Systems are required to disinfect in Florida and many have had to modify treatment to meet the DBP standards.

Disinfection By-Products (DBP) Table

ID No.	Contaminant Name	MCL (mg/L)	# of MCL Violations	# of MCL Systems	# of MNR Violations	# of MNR Systems
2456	Haloacetic Acids (Five) HAA5	0.060	34	17	40	39
2950	Total Trihalomethanes TTHM	0.080	89	38	41	41

## Lead & Copper

These violations occurred if a water system did not conduct their initial monitoring (new systems) or if existing systems did not conduct their routine monitoring or failure to take corrective measures if an action level is exceeded. The number of samples required is based on the system's population. The numbers below are for 2014 and do not include violations from previous years. This ensures consistency with past reporting of violations and the other violations in this report.

Lead and Copper (LCR) Table

LCR Rule Violated	# of MNR Violations	# of MNR Systems
Initial LCR Monitoring	2	2
Follow Up or Routine LCR Monitoring	28	27
Failure to Install Treatment	0	0
Failure to Provide Public Education	1	1

## Consumer Confidence Reports

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.

There were 41 water systems who received violations for not submitting their consumer confidence reports either at all, on time, or who had major problems with the content of the report in 2014.

## Public Notice

For all violations, systems are required to notify the consumers they serve. The method and timeliness of notification varies by the violation and system size. Systems must also report back to the State how the notification was delivered. For some acute violations, such as fecal coliform bacteria or *E. coli*, systems are required to notify customers within 20 hours to alert them to the situation and to boil their water before consumption.

The State had 23 public notice violations for 19 public water systems.

## Summary

2014 Violations Summary Table

Violations Category	MCL Violations	MCL Systems	TT Violations	TT Systems	MNR Violations	MNR Systems
<b>Total Coliform Rule</b>	140	118			444	359
<b>Ground Water Rule</b>			0	0	406	299
<b>Surface Water and UDI</b>			0	0	0	0
<b>IOC/SOC/VOC/RAD</b>	32	13			522	124
<b>Disinfection By-Products</b>	123	42	0	0	81	42
<b>Lead and Copper Rule</b>			0	0	30	29
<b>Consumer Confidence Rpts</b>					41	30
<b>Public Notice Rule</b>					23	19

2014 System Summary Table

2014 Systems / Violations	Final Count
Total Number of Active Systems	5,310
Total Number of Systems in Violation	689
Total Number of Violations	1842