



*The 2015 Annual Report on Violations of the U.S. and  
Florida Safe Drinking Water Acts in the State of Florida*

**Division of Water Resource Management  
Florida Department of Environmental Protection  
July 1, 2016**

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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 2015 Public Water Systems report available to the public. Interested individuals can obtain a copy of the 2015 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 Blair Stone Road, MS 3520  
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## **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 Safe Drinking Water Act (SDWA) (42 U.S.C. §300j-2) to ensure that the public receives safe drinking water. EPA has granted Florida the authority to administer its own PWSS Program under Section 1413 of the SDWA. 42 U.S.C. §300j-2.

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

The Florida Drinking Water Program is a subsection of the Florida Department of Environmental Protection (DEP) and involves six district offices located throughout the state, 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. 42 U.S.C. §§ 300f-300j-26; and Sections 403.850-403.864, Florida Statutes. Florida's drinking water regulations can be found in Chapters 62-550, 62-555, and 62-560, Florida Administrative Code (F.A.C.).

In 2015, the State of Florida had 5,275 active public water systems (1,646 community systems, 788 nontransient-noncommunity systems, and 2,841 transient- noncommunity systems).

This report provides the numbers of violations during 2015 in the following categories:

- Maximum Contaminant Level (MCL) violations
- Maximum Residual Disinfectant Level (MRDL) violations
- Treatment Techniques (TT) violations
- Variances and exemptions
- Significant Monitoring violations
- Significant Consumer Notification violations.

The information provided in this report is based on Florida's drinking water database as well as the data stored in the EPA's Safe Drinking Water Information System (SDWIS/FED). <https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information-system-sdwis-federal-reporting>

This report presents data on violations that occurred in 2015 which is the second year in the 3-year 2014-2016 compliance period. Rule 62-550.500, F.A.C. Information on corrective actions taken in connection with the

violations that are the subject of this report may be found in EPA's Enforcement and Compliance History Online (ECHO) website. <https://echo.epa.gov/>

## Definitions

The following terms used in this report are defined in 40 C.F.R. 141.2, and Rule 62-550.200, F.A.C. (definitions are available at the following websites):

<https://www.gpo.gov/fdsys/pkg/CFR-2015-title40-vol23/pdf/CFR-2015-title40-vol23-part141-subpartA.pdf>

<https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-550>

Action Level Exceedance

Community Water System

Disinfectant

Public Water System or PWS

Maximum Contaminant Level

Maximum Residual Disinfectant Level

Noncommunity Water System

Nontransient Noncommunity System

Transient Noncommunity System

In addition, the following terms used in this report shall have the following definitions:

“Consumer Confidence Report” shall mean an annual report that community water systems must deliver to their customers. 40 C.F.R. §141.151, and Section 62-550.824, F.A.C.

“Monitoring/Reporting Violation” shall mean the failure of a water system to monitor or report as required under 40 C.F.R 141 and Rule 62-550.500-828, F.A.C. Depending upon the contaminant and previously reported results, a compliance period is typically monthly, quarterly, annually, or triennially.

“Treatment Technique” shall mean a method to control unacceptable levels of certain contaminants. For example, treatment techniques have been established for viruses, some bacteria, and turbidity. See, for example, 40 C.F.R. 141. 2, and Section 62-550.200(110), F.A.C.

“Major Monitoring Violation” shall mean a failure to collect all monitoring samples or a failure to report any monitoring result during a compliance period within the calendar year. 40 C.F.R. 141, Rule 62-550.500-828, F.A.C.

## 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. 40 C.F.R. §§141.4 and 142.20. Florida did not issue any variances or exemptions that would be subject to compliance monitoring in 2015.

## Violations

### Total Coliform Rule

Total coliforms are a group of related bacteria that are (with few exceptions) not harmful to humans. The EPA considers total coliforms a useful indicator of other pathogens for drinking water. Total coliforms are used to determine the adequacy of water treatment and the integrity of the distribution system. Of the 5,275 active public water systems in Florida, approximately one-half are required to monitor monthly and the other half (transient-noncommunity systems) 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.

Table 1 summarizes violations of the Total Coliform Rule during 2015 in three categories: (1) acute MCL violations (presence of fecal coliform or E. coli), (2) non-acute MCL violations (presence of total coliform in more than 5% of the samples), and (3) major monitoring violations (failure to take any sample on time, or failure to take any necessary repeat samples). In 2015, less than 0.1% of public water systems in Florida had acute MCL violations, 2.5% had non-acute MCL violations, and 6.4% had major monitoring violations.

**TABLE 1**

Total Coliform Rule Violation Type	MCL	Number of MCL Violations	Number of Systems With MCL Violations	Number of Major Monitoring Violations	Number of Systems with Major Monitoring Violations
Acute MCL Violation	Presence	5	5		
Non-Acute MCL Violation	Presence	148	132		
Major Monitoring Violation	N/A			481	335

### Ground Water Rule

Florida’s Ground Water Rule establishes a risk-targeted approach to target ground water systems that are susceptible to fecal contamination. 40 C.F.R. 141.400 – 405, Subpart S, adopted and clarified in Rule 62-

550.828, F.A.C. 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. The Ground Water Rule applies to all public water systems that use ground water (including consecutive systems), except for 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.

Table 2 summarizes violations of the Ground Water Rule during 2015 in the following categories: failure to collect routine water samples (assessment monitoring violations) and failure to collect necessary repeat source water samples in response to a Total Coliform positive distribution sample or a Fecal Indicator positive source sample (triggered/additional monitoring violation). In 2015, 4.9% of public water systems in Florida had assessment monitoring violations and 2.2% had triggered/additional monitoring violations.

**TABLE 2**

<b>Ground Water Rule</b>	<b>MCL</b>	<b>Number of Assessment Monitoring Violations</b>	<b>Number of Systems with Assessment Monitoring Violations</b>	<b>Number of Triggered/Additional Monitoring Violations</b>	<b>Number of Systems with Triggered/Additional Monitoring Violations</b>
Total Ground Water Rule Violations	N/A	320	257	189	115

### **Surface Water Treatment**

Florida has 17 public water systems that draw water from surface water, or ground water that is under the direct influence of surface water. Table 3 summarizes violations during 2015 in two categories: Treatment Techniques and Monitoring/Reporting violations. No public water system in Florida had violations for Treatment Techniques or Monitoring/Reporting.

**TABLE 3**

<b>Surface Water and Surface Water Under Direct Influence of Surface Water</b>	<b>Number of Treatment Technique Violations</b>	<b>Number of Systems with Treatment Technique Violations</b>	<b>Number of Monitoring/Reporting Violations</b>	<b>Number of Systems with Monitoring/Reporting Violations</b>
Surface Water Treatment Rule	0	0	0	0

### **Inorganic Contaminants**

Inorganic contaminants are naturally-occurring in some ground water and surface water, but can also be introduced to water through farming, chemical manufacturing, and other human activities. Inorganic contaminants are routinely monitored in public water systems that utilize groundwater every three years, except nitrite/nitrate which is monitored annually. See Section 62-550.512(1), F.A.C. 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. See Section 62.550.512(1)(a), F.A.C. Noncommunity water systems must monitor quarterly if a sample is greater than ½ the MCL for nitrite or exceeds the MCL for nitrate. See Section 62-550.512(2), F.A.C. For the rest of the inorganics, quarterly monitoring is not required unless the MCL is exceeded. See Section 62-550.513(1) and (2), F.A.C. Surface water systems must monitor annually instead of every three years, and quarterly for nitrate/nitrite. See Section 62-550.512(1) and 62-550.513(1), F.A.C. Table 4 summarizes violations in 2015 for the sixteen inorganic contaminants that are required to be monitored in public water systems.

**TABLE 4**

<b>Inorganic Contaminant Identification Number</b>	<b>Contaminant Name</b>	<b>MCL (mg/L)</b>	<b>Number of MCL Violations</b>	<b>Number of Systems with MCL Violations</b>	<b>Number of Monitoring/Reporting Violations</b>	<b>Number of Systems with Monitoring/reporting Violations</b>
1005	Arsenic	0.01	0	0	2	2
1010	Barium	2	0	0	2	2
1015	Cadmium	0.005	0	0	2	2
1020	Chromium	0.1	0	0	0	0
1024	Cyanide	0.2	0	0	0	0
1025	Fluoride	4	0	0	2	2
1030	Lead	0.015	0	0	0	0
1035	Mercury	0.002	0	0	2	2
1036	Nickel	0.1	0	0	0	0
1040	Nitrate	10	3	2	112	104
1041	Nitrite	1	3	2	**	**
1045	Selenium	0.05	0	0	2	2
1074	Antimony	0.006	0	0	2	2
1075	Beryllium	0.004	0	0	0	0
1085	Thallium	0.002	0	0	0	0
1094	Asbestos	7 MFL	0	0	0	0

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



## Organic Contaminants

Public water systems are required to monitor for two categories of organic contaminants: synthetic organic contaminants (SOCs) and volatile organic contaminants (VOCs). In most cases, the contaminants are monitored every three years except when required to monitor more frequently due to detections or MCL exceedances. See Sections 62-550.515(3) and 62-550.516(4), F.A.C.

Violations in 2015 for the SOC and VOCs that are required to be monitored in public water systems are summarized in Tables 5 and 6, respectively.

**TABLE 5**

<b>SOC ID No.</b>	<b>Contaminant Name</b>	<b>MCL (mg/L)</b>	<b>Number of MCL Violations</b>	<b>Number of Systems with MCL Violations</b>	<b>Number of Monitoring/Reporting Violations</b>	<b>Number of Systems with Monitoring/Reporting Violations</b>
2005	Endrin	0.002	0	0	2	2
2010	Lidane	0.0002	0	0	2	2
2015	Methoxychlor	0.04	0	0	2	2
2020	Toxaphene	0.003	0	0	2	2
2031	Dalapon	0.2	0	0	0	0
2032	Diquat	0.02	0	0	0	0
2033	Endothall	0.1	0	0	0	0
2034	Glyphosate	0.7	0	0	0	0
2035	Di(2-ethylhexyl)adipate	0.4	0	0	0	0
2036	Oxyamyl	0.2	0	0	0	0
2037	Simazine	0.004	0	0	0	0
2039	Di(2-ethylhexyl)phthalate	0.006	2	1	0	0
2040	Picloram	0.5	0	0	0	0
2041	Dinoseb	0.007	0	0	0	0
2042	Hexachlorocyclopentadiene	0.05	0	0	0	0
2046	Carbofuran	0.04	0	0	0	0
2050	Atrazine	0.003	0	0	0	0
2051	Alachlor/Lasso	0.002	0	0	0	0
2065	Heptachlor	0.0004	0	0	0	0
2067	Heptachlor epoxide	0.0002	0	0	0	0
2105	2,4-D	0.07	0	0	2	2
2110	2,4,5-TP	0.05	0	0	2	2

SOC ID No.	Contaminant Name	MCL (mg/L)	Number of MCL Violations	Number of Systems with MCL Violations	Number of Monitoring/Reporting Violations	Number of Systems with Monitoring/Reporting Violations
2274	Hexachlorobenzene	0.001	0	0	0	0
2306	Benzo(a)pyrene	0.0002	0	0	0	0
2326	Pentachlorophenol	0.001	0	0	0	0
2383	Polychlorinated biphenyls (PCBs)	0.0005	2	1	0	0
2931	1,2-DiBromo-3-ChloroPropane	0.0002	0	0	0	0
2946	Ethylene DiBromide	0.00005	1	1	0	0
2959	Chlordane	0.002	0	0	0	0

TABLE 6

VOC ID No.	Contaminant Name	MCL (mg/L)	Number of MCL Violations	Number of Systems with MCL Violations	Number of Monitoring/Reporting Violations	Number of Systems with Monitoring/Reporting Violations
2378	1,2,4-Trichlorobenzene	0.07	0	0	0	0
2380	Cis-1,2-Dichloroethylene	0.07	0	0	0	0
2955	Xylenes (total)	10	0	0	0	0
2964	Dichloromethane	0.005	0	0	0	0
2968	o-Dichlorobenzene	0.6	0	0	0	0
2969	p-Dichlorobenzene	0.075	0	0	0	0
2976	Vinyl Chloride	0.002	0	0	0	0
2977	1,1-Dichloroethylene	0.007	0	0	0	0
2979	Trans-1,2-Dichloroethylene	0.1	0	0	0	0
2980	1,2-Dichloroethane	0.005	0	0	0	0
2981	1,1,1-Trichloroethane	0.2	0	0	0	0
2982	Carbon Tetrachloride	0.005	1	1	0	0
2983	1,2-Dichloropropane	0.005	0	0	0	0
2984	Trichloroethylene	0.005	0	0	0	0

VOC ID No.	Contaminant Name	MCL (mg/L)	Number of MCL Violations	Number of Systems with MCL Violations	Number of Monitoring/Reporting Violations	Number of Systems with Monitoring/Reporting Violations
2985	1,1,2-Trichloroethane	0.005	0	0	0	0
2987	Tetrachloroethylene	0.005	0	0	0	0
2989	Chlorobenzene	0.1	0	0	0	0
2990	Benzene	0.005	0	0	0	0
2991	Toluene	1	0	0	0	0
2992	Ethylbenzene	0.7	0	0	0	0
2996	Styrene	0.1	0	0	0	0

### Radionuclide Contaminants

Radioactive particles can be naturally-occurring in ground water and surface water, but can also be introduced to water through human activities. Public water systems in Florida are required to monitor for radionuclides typically every 3 or 6 years. See Rule 62-550.519, F.A.C.

Table 7 summarizes violations during 2015 for the radionuclides that are required to be monitored in public water systems. In 2015, less than 0.1 % of public water systems in Florida had violations of the gross alpha MCL, less than 0.1% had violations of the uranium MCL acute MCL violations, and 0.1% had violations of the combined radium MCL.

**TABLE 7**

Radio-nuclides ID No.	Contaminant Name	MCL (pCi/L)	Number of MCL Violations	Number of Systems with MCL Violations	Number of Monitoring/Reporting Violations	Number of Systems with Monitoring/Reporting Violations
4000	Gross Alpha, Excl. Radon & Uranium	15	3	2	3	2
4006	Uranium	30	4	1	0	0
4010	Combined Radium (-226 & -228)	5	19	6	0	0

## Disinfection By-Products

Public water systems are required to kill or inactivate pathogenic organisms in water by use of chemical oxidants or equivalent agents. By-products of disinfection occur in water as a result of organic matter reacting with the disinfection chemicals (for example, chlorine) present in drinking water. Public water systems monitor disinfection by-products (DBPs) either annually or quarterly depending upon source, size of population, and/or previous results. See Rules 62-550.821 and 62-550.822, F.A.C. Systems are also required to report a monthly disinfection residual, and systems using ozone for disinfection must also monitor for bromate. See Section 62-550.821(9)(b), F.A.C.

Table 8 summarizes violations during 2015 for the disinfection by-products that are required to be monitored by public water systems. In 2015, 0.6% of public water systems in Florida had violations for the haloacetic acids (five) MCL and 1.1% had violations for the total trihalomethanes MCL; 1.5% of public water systems had monitoring/reporting violations for these parameters.

**TABLE 8**

<b>DBP ID No.</b>	<b>Contaminant Name</b>	<b>MCL (mg/L)</b>	<b>Number of MCL Violations</b>	<b>Number of Systems with MCL Violations</b>	<b>Number of Monitoring/Reporting Violations</b>	<b>Number of Systems with Monitoring/Reporting Violations</b>
2456	Haloacetic Acids (Five) HAA5	0.06	66	33	111	78
2950	Total Trihalomethanes TTHM	0.08	114	58	114	79

## Lead & Copper

Lead and copper can be a source contaminant and can enter drinking water through interactions with distribution system and plumbing materials. Lead and copper monitoring requirements are set forth at Section 62-550.800, F.A.C. Table 9 summarizes the following categories of violations in 2015: (1) failure of a new public water system to conduct initial monitoring for lead and copper, (2) failure of an existing system to conduct routine monitoring, (3) failure to take corrective measures if there was an Action Level Exceedance, and (4) failure to provide information to the public on steps that they can take to protect their health. In 2015, less than 0.1% of public water systems in Florida had violations for initial LCR monitoring, 0.3% had violations for follow up or routine LCR monitoring, and no water systems in Florida had violations for failure to take corrective action or to provide public education.

**TABLE 9**

<b>Lead and Copper (LCR)</b>	<b>Number of Violations</b>	<b>Number of Systems with Violations</b>
Initial LCR Monitoring	6	5
Follow Up or Routine LCR Monitoring	18	16
Failure to Take Corrective Action	0	0
Failure to Provide Public Education	0	0

### **Consumer Confidence Reports**

Every Community Water System is required to deliver to its customers a Consumer Confidence Report. See Section 62-550.824, F.A.C. There were 19 active public water systems in 2015 that received violations for failing to submit a consumer confidence report, and a total of 50 violations for late or insufficient reporting.

### **Public Notice**

Public water systems are required to notify their consumers of all violations. See Section 62-560.410, F.A.C. In 2015, there was a total of 24 public notice violations in Florida, and 20 public water systems that had public notice violations.

### **Summary**

Tables 10 and 11 summarize the 2015 violations information presented above.

**TABLE 10**

<b>2015 Systems/ Violation Summary</b>	<b>Number</b>
<b>Total Active Public Water Systems</b>	5,275
<b>Total Public Water Systems with at least one Violation</b>	702
<b>Total Violations</b>	1,839

**TABLE 11**

<b>Violation Category</b>	<b>Number of MCL Violations</b>	<b>Number of Systems with MCL Systems</b>	<b>Number of Treatment Technique Violations</b>	<b>Number of Systems with Treatment Technique Violations</b>	<b>Number of Monitoring /Reporting Violations</b>	<b>Number of Systems with Monitoring/ Reporting Violations</b>
<b>Total Coliform Rule</b>	153	134			481	335
<b>Ground Water Rule</b>			0	0	509	358
<b>Surface Water and Ground Water Under Direct Influence of Surface Water</b>			0	0	0	0
<b>Inorganic Contaminants, Synthetic Organic Contaminants, Volatile Organic Contaminants, and Radionuclide Contaminants /</b>	35	12			141	106
<b>Disinfection By-Products</b>	178	64	0	0	225	80
<b>Lead and Copper Rule</b>			0	0	24	21
<b>Consumer Confidence Reports</b>					69	55
<b>Public Notice</b>					24	20