



*DELAWARE HEALTH
AND SOCIAL SERVICES*

Division of Public Health

**Public Drinking Water
Annual Compliance Report
And Summary**

2006

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The Office of Drinking Water Program: An Overview

In 1974 Congress adopted the Safe Drinking Water Act (SDWA). The United States Environmental Protection Agency (EPA) established the Public Water System Supervision (PWSS) Program under the authority of the SDWA to regulate the drinking water provided by public water systems. Under the SDWA and the 1986 Amendments, EPA 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 or MCLs. The State of Delaware has adopted these limits for use in State Regulations governing drinking water.

The SDWA allows a State to seek EPA approval to administer its own PWSS program. The authority to run a PWSS program is called primacy. The State of Delaware was granted primacy in April 1978. In order for Delaware to receive primacy, it had to meet certain requirements laid out in the SDWA, including the adoption of drinking water regulations that are at least as stringent as the Federal Regulations and a demonstration that it could enforce the program requirements.

The SDWA, EPA regulations and State regulations require that all public water systems (PWSs) monitor the drinking water for contaminants. Generally the larger the population served by the water system, the more frequent the monitoring must occur. In addition, if a PWS violates a MCL, or fails to conduct monitoring the system must notify the public of the violation. This is known as public notification. Due to the small size of Delaware, the Division of Public Health, Office of Drinking Water (ODW) has traditionally conducted most of the monitoring for PWSs in Delaware. A few of the larger water systems conduct their own monitoring and report the results to ODW. Due to the increase in monitoring requirements in recent years the Office of Drinking Water has required community water systems that serve more than 1,000 people to collect their own total coliform compliance samples and submit those samples to the Public Health Laboratory for analysis. All of the Community water systems (cities, towns, mobile home parks, etc.) and the Non-Transient, Non-Community water systems (schools, day cares, factories, etc.) are required to collect samples for compliance with the Lead and Copper Rule. These samples are to be analyzed by a certified laboratory and the results submitted to ODW. Transient, Non-Community water systems (restaurants, parks, rest stops, etc.) are not required to conduct lead and copper monitoring.

In 1996 the SDWA was amended once more with several changes. One of these changes was the requirement for states to prepare an annual compliance report as stated in the SDWA, Section 1414(c)(3)(A)(i) and distribute the report as specified in Section 1414(c)(3)(A)(ii). The purpose of this report is to provide a total annual representation of the number of violations in each of the following categories: MCLs, treatment techniques, variances and exemptions, and significant monitoring violations.

This annual report covers the time period of January 1 - December 31, 2006. It is broken down into five parts: the introduction, a general fact sheet on drinking water for the State of Delaware, a table listing of the number of violations and enforcement actions taken by the Division of Public Health, Office of Drinking Water and a listing of the PWSs that were in violation and a conclusion. The data in this report was generated by Office of Drinking Water staff. Violation information was received from the US EPA and comes from the federal reporting that Delaware sends to the EPA quarterly.

Information on Delaware's public water systems may be found on the internet in EPA's Envirofacts webpage at the following address: www.epa.gov/enviro/html/sdwis/sdwis_query.html. In addition, the Office of Drinking Water has a web page at the following address: <http://www.dhss.delaware.gov/dhss/dph/hsp/odw.html>.

Public Drinking Water Summary

Delaware 2006

The quality of drinking water in the State of Delaware is a concern for everyone. This document is a brief overview of the State's public drinking water. Included is everything from general information to a listing of the number of violations that occurred during 2006. If further information is needed or questions arise concerning how these numbers were obtained, please contact the Division of Public Health, Office of Drinking Water at (302) 741-8630.

General Information

Total land area of Delaware	1,244,730 ¹ acres	Population of Delaware	843,540 ²
Forest	218,423 ¹ acres (18%)	Percent served by individual wells	14.5%
Agriculture	529,821 acres (43%)	Percent served by public water supplies	85.5%
Developed	242,391 ¹ acres (19%)	Primacy Granted to State by EPA	1978
Wetland/Barren	254,095 ¹ acres (20%)		

* * * * *

Delaware's Drinking Water

Public Water Systems

Major Sources of Surface Water	*	Residents served by public water systems³	721,529
Brandywine River Basin	*		
Christina River Basin	*	Residents served by surface water systems	281,400
Red Clay/White Clay Creeks	*	Residents served by ground water systems	440,129
Major Sources of Ground Water	*	Number of public water systems	509
Columbia Aquifer	*	Community systems	213
Cheswold Aquifer	*	Non-transient systems	100
Piney Point Aquifer	*	Transient systems	196
Number of gallons of Public Water Used in Delaware each day: 101 mgd ⁴	*	Number using surface water	3
	*	Number using ground water	506

The Office of Drinking Water provides many services to consumers and the public water supply systems. Funding comes from both State and Federal monies allotted to the public drinking water program for the State of Delaware. Two components within the Division of Public Health utilize these funds to provide the services for the drinking water program, the Office of Drinking Water and the Division of Public Health Laboratory.

1 Source: State Planning Office
2 Source: Delaware Population Consortium
3 Source: Safe Drinking Water Information System/State Version (SDWIS/State)
4 Source: Department of Natural Resources and Environmental Control

The Office of Drinking Water (ODW) works to ensure that the drinking water in Delaware meets or exceeds the requirements of the Safe Drinking Water Act (SDWA). This is accomplished through the review and approval of plans for new or improved water treatment systems and/or new or upgraded distribution systems. ODW staff also inspect water systems, provide technical assistance, respond to and handle emergencies, review monitoring results to ensure compliance with the SDWA and take enforcement actions when necessary. Additionally, ODW provides training to water system operators and owners regarding system operation and compliance with rules and regulations. The Office of Drinking Water also contracts with the Environmental Training Center at Delaware Technical and Community College and the Delaware Rural Water Association to provide training to water system operators.

The Division of Public Health Laboratory performs water analyses for water quality parameters as outlined in the SDWA. The Office of Drinking Water also contracts with private laboratories for analysis of some regulated parameters.

<i>Operations</i>		<i>Budget Information</i>	
Inspections	44	Total Budget	\$1,380,085
Plans & Specifications Reviewed	310	Federal Budget	\$541,100
Projects requesting DWSRF funding	7	State Budget	\$838,985
Infrastructure Investment Money Available	\$7,323,273	Number of Staff Authorized	23.80

<i>Training Provided</i>	
	Number
Certified Operators	513
Training classes offered	207
Operators Trained	2,101
Systems Represented	808

Summary of Violations

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
Organic Contaminants							
1,1,1- Trichloroethane	0.2	0	0			0	0
1,1,2- Trichloroethane	.005	0	0			0	0
1,1- Dichloroethylene	0.007	0	0			0	0
1,2,4- Trichlorobenzene	.07	0	0			0	0
1,2-Dibromo-3- chloropropane (DBCP)	0.0002	0	0			0	0
1,2- Dichloroethane	0.005	0	0			0	0
1,2- Dichloropropane	0.005	0	0			0	0
2,3,7,8-TCDD (Dioxin)	3x10⁻⁸	0	0			0	0
2,4,5-TP	0.05	0	0			0	0
2,4-D	0.07	0	0			0	0
Acrylamide				0	0		
Alachlor	0.002	0	0			0	0
Atrazine	0.003	0	0			0	0
Benzene	0.005	0	0			0	0
Benzo[a]pyrene	0.0002	0	0			0	0
Carbofuran	0.04	0	0			0	0
Carbon tetrachloride	0.005	0	0			0	0

¹ Values are in milligrams per liter (mg/l), unless otherwise specified.

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
Chlordane	0.002	0	0			0	0
cis-1,2-Dichloroethylene	0.07	0	0			0	0
Dalapon	0.2	0	0			0	0
Di(2-ethylhexyl)adipate	0.4	0	0			0	0
Di(2-ethylhexyl)phthalate	0.006	0	0			0	0
Dichloromethane	0.005	0	0			0	0
Dinoseb	0.007	4	1			0	0
Diquat	0.02	0	0			0	0
Endothall	0.1	0	0			0	0
Endrin	0.002	0	0			0	0
Epichlorohydrin				0	0		
Ethylbenzene	0.7	0	0			0	0
Ethylene dibromide	0.00005	0	0			0	0
Glyphosate	0.7	0	0			0	0
Heptachlor	0.0004	0	0			0	0
Heptachlor epoxide	0.0002	0	0			0	0
Hexachlorobenzene	0.001	0	0			0	0
Hexachlorocyclopentadiene	0.05	0	0			0	0
Lindane	0.0002	0	0			0	0
Methoxychlor	0.04	0	0			0	0
Methyl tert Butyl Ether (MTBE)	0.01	1	1			0	0
Monochlorobenzene	0.1	0	0			0	0
o-Dichlorobenzene	0.6	0	0			0	0
Oxamyl (Vydate)	0.2	0	0			0	0
para-Dichlorobenzene	0.075	0	0			0	0
Pentachlorophenol	0.001	0	0			0	0
Picloram	0.5	0	0			0	0

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
Simazine	0.004	0	0			0	0
Styrene	0.1	0	0			0	0
Tetrachloroethylene	0.005	0	0			0	0
Toluene	1	0	0			0	0
Total polychlorinated biphenyls (PCBs)	0.0005	0	0			0	0
Toxaphene	0.003	0	0			0	0
trans-1,2- Dichloroethylene	0.1	0	0			0	0
Trichloroethylene	0.005	0	0			0	0
Vinyl chloride	0.002	0	0			0	0
Xylenes (total)	10	0	0			0	0
Subtotal		5	2			0	0
Disinfection Byproducts							
Total trihalomethanes	0.08	0	0			0	0
Haloacetic Acid 5	0.06	0	0			0	0
Subtotal		0	0			0	0
Inorganic Contaminants							
Antimony	0.006	0	0			0	0
Arsenic	0.05	1	1			0	0
Asbestos	7 million fibers/l ≤ 10 μm long	0	0			0	0
Barium	2	0	0			0	0
Beryllium	0.004	0	0			0	0
Cadmium	0.005	0	0			0	0
Chromium	0.1	0	0			0	0
Cyanide (as free cyanide)	0.2	0	0			0	0

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
Fluoride	4.0	0	0			0	0
Mercury	0.002	0	0			0	0
Nitrate	10 (as Nitrogen)	16	12			0	0
Nitrite	1 (as Nitrogen)	0	0			0	0
Selenium	0.05	0	0			0	0
Thallium	0.002	0	0			0	0
Total nitrate and nitrite	10 (as Nitrogen)	0	0			0	0
Subtotal		17	13	0	0	0	0
Radionuclide MCLs							
Gross alpha	15 pCi/l	0	0			0	0
Radium-226 and radium-228	5 pCi/l	0	0			0	0
Gross beta	4 mrem/yr	0	0			0	0
Subtotal		0	0			0	0
Total Coliform Rule							
Acute MCL violation	Presence	3	3			0	0
Non-acute MCL violation	Presence	43	38			0	0
Major routine and follow up monitoring		1	1			0	0
Sanitary survey¹						0	0
Subtotal		47	42			0	0

¹ Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

	MCL (mg/L) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations	Number of Violations	Number of Systems with Violations
Surface Water Treatment Rule				0	0		
Filtered systems				0	0		
Monitoring, routine/repeat						0	0
Treatment techniques				0	0		
Unfiltered systems							
Monitoring, routine/repeat						0	0
Failure to filter				0	0		
Subtotal				0	0	0	0
Lead and Copper Rule							
Initial lead and copper tap M/R		7	6			19	13
Follow-up or routine lead and copper tap M/R		0	0			3	3
Treatment installation		0	0	0	0		
Public education				0	0		
Subtotal		7	6	0	0	22	16
Consumer Confidence Reports		Number of Violations			Number of Systems with Violations		
Consumer Confidence Reports Violations		26			16		
Subtotal		26			16		

Definitions for Summary of Violations Table

The following definitions apply to the Summary of Violations table.

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

Inorganic Contaminants (IOC): Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following six categories:

Initial lead and copper tap M/R: A violation where a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: A violation where a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment installation: Violations for a failure to install optimal corrosion control treatment system or source water treatment system that would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in both categories].

Lead service line replacement: A violation for a system's failure to replace lead service lines on the schedule required by the regulation.

Public education: A violation where a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (mg/L; 1 mg/L = 1 part per million) unless otherwise specified.

Monitoring: EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

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

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

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

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

Uranium: A violation for uranium is above 30 Micrograms/Liter (ug/L; 1 ug/L = 1 part per billion)

Reporting Interval: The reporting interval for violations to be included in this PWS Annual Compliance Report is from January 1, 2006 through December 31, 2006.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the “Surface Water Treatment Rule” are to be reported for the following four categories:

Monitoring, routine/repeat (for filtered systems): A violation for a system’s failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): A violation for a system’s failure to properly treat its water.

Monitoring, routine/repeat (for unfiltered systems): A violation for a system’s failure to carry out required water tests, or to report the results of those tests.

Failure to filter (for unfiltered systems): A violation for a system’s failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one-month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: A violation where the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

Non-acute MCL violation: A violation where the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

Major routine and follow-up monitoring: A violation where a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

Sanitary Survey: A major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed.

Treatment Techniques: A water disinfection process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also been included in this category of violation for purposes of this report.

Unfiltered Systems: Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H]. There are no unfiltered systems in Delaware.

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

Enforcement Actions

Enforcement actions are taken when a public water system violates a maximum contaminant level (MCL) or treatment technique (TT) as specified in “The State of Delaware Regulations Governing Public Drinking Water Systems” or fails to conduct proper monitoring and/or reporting (M/R) for a particular contaminant. A Notice of Violation (NOV) is the first action taken. This notifies the owner/operator of a public water system that there has been a violation. The next action taken is the issuance of a Public Notice (PN) that the owner/operator is required to mail, hand-deliver or post in a conspicuous place. This notifies the consumers of the water that there was a violation, what the violation was, possible related health effects and preventative measures the consumer can take until the violation is corrected. A Boil Water Notice is issued when a water system violates the bacteria standard and the presence of *E. coli* or fecal coliform is detected. This requires immediate notice within 24 hours of being notified of the violation to all consumers informing them on what actions to take to make their water safe for consumption or if they should use an alternate source such as bottled water.

The two remaining enforcement actions, an Administrative Order (AO) and a Bi-Lateral Compliance Agreement (BCA) are used when a water system repeatedly violates an MCL or when a history of violations is present. The AO can mandate the installation of treatment or the abandonment of a well with persistent violations, for example. A BCA is a written contract between the system and ODW in which the violations are outlined and the steps the system is going to take to correct the violation and the timeframe for completing the work are outlined. Examples of a BCA include the installation of new wells or the re-piping of a water system in order to correct a violation.

<i>Enforcement Actions</i>	
Notice of Violations	63 MCL/23 MR
Public Notices	63 MCL/23 MR
Consumer Confidence Report Violations	26
Administrative Orders	4
Boil Water Orders	3
Bi-Lateral Compliance Agreements	0

Data Management

The Office of Drinking Water uses an Oracle® based system to inventory water supplies, record sampling results and track compliance with monitoring and MCL requirements. The database includes information about: water supply facilities, water sources, treatment used, and sampling results.

Compliance Highlights

	Number of Samples Collected in 2006	Systems Given Waivers in 2006	Systems In Compliance in 2006	% of State Served by Compliant Systems ¹	Number of Systems not in Compliance during 2006
Bacteriological	9,077	N/A	470	93.5% (92.3%)	39
Surface Water Treat. Rule²	0	N/A	3	100% (100%)	0
Nitrates	1,844	N/A	497	99.8% (97.6%)	12
Fluoride	1,425	N/A	509	100% (100%)	0
Inorganic (IOC)	441	0	508	99.8% (99.8%)	1
Volatile Organic Chemicals (VOC)	953	0	508	99.9% (99.8%)	1
Synthetic Organic Chemicals (SOC)	1,101	0	509	100% (100%)	0
Lead and Copper²	369	N/A	509	100% (100%)	0
Consumer Confidence Rule	N/A	N/A	493	99.5% (96.8%)	16
Disinfection Byproducts (DBPs)	245	N/A	509	100% (100%)	0
Radiological³	0	N/A	509	100% (100%)	0

¹ First percentage based on population served, second percentage based on total number of public water systems.

² Systems performed own sampling.

³ No radiological samples were collected in 2006 because all systems were in compliance with the MCL and are on three-year monitoring schedules. Monitoring is scheduled in 2007 and 2008.

List of Systems in Violation

The following list is the name and population served for all the systems that were in violation during the calendar year 2006. This list is broken down into types of violations for your convenience.

Bacteria Violations	
System Name	Population Served
Twin Cedar Apartments (2)*	141
Bayshore Mobile Home Park (2)	1,620
Frederica Water Department (2)	870
DOW-Reichhold Chemicals, Inc.	200
Imperial Shopping Center	50
Woodside Inn (3)	60
Bombay Hook Refuge	150
Willis Auto Mall	65
Lewes Center	200
Felton – Goose Creek Food Stores	500
Sand Castle Day Care	52
Village at Five Points	500
Royal Farms – Pearson Corner	27
Polytech High School	1,650
Centreville School	170
Country Acres Mobile Home Park	28
Woodland Manor	110
J & J Mobile Home Park	84
Camden-Wyoming Moose	70
Papen Farms	55
Holiday Estates (2)	75
Blue Coast	200
Plaza Tapatia	450
Oak Grove Estates	91
Woods Edge Mobile Home Park	45
Dover Water Department	38,000
Maranatha Court	54

Bacteria Violations (continued)	
System Name	Population Served
Valeries Bar and Grill	25
White Clay Creek State Park	100
Aquatic Resource Center	25
Teal Point	96
Canterbury Homes	450
301 Plaza	300
Eagles Nest Fellowship Church	165
Shining Time Day Care Center	30
Corbit Building	50
Bay View Crossing Shopping Center	100
Lynch Heights Sunoco	100
Shore Stop #256 Milford (2)	150

* Denotes number of violations in the year when more than 1

Total # of Violations: 46

of Systems Affected: 39

of Repeat Violators (Systems): 6

Total Population At Risk: 46,893

Nitrate Violations	
System Name	Population Served
Savannah Place Homeowners Association (3)*	81
Tastee Freez (2)	100
Briarwood Manor MHP (3)	296
Forest park	46
Angola Crest II	159
Williamsville Country Village	50
Irene's Trailer Court	28
Meadows at Cabbage Pond	201
Shore Stop #281 Bridgeville	50
Village at Five Points Center	500
Shore Stop #256 Milford	150
Lloyd's Deli and Resale Shop	50

* Denotes number of violations in the year when more than 1

Total # of Violations: 17
 # of Systems Affected: 12
 # of Repeat Violators (Systems): 3
 Total Population At Risk: 1,711

Inorganic Compounds Violations				
System Name	Population Served	Contaminant	MCL ¹ In mg/l ²	Level Found In mg/l
Felton Water Dept.	1,591	Arsenic	0.010	0.024

Total # of Violations: 1
 # of Systems Affected: 1
 # of Repeat Violators (Systems): 0
 Total Population At Risk: 1,591

¹MCL means Maximum Contaminant Level

²mg/l means milligrams per liter

Volatile/Synthetic Organic Compound (VOC/SOC) Violations

System Name	Population Served	Contaminant	MCL ¹ In mg/l ²	Level Found In mg/l
Lewes BP	150	Methyl Tert Butyl Ether (MTBE)	0.01	0.09

Total # of Violations: 1
 # of Systems Affected: 1
 # of Repeat Violators (Systems): 0
 Total Population At Risk: 150

¹MCL means Maximum Contaminant Level

²mg/l means milligrams per liter

Lead/Copper Rule (LCR) Action Level Exceedences

System Name	Population Served	Contaminant	AL In mg/l ²	90 th percentile In mg/l
Indian River Acres	71	Lead	0.015	0.034
Sand Hill Acres	384	Lead	0.015	0.021
Stage Village	93	Lead	0.015	0.050
Stone Water Creek	330	Lead	0.015	0.021
UD Research & Education Center	50	Lead	0.015	0.022
UD Research & Education Center	50	Copper	1.3	2.45
Shady Oak Trailer Park	108	Copper	1.3	1.8

Total # of Eceedences: 7
 # of Systems Affected: 6
 # of Repeat Violators (Systems): 0
 Total Population At Risk: 1,086

Bacteriological Monitoring Violations	
Systems that failed to collect the required number of samples during any monitoring period in 2006	
System Name	Population Served
Millsboro Water Department	3,825
Camden District	7,629
St. Andrews School System I	200
St. Andrews School System II	40

Total # of Violations: 4
 # of Systems Affected: 4
 # of Repeat Violators (Systems): 0
 Total Population At Risk: 11,694

Lead and Copper Monitoring Violations	
Systems that failed to collect the required number of samples during any monitoring period in 2006	
System Name	Population Served
Twin Cedar Apartments	141
Savannah Place Homeowners Association	81
Kent Christian Academy (4)*	175
Children's Place	55
Bayshore Mobile Home Park	1,620
Kent/Sussex Detox Center	40
Allens Family Foods, Inc. (2)	750
Suburban Propane (2)	25
Glen Acres	93
Central Christian School (3)	100
Country Kids Child Care	46
Pine Ridge Mobile Home Park	222
Wilmington Junior Academy	150
Forest Park	46
Holly Lake Mobile Home Park	99
Sand Castle Day Care	52

* Denotes number of violations in the year when more than 1

Total # of Violations: 23
 # of Systems Affected: 16
 # of Repeat Violators (Systems): 4
 Total Population At Risk: 3,695

Consumer Confidence Report (CCR) Violations

System Name	Population served
Twin Cedar Apartments (2)*	141
Savannah Place Homeowners Association	81
Woodland Manor	110
Holiday Estates	75
Holiday Pines	210
Pine Ridge Mobile Home Park (2)	222
Briarwood Manor MHP	296
Oak Grove Estates	91
Hilltop Trailer Park (2)	135
Felton Water Department	1,591
Forest Park (2)	46
Granada Mobile Home Court (2)	138
Governor Bacon Health Center	525
Law's Mobile Home Park	105
Victorian Village	90
Glen Acres (7)	93

* Denotes number of violations in the year when more than 1

Total Number of Violations: 27

of Systems Affected: 16

of Repeat Violators (Systems): 6

Total Population Affected: 3,949

Conclusion

In the preceding pages several numbers and statistics were presented. During calendar year 2006, out of a population of 721,529 persons in the State of Delaware receiving their water from community water supplies, 50,345 persons (6.9%) were exposed to harmful (health related) contaminants. Out of 509 public water systems, 53, or 10.4%, had a violation and only 9 systems (1.8%) were repeat violators for health-based contaminants. Thirty-six water systems (7.1%) reported monitoring and reporting (M/R) violations and ten systems (2.0%) were repeat violators for monitoring or reporting violations. There was only one violation for a volatile organic compound, MTBE found at a service station, and no violations for synthetic organic compounds. The only violation for an inorganic compound was the Town of Felton for arsenic and they have installed a treatment system with the help of the US Environmental Protection Agency and are now providing water that is in compliance with the new requirements. We also had 5 water systems exceed the action level for lead and 2 exceed the action level for copper. One system exceeded both for both lead and copper. In 2006 the Division of Public Health began requiring water systems that serve 1,000 people or more to collect their own bacteriological samples. We also had several small systems volunteer to collect their own samples. This has resulted in four monitoring and reporting violations of the total coliform rule as systems began adjusting to this new requirement.

The numbers are an improvement over last year and demonstrate that the water system operators are learning the requirements for the new rules that became effective in the last couple of years. There is still a need to maintain vigilance over the drinking water supplies for Delaware residents. We will be implementing several new rules in the next few years and must continue to work with our partners to ensure the provision of safe drinking water for all Delawareans.

The Office of Drinking Water, the Environmental Protection Agency, other State Agencies and Non-Governmental Organizations are working with Delaware's public drinking water systems to ensure that violations have been corrected or are in the process of being corrected. The end result of this cooperative action is ensuring that all residents of and visitors to the State of Delaware receive a safe and potable source of drinking water.

Any questions or comments concerning this report and summary can be directed to the Division of Public Health, Office of Drinking Water at (302) 741-8630.

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