



Delaware Health and Social Services



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

2001

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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 States to seek EPA approval to administer their own PWSS programs. The authority to run a PWSS program is called primacy. The State of Delaware was granted primacy in 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 an 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 almost all the monitoring for PWSs in Delaware. A few of the larger water systems conduct their own monitoring and report the results to ODW. 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 Rule monitoring.

In 1996 the SDWA was amended once more with several changes. One of these changes was the requirement for ODW 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, 2001. It is broken down into five parts: the introduction, a table listing of the number of violations, a general fact sheet on drinking water for the State of Delaware, a listing of the PWSs

which were in violation (included dates and types of contaminants), and a conclusion.

Information on Delaware's public water systems may be found on the internet in EPA's Envirofacts web page at the following address:

www.epa.gov/enviro/html/sdwis/sdwis_query.html

Please note that the data stored here may be slightly different than the data on this Annual report. This is due to errors, which the Office of Drinking Water is in the process of correcting.

State:	Delaware
Reporting Interval:	Jan-Dec 2001

	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

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

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Carbon tetrachloride	0.005	0	0			0	0
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	0	0			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

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Hexachlorobenzene	0.001	0	0			0	0
Hexachlorocyclopentadiene	0.05	0	0			0	0
Lindane	0.0002	1	1			0	0
Methoxychlor	0.04	0	0			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
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	0.0005	0	0			0	0
Toxaphene	0.003	0	0			0	0
trans-1,2-Dichloroethylene	0.1	0	0			0	0

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
Trichloroethylene	0.005	0	0			0	0
Vinyl chloride	0.002	0	0			0	0
Xylenes (total)	10	0	0			0	0
Total trihalomethanes	0.10	0	0			0	0
Subtotal		1	1			0	0

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations

Inorganic Contaminants							
Antimony	0.006	0	0			0	0
Arsenic	0.05	0	0			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
Fluoride	4.0	0	0			0	0
Mercury	0.002	1	1			0	0
Nitrate	10 (as Nitrogen)	14	10			0	0
Nitrite	1 (as Nitrogen)	0	0			0	0

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations

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		15	11	0	0	0	0

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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

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		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations

Total Coliform Rule							
Acute MCL violation	Presence	1	1				
Non-acute MCL violation	Presence	47	41				
Major routine and follow up monitoring							
Sanitary survey²						0	0
Subtotal		48	42			0	0

² Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

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Surface Water Treatment Rule							
Filtered systems							
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

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	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

Lead and Copper Rule							
Initial lead and copper tap M/R						70	70
Follow-up or routine lead and copper tap M/R						0	0
Treatment installation				0	0		
Public education				0	0		
Subtotal				0	0	70	70

Definitions for Summary of Violations Table

The following definitions apply to the Summary of Violations table.

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

Inorganic Contaminants: 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 (parts 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 and 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 four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [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.

Reporting Interval: The reporting interval for violations to be included in this PWS Annual Compliance Report, which is to be submitted to EPA by July 1, 2001, is from January 1, 2001 through December 31, 2001.

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].

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

Public Drinking Water Summary - Delaware 2001

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 breakdown of the number of violations that occurred during 2001. 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) 739-5410.

General Information

Total land area of Delaware	1,592,960 ¹ acres	Population of Delaware	783,600 ²
Forest	398,000 ¹ acres (25%)	Percent served by individual wells	18%
Agriculture	557,550 ³ acres (35%)	Percent served by public water supplies	82%
Developed	318,600 ³ acres (20%)	Primacy Granted to State by EPA	1978
Wetland/Barren	318,600 ³ acres (20%)		

* * * * *

Delaware's Drinking Water

Major Sources of Surface Water
Brandywine River Basin

Christina River Basin
Red Clay/White Clay Creeks

Major Sources of Ground Water

Columbia Aquifer
Cheswold Aquifer
Piney Point Aquifer

Number of gallons of Public Water Used
in Delaware each day: 118 mgd⁴

Public Water Systems

Residents served by public water systems 642,552

Residents served by surface water systems 267,107

Residents served by ground water systems 375,445

Number of public water systems 611

Community systems 247

Non-transient systems 179

Transient systems 185

Number using surface water 3

Number using ground water 608

1 1996 World Almanac.

2 Estimate using 2001 Census.

3 Estimate using 1991 Delaware Geological Survey map.

4 Estimate using population.

Delaware's Public Drinking Water Program

Many services are provided to the public consumers and the water supply systems. Funding comes from State and Federal monies allotted to the public drinking water program for the State of Delaware. Two components of the Division of Public Health, the Office of Drinking Water and the Division of Public Health Laboratory provide the services for the public drinking water program with these allotted monies.

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 improved distribution systems. ODW also conducts all the monitoring for 98% of the public water systems (ten systems conduct their own monitoring and forward the results to ODW). ODW staff also inspect water systems, provide technical assistance, respond and handle emergencies, review monitoring results to ensure compliance with the SDWA and take enforcement actions when necessary. Additionally, ODW provides some training to water system operators and owners regarding system operation and compliance with rules and regulations. The Office of Drinking Water contracts with Delaware Technical and Community College and the Delaware Rural Water Association to provide training to water systems operators.

The State Laboratory performs water analyses for water quality parameters as outlined in the SDWA. The Laboratory also provides ODW with sampling supplies in order to ensure that samples are collected in approved containers.

<i>Operations</i>	
Inspections	152
Plans & Specifications Reviewed	135
Pre-Approval Review Funding	\$2,540,500
Infrastructure Investment	\$1,161,000

<i>Budget Information</i>	
Total Budget	\$ 1,060,076
Federal Budget	\$ 518,200
State Budget	\$ 541,876
Number of Staff Authorized	19

<i>Training Provided</i>	
	People Trained
Certified Operators	371
Consumer Confidence Reports	60
Wellhead Protection Training	N/A ⁵

⁵ Implemented by Department of Natural Resources and Environmental Control, Water Resources Division.

Enforcement Actions

Enforcement actions are taken when a public water system violates a maximum contaminant level (MCL) as specified in regulations or fails to conduct proper monitoring and/or reporting (MR) 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 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 to all consumers informing them on how to make their water safe for consumption.

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 continuous chlorination or the abandonment of a well with persistent violations, for example. An AO is time sensitive, usually with 30 days in which the owner/operator must submit plans. 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 are outlined. The BCA is also time sensitive, but generally more time is granted for the system to correct the violation. 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	48 MCL / 0 MR
Public Notices	48 MCL / 0 MR
Administrative Orders	7
Boil Water Orders	1
Bi-Lateral Compliance Agreements	1

Data Management

The Office of Drinking Water uses a d-Base 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. MCL compliance for the Phase II and V and Lead and Copper data is tracked on a Microsoft® Excel program. The Office of Drinking Water will be switching to a new data management system in 2002.

Compliance Highlights

	Number of Samples Collected in 2001	Systems Given Waivers in 2001	Systems In Compliance in 2001	% of State Served by Compliant Systems ⁶	Number of Systems not in Compliance during 2001
Bacteriological	12406	N/A	569	91.9% (93.1%)	42
Surface Water Treat. Rule⁷	0	N/A	3	100% (100%)	0
Nitrates	1343	N/A	597	99.6% (97.7%)	14
Routine Chemicals	1647	N/A	611	100% (100%)	0
Inorganic	467	0	611	100% (100%)	0
Volatile Organic Chemicals (VOC)	757	0	425 ⁸	99.9% (99.4%)	1
Synthetic Organic Chemicals (SOC)	462	0	336	100% (100%)	0
Lead and Copper^{7,8}			356	96.9% (88.5%)	70

EPA Program Goals and Measures

	# of Water Systems	Population Served
Required to install corrosion control treatment	8	2197

⁶ First percentage based on population served, second percentage based on total number of public water systems.

⁷ Systems performed own sampling.

⁸ Includes sampling on Community and Non-Transient Non-Community water systems only.

Violation Resolution

Contaminant Type	Health Level Violations Occurring In 2001	Violations Reconciled By the End of 2001	State Investment	People Benefited
Bacteriological	48	35	N/A	26,597
Surface Water Treatment Rule	0	N/A	N/A	N/A
Nitrates	10	7	N/A	861
Inorganic	0	N/A	N/A	N/A
Volatile Organic Chemicals (VOC)	2	2	N/A	305
Synthetic Organic Chemicals (SOC)	0	N/A	N/A	N/A
Lead and Copper	0	N/A	N/A	N/A
System Viability	N/A	N/A	N/A	N/A

The Office of Drinking Water sincerely thanks the Water Quality Division of the Oklahoma Department of Environmental Quality for their assistance in the formatting of this document

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List of Systems in Violation

The following list is the names, population served and dates of violations for all the systems that were in violation during the calendar year 2001. This list is broken down into the various types of violations and is in alphabetical order for your convenience.

Bacteria Violations		
System Name	Population Served	Date Violation Occurred
Allens Hatchery #2	18	10/29/2001
Au Claire School	40	6/15/2001
Bethany Beach Water Department	8400	8/3/2001
Bethany Club Tennis	100	5/14/2001
Bombay Hook Refuge	25	8/14/2001
Camden Wyoming Sewer & Water	3500	8/14/2001
Cherry Creek Valley	78	2/8/2001
Childrens Castle Child Care Center	80	7/20/2001
Corbit Building	50	7/20/2001
Countryside Estates	50	7/19/2001
Countryside Estates	50	8/29/2001
Del Dot Transportation & Management	30	7/19/2001
Delaware Adolescent Program	41	7/26/2001
Dover Water Department	33765	10/18/2001
Epworth Christian School	250	7/21/2001
Fairways Inn	25	7/31/2001
Felton Water Department	1591	10/3/2001
Flying Dutchman MHP Sys I	30	8/29/2001
Flying Dutchman MHP Sys II	30	12/10/2001
Flying Dutchman MHP Sys II	30	8/29/2001
Flying Dutchman MHP Sys II	30	11/16/2001
High Point Assoc #1	303	6/14/2001
High Point Assoc #1	303	8/28/2001
High Point Assoc #3	81	6/14/2001
High Point Assoc #4	30	6/14/2001
Jonathans Landing Clubhouse	186	7/12/2001
Just Like Home Daycare	25	3/16/2001
Maime A Warren Maturity Center	30	6/14/2001
Milford Christian School	55	10/9/2001
Milford Christian School	55	1/3/2001
Mills Bros Market	200	10/12/2001
Mother Hubbard	134	7/26/2001

Bacteria Violations (continued)

System Name	Population Served	Date Violation Occurred
Mt Pleasant Trailer Court	114	4/20/2001
Oak Grove Estates	91	7/20/2001
Oak Grove Estates	91	9/21/2001
Penco	15	4/24/2001
Quality Kitchen Foods	22	12/20/2001
Redfin Seafood	200	8/28/2001
Route 10 Plaza	900	6/8/2001
Sail Inn	250	3/6/2001
Sanford School Pool Facility	125	8/28/2001
South Shores	54	10/3/2001
Southwood Farms	50	8/16/2001
Summit Aviation	50	1/3/2001
Twin Maples Trailer Park	123	5/16/2001
Villas of Grandview	107	12/20/2001
White Clay Creek State Park	100	7/26/2001
Willis Auto Mall	65	2/27/2001

Total # of Violations: 48
of Systems Affected: 42
of Repeat Violators (Systems): 5
Total Population At Risk: 51413

Bacteria Monitoring Violations		
Systems which failed to collect the required number of samples during any monitoring period in 2001		
System Name	Population Served	Date Violation Occurred

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

Nitrate Violations (maximum contaminant level of 10 mg/l)

System Name	Population Served	Date Violation Occurred	Nitrate Level (mg/l)
Epworth Christian School	200	5/7/2001	11.0
Tastee Freez	100	10/12/2001	11.0
Sea Winds	51	12/20/2001	11.0
Laurel District	60	12/27/2001	10.6
Lowes Trailer Park & Rec. Camp Sys II	20	10/12/2001	16.0
Briarwood Manor Inc	296	10/31/2001	13.0
Briarwood Manor Inc	296	5/25/2001	13.0
Tall Pines Resort Community Sys I	1000	3/27/2001	12.8
Tall Pines Resort Community Sys I	1000	5/7/2001	13.0
Magnolias Restaurant & Lounge	150	3/7/2001	11.0
Tall Pines Resort Community Sys III	172	3/27/2001	11.0
Tastee Freez	100	7/13/2001	12.0
Little Angels Day Care	40	8/10/2001	12.0
Tall Pines Resort Community Sys I	1000	12/3/2001	13.0

Total # of Violations: 14
 # of Systems Affected: 10
 # of Repeat Violators (Systems): 3
 Total Population At Risk: 2089

Lead and Copper Rule		
Systems Which Have Failed to Conduct Monitoring		
System Name	Population Served	Date Violation Occurred
Asbury Chase	213	6/01
Au Claire School	40	12/01
Carpenters Row	60	12/01
Drawyers Creek	192	6/01
East NCC District	1101	6/01
Northwest District	2454	6/01
Northwest Extension District	609	6/01
Southeast District	876	6/01
Forest Grove	321	6/01
Garrisons Lake	579	6/01
Hedgerow Hollow	145	6/01
Victoria's Village	60	12/01
Chester Bethal UMC	200	6/01
Emergency Operations Center	60	12/01
Green Acres Day Care	200	12/01
Central Christian School	100	12/01
Delaware State University	3000	12/01
Kenton Day Care	70	6/01
Bethany Crest	168	1/01
Brairwood Manor	200	1/01
Cedar Village	330	1/01
Chimney Hill	60	1/01
Countryside Estates	90	1/01
Donovan/Smith MHP	381	1/01
Enchanted Meadows	108	1/01
Hilltop MHP	135	1/01
Homestead Park	230	1/01
Holiday Estates	75	1/01
Holiday Pines	210	1/01
Kings Cliff	346	1/01
Holiday Acres	138	1/01
Dove Estates	62	1/01
Grants Way	51	1/01
Laurel Village	950	1/01
Long Neck Village	240	1/01
Love Creek Park	525	1/01
Love Creek Woods	54	1/01
Magnolia Water	1065	1/01

Pine Ridge	74	1/01
Sand Hill Acres	375	1/01
Seafarer Village	50	1/01
Shady Oak	108	1/01
Slaughter Beach	250	1/01
South Shores	51	1/01
Sussex Manor	279	1/01
Woodlands of Millsboro	174	1/01
Beach Babies	30	1/01
Care-a-Lot	92	1/01
Child Craft, Inc.	60	1/01
DAPI	41	1/01
Crystal Steel Fabricators	40	1/01
Del Electric Cooperative	120	1/01
State Police Troop 3	20	1/01
State Police Troop 5	15	1/01
Eagles Nest Church	75	1/01
Great Scott Broadcasting	29	1/01
Hockers Super Center	75	1/01
Jennie Wren Day Care	50	1/01
Little Hearts 1	50	1/01
Little Hearts 2	50	1/01
Shells Daycare 1	40	1/01
Shells Daycare 2	35	1/01
Shells Daycare 3	83	1/01
Perdue Milford	1200	1/01
Perdue Bridgeville	41	1/01
Slaughter Neck Community	90	1/01
St. Thomas Moore Academy	64	1/01
Sams Trailer Park	54	1/01
Kent County Dept. of Comm.	50	1/01
Milford Christian	55	1/01

Total # of Violations: 70
 # of Systems Affected: 70
 # of Repeat Violators (Systems): 0
 Total Population At Risk: 19518

**Lead and Copper Rule
Systems Which Are Required to Install Corrosion Control Treatment**

System Name	Population Served	Date Violation Occurred
Governor Bacon	1500	3/22/01
Green Valley Pavilion	75	3/26/01
Centreville School	170	3/22/01
Center for Creative Arts	115	3/26/01
DE State Police Troop 9	100	3/22/01
Mt. Cuba	60	4/11/01
Wilmington Jr. Academy	150	3/13/01
Dept. of Highway & Transportation Area 21	27	10/1/01

of Systems Affected: 8
 # of Repeat Violators (Systems): 0
 Total Population At Risk: 2197

Trace Metal Violations					
System Name	Population Served	Date Violation Occurred	Contaminant	MCL ¹ In mg/l ²	Level Found In mg/l
Long Neck Water District	15,000	3/21/2001	Mercury	0.002	0.003

¹MCL means Maximum Contaminant Level

²mg/l means milligrams per liter

Total # of Violations: 1

of Systems Affected: 1

of Repeat Violators (Systems): 0

Total Population At Risk: 0

Volatile Organic Compound (VOC) Violations

System Name	Population Served	Date Violation Occurred	Contaminant	MCL ¹ In mg/l ²	Level Found In mg/l
Camelot M.H.P.	270	1/19/2001	Lindane	0.0002	0.009

¹MCL means
Maximum
Contaminant Level
²mg/l means
milligrams per liter

Total # of Violations: 1
of Systems Affected: 1
of Repeat Violators (Systems): 0
Total Population At Risk: 270

Conclusion

In the preceding pages several numbers and statistics were presented, but what does it mean? Is my water safe to drink? During calendar year 2001, out of a population of over 783,600 persons who consumed public drinking water in the State of Delaware, only 46,813 persons (6%) were exposed to harmful (health related) contaminants¹. This means that 94% of the population was provided drinking water that met or exceeded the standards as set by the Safe Drinking Water Act, Federal and State Regulations. Out of 611 public water systems, 79, or 12.9%, had a violation and only 5 systems (<1%) were repeat violators. Given these numbers it would be safe to say that the overall status of Delaware's public drinking water is very good.

The Office of Drinking Water, in cooperation with the Environmental Protection Agency and other State Agencies, is 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) 739-5410.

¹ Includes public water systems which did not perform Lead and Copper Rule monitoring and systems which are required to install corrosion control treatment in accordance with the Lead and Copper Rule