



2023 Water Quality Report

MIDDLETOWN WATER DEPARTMENT

PWS ID# DE000614

PWS ID# DE0020122

PWS ID# DE0020123

PWS ID# DE0020124

PWS ID# DE0020126

PWS ID# DE0020127

June 2024

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's (2023) water quality. We are committed to providing you with this information because informed customers are our best allies.

Spanish (Español): Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo o hable con alguien que lo entienda bien.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

The water serving your home comes from the Upper Potomac and Magothy aquifers via three (3) wells ranging in depth from 374 feet to 838 feet. These aquifers are confined and protected from the influence of past farming activities and saltwater intrusion.

Source water assessment and availability

Our source water assessment is available through: <http://delawaresourcewater.org/assessments/> or contacting the Town of Middletown water department at 302-378-5142

Water System Interconnection

The Town of Middletown Water System has interconnections that receive water from Artesian Water Company's northern New Castle County system. The water quality report for the Artesian Water Company system can be found at: <https://www.artesianwater.com/wp-content/uploads/wgawc2023.pdf>

The Source Water Assessment's Summary of Our System's Susceptibility to Contamination

Middletown Water Department has a low susceptibility to pathogens and pesticides, a moderate susceptibility to petroleum hydrocarbons, and very high susceptibility for metals.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline, 800-426-4791.

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. To ensure tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

How can I get involved?

Contact the Middletown Water Department at 302-378-5142. The Town of Middletown holds monthly meetings at the Town Hall on the first Monday of every month, located at 19 West Green Street, Middletown, in the Council Chambers. Visit www.middletown.delaware.gov for agendas or more information.

Additional information about lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Town of Middletown Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at: <http://www.epa.gov/safewater/lead>

Violations: 0

For more information, contact:

Middletown Water Department
431 Haveg Road
Middletown, DE 19709
302-378-5142

DELAWARE SECONDARY DRINKING WATER STANDARDS

Contaminants	State SMCL	Average	Range
Chloride	250 ppm	4	1.4691 - 4.9581
Iron	300 ppb	0	0 - 0
pH	6.5 - 8.5	7.09	6.8 - 7.6
Sulfate	250 mg/l	8	7.34 - 9.6

TABLE OF UNREGULATED CONTAMINANTS

Contaminants	MCL	AVERAGE	RANGE
Alkalinity	N/A	76	73.92 - 77.16
Sodium	N/A	31	31.06 - 31.6

TABLE OF REGULATED CONTAMINANTS

Lead and Copper	Units	MCLG	AL	90 th Percentile	# sites over AL	Sample Date	Violation	Likely Source of Contamination
Lead	ppb	0	15	0.54	0	11-2-21	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper	ppm	1.3	1.3	0.32	0	11-2-21	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing system.
Regulated Contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Haloacetic acids (HAA5)	ppb	n/a	60	3	0 - 7.05	2023	NO	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	ppb	n/a	80	7	1.15 - 18.58	2023	NO	By-product of drinking water disinfection
Chlorine	ppm	MRDLG 4	MRDL 4	1	1 - 1	2023	NO	Water additive to control microbes.
Inorganic Contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Fluoride	ppm	2	2.000 00000 00000	0.7	0.1941- 0.6873	2023	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Radioactive Contaminants	Units	MCLG	MCL	Highest level	Range	Sample Date	Violation	Likely Source of Contamination
Combined Radium 226/228	pCi/L	0	5	1	0.97 - 0.99	8-30-21	NO	Erosion of natural deposits
Gross alpha excluding radon and uranium	pCi/L	0	15	3	1.8-2.77	8-30-21	NO	Erosion of natural deposits

Definitions

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
SMCL	SMCL: Suggested Maximum Contaminant Level for aesthetic contaminants.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

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AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

2023 Water Quality Report

WILLOW GROVE MILL

(CSW WILLOW GROVE MILL)

PWS ID# DE0020122

June 2024

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Where does my water come from?

The Artesian Water Company public water system is supplied with water from 67 wells located throughout New Castle County. These wells are in the Columbia, Potomac, Cockeyville Marble and Mount Laurel formations. Our groundwater wells use the natural filtering capability of the aquifer to remove harmful bacteria and other substances from the water. These wells are located in mostly confined aquifers that provide additional protection from surface-borne contaminants. Our treatment stations use the best available technology to ensure that we are providing water that is in compliance with all Environmental Protection Agency (EPA) and State Division of Public Health water quality parameters. Regular testing also helps us ensure high quality.

Source water assessment and availability

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Violations: 0

For more information, contact:

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431 Haveg Road
Middletown, DE 19709 (302-378-2211)

LEAD AND COPPER RESULTS

LEAD AND COPPER	DATE SAMPLED	MCLG	ACTION LEVEL (AL)	90 TH PERCENTILE	# OF SITES OVER AL	UNITS	VIOLATION	LIKELY SOURCES OF CONTAMINATION
COPPER	2023	1.3	1.3	0.0321	0	PPM	NO	EROSION OF NATURAL DEPOSITS; LEACHING FROM WOOD PRESERVATIVES; CORROSION OF HOUSEHOLD PLUMBING SYSTEMS

TABLE OF REGULATED CONTAMINANTS

Regulated Contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Haloacetic acids (HAA5)	ppb	n/a	60	13	0 - 40.7	2023	NO	By-product of drinking water chlorination

Total Trihalomethanes (TTHM)	ppb	n/a	80	28	4 - 51.2	2023	NO	By-product of drinking water disinfection
Chlorine	ppm	MRDLG 4	MRDL 4	1.2	1 - 1.2	2023	NO	Water additive to control microbes.
Inorganic contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Chromium	ppb	100	100	9	0 - 9	2023	NO	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide	ppb	200	200	11	0 - 11	2023	NO	Discharge from plastic and fertilizer factories; discharge from steel/metal factories
Fluoride	ppm	2	2.000 00000 00000	0.9757	0.6016 - 0.9757	2023	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nickel	ppb	100	100	1	0 - 0.8	2023	NO	Erosion of natural deposits
Nitrate	ppm	10	10	7	0 - 7.36	2023	NO	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite [measured as nitrogen]	ppm	1	1	1.46	0 - 1.46	2023	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	ppb	50	50	5	0 - 5	2023	NO	Discharge from petroleum and metal refineries; Erosion of natural deposits; discharge from mines
Synthetic organic contaminants including pesticides and herbicides	Units	MCLG	MCL	Highest level	Range	Sample Date	Violation	Likely Source of Contamination
Dalapon	ppb	200	200	2	0 - 1.83	2023	NO	Runoff of herbicide used on right of ways
Radioactive Contaminants	Units	MCLG	MCL	Highest level	Range	Sample Date	Violation	Likely Source of Contamination
Combined Radium 226/228	pCi/L	0	5	5	0.4 - 4.9	2023	NO	Erosion of natural deposits
Volatile Organic Contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Methyl tert-butyl ether	UG/L	10	10	1	0 - 6.9	2023	NO	Discharge from petroleum refineries; leaching from gas storage tanks

TABLE OF UNREGULATED CONTAMINANTS

Contaminants	MCL	AVERAGE	RANGE
Alkalinity	N/R	88.93	29.4 -169
Hardness	N/R	96.89	0 - 359
Sodium	N/R	31.3	31.06 - 31.6

Delaware Secondary Drinking Water Standards

Contaminants	State SMCL	Average	Range
Chloride	250 ppm	48.69	0 - 164

Iron	300 ppb	0.01	0 - 0.123
pH	6.5 - 8.5	7.36	6.8 - 8
Sulfate	250 mg/l	30.1	0 - 43.5
Manganese	0.05 mg/l	0.0210	0 - 0.135

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2023 Water Quality Report

PARKSIDE

(CSW PARKSIDE)

PWS ID# DE0020123

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Cyanide	ppb	200	200	11	0 - 11	2023	NO	Discharge from plastic and fertilizer factories; discharge from steel/metal factories

Fluoride	ppm	2	2.000 00000 00000	0.9899	0.4669 - 0.9899	2023	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
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2023 Water Quality Report

THE ESTATES AT DOVE RUN

(CSW DOVE RUN)
PWS ID# DE0020124
June 2024

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Violations: 0

For more information, contact:

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 431 Haveg Road
 Middletown, DE 19709 (302-378-5142)

LEAD AND COPPER RESULTS

LEAD AND COPPER	DATE SAMPLED	MCLG	ACTION LEVEL (AL)	90 TH PERCENTILE	# OF SITES OVER AL	UNITS	VIOLATION	LIKELY SOURCES OF CONTAMINATION
COPPER	2023	1.3	1.3	0.1128	0	PPM	NO	EROSION OF NATURAL DEPOSITS; LEACHING FROM WOOD PRESERVATIVES; CORROSION OF HOUSEHOLD PLUMBING SYSTEMS

TABLE OF REGULATED CONTAMINANTS

Regulated Contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Haloacetic acids (HAA5)	ppb	n/a	60	13	0 - 40.7	2023	NO	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	ppb	n/a	80	28	4 - 51.2	2023	NO	By-product of drinking water disinfection
Chlorine	ppm	MRDLG 4	MRDL 4	1.2	1 - 1.2	2023	NO	Water additive to control microbes.

Inorganic Contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Chromium	ppb	100	100	9	0 - 9	2023	NO	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide	ppb	200	200	11	0 - 11	2023	NO	Discharge from plastic and fertilizer factories; discharge from steel/metal factories
Fluoride	ppm	2	2.000 00000 00000	0.9849	0.6158 - 0.9849	2023	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nickel	ppb	100	100	1	0 - 0.8	2023	NO	Erosion of natural deposits
Nitrate	ppm	10	10	7	0 - 7.36	2023	NO	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite [measured as nitrogen]	ppm	1	1	1.46	0 - 1.46	2023	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	ppb	50	50	5	0 - 5	2023	NO	Discharge from petroleum and metal refineries; Erosion of natural deposits; discharge from mines
Synthetic organic contaminants including pesticides and herbicides	Units	MCLG	MCL	Highest level	Range	Sample Date	Violation	Likely Source of Contamination
Dalapon	ppb	200	200	2	0 - 1.83	2023	NO	Runoff of herbicide used on right of ways
Radioactive Contaminants	Units	MCLG	MCL	Highest level	Range	Sample Date	Violation	Likely Source of Contamination
Combined Radium 226/228	pCi/L	0	5	5	0.4 - 4.9	2023	NO	Erosion of natural deposits
Volatile Organic Contaminants	Units	MCLG	MCL	Highest Level	Range	Sample Date	Violation	Likely Source of Contamination
Methyl tert-butyl ether	UG/L	10	10	1	0 - 6.9	2023	NO	Discharge from petroleum refineries; leaching from gas storage tanks

TABLE OF UNREGULATED CONTAMINANTS

Contaminants	MCL	AVERAGE	RANGE
Alkalinity	N/R	88.93	29.4 - 169
Hardness	N/R	96.89	0 - 359
Sodium	N/R	32.69	7.09 - 84.6

DELAWARE SECONDARY DRINKING WATER STANDARDS

Contaminants	State SMCL	Average	Range
Chloride	250 ppm	48.69	0 - 164
Iron	300 ppb	0.01	0 - 0.123
pH	6.5 - 8.5	7.36	6.8 - 8
Sulfate	250 mg/l	30.1	0 - 43.5
Manganese	0.05 mg/l	0.0210	0 - 0.135

Definitions

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
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NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
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MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
SMCL	SMCL: Suggested Maximum Contaminant Level for aesthetic contaminants.
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MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

2023 Water Quality Report

BRICK MILL EARLY CHILDHOOD CENTER

(CSW BRICKMILL EARLY CHILDHOOD)

PWS ID# DE0020126

June 2024

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's (2023) water quality. We are committed to providing you with this information because informed customers are our best allies.

Spanish (Español): Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo o hable con alguien que lo entienda bien.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

The Artesian Water Company public water system is supplied with water from 67 wells located throughout New Castle County. These wells are in the Columbia, Potomac, Cockeysville Marble and Mount Laurel formations. Our groundwater wells use the natural filtering capability of the aquifer to remove harmful bacteria and other substances from the water. These wells are located in mostly confined aquifers that provide additional protection from surface-borne contaminants. Our treatment stations use the best available technology to ensure that we are providing water that is in compliance with all Environmental Protection Agency (EPA) and State Division of Public Health water quality parameters. Regular testing also helps us ensure high quality.

Source water assessment and availability

Our source water assessment is available through: <http://delawaresourcewater.org/assessments/> or contacting [the Town of Middletown water department at 302-378-5142](mailto:info@delawaresourcewater.org)

Water System Interconnection

The Town of Middletown Water System has interconnections that receive water from Artesian Water Company's northern New Castle County system. The water quality report for the Artesian Water Company system can be found at: <https://www.artesianwater.com/wp-content/uploads/wqawc2023.pdf>

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Violations: 0

For more information, contact:

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LEAD AND COPPER RESULTS

LEAD AND COPPER	DATE SAMPLED	MCLG	ACTION LEVEL (AL)	90 TH PERCENTILE	# OF SITES OVER AL	UNITS	VIOLATION	LIKELY SOURCES OF CONTAMINATION
COPPER	2023	1.3	1.3	0.4185	0	PPM	NO	EROSION OF NATURAL DEPOSITS; LEACHING FROM WOOD PRESERVATIVES; CORROSION OF HOUSEHOLD PLUMBING SYSTEMS

TABLE OF UNREGULATED CONTAMINANTS

Contaminates	MCL	AVERAGE	RANGE
Alkalinity	N/R	88.93	29.4 -169
Hardness	N/R	96.89	0 - 359
Sodium	N/R	32.69	7.09 -84.6

DELAWARE SECONDARY DRINKING WATER STANDARDS

Contaminants	State SMCL	Average	Range
Chloride	250 ppm	48.69	0 - 164

Iron	300 ppb	0.01	0 - 0.123
pH	6.5 - 8.5	7.36	6.8 - 8
Sulfate	250 mg/l	30.1	0 - 43.5
Manganese	0.05 mg/l	0.0210	0 - 0.135

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2023 Water Quality Report

DOVE RUN SHOPPING CENTER

(CSW DOVE RUN SHOPPING)

PWS ID# DE0020127

June 2024

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