Dover Water Commission (PWSID#: NJ1409001)

100 Princeton Avenue, Dover, NJ 07801

2022 Annual Water Quality Report

What's The Quality of Your Water?

Dover Water Company is proud to supply you with this year's Water Quality Report required by the State of New Jersey Department of Environmental Protection (NJDEP) and the U.S. Environmental Protection Agency (EPA). The tables in this report show the results of our water quality analysis in the year 2021. Every regulated contaminant detected in the water, even in the minutest traces, is listed. The table contains the name of each highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), usual sources of such contamination, definitions that explain what was tested, and a key to the units of measurement. *The data tables in this report show only the substances **detected** in your water; other substances may have been tested and not detected.*

Dover Water received no violations in 2021. The EPA requires monitoring for over 80 drinking water contaminants. The contaminants listed in the table on the next page reflect only the contaminants detected in your water for the monitoring period January 1 to December 31, 2021. We routinely monitor for contaminants in your drinking water according to federal and state laws. The state allows us to monitor for some contaminants less than once per year because the concentrations of those contaminants do not change frequently. Some of our data, though representative, may be more than one year old.

Sources of Supply

Dover Water Company takes its water from 3 groundwater wells located at 100 Princeton Avenue. These wells are treated for organics removal via 2 air stripping facilities. The water is then chlorinated and sent to 2 clear wells and from these to municipal water service connections. Water is also supplied to Victory Gardens, portions of Wharton, Randolph, Rockaway Township, and Mine Hill.

Water System Information

Dover Water Company values our customers and works hard to ensure their satisfaction. We welcome you to attend a monthly meeting held the 2nd Tuesday of each month at 6:30pm at 100 Princeton Ave, Dover, NJ. Specific meeting dates can be found by visiting the town website at www.dover.nj.us. You may also contact us with any questions at (973) 366-2200.

GENERAL DRINKING WATER INFORMATION:

Water Sources

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. Contaminants that may be present in source water include:

- *Microbiological* - may come from human, agricultural, or wildlife sources.
- *Inorganic* - can be natural, from storm run-off, or from industrial or domestic wastewater discharges.
- *Pesticides and herbicides* - may come from agricultural, storm run-off or residential use.
- *Organic chemicals* - may come from industrial or domestic processes, storm run-off, and septic systems.
- *Radioactive materials* - can be naturally occurring or the result of mining or other human activities.

Presence of Contaminants

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

Immuno-Compromised Persons

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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

DOVER WATER COMPANY WATER QUALITY TABLE

Contaminant	MCL Violation Y/N	Level Detected Dover Water NJ1409001	Level Detected Randolph Twp/ Morris Cty MUA NJ1432003/ NJ1432001	Unit of Measure	MCL (Highest Level Allowed)	MCLG (Goal)	Potential Source
Lead Result at 90th Percentile (See Statement below)	N	90th %: 4.6 No samples exceeded the action level Year: 2021	90th %: 1 No samples exceeded the action level Year: 2020	ppb	15 (Action Limit)	0	Corrosion of household plumbing systems, erosion of natural deposits
Copper Result at 90th Percentile	N	0.1 No samples exceeded the action level Year: 2021	0.07 No samples exceeded the action level Year: 2020	ppm	1.3 (Action Limit)	1.3	Corrosion of household plumbing
Nitrate	N	TP001002: 1.1 TP002004: 1.2	Range: 0.6-3 Highest: 3	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
THM Stage 2	N	Highest LRAA: 12 Range: 5-19	Highest LRAA: 7.5 Range: 0-8	ppb	80	N/A	Disinfectant Byproducts
HAA5 Stage 2	N	Highest LRAA: 2 Range: 1-3	Highest LRAA: ND Range: ND	ppb	60	N/A	Disinfectant Byproducts
Chlorine Residual	N	Highest: 4.9 Range: ND-4.9	Range: 0.2-0.47 Average: 0.32	ppm	4 (MRDL)	4 (MRDLG)	Water additive used to control microbes
Barium Results Year: 2020	N	TP001002: 0.03 TP002004: 0.04	Range: 0.006-0.05 Highest: 0.05	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium Results Year: 2020	N	TP001002: 1.9 TP002004: 1.7	Range: ND-0.7 Highest: 0.7	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride Results Year: 2020	N	TP001002: ND TP002004: ND	Range: ND-0.13 Highest: 0.13	ppm	4	4	Erosion of natural deposits; water additive
Nickel Results Year: 2020	N	TP001002: 2.8 TP002004: 3.2	Range: ND-0.9 Highest: 0.9	ppb	100	100	Erosion of natural deposits; found in Earth's crust
Selenium Results Year: 2020	N	TP001002: 1.1 TP002004: 1.5	Range: ND Highest: ND	ppb	50	50	Discharge from petroleum and metal refineries; erosion
PFNA Results Year: 2021	N	TP001002: Highest RAA: ND Result Range: ND-2.43 TP002004: Highest RAA: ND Result Range: ND	Highest RAA: ND Results Range: ND	ppt	13	N/A	Discharge from industrial, chemical, and manufacturing factories
PFOA Results Year: 2021	N	TP001002: Highest RAA: 6 Result Range: 5-9 TP002004: Highest RAA: 8 Result Range: 6-8	Highest RAA: 9 Results Range: ND-12	ppt	14	N/A	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam
PFOS Results Year: 2021	N	TP001002: Highest RAA: 11 Result Range: 4-28 TP002004: Highest RAA: 8 Result Range: 6-11	Highest RAA: 6 Results Range: ND-7	ppt	13	N/A	Discharge from industrial, chemical factories, release of aqueous film forming foam

Landlords must distribute this information to every tenant as soon as practical, but no later than three business days after receipt. Delivery must done by hand, mail, or email, and by posting the information in a prominent location at the entrance of each rental premises, pursuant to section 3 of P.L. 2021, c. 82 (C.58:12A-12.4 et seq).

Secondary Contaminants

Contaminant	Level Detected Dover Water NJ1409001	Level Detected Randolph Twp/ Morris Cty MUA NJ1432003/ NJ1432001	Unit of Measure	RUL	Potential Source
Aluminum Results Year: 2020	TP001002: ND TP002004: ND	Range: 0.0005-**0.3** Average: 0.04	ppm	0.2	Treatment Process
Chloride Results Year: 2020	TP001002: 145 TP002004: 198	Range: 8-94 Average: 36	ppm	250	Naturally Occurring
Hardness Results Year: 2020	TP001002: 212 TP002004: 234	Range: 70-166 Average: 100	ppm	250	Naturally Occurring
Iron Results Year: 2020	TP001002: ND TP002004: ND	Range: ND-**2.1** Average: 0.3	ppm	0.300	Naturally Occurring
Manganese Results Year: 2020	TP001002: ND TP002004: ND	Range: ND-13 Average: 2.3	ppb	50	Naturally Occurring
Sodium Results Year: 2021	TP001002: Range: **63-69** Average: **67** TP002004: Range: **80-82** Average: **81**	Range: 6-**52** Average: 16	ppm	50	Naturally Occurring
Sulfate Results Year: 2020	TP001002: 16 TP002004: 18	Range: ND-14 Average: 4	ppm	250	Naturally Occurring
Surfactants/Detergents Results Year: 2020	TP001002: ND TP002004: ND	Range: ND-0.07 Average: 0.02	ppm	0.5	Treatment Process
Total Dissolved Solids Results Year: 2020	TP001002: 434 TP002004: 496	Range: 107-286 Average: 178	ppm	500	Naturally Occurring
Zinc Results Year: 2020	TP001002: ND TP002004: ND	Range: 0.6-24 Average: 5	ppb	5000	Naturally Occurring

How to read this report:

Word, Acronym, Symbol or Note	Definition
Y/N	Yes/No
AL	Action Level. The concentration of a contaminant, which, if exceeded, triggers a treatment or other requirements, which a water system must follow.
CDC	Centers for Disease Control
EPA	United States Environmental Protection Agency.
LRAA	Locational Running Annual Average
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.
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.
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.

MRDLG	Maximum Residual Disinfectant 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.
N/A	Not applicable
NJDEP	New Jersey Department of Environmental Protection
ND	Not detected
ppb	Parts per billion. Means 1 part per 1,000,000,000 (same as micrograms per liter) and correspond to 1 penny in $10 million.
ppm	Parts per million. Means 1 part per 1,000,000 parts (same as milligrams per liter) and corresponds to 1 penny in $10,000.
ppt	Parts per trillion. Means 1 part per 1000,000,000,000 parts (same as nanograms per liter) and corresponds to 1 penny in $10 billion.
RAA	Running Annual Average
RUL	Recommended Upper Limit

Health Effects of Detected Contaminants:

Aluminum: Large aluminum intake may be connected with nerve damage. Particularly people with kidney damage are susceptible to aluminum toxicity and there is a risk of allergies. A correlation between aluminum uptake and an increased number of Alzheimer cases is suspected. Increased aluminum intake may also cause osteomalacia.

Barium: Barium is a naturally occurring ore used in a variety of manufactured goods. The EPA has found that in some people, short exposure to Barium in exceedance of the MCL can cause gastrointestinal disturbances and muscle weakness. Long term exposure to barium at levels above the MCL may cause high blood pressure.

Chloride: Chloride occurs naturally in water and is monitored as a secondary contaminant. Secondary contaminants are aesthetic (taste and odor) rather than health risks; however, in high concentrations sulfate can cause diarrhea in some people.

Chlorine: Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Chromium: Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

Copper: Copper is an essential nutrient, but some people who drink water that contains copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water that contains copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilsons Disease should consult their personal doctor.

Fluoride: Infants and children: Delays in physical or mental development; children could show slight deficits in attention span and learning abilities. Adults: Kidney problems; high blood pressure.

Haloacetic Acids: Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Hardness: Water hardness is the traditional measure of the capacity of water to react with soap and producing lather. Hard water often produces a noticeable deposit of precipitate (e.g. insoluble metals, soaps or salts) in containers, including “bathtub ring”.

Iron: The recommended upper limit for iron is based on unpleasant taste of water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.

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. Dover Water 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 second to 2 minutes before using water for drinking and 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.

Manganese: The recommended upper limit for manganese is based on staining of laundry. Manganese is an essential nutrient, and toxicity is not expected from levels which would be encountered in drinking water.

Nickel: Some people who drink water containing nickel in excess of the MCL over many years may experience liver effects.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

PFNA (Perfluorononanoic Acid): Some people who drink water containing perfluorononanoic acid in excess of the MCL over many years could experience problems with their liver; kidney; immune system; or, in males, reproductive system. For females, drinking water containing PFNA in excess of the MCL over many years may cause developmental delays in a fetus and/or an infant.

PFOA (Perfluorooctanoic Acid): Some people who drink water containing perfluorooctanoic acid in excess of the MCL over many years could experience problems with their blood serum cholesterol levels, liver, kidney, immune system, or, in males, reproductive system. Drinking water containing perfluorooctanoic acid in excess of the MCL over many years may also increase the risk of testicular and kidney cancer. For females, drinking water containing perfluorooctanoic acid in excess of the MCL over many years may cause developmental delays in a fetus and/or an infant.

PFOS (Perfluorooctanesulfonic Acid): Some people who drink water containing perfluorooctanesulfonic acid in excess of the MCL over many years could experience problems with their immune system, kidney, liver, or endocrine system. For females, drinking water containing perfluorooctanesulfonic acid in excess of the MCL over many years may cause developmental effects and problems with the immune system, liver, or endocrine system in a fetus and/or an infant. Some of these developmental effects can persist through childhood.

Secondary Contaminant: These parameters do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

Selenium: Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.

Sodium

We exceeded the secondary Recommended Upper Limit for Sodium. For healthy individuals the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the Recommended Upper Limit (RUL) may be of concern to individuals on a sodium restricted diet.

Sulfate: Sulfate occurs naturally in water and is monitored as a secondary contaminant. Secondary contaminants are aesthetic (taste and odor) rather than health risks; however, in high concentrations sulfate can cause Diarrhea in some people.

Surfactants/Detergents: In general, prolonged exposure of skin to surfactants in excess of the RUL can cause chafing.

THMs (Trihalomethanes): Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Total Dissolved Solids: (TDS) in drinking water is not a health hazard. The recommended upper limit has been established based on the aesthetic properties of water. Water high in TDS may taste salty or brackish. High TDS may also indicate that other ions naturally present in water may be above established regulatory levels.

Zinc: Although humans can handle large amounts of zinc, too much can cause problems such as stomach cramps, skin irritations, vomiting, nausea, and anemia. Very high levels of zinc can damage the pancreas, upset protein metabolism and also cause arteriosclerosis.

Waivers

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organics, and synthetic organic chemicals. Dover Water has received a monitoring waiver for Asbestos and we are awaiting determination of our waiver for Synthetic Organic Chemicals (SOCs).

Source Water Assessment

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Protection Report and Summary for this public water system, which is available at www.nj.gov/dep/watersupply/swap/creport.htm or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550.

The table below illustrates the susceptibility rating for each individual source for each of the contaminant categories at this water system. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report. NJDEP considered all surface water highly susceptible to pathogens. For the purpose of the Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. If the system is rated highly susceptible for a contaminant category, it does not mean that a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings. If you have questions regarding the source water assessment report or summary, please contact the Bureau of Safe Drinking Water at 609-252-5550.

Source ID/Name	Pathogens	Nutrients	Pesticides	VOCs	Inorganics	Radionuclides	Radon	DBPs
	Rating	*Rating*	*Rating*	*Rating*	*Rating*	*Rating*	*Rating*	*Rating*
003 / Well 1	M	H	L	H	M	M	H	H
005 / Well 3	M	H	L	H	M	M	H	H
008 / Well 5	M	H	L	H	M	M	H	H

Susceptibility ratings for a public water system are based on the potential for a contaminant to be:

- At or above 50% of the Drinking Water Standard (MCL) = **(H) High**
- Between 10 and 50% of the Drinking Water Standard (MCL) = **(M) Medium**
- Less than 10% of the Drinking Water Standard (MCL) = **(L) Low**

Definitions:

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, and are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Volatile Organic Compounds (VOCs): Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to http://www.nj.gov/dep/rpp/radon/index.htm or call 800-648-0394.

(DBPs) Disinfectant Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when other disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

This Water Quality Report was prepared in conjunction with Dover Water Company by:

Agra
Environmental & Laboratory Services
90 1/2 West Blackwell Street
Dover, NJ 07801
P: (973) 989-0010
F: (973) 989-0156