Borough of Highland Park Water Department

2022 Water Quality Report

Get To Know Your Drinking Water

This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

Your Drinking Water Meets or is Better Than State and Federal Primary Standards for Drinking Water Quality

This document is an annual report on the quality of water delivered to you in 2022. It meets the Federal Safe Drinking Water Act for "Consumer Confidence Reports" and contains information on the sources of our water, its constituents, and the health risks associated with any contaminants.

We believe high quality drinking water is vital to the well-being of our community and are committed to delivering a safe and dependable drinking water supply. We encourage you to read this report to gain a better understanding of all that's involved in bringing clean, clear tap water to your home.

PLEASE SHARE THIS REPORT WITH OTHERS. Landlords, businesses, schools, hospitals, and other groups are encouraged to share this Water Quality Report with all water users at their locations.

About Your Water Supply

The Borough of Highland Park obtains its drinking water from Middlesex Water Company, a water utility in New Jersey with over a century of water collection, treatment and distribution experience. Middlesex Water Company supplies the Borough of Highland Park with surface water that is obtained from the Delaware and Raritan Canal, which is owned by the State of New Jersey and operated by the New Jersey Water Supply Authority. These supplies are supplemented by water from the Round Valley and Spruce Run Reservoir Systems. Raw water is withdrawn from the Canal at an intake and pumping station in New Brunswick and transported to Middlesex's plant in Edison for treatment. Water is then distributed through a network of mains to meet the increasing residential, industrial, and fire protection needs of our area.

In our continuing efforts to maintain safe, abundant and dependable supplies, it may be necessary to make improvements that will benefit all our residents. These improvements are sometimes reflected as rate structure adjustments. We appreciate your understanding in these matters.

How to Contact Us

If you have any questions about this report or would like more information about your water quality and/or opportunities to become involved in decisions affecting your drinking water, please contact Thomas Barnes, Licensed Operator, at 732 634 1500 x1355. You may also write to: Utility Service Affiliates – Highland Park, 485C Route 1 South, Suite 400, Iselin, NJ 08830.

You may obtain additional information about drinking water regulatory programs by contacting the Environmental Protection Agency (EPA) Safe Drinking Water Hotline at (800) 426-4791.

What Substances May be Found in the Source Water Before it is Treated?

The sources of drinking water (both tap water and bottled water) generally include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water moves over land or through the ground, it dissolves naturally occurring minerals and organics and can pick up substances resulting from the presence of animal or human activity. Substances that may be present in source waters prior to the treatment process include:

Microbial Contaminants: Such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock and wildlife.

Inorganic Contaminants: Such as salts and metals, which can be naturally occurring or result from storm water runoff, wastewater discharges, or farming.

Pesticides and Herbicides: Which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

Organic Chemical Contaminants: Including natural, synthetic and volatile organic chemicals, which are by-products of nature and industrial processes and petroleum production and can also come from gas stations, storm water runoff and septic systems.

Radioactive Contaminants: Which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Protecting the Source of Your Drinking Water: (SWAP) Source Water Assessment Program

The New Jersey Department of Environmental Protection (NJDEP) has implemented the Source Water Assessment Program, available at www.state.nj.us/dep/swap or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550. A summary of this report to study existing and potential threats to the quality of public drinking water sources in the state is found below.

Susceptibility Ratings for the Middlesex Water Company System

The table below illustrates the susceptibility ratings for each contaminant category for each source in the system. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report.

Parameter	31 Wells	1 Surface Water Intake
Pathogens	Medium – 29 Low – 2	High
Nutrients	High – 10 Medium – 21	High
Pesticides	Medium – 4 Low – 27	Medium
VOCs	High – 31	Medium
Inorganics	High – 14 Medium – 17	High
Radionuclides	High – 3 Medium – 28	Low
Radon	High – 31	Low
Disinfection Byproduct Precursors	High – 14 Medium – 17	High

Susceptibility Chart Definitions

Pathogens – Organisms such as bacteria and viruses.
Nutrients – Compounds such as phosphorus and nitrogen that aid in the growth of organisms.
Volatile Organic Compounds (VOCs) – Man-made chemicals used as solvents, degreasers and gasoline components such as MTBE.
Pesticides – Man-made chemicals used to control pests and weeds such as Atrazine.
Inorganics – Mineral-based, man-made and naturally occurring, compounds such as arsenic and nitrates.
Radionuclides – Radioactive, man-made and naturally occurring, substances such as radium and uranium.
Radon – Naturally occurring gas.
Disinfection Byproduct Precursors – Naturally occurring organic matter, mainly in surface waters, that when combined with disinfectants such as chlorine, produce unwanted byproducts.

A public water system's susceptibility rating (Low, Medium or High) is a combination of two factors:

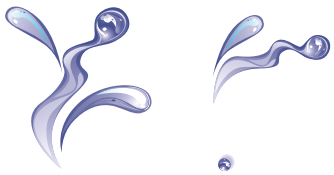
- How sensitive the water supply is to potential contamination.
- How often a contaminant is used or exists near the source water.

The ratings are based on the potential for a contaminant to be at or above 50% of the MCL (High), between 10% and 50% of the MCL (Medium) and less than 10% of the MCL (Low).

DEP considered all surface water highly susceptible to pathogens; therefore, all intakes received a high rating for the pathogen category. For the purpose of the Source Water Assessment Program, radionuclides are more of a concern for groundwater than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean 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, the DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Source Water Assessment Reports and Summaries are available for public water systems at www.state.nj.us/dep/swap or by contacting the NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.



General Safety Suggestions Regarding Water Main Breaks

During main breaks or other system disruptions, the Borough of Highland Park may advise residents to boil their water used for drinking. **Tap water should be brought to a rolling boil, boiled for one minute, and cooled before using.** Boiled or bottled water should be used for drinking, making ice, washing dishes, brushing teeth, and preparing food. This suggestion is offered to provide an extra margin of safety to residents. This precautionary advisory is typically in effect from the time of the break, until 48 hours after service is restored.

These safety suggestions may be of particular interest to people with compromised immune systems, the elderly and infants who may be more vulnerable to possible contaminants in drinking water than the general population and have special needs regarding water quality. These individuals should discuss the boil water safety recommendation with their health care providers, should they experience any water service disruption to their homes in the future.

Based on past experience, the Borough does not expect any water quality problems to be associated with main repairs. Its recommendation is simply a standard precautionary measure to better ensure the safety of its customers during distribution system and main repair work.

Important Information About Lead and Nitrate

About Lead in Drinking Water

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. Middlesex 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 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.

Notice to Landlords:

Landlords must distribute this information to every tenant as soon as practicable, but no later than three business days after receipt. Delivery must be 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.).

About Nitrate in Drinking Water

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.

Do I Need to Take Special Precautions?

To ensure that tap water is safe to drink, the EPA and the DEP Bureau of Safe Drinking Water prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA Safe Drinking Water Hotline at 1-800-426-4791.**

ANNUAL WATER QUALITY RESULTS - 2022

Primary Standards

Parameter	Units	MCL (State/Federal Standard)	MCLG (Ideal Goal)	Results: Highest Level used for Compliance	Results: Range	MCL Violation Yes/No	Major Sources in Drinking Water
INORGANIC							
Lead (1)	ppb	AL=15	0	1	N/A	No	Corrosion of household plumbing systems
Copper (1)	ppm	AL=1.3	1.3	0.1	N/A	No	Corrosion of household plumbing systems
Nickel (2)	ppb	No MCL	N/A	1.9	N/A	No	Discharge from petroleum and metal refineries; Erosion of natural deposits.
Nitrate	ppm	10	10	1.1	N/A	No	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Barium	ppm	2	2	0.03	N/A	No	Discharge from metal refineries
MICROBIOLOGICAL							
Total Coliform Bacteria		> 1 positive sample/ month	0	1 positive sample/SEP	N/A	No	Naturally present in the environment
Turbidity	NTU's	TT = 1 NTU	0	0.36	N/A	No	Soil runoff
		TT= 95% of samples <0.3 NTU		100%	N/A		
Chlorine	ppm	<4 (MRDL)	<4 (MRDLG)	1.6	1.2 - 1.6	No	Water additive used to control microbes
DISINFECTION BY-PRODUCTS (3)							
Total Trihalomethanes (Stage 2)	ppb	80	N/A	39	3 - 49	No	By-product of drinking water disinfection
Haloacetic Acids (Stage 2)	ppb	60	N/A	24	9 - 33	No	By-product of drinking water disinfection
Additional Monitoring	**Units**	**MCL (State/Federal Standard)**	**MCLG (Ideal Goal)**	**Highest Level Detected**	**Range**	**MCL Violation Yes/No**	**Major Sources in Drinking Water**
Additional contaminants for which we monitor that are currently not regulated by the EPA							
Perfluoroheptanoic Acid (PFHepA)	ppt	CNR	N/A	3	ND – 3	N/A	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films
Perfluorobutane sulfonic acid (PFBS)	ppt	CNR	N/A	ND	ND - 2	N/A	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films
Chlorate	ppb	CNR	N/A	150	30 - 150	N/A	Agricultural defoliant: used in production of chlorine dioxide
Chromium-6	ppb	CNR	N/A	0.54	ND - 0.54	N/A	Naturally-occurring element; used in making steel and other alloys. Also used for chrome plating, dues and pigments, leather tanning and wood preservation
1,4 dioxane	ppb	CNR	N/A	0.3	ND - 0.3	N/A	Solvent or solvent stabilizer in manufacture of paper, cotton, textile products, auto coolant, cosmetics and shampoos
UCMR4 (Unregulated Contaminant Monitoring Rule) (Note 4)							
Germanium	ppb	CNR	N/A	0.7	ND - 0.7	N/A	Naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc o
Manganese	ppb	CNR	N/A	0.4	ND - 0.4	N/A	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient
HAABr6	ppb	CNR	N/A	0.1	ND - 0.1	N/A	By-product of drinking water disinfection
HAA9	ppb	CNR	N/A	41	24 - 41	N/A	By-product of drinking water disinfection

1: Highland Park Water Department is on reduced monitoring, once per three-year cycle. The listed Lead and Copper concentrations are the 90th Percentile Value from 2022.
2: There is no MCL for Nickel, but it must be monitored.
3: Compliance is based on Local Running Annual Averages of quarterly samples of individual sites rather than averages of all sites.
4: The purpose of the UCMR monitoring is to provide the EPA Administrator with data to support decisions concerning whether or not to regulate these contaminants. Results are from 2019 and 2020.

Secondary Standards (Non-Health Related)

Parameter	Units	RUL*	Results
Sodium	ppm	50	29
Alkalinity	ppm	N/A	56
Chlorides	ppm	250	47
Hardness (as CaC03)	ppm	250	86
Sulfates	ppm	250	16
Color	Color Units	10	<5
pH	N/A	6.5 - 8.5 (optimum range)	7.5
Odor	Threshold Odor Number	3	6
Aluminum	ppm	0.2	.004
Zinc	ppm	5	0.6

*RUL: Recommended Upper Limit

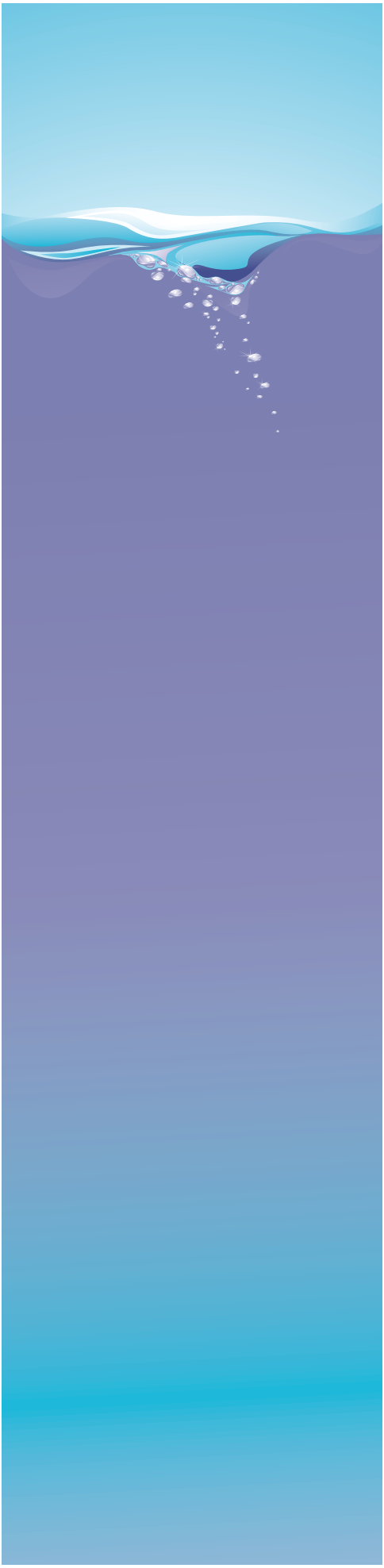
Definitions & Abbreviations used below:

Primary Standards: Standards which relate to public health. **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:** 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. **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 contamination. **Waiver:** State permission to reduce monitoring frequency because previous results have consistently been below the MCL. ppt: (parts per trillion) 1 ppt corresponds to 1 penny in $10 billion. **ppb:** Parts Per Billion. 1 ppb corresponds to 1 penny in $10 million. **ppm:** Parts Per Million. 1 ppm corresponds to 1 penny in $10 thousand. mrem/year: Millirems per year. A measure of radiation absorbed by the body. **N/A:** Not Applicable. **ND:** None Detectable at testing limit. **NR:** Not Reported. **<:** Less Than. **>:** Greater Than. **AL:** Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **CNR:** Currently Not Regulated. **NTU:** Nephelometric Turbidity Unit. Used to measure cloudiness in drinking water. We monitor turbidity because it is a good indicator that our filtration system is functioning properly. High turbidity can hinder the effectiveness of disinfectants. **pCi/l:** Picocuries per Liter. A measure of the radioactivity in water. **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water. **Turbidity MCL:** The Turbidity Level must be less than or equal to 0.3 NTU's in 95% of the samples taken every month and at no time exceed 1 NTU.

What the Numbers Mean to You

The table shows the results of monitoring during 2022. The EPA requires monitoring of over 100 drinking water contaminants. Those listed are the only contaminants detected. For a complete list of monitored contaminants, contact Middlesex Water Company at (732) 634-1500.

The State requires water systems to monitor for certain contaminants less than once a year because the concentration of these contaminants is not expected to vary significantly from year to year. Therefore, some of these data may represent prior period testing that is considered representative of water quality.



HEALTH INFORMATION Effects of Detected Contaminants (Required Language)

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 may be a concern to individuals on a sodium restricted diet.

Required Additional Health Information

Special Considerations Regarding Children, Pregnant Women, Nursing Mothers and Others

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, this making the standard more stringent, to account for additional uncertainties regarding these effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

A Word of Caution

Our treatment systems are designed and operated to produce water that meets all state and federal standards. Many substances and microscopic organisms found in water may be a concern if they occur at high concentrations. For some contaminants, MCL levels have not been set because the EPA has not determined at what level they pose a public health risk. This is often because a reliable detection method is unavailable and/or because the contaminant is rarely found in treated water.

Some naturally occurring organisms commonly found in the natural water supplies may not be eliminated during the treatment process. This means that even a well-run system may contain low levels of microscopic organisms. The levels, however, are normally of little concern to healthy individuals. It should be noted, however, that under certain circumstances, these organisms might amplify to dangerous levels within a customer's own water supply system. All customers, including residential, commercial and industrial customers, and other large facilities such as schools, hospitals and hotels/motels, should follow appropriate procedures for maintaining their own internal plumbing systems and appliances. If you have any concerns about these matters, please call the EPA Safe Drinking Water Hotline at 1-800-426-4791.

For Your Safety – A Message for People with Compromised Immune Systems

Although our drinking water meets all state and federal regulations, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals 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 individuals 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 pathogens are available from the EPA Safe Drinking Water Hotline at 1-800 426-4791.

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important information about your water inside!

PARTNERSHIP FOR SAFE WATER

Utility Service Affiliates –
Highland Park
485C Route 1 South, Suite 400
Iselin, NJ 08830
(732) 819-3788
MiddlesexWater.com