



ANNUAL WATER QUALITY REPORT

A Trusted Water Provider for Over a Century!



Get To Know Your Drinking Water



Dear Valued Customer,

Thank you for taking the time to review our latest Water Quality Report, also known as our Consumer Confidence Report. At Middlesex Water Company, we take delivering this life-sustaining service very seriously. As a leading water provider in the region, we serve as protectors of public health. We do this by investing to upgrade drinking water infrastructure, complying with laws and regulations such

as the Water Quality Accountability Act and working to comply with the new New Jersey standard that went into effect regarding the presence of a perfluoroalkyl chemical, more commonly known as PFOA. We rigorously test and monitor water supplies at our treatment plant and throughout the distribution system. We are committed to delivering high quality and reliable water service 24/7, 365 days a year and we continue to work to earn your trust with every drop of water we deliver.

Our “Water for Tomorrow®” infrastructure campaign is a multi-year, multi-million dollar initiative to enhance our water delivery network, improve system pressures and available storage, reduce lost water and further improve the safety of our treatment process. As part of our 2023 RENEW Program, we are investing \$11.1 million to modernize drinking water infrastructure by replacing water mains, valves and hydrants. We will also be identifying and removing lead and galvanized steel customer-owned service lines at no direct cost to the property owners or tenants. We also dedicated our new ozone treatment plant upgrade this past year which is instrumental in eliminating potentially harmful disinfection byproducts. We’re replacing and upgrading system assets to better serve you and future generations of water users.

We are proud of the role water plays in contributing to economic development, creating jobs and supporting the quality of life for businesses and families in our service area. We invite you to review this report and learn about the testing and sampling conducted in 2022 and the quality of water delivered to you.

We encourage you to learn more about our company at Middlesexwater.com and about our various infrastructure initiatives at WaterforTomorrowMWC.com.

You may obtain additional information about drinking water regulatory programs by contacting the U. S. Environmental Protection Agency (EPA) Safe Drinking Water Hotline at (800) 426-4791. If you have any questions, please call Dave Brogle, Director of Production at (732) 638-7657.

Thank you for being a customer of Middlesex Water Company. We look forward to continuing to serve your needs both for the present and in the years ahead.

Dennis W. Doll
President and Chief Executive Officer

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.*



Water When You Need It!

The Middlesex system produced 14 billion gallons of water in 2022. We utilize both surface and groundwater supplies during various times of the year and customers may receive either or a blend of both sources depending upon location and demands. During water emergencies, Middlesex Water Company can suspend, increase or decrease supplies from any of its sources. Surface water is obtained from the Delaware and Raritan Canal (D&R Canal), which is owned by the State of New Jersey and operated by the New Jersey Water Supply Authority. This source is supplemented by supplies from the Round Valley and Spruce Run Reservoir Systems. Surface water sources provide 83 percent of the water distributed by the system. The remainder comes from our wells (5 percent) and purchased water (12 percent) from New Jersey American Water-Raritan System.

The Middlesex system produced **14 billion gallons** of water in 2022.

The Company obtains groundwater from its Park Avenue Wellfield in South Plainfield and from its Tingley Lane Wellfields in North Edison. The Middlesex System has 18 wells, which, in 2022, produced approximately 0.8 billion gallons of water. Groundwater comes from an underground source of water known as the Brunswick Aquifer. Water quality is monitored at the Plant, at each wellfield, and throughout the distribution system to determine

that water delivered to our customers meets federal and state drinking water quality standards. As required by federal regulation, Middlesex Water conducted sampling under the Unregulated Contaminant Monitoring Rule, UCMR3 at the Park Avenue Treatment Plant and in 2014, the results showed the presence of per and polyfluoroalkyl substances (PFAS) at the point of entry into the distribution system. In 2018, the NJDEP committed to establishing and MCL for PFOA. Middlesex Water Company began proactively taking action to remove these compounds by investing \$50 million into a treatment plant upgrade to the South Plainfield wellfield facility, was completed in June 2023. The Company took further action to protect customers by seeking to hold the polluters accountable in a class action lawsuit that is ongoing (see latest update below). Middlesex Water recently invested over \$70 million on various upgrades at the Company's existing surface water treatment plant to provide increased resiliency. This involved replacing sodium hypochlorite with ozone as the primary disinfectant in the water treatment process. This will help continue to ensure compliance with increasingly stringent drinking water quality regulations and to mitigate the occurrence of potentially-harmful disinfection by-products which can form in parts of the distribution system when chlorine is used. Ozone disinfects pathogenic organisms found in water more effectively than chlorine and is currently the most widely used water disinfection method used in the world. In addition to inactivating pathogens in raw water, it also helps to improve taste, odor and is more effective in addressing new chemicals of emerging concern. Ozone water treatment, which is formed by using oxygen and electricity, adds no chemicals to the water as it degrades back to oxygen very quickly. In addition to more effective water treatment, the ozone plant is already reducing the use of chemicals currently used to address taste and odor and disinfection by-products.

Park Avenue PFAS Treatment Facility Completed and In Service

In 2020, the New Jersey Department of Environmental Protection (NJDEP) adopted a new regulation, or Maximum Contaminant Level (MCL), for one of the more prevalent PFAS compounds, Perfluorooctanoic Acid or, (PFOA) and compliance sampling began in 2021. While the drinking water we delivered met all current standards at the time, our Park Avenue Plant initially exceeded the newly established PFAS standard, We were able to switch to alternate sources of supply by November 2021 to achieve compliance.

By June 2022, due to an expedited, phased construction approach, we were able to begin successfully treating groundwater containing PFOA through a partial and temporary treatment facility which enabled us to meet the new standard and use this water source to meet summer demands.

As of June 30, 2023, the treatment facility has been constructed, is in service on a permanent basis and is treating groundwater in compliance with all drinking water standards.

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 to study existing and potential threats to the quality of public drinking water sources throughout the state.

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 | 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.



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.

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

Pesticides and Herbicides

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. Can also come from gas stations, storm water runoff and septic systems.

Radioactive Contaminants

Can be naturally occurring or may be the result of oil and gas production and mining activities.



Getting the Lead Out – Let’s Do This Together!

Middlesex Water’s “Knocking Out Lead” program aims to replace any customer-owned lead service lines at no direct cost to residents.

The treated water Middlesex delivers to customers is lead free, and Middlesex adds further treatment to minimize lead in pipes from leaching into the water. The company owned portion of the water service line – the line taking water from the street to the curb stop – is also lead free. But, if the customer-owned portion has lead, it can leach from the pipe, a process called corrosion, and add lead into the treated water entering resident’s homes. Lead solder in indoor plumbing and lead in some older plumbing fixtures can also add lead to drinking water.

Middlesex Water has few records on customer-owned service lines. The success of our Knocking Out Lead program – and improving our community’s health – relies on property owners getting involved by learning and reporting their service line material.



To learn more regarding lead service line replacement and how Middlesex Water is taking the lead on lead, visit:

[MiddlesexWater.com /customer-care/get-the-lead-out](https://www.middlesexwater.com/customer-care/get-the-lead-out)

Help us identify lead lines! To report the composition of your service line, please complete and submit this short survey.

<https://bit.ly/MWCLeadSurvey>

To learn more, see section entitled, “Help Us Reduce Lead in Your Community” on page 7 of this report.

Boil Water Advisories



**Stay Informed
About Boil Water
Advisories**

FOLLOW US ON SOCIAL MEDIA!

When a water service emergency occurs that may impact our customers’ health or the water supply, we use a variety of media to communicate boil water orders that are required by the state or boil water recommendations we may suggest as a precautionary measure. One immediate way you can stay directly informed about such boil water notices or associated impacts on area roadways is by signing up for Direct Alert. We encourage you to visit our website and follow us on social media, as well.

General Safety Suggestions Regarding Water Main Breaks

During main breaks or other system disruptions, Middlesex Water Company may advise customers to boil their water used for drinking. Customers should **bring tap water to a rolling boil, boil for one minute, and cool 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 our customers. 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. The Company suggests that these individuals 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 Company 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.



HEALTH INFORMATION

Health 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.

64,240 gallons

The amount of water used by the average American in one year. Source: *Water.org*

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 (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).

Do We Have Correct Contact Info?

Visit **MiddlesexWater.com** to update your contact information and preferences with DIRECTAlert. Please be sure to have your account number available; it is necessary for updating your contact information.





Help Us Reduce Lead in Your Community

New Jersey Legislation signed into law on July 22, 2022, now requires utilities to replace water service lines from the water main in the street to the water meter on the home or building owner's property if they are comprised of lead or galvanized steel. Treated water leaving our plant is virtually lead free but can come in contact with lead as it travels through lead piping. The Company had replaced most of the known lead service lines on the utility-owned portion of the service lines more than 30 years ago. The new legislation requires full replacement of the service line on both the utility-owned portion and customer-owned portion. Because the Company has few records on the composition of the customer-owned portion of the water service line, it is requesting customers self-report the composition of their service line through an online survey tool. Information gathered from the survey will help inform a strategy guiding Middlesex in replacing these lead and galvanized steel service lines by 2031.

What You Should Know 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 Company 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

While water delivered to your home is lead free, as it travels through a lead service line, lead can enter the water you drink. Help reduce exposure by reporting your line material : <https://bit.ly/MaterialReporting>

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.).

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).

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).

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.

| Middlesex Water Company Annual Water Quality Results - 2022 | | | | | | | Primary Standards |
|---|-------|------------------------------|-------------------|-----------------------------------|--------------|----------------------|--|
| Parameter | Units | MCL (State/Federal Standard) | MCLG (Ideal Goal) | Results | | MCL Violation Yes/No | Major Sources in Drinking Water |
| | | | | Highest Level used for Compliance | Range | | |
| INORGANIC | | | | | | | |
| Arsenic (1) | ppb | 5 | N/A | 1 | ND - 1 | No | Erosion of natural deposits; Runoff from glass and electronics production wastes. |
| Barium | ppm | 2 | 2 | 0.2 | 0.03 - 0.2 | No | Discharge from metal refineries; Erosion of natural deposits. |
| Chromium (total) | ppb | 100 | 100 | 1 | ND - 1 | N/A | Naturally occurring element; used in making steel and other alloys. Also used for chrome plating, dyes and pigments, leather tanning and wood preservation. |
| Nickel (2) | ppb | N/A | N/A | 2 | 1 - 2 | No | Discharge from petroleum and metal refineries; Erosion of natural deposits. |
| Lead (3) | ppb | AL=15 | 0 | 6.7 | 7 samples>AL | No | Corrosion of household plumbing systems |
| Copper (3) | ppm | AL=1.3 | 1.3 | 0.3 | N/A | No | Corrosion of household plumbing systems |
| Nitrate | ppm | 10 | 10 | 3 | 1 - 3 | No | Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits |
| MICROBIOLOGICAL | | | | | | | |
| Turbidity | NTU's | TT = 1 NTU | 0 | 0.4 | N/A | No | Soil runoff. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. |
| | | TT= 95% of samples <0.3 NTU | | 100% | N/A | | |
| Disinfectant Residuals (Chlorine/Chloramines) | ppm | >4 (MRDL) | >4 (MRDLG) | 1.1 | 0.1 - 2.2 | No | Water additive used to control microbes |
| DISINFECTION BY-PRODUCTS | | | | | | | |
| Total Trihalomethanes (4) | ppb | 80 | N/A | 43 | 2 - 62 | No | By-product of drinking water disinfection |
| Total Haloacetic Acids (4) | ppb | 60 | N/A | 28 | ND - 52 | No | By-product of drinking water disinfection |
| RADIOLOGICAL (5) | | | | | | | |
| Beta & Photon emitters (6) | pCi/l | 50 | 0 | 1.6 | N/A | No | Decay of natural and man-made deposits |
| Alpha emitters (7) | pCi/l | 15 | 0 | 5 | ND - 5 | No | Erosion of natural deposits |
| Uranium | ppb | 30 | 0 | 14 | 2 - 14 | No | Erosion of natural deposits |
| SYNTHETIC ORGANIC COMPOUNDS | | | | | | | |
| PFOA (8) | ppt | 14 | N/A | 7 | ND - 7 | Yes* | Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films |
| PFOS (8) | ppt | 13 | N/A | 4 | ND - 4 | No | Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films |
| Perfluorononanoic Acid (PFNA) | ppt | 13 | N/A | ND | N/A | No | Discharges from industrial facilities where they are made or used, release of aqueous film forming foams (AFFF) during training or firefighting, effluent and land-applied biosolids (sludge) from wastewater treatment plants, and leachate from landfills where industrial waste or consumer products are disposed |
| 1,2,3-Trichloropropane | ppt | 30 | N/A | 6 | ND - 6 | No | Halogenated alkane; used as an ingredient in paint, varnish remover, solvents and degreasing agents |
| ADDITIONAL CONTAMINANTS (for which we monitor that are currently not regulated by the EPA) | | | | | | | |
| Additional Monitoring | Units | MCL (State/Federal Standard) | MCLG (Ideal Goal) | Highest Level Detected | Range | MCL Violation Yes/No | Major Sources in Drinking Water |
| PFBS (8) | ppt | CNR | N/A | ND | N/A | N/A | Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films |
| PFHxA (8) | ppt | CNR | N/A | 3.5 | ND - 3.5 | N/A | Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films |
| PFHxS (8) | ppt | CNR | N/A | ND | N/A | N/A | Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films |
| PFHepA (8) | ppt | CNR | N/A | 2.5 | ND - 2.5 | 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 | 125 | 90 - 125 | N/A | Agricultural defoliant; used in production of chlorine dioxide |
| Chromium-6 | ppb | CNR | N/A | 0.67 | ND - 0.67 | N/A | Naturally-occurring element; used in making steel and other alloys. Also used for chrome plating, dyes and pigments, leather tanning and wood preservation |
| 1,4 dioxane | ppb | CNR | N/A | 0.34 | ND - 0.34 | N/A | Solvent or solvent stabilizer in manufacture of paper, cotton, textile products, auto coolant, cosmetics and shampoos |
| UCMR4 (Unregulated Contaminant Monitoring Rule) (9) | | | | | | | |
| 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 ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications |
| Manganese | ppb | CNR | N/A | 29 | ND - 29 | 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 |
| Haloacetic Acids (HAA6Br) | ppb | CNR | N/A | 12 | 2 - 12 | N/A | By-product of drinking water disinfection |
| Haloacetic Acids (HAA9) | ppb | CNR | N/A | 49 | 2 - 49 | N/A | By-product of drinking water disinfection |

| Secondary Standards (Non-Health Related) | | | | |
|---|-----------------------|---------------------------|---------|-----------|
| Parameter | Units | RUL** | Results | |
| | | | Average | Range |
| Sodium | ppm | 50 | 35 | 32 -38 |
| Alkalinity | ppm | N/A | 65 | 30-206 |
| Chlorides | ppm | 250 | 72 | 49-97 |
| Color | Color Units | 10 | N/A | <5 |
| Hardness | ppm | 250 | 101 | 12 - 314 |
| Sulfates | ppm | 250 | 16 | N/A |
| Odor | Threshold Odor Number | 3 | 6 | N/A |
| pH | N/A | 6.5 - 8.5 (optimum range) | 7.4 | 6.5 - 8.3 |
| Zinc | ppm | 5 | 0.6 | N/A |
| Aluminum | ppm | 0.2 | ND | N/A |

*Middlesex remained in violation until the plant was fully constructed. See our latest Plant Construction update on page 2 of this report for more details.

- MCLs for these chemicals were set by the NJDEP below those set by the EPA.
- There is no MCL for Nickel but it must be monitored.
- The listed Lead and Copper concentrations are the 90th Percentile Value.
- Compliance is based on Local Running Annual Averages of quarterly samples of individual sites. For example, for the 1st quarter LRAA you use the last 3 quarters of the previous year with the 1st quarter of the current year so the highest quarter LRAA may be greater than the range for the current year.
- The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Various sites are on different monitoring schedules. The results listed are from 2017, 2018 and 2020.
- The MCL for Beta Particles is 4 mrem/yr. EPA considers 50 pCi/l to be the level of concern for Beta Particles.
- The Gross Alpha compliance is determined minus the Radon and Uranium contribution.
- These contaminants are in a group of Perfluorinated compounds widely found in the environment. NJDEP established MCLs for PFOA and PFOS in 2020 and compliance sampling started in 2021.
- 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.

**RUL: Recommended Upper Limit





485 C Route 1 South
Suite 400
Iselin, NJ 08830

You can help
protect drinking water!

Never flush unwanted or expired
medicine down the toilet or drain.

Avoid using pesticides and fertilizers.

Pick up after your pets.

Use and dispose of chemicals properly.

ANNUAL WATER QUALITY REPORT

2022



View and pay your water bills online !



Sign up today for our
easy online billing solution.
Learn more at MiddlesexWater.com.



Are you interested in serving on a Customer Feedback Panel?

Middlesex Water would like periodic feedback
from customers related to service
and communications.

If interested, please email us:
CorpComm@MiddlesexWater.com

Connect with Us!



This report contains important information
about your drinking water.

If you do not understand it,
please have someone translate it for you.

這份報告是有關您飲水的重要資料。
請找人翻譯，或請懂的人解釋給您聽。

아래의 보고서는 귀하 개인 드린다는 사실을 알기
중요한 정보가 포함되어 있으며 귀하의 사
생활을 위해서라면 이 보고서를 알기 이해하시는
것과 같은 학자를 권장합니다

العلومات في هذا التقرير تحتوي على
معلومات مهمة عن مياه الشرب التي
تشرعها. من فضلك اذا لم تفهم هذه
العلومات اطلب من يترجمها لك.

આ અહેવાલ મને તમારી પાસેથી મળી રહે
અગત્ય ની જાણકારી આપવા મને મદદી છે.
અનેનો અભુતિદ કરો અથવા જેને સમજાવી પડતી
ભાષા તેને સાચું વાત કરો

Este informe contiene información muy importante sobre su agua beber.
Tradúzcalo ó hable con alguien que lo entienda bien.



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