



JACKSON TOWNSHIP
MUNICIPAL UTILITIES AUTHORITY
135 MANHATTAN STREET
JACKSON, NJ 08527

PRESORTED
First Class
U.S. POSTAGE PAID
Freehold, NJ
07728
PERMIT #268

Temp - Return Service Requested

732-928-2222
UTILITIES AUTHORITY
JACKSON TOWNSHIP MUNICIPAL



Public Water System I.D. # 1511001
2023 ANNUAL DRINKING WATER QUALITY REPORT

AN IMPORTANT MESSAGE FROM
YOUR
WATER SUPPLIER

www.jacksonmua.com



JACKSON TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

Public Water System I.D. # 1511001

2023 Annual Drinking Water Quality Report
For water supplied and tested in the year 2022

The Jackson Township Municipal Utilities Authority (Authority) would like to present the 2022 Annual Drinking Water Quality Report. If you are a landlord in Jackson Township, we would ask that you forward a copy of this report to your tenants.

Source of Water

The water in Jackson Township is drawn entirely from confined aquifers. The primary source of supply is the middle Potomac-Raritan-Magothy (PRM) formation which is approximately 1,400 feet deep. Secondary sources of water are from the Upper PRM (960 feet deep), the Englishtown Aquifer (500 feet deep) and the Vincentown Aquifer (200 feet deep). With proper management, these aquifers will provide Jackson Township with an abundant supply of clean water for many years to come.

System Improvements

The 1 million gallon elevated tank located at the Perrineville Road Water Treatment Plant is scheduled to be completed the Summer of 2023. The Authority also plans on completing the Cooks Bridge Water Main extension during the first quarter of 2023, looping North Cooks Bridge near Brookfield to Bennetts Mills.

Authority Facts

The Authority serves 12,721 accounts.
The Authority provided an average of 3.36 million gallons of water per day to its customers.
The Authority has 6.3 million gallons of water storage.
The Authority has 196.69 miles of water mains.
The Authority's treatment capacity is 12.910 million gallons per day.
There are a total of 1,597 hydrants in town.

Public Meetings

All public meetings are held at 5:30pm (unless stated otherwise), located at the Authority's Admin Building at 135 Manhattan Street.

February 23, 2023
March 23, 2023 (5:00PM)
April 27, 2023
May 25, 2023
June 22, 2023
July 27, 2023

August 24, 2023
September 28, 2023
October 26, 2023
November 16, 2023
December 21, 2023
January 25, 2024

24 - Hour Service

In the event of a water or wastewater emergency, the Authority can be contacted by telephone 24-hours a day. Please call 732-928-2222.

Este Informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted o hable con alguien que lo entienda.

Definitions

The adjoining table provides representative analytical results of the water samples routinely collected in 2022 from the Authority's system. You may find unfamiliar terms, definitions and/or abbreviations. To help you better understand these terms, we have provided the following definitions:

(PPM): Parts Per Million.

(PPB): Parts Per Billion.

(PPT): Parts Per Trillion.

(pCi/L): Picocuries per liter - Picocuries per liter is a measure of the radioactivity in water.

(P/A): Present or Absent - The measure of bacteriological quality of a water sample taken from a specific location within the water system.

(HAA5): Haloacetic Acids.

(TTHMs): Total Trihalomethanes.

(AL): Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

(LRAA): Locational Running Annual Averages.

(MCL): Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

(MCLG's): Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

(MRDL): Maximum Residual Disinfectant Level - The highest level of a drinking water 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 drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

(TT): Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

Additional Information

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The 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 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 at 800-426-4791.

As some of our customers were previously notified, on June 21, 2022 to June 22, 2022, the Authority had a Tier 2 TT violation at the Well 7 location. This violation was not considered emergent and did not require a "boil water" notification. From June 21, 2022 to June 22, 2022, the Authority did not meet one or more of our treatment requirements to provide sufficient levels of disinfectant, this was due to a malfunctioning automated well and chlorine control system. The well was taken out of service when the issue was discovered on June 22, 2022, and the faulty programming and malfunctioning flow switch were resolved on June 29, 2022. Additional samples for coliform bacteria were taken and all came back negative. Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.%

The Authority conducted a study, and the State was in agreement that only upwards of fifteen (15) connections may have been effected by this, which is why all customers were not notified.

In addition to the constituents listed herein, the Authority regularly tests for over 80 additional contaminants. We have learned through our monitoring and testing that some constituents have been detected, but the EPA has determined that your water is safe at these levels. We're proud that your drinking water meets or exceeds all Federal and State requirements.

The State allows us to monitor for some contaminants less than once per year because the concentrations of the contaminants do not change frequently; older results are used and in accordance with the regulations.

Unregulated Contaminants

Unregulated Contaminants are those for which the EPA has not established drinking water standards. The purpose of Unregulated Contaminant monitoring is to assist the EPA in determining the occurrence of Unregulated Contaminants in drinking water and whether future regulation is warranted. Please view the table of Unregulated Contaminants on the last page of this report.

If you have any questions about this report or concerning the Authority, please contact David Harpell, Executive Director at 732-928-2222. Additional information is available at www.jacksonmua.com.

WATER QUALITY TEST RESULTS

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 provider. 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 at 800-426-4791.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbial Contaminants						
Total Coliform Bacteria	No	0	Present/Absent	0	No more than 5% of total samples	Naturally present in the environment
Radioactive Contaminants						
Gross Alpha, including Radon & Uranium (2020)	No	Avg: 3.1902 Range < 3 - 3.951	pCi/l	0	15	Erosion of natural deposits
Combined Radium 226 & 228 (2020)	No	Less than 1	pCi/l	0	5	Erosion of natural deposits
Inorganic Contaminants						
Copper (2019 - 2021 Monitoring Period)	No	0.2 @ 90th percentile	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (2019 - 2021 Monitoring Period)	No	0 @ 90th percentile	ppb	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	No	Less than 0.1	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Disinfection By-products (DBPs) Stage 2						
Total HAA5	No	Highest Result LRAA: 4.38 Range of Results: 0 - 7.75	ppb	N/A	60	By-product of drinking water disinfection
Total TTHMs	No	Highest Result LRAA: 3.84 Range of Results: 0 - 8.35	ppb	N/A	80	By-product of drinking water disinfection
Volatile Organic Pesticides						
1,2,3-Trichloropropane (1,2,3-TCP) (2021)	No	Average: Less than 6.4 Range: < 6.4 - < 6.4	ppt	N/A	≥ 30 ppt	Cleaning and degreasing solvent and also associated with pesticides products
Ethylene Dibromide (EDB) (2021)	No	Average: Less than 7.5 Range: < 7.5 - < 7.5	ppt	N/A	≥ 50 ppt	Soil pesticides and spills or leaks of leaded gasoline in which it is an additive
1,2-Dibromo-3-chloropropane (DBCP) (2021)	No	Average: Less than 6 Range: < 6 - < 6	ppt	N/A	≥ 200 ppt	Soil pesticides and manufacturing of fire resistant materials
Polyfluorinated Compounds						
Perfluorononanoic Acid (PFNA) (2022)	No	Average: Less than < 2.0 Range: < 2.0 - < 2.0	ppt	N/A	≥ 13 ppt	Pollution not limited to the manufacturing of non-stick, stain repellent and chemically inert coatings
Perfluorooctanoic Acid (PFOA) (2022)	No	Average: Less than < 2.0 Range: < 2.0 - < 2.0	ppt	N/A	≥ 14 ppt	Pollution not limited to metal plating and fire-fighting foams
Perfluorooctane Sulfonate (PFOS) (2022)	No	Average: Less than 2.0 Range: < 2.0 - < 2.0	ppt	N/A	≥ 13 ppt	Pollution not limited to carpet and textile protection products, as well as fire-fighting foams
Disinfectant Residuals						
Regulated Disinfectant	Violation Yes/No	Level Detected	Unit Measurement	MRDL	MRDLG	Source
Sodium Hypochlorite	No	Average: 0.74 Range: 0.6-1.00	ppm	4.0	4.0	Added for disinfection process
Secondary Contaminants * for Compliance Period 2020-2022						
Contaminant	System Average			MCL (ppm)		Range
Chloride	7.15			250		3.3-16.7
Hardness	83.33			50-250		60-108
Iron	0.194			0.3		Less than 0.04 - 0.4 (at point of entry)
Manganese	Less than 0.04			0.05		Less than 0.04 - Less than 0.04 (at point of entry)
Total Dissolved Solids	109.67			500		100-150
Aluminum	0.015			0.05-0.2		Less than 0.015-0.015
Barium	Less than 0.1			2.0		Less than 0.1-Less than 0.1
pH	8.18			6.5-8.5		7.49-8.79
Sulfate	8.47			250		6.4-16.7

Waivers: The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals, and synthetic organic chemicals. Our system was granted an Asbestos Monitoring Waiver for the Nine Year Compliance Cycle 2020-2028. The Authority was granted the waiver for the synthetic organic chemicals for the 2020-2022 monitoring period.

* **Secondary Contaminant** standards are non-mandatory guidelines to assist public water systems in managing their drinking water for aesthetic consideration, such as taste, color and odor. These contaminants are not considered to present a risk to human health.

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

Jackson Township MUA-PWSID # 1511001

The Authority is a public community water system consisting of 9 wells, 0 wells under the influence of surface water, 0 surface water intakes, 1 purchased ground water source, and 0 purchased surface water sources.

Please note, since this SWAP was prepared in 2004, the Authority has constructed several new wells and has also interconnected the Legler Water System and the Six Flags water System. The Legler Water System at this time is used as an emergency back up, please use this link to view the SWAP report: <https://www.state.nj.us/cgi-bin/dep/swap/swapdata2.pl?psid=1511012>. As such, the Authority actually had 15 production wells in 2022.

This system’s source water comes from the following aquifers and/or surface water bodies: Potomac-Raritan-Magothy aquifer system, Vincentown aquifer and the Englishtown aquifer system.

This system purchases water from the following water system: NJ American WC-Lakewood System. (None purchased in 2022).

Susceptibility Ratings for Jackson Township MUA Sources

The table below illustrates the susceptibility ratings for the eight-contaminant categories for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system’s source water assessment report.

The eight-contaminant categories are defined at the bottom of this page. The NJDEP considered all surface water highly susceptible to pathogens; therefore, all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water 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 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 NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Sources	Pathogens			Nutrients			Pesticides			VOC’s			Inorganics			Radio-nuclides			Radon			DBP’s		
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Wells - 9			9			9			9			9		6	3		3	6			9	2	7	
GUDI - 0																								
Surface Water Intakes - 0																								

H - High, M - Medium, L - Low

GUDI– Ground water under direct influence of surface water.

- Pathogens:** Disease-causing organisms such as bacteria and viruses. Common sources are animal and fecal wastes.
- Nutrients:** Compounds, minerals and elements that aid growth, that are both naturally occurring, and man-made. Examples include nitrogen and phosphorus.
- Volatile Organic Compounds:** (VOC’s) 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 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.
- Disinfection Byproduct Precursors:** (DBP’s) A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example: leaves) present in surface water.

Source of Contaminants

The source 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:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic Chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production. They can also come from gas stations, urban storm runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

From November 2019 to November 2020, the Authority tested for 37 Unregulated Contaminants; nine (9) were detected and are listed in the table below. Minimum Reporting Level is the level at which a laboratory can detect a contaminant. Collecting information about the occurrence of these compounds in water supplies is the first step in the EPA's efforts to determine whether they should be regulated.

Unregulated Contaminants Detected in 2019 and 2020			
Unregulated Contaminant	System Average	Minimum Reporting Level	Range of Results
Bromide	22.29 ppb	20	< 20 - 45.1
Bromochloroacetic Acid	0.805 ppb	0.300	< 0.300 - 1.37
Bromodichloroacetic Acid	0.512 ppb	0.500	< 0.500 - 0.61
Chlorodibromomonoacetic Acid	0.339 ppb	0.300	< 0.300 - 0.514
Dibromoacetic Acid	0.515 ppb	0.300	< 0.300 - 1.15
Dichloroacetic Acid	1.134 ppb	0.200	< 0.200 - 3.46
Germanium	0.309 ppb	0.300	< 0.200 - 0.371
Manganese	21.24 ppb	0.400	< 0.400 - 59.9
Trichloroacetic Acid	0.686 ppb	0.500	< 0.500 - 1.7

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 effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In the case of lead and nitrate, effects on infants and children are health endpoints upon which the standards are based.

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.

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. Jackson Township Municipal Utilities Authority 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Call us at 732-928-2222 to find out how to get your water tested for lead. Testing is essential because you can not see, taste, or smell lead in drinking water.

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