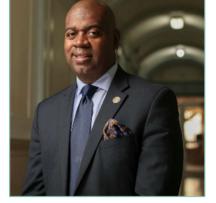
# A message from our Mayor

# OF NEWARK Mayor Ras J. Baraka

### Please, allow me to present to you the City of Newark, NJ 2022 Water Quality Report, developed to communicate the science behind the superb water quality delivered to your tap.

In 2022, we received international attention for our lead-line replacement from media, water industry and elected officials, including Vice President Kamala Harris who came here and called our program "the national model". But while lead-line replacement received the most attention, it is only part of my administration's pledge to deliver the cleanest, best-tasting water possible to our Newark Water & Sewer Utilities customers.

Right now, major infrastructure work is being done throughout our massive water and sewer system. Much of it is maintenance overdue by decades to replace aging water mains, valves, and pipes. We are also continuing to upgrade our Pequannock Water Treatment Plant with new technology to monitor and control our water quality and make chemical adjustments in real time. We are replacing intake and outflow valves which add millions of gallons to our deliverable capacity, while improving all filtration systems including a highly advanced air scouring system to remove microparticles of natural bacteria. A new Dissolved Air Floatation Plant is in the works for 2024 to further purify our water beyond expected new state and federal water quality regulations, and we are constructing a new corrosion control system.



### **Contact Information**

Department of Water & Sewer Utilities 920 Broad St. Room B31-F Newark, NJ 07102 waterandsewer@ci.newark.nj.us (973) 733-6303

These projects and more are detailed in this Consumer Confidence Report, which we distribute each year for customer education and to fulfill our promise of transparency, so our residents and customers can be confident of our commitment to their health through exceptionally clean drinking water.

Sincerely,

Ras J. Baraka, Mayor

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Contacte-nos pelo e-mail <u>waterandsewer@ci.newark.nj.us</u> ou chame para **(973) 733-6303** para obter *uma cóp*ia traduzida da CCR-2022 ou para solicitar assistência no seu idioma.

### Please, share this report with

everyone who utilizes this water (especially people who live in apartments, nursing homes, schools & businesses). This can be done by posting this notice in a public place or distributing copies by hand and mail.

To receive a **translated copy** of this report, additional prints or general assistance in an appropriate language, please call

(973) 733-6303 or email:

waterandsewer@ci.newark.nj.us

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## Source Water

The City of Newark owns the Pequannock Watershed, a 35,000acre natural resource located throughout six individual municipalities.



#### Source Water Protection

Our dedication begins at the source. In 2020, the City of Newark embarked upon an NJDEP-funded project with the goal of **mitigating and controlling harmful algal blooms** (HABs) through **ultrasonic technology**. Since deployment, the City has successfully prevented the emergence of HABs in Echo Lake Reservoir. As a result, the intent is to deploy this technology in other reservoirs throughout Newark's Pequannock Watershed for improved monitoring and control.



#### Source Water Assessments

The water supplied to Newark's residents routinely originates from two adjacent watersheds: Pequannock Watershed & Wanaque Watershed (owned by North Jersey District Water Supply Commission (NJDWSC)). However, due to the various, on-going upgrades being instituted at the Pequannock Water Treatment Plant, the City of Newark also distributed water from Jersey City Water Treatment Plant in 2022. The New Jersey Department of Environmental Protection (NJDEP) has prepared Source Water Assessment reports and summaries for all public water systems. The Source Water Assessment for the Newark system (PWS ID 0714001), NJDWSC system (PWS ID 1613001) and Jersey City MUA (PWS ID 0906001) are tabulated below and can also be obtained by accessing NJDEP's source water assessment website at http://www.nj.gov/dep/watersupply/swap/index.html, or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550 or watersupply@dep.nj.gov.

	Pa	thoge	ens	N	ıtrie	nts	Pe	sticio	les	0	olati organ npou	ic	Inc	organ	ics	Rad	ionuc	lides	J	Rado	n		infec produ	
Surface Water Intakes	н	м	L	н	М	L	н	м	L	н	М	L	н	М	L	н	М	L	н	М	L	н	М	L
Newark - 1	1					1			1			1	1					1			1	1		
NJDWSC-5	5			5				2	3		5		5					5			5	5		
Jersey City – 1	1				1				1		1			1				1			1	1		

H = High; M = Medium; L = Low

# **Potential Sources of Contamination**

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. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Contaminants commonly found in source water include:

### **Organic Chemical Contaminants**

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



### Inorganic Contaminants

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

### Microbial Contaminants

such as viruses and bacteria, which may come from birds and animals, sewage treatment plants, septic systems, agricultural livestock operations, & wildlife

### **Pesticides & Herbicides**

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

### Radioactive Contaminants

which can be naturally occurring or be the result



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

## US EPA Safe Drinking Water Hotline

(1-800-426-4791).

## Water Treatment

The City of Newark's Pequannock Water Treatment Plant utilizes oxidation, coagulation, filtration, and disinfection to produce finished water of an exemplary quality.

Wanaque Watershed water is treated at the Wanaque Water Treatment Plant (WWTP) before entering Newark's distribution system at the Wayne Pump Station.

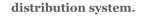


In addition to the main plant (PWTP), the City is in the design phase of building a DAF plant to house an additional, preliminary clarification process. This process will remove suspended matter through the use of

nano-bubbles.



Newark's water is screened to remove large particulates and oxidized to particulate disinfection byproduct precursors, which are then coagulated and filtered out at the Pequannock Water Treatment Plant (PWTP) before being chlorinated for disinfection and entering the



### Filter Upgrades

The media within the PWTP filtration basins are currently being upgraded & replaced with Granular Activated Carbon (GAC), which will mechanically remove particulates while also attracting organic contaminants through adsorption for more effective removal of disinfection byproduct precursors; ultimately decreasing disinfection byproduct formation.

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Residuals Treatment Facility

The construction of the Residuals Treatment Facility (RTF) allows PWTP operators to dewater the residual matter caught by the filters for off-site disposal while also conserving water

through reuse.

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# Distribution & Delivery

The City of Newark's Pequannock system consists of 500 miles of distribution mains and pipeline, which delivers treated water from the Pequannock Water Treatment Plant to your very own address.

### Newark has set the stage for Lead Service Line Replacement

The City of Newark began a program to replace all 23,000 lead service lines in the City in March of 2019 and completed that task less than three years later. This unprecedented infrastructure project has been called the "national model for lead line replacement by Vice President Kamala Harris, safe drinking water industry leaders, and the media.

This was done with the cooperation of our residents and two pieces of legislation that allowed the City to change the lines free of charge to homeowners and to move block by block in an expeditious manner.

The first was a state legislature bill allowing Newark to use public funds on private property, since maintenance, repair and removal of utility service lines are generally the responsibility of the homeowner.

The second was a City ordinance that allowed the City right of entry to private homes to replace lead lines. This was done because 75 percent of Newark residents rent and tracking down landlords to gain entry would have been a time-consuming, if not impossible task.

These two laws, and the waiving of all fees for permits, are blueprints for other municipalities now using federal funds to begin lead line replacement.

### **Corrosion Control**

To inhibit corrosion of metal pipes throughout Newark's distribution system, a corrosion control inhibitor – **Zinc Orthophosphate** – is dosed at our Montclair Re-chlorination Station. This chemical creates a coating on the pipes to prevent lead-leaching. Results achieved through sequential sampling suggest that the addition of orthophosphate began reducing lead levels in Newark's distribution system shortly after being placed in operation in May 2019. Since then, the City has began constructing a permanent orthophosphate system for continued protection.

## **Important Information regarding 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. The City of Newark, NJ – Department of Water & Sewer Utilities 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.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

More information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, (800) 426-4791,or at http://www.epa.gov/lead.

Also, please visit <u>www.newarkleadserviceline.com</u> to get all pertinent information regarding lead sources, health impacts, the steps to be taken to reduce the impact of lead and the efforts put forward by the City of Newark in combating lead exceedances.

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.).

The City strongly encourages residents to let their faucets run for a minimum of 30 seconds prior to use (i.e. showering, washing dishes, etc.). This aids the orthophosphate in coating the pipes.

# Important Information regarding Lead

Newark's City water now falls well below the EPA's allowances of 15 parts per billion (ppb). While removing and replacing all 23,000 lead service lines, the City also introduced a new corrosion control inhibitor called orthophosphate to tamp down residual trace lead amounts in the fixtures and plumbing solder of older homes that contain lead.

Still, some residents may want to continue to use NSF Certified water filters to further reduce lead, like the 40,000 filters distributed to Newark residents by the City in August of 2018 after lead exceedances became apparent. The City also recommends cleaning aerators and filter screens on all faucets every week.

Newark continues to offer free water testing upon request. Please contact the Department of Water & Sewer Utilities at (973) 733-6303 or <u>waterandsewer@ci.newark.nj.us</u> to schedule testing.

To achieve maximum benefits from the filters, flush for a minimum of 5 minutes, after the water has not been used for several hours, prior to filtering.

- Flushing should be done through the bypass, when the switch on the faucet is in the up position.
- Flushing for a minimum of 5 minutes at a moderate flow-rate or more is adequate for most homes to discard the stagnated water in the service line and reach the water in the water main. Homes with a longer yard should flush for 8 minutes at a moderate flow-rate to reach the water from the water main.
- For pitcher filters, flush the faucet for a minimum of 5 minutes prior to filling the top of the pitcher for filtered water.

### Have your child tested for lead by calling (973) 733-5310

The City has initiated a water sample-testing program for homes with lead-related concerns. If you would like to have your water tested, please call (973) 733-6303 or email

#### waterandsewer@ci.newark.nj.us

or call our Distribution Laboratory at (973) 239-4493

## **2022 Detected Primary Parameters**

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

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

Lead	ppb	0	TT; AL = 15	Jan - Jun 4.44	Jul - Dec 4.81	Jun – Sept 2.2	<b>2022</b> 13	No	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 Short term exposure:	Corrosion of household plumbing
Copper	ppm	1.3	TT; AL = 1.3	0.080	0.0858	0.108	0	No	Gastrointestinal distress; Long term exposure: Liver or kidney damage; People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level	systems; erosion of natural deposits

								Corrosion of
Barium	ppm	2	2	0.00644	N/A	0.00654	No	household plumbing systems; erosion of natural deposits

	PER- & POLYFLUOROALKYL SUBSTANCES (PFAS)									
				Newark						
	Unit	MCL	Range	Highest Detected Level	Highest Average	Violation	Likely Source			
PFOA	ppt	14	ND – 2.9	2.9	1.95	No	Discharge from industrial, chemical, and manufacturing factories, release of aqueous film forming foam.			

DISINFECTION by chlorine								
	Unit	Minimum Residual Disinfectant Level	MRDLG	MRDL	Highest Annual Average	Average Range	Source	
PWTP	ppm	0.2	4	4	2.22	0.98 – 1.55	Water additive used to control microbes	

Total Haloacetic Acids (HAA5)		60	22.5 – 56.9	38	No	Increased risk of cancer	
Total Trihalomethanes (TTHM)	ppb	80	28.9 – 79.0	66	No	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	Byproduct of drinking water disinfection

			MCL	
<b>Treatment</b> <b>Technique (TT);</b> 95% of samples must be less than or equal to 0.3 NTU	%	99.99	TT	No
Highest Average Monthly Value	NTU	0.21	N/A	No

Higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites and some bacteria. These organisms can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

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.

### 13

## SECONDARY CONTAMINANTS non-mandatory water quality standards for aesthetic consideration

	TT	SMCL	PWTP Haalth Effects		Course
Unit	Unit	SMCL	Average	Health Effects	Source
Manganese	ppb	50	47.87	The recommended upper limit for manganese is based on the staining of laundry. Manganese is an essential nutrient, and toxicity is not expected from high levels, which would not be encountered in drinking water.	Naturally present in air, soil, & water

	INFRACTIONS									
	Federal Regulation	Date(s) of Infraction	Infraction	What does this mean?	Potential Health Effects	Corrective Actions Taken				
2022	<i>Lead &amp; Copper</i> <i>Rule</i> (LCR)	July 1 – December 31, 2022	Treatment Technique requirements for the corrosion control system were not met	Water Quality Parameter (WQP) results for orthophosphate fell below the established optimal WQP value on 29 separate days	Lead (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 Copper (Short-term exposure) Gastrointestinal distress (Long-term exposure) Liver or kidney damage; People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level	The City has increased its monitoring frequency of the corrosion control inhibitor in the water distribution system to ensure that all adjustments made to the corrosion control inhibitor can be maintained within the optimal WQP range				

### **Explanation of Infraction**

Our water system routinely monitors for lead and copper in the distribution system. The most recent sampling event conducted from July 1, 2022 to December 31, 2022, showed that lead levels were in compliance with the lead action level per the federal regulations. In the case of a lead action level exceedance, all customers will be notified accordingly. However, since corrosion control treatment is used to protect residents from lead and copper potentially leaching from internal pipes and solder, it is important to be aware of the health effects of lead and copper and steps you may take to reduce your exposure.

- Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
- Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal physician.

If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about your drinking water.

# Glossary

<b>Action Level (AL):</b> the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow	<b>Lead &amp; Copper Rule (LCR):</b> a federal treatment technique regulation that requires systems to control the corrosiveness of the water; if more than 10% of tap water samples exceed the action level, water systems must take additional steps. For copper, the action level is 1300 ppb, and for lead is 15 ppb
<b>Contact-time (CT):</b> a measurement of the efficiency of drinking water disinfection for a water system required to inactivate Giardia	<b>Locational Running Annual Average (LRAA):</b> an average calculated using concentrations which are quantified quarterly per sample location, for every calendar year
<b>Disinfection Byproduct:</b> chemical compounds produced as a result of the reaction between a chemical disinfectant (such as chlorine or chloramine) and organic matter, in water, TTHMs & HAAs	Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR): an extension of the SWTR which specifies requirements to address Cryptosporidium and other microbial contaminants in public water systems serving 10,000 people or more
Harmful Algal Bloom: rapid increase in population growth of algae, resulting in minor to severely adverse impacts	<b>Maximum Residual Disinfectant Level (MRDL):</b> The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants
Interim Enhanced Surface Water Treatment Rule (IESWTR): a federal regulation which builds upon the SWTR to address Cryptosporidium and other microbial contaminants in public water systems serving 10,000 people or more	<b>Maximum Residual Disinfectant Level Goal (MRDLG):</b> 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

# Glossary

<b>Maximum Contaminant Level (MCL):</b> 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.	<b>Secondary Maximum Contaminant Level (SMCL):</b> non-mandatory, unenforceable guidelines established to assist water systems in managing their drinking water for aesthetic considerations (i.e. taste, odor, and color)
<b>Maximum Contaminant Level Goal (MCLG):</b> 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.	<b>Sequential Sampling:</b> the process of collecting a series of samples in a row at an interior tap to evaluate water quality from the various portion of the plumbing and service line to the water main (in the street)
<b>Minimum Residual Disinfectant Level:</b> The minimum level of residual disinfectant required at the entry point of the distribution system	Surface Water Treatment Rule (SWTR): a federal regulation established to reduce illnesses caused by pathogens in drinking water, such as Legionella, Giardia lamblia, and Cryptosporidium; requires water systems to filter and disinfect surface water sources
<b>Non-detect (ND):</b> an analytical result found qualified by a laboratory as less than the reporting limit or the lowest quantified level within the operational range of the analytical method	<b>Treatment Technique (TT):</b> a required process intended to reduce the level of a contaminant in drinking water
<b>ppm (parts per million):</b> equivalent to milligrams per liter (mg/L) or 1 part per 1,000,000 parts or two thirds of a gallon in an Olympic sized pool	<b>Turbidity:</b> 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.

### Newark Resources

Previously Issued Water Ouality Reports https://www.newarknj.gov/viewer/water-quality-reports Newark's Lead Service Line Replacement Program (LSLRP and Water Filter & Replacement Cartridges info) https://www.newarkleadserviceline.com/ Newark's Water Supply & Distribution Projects https://waterandsewer.newarknj.gov/projects Newark Water's Resources, Forms & Documents https://waterandsewer.newarknj.gov/resources Additional Resources **US EPA Drinking Water** 

www.epa.gov/safewater · (800) 426-4791

NJDEP Water Supply

www.nj.gov/dep/watersupply  $\cdot$  (609) 292-5550

American Water Works Association

www.awwa.org · www.njawwa.org

### 2023 CALENDAR

Conferences and Meetings of The Newark Municipal Council

#### **RAS I. BARAKA** Mayor

#### MUNICIPAL COUNCIL

Resolution 7R8-a. December 7, 2022. This calendar was issued in December. 2022. Its source of funding is the municipal budget for the Office of the City Clerk.



#### Important Dates

- 2 New Year's Day (Observed)
- 16 Dr. Martin Luther King Jr.'s Birthday (Observed)
- 13 Lincoln's Birthday (Observed) Eab
  - 20 Washington's Birthday (Observed)
- 7 Good Friday Ann
- 29 Memorial Day May

Feb

- 6 Primary Election lune 10 lunateenth lune
- Inde
  - 4 Independence Day 4 Labor Day
- 9 Columbus Day Oct. 7 Election Day Nov.
- 10 Veterans' Day (Observed
- Nov. 14-16 State League Conference
- Nov. 15-18 National League Conference
- Nov. 23-24 Thanksgiving
- Dec 25 Christmas Day

#### \* \* \* \* \*

- ...MUNICIPAL HOLIDAY ....PRE-MEETING CONFERENCE REGULAR MEETING SPECIAL MEETING/CONFERENCE ....PRE-MEETING CONFERENCE **REGULAR MEETING**
- ....OTHER IMPORTANT DATES

All meetings of the Municipal Council are held in the Council Chamber, Second Floor, City Hall, 920 Broad Street. The first regular meeting of each month is held at 12:30 P.M. followed by a Hearing of Citizens. The second regular meeting of each month is held at 6:30 P.M. preceded by a Hearing of Citizens. Pre-meetings, special meetings and conference meetings begin at 10:00 A.M., followed by a thirty (30) minute public speaking session. Action will be taken at all meetings.

> Kecia Daniels Acting City Clerk

920 Broad Street Newark, New Jersey 07102 (973) 733-6363



Department of Water and Sewer Utilities Newark City Hall Room B-31F 920 Broad Street Newark, New Jersey 07102

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Ras J. Baraka Mayor

#### MUNICIPAL COUNCIL

LaMonica R. McIver Council President/Council Member, Central Ward

Patrick O. Council Council Member, South Ward

**C. Lawrence Crump** Council Member-At-Large

**Carlos M. Gonzalez** Council Member-At-Large

**Dupré L. Kelly** Council Member, West Ward

Business Administrator Eric Pennington **Luis A. Quintana** Council Member-At-Large

**Anibal Ramos, Jr.** Council Member, North Ward

Louise Scott-Rountree Council Member-At-Large

Michael J. Silva Council Member, East Ward

Department of Water and Sewer Utilities Director, Kareem Adeem