ANNUAL WATER QUALITY REPORT

Reporting Year 2022

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

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

この情報は重要です。
翻訳を依頼してください。

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

此份有關你的食水報告,
內有重要資料和訊息,請找
他人為你翻譯及解釋清楚。

此份有关你的食水报告,
内有重要资料和讯息,请找
他人为你翻译及解释清楚。

"هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب). ترجم التقرير, أو تكلم مع شخص يستطيع أن يفهم التقرير."

ATLANTIC CITY MUNICIPAL UTILITIES AUTHORITY 1978

Presented By
Atlantic City MUA

If you are a landlord, you must distribute this CCR 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.).

PWS ID#: 0102001

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

Where Does My Water Come From?

ACMUA's water supply system consists of surface and groundwater resources, a water filtration facility that treats raw water from both sources, transmission facilities from the treatment plant to Atlantic City, distribution facilities throughout the city, reservoirs at the surface sources, one standpipe, two elevated storage tanks, and one aquifer storage recharge well in the city. In 2022 the system processed 3.253 billion gallons of water, with a maximum daily demand of 12.997 million gallons per day (mgd) in the month of August and an average daily demand of approximately 8.912 mgd.

ACMUA's water comes from two surface water reservoirs (Kuehnle Pond Dam and Doughty Pond Dam) and 13 wells. Eleven of these wells are located in the Cohansey aquifer, and two are located in the Kirkwood aquifer. Water collected from the well fields is transported to ACMUA's water treatment plant. The treatment process includes pretreatment with a sodium hypochlorite solution for disinfection and polyaluminum chloride added for turbidity removal, followed by aeration, mixing, settling, and filtration with mixed media including sand, gravel, and granular activated carbon. Post-treatment includes disinfection, pH adjustment with lime, and addition of a corrosion inhibitor chemical. After the water is treated at the plant, it is transported to Atlantic City via two large transmission mains to be used by all our customers.

Community Participation

The Atlantic City Municipal Utilities Authority (ACMUA) Board of Directors meets every third Wednesday of the month at 10:00 a.m. in the first-floor conference room at our offices located at 401 North Virginia Avenue.

Think Before You Flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of our waterways by disposing responsibly. To find a convenient drop-off location near you, please visit https://bit.ly/3IeRyXy.

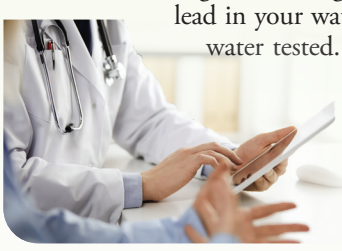
Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an aeration tank, which allows for oxidation of high iron levels. It then goes to a mixing tank where polyaluminum chloride and soda ash are added. The addition of these substances causes small particles, called floc, to adhere to one another, making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, soda ash (to adjust the final pH and alkalinity), and a corrosion inhibitor (to protect distribution system pipes) are added before the water is pumped to sanitized underground reservoirs and water towers and into your home or business.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.



QUESTIONS? If you have any health concerns relating to the information provided in this report, we encourage you to contact your health care provider. For more information about the contents of this report or for any questions relating to your drinking water, please contact Lawrence Goldsmith or Ed Jones at (609) 641-0024, ext. 323.

Source Water Assessment

The New Jersey Department of Environmental Protection (NJDEP) has prepared Source Water Assessment Reports and Summaries for all public water systems. The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table shows the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. NJDEP has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available 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.

Contaminant Susceptibility Rating Totals For Each Rating

CONTAMINANT CATEGORY	SUSCEPTIBILITY RATING	TOTALS FOR EACH RATING: 17 WELLS	TOTALS FOR EACH RATING: 1 SURFACE WATER INTAKE
Pathogens	H		1
	M	13	
	L	4	
Nutrients	H		
	M	12	1
	L	5	
Pesticides	H		
	M		
	L	17	1
VOCs	H	10	
	M		1
	L	7	
Inorganics	H	3	
	M	9	1
	L	5	
Radionuclides	H	1	
	M	13	
	L	3	1
Radon	H		
	M	14	
	L	3	1
DBPs	H	14	1
	M	3	
	L		

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

Monitoring and Reporting Violations

ACMUA received a noncompliance notice (#2022-3265, 2022-3266, & 2022-3267) on July 19, 2022, for not monitoring chlorine in the distribution system in April, May, and June 2022. The samples were collected as required, however, due to a lab error, the results were submitted late. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA returned to compliance as of April 15, 2022, May 15, 2022, and June 15, 2022, respectively).

ACMUA received a noncompliance notice (#2022-3268) on August 22, 2022, for not collecting the required Lead and Copper Rule water quality parameter for orthophosphate samples in the distribution system from January 1 through June 30, 2022. The samples were collected as required; however, the results were submitted late. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA returned to compliance as of May 6, 2022.

ACMUA received a noncompliance notice (#2023-9816) on May 3, 2023, for not monitoring iron and manganese from the distribution system for the period of 01/01/2022 to 12/31/2022. The samples were collected as required, however due to lab error the sample results were submitted late. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA returned to compliance as of June 5, 2023.

> **"Thousands have lived without love, not one without water."**
>
> *–W.H. Auden*

ACMUA received a noncompliance notice (#2023-9649) on April 19, 2023, for not monitoring Stage 2 TTHM-HAA5 samples from the distribution system for the period of 01/01/2023 to 03/31/2023. The samples were collected as required, however due to lab error the sample results were submitted late. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA returned to compliance as of January 6, 2023.

The USEPA conducted a sanitary survey of the Atlantic City MUA in August 2022 and identified the following deficiencies that require the following public notifications:

ACMUA failed to include the average and range of detected unregulated UCMR4 contaminants in the 2020 CCR. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA complied with the notice by adding the average and range of the detected unregulated contaminants to the 2022 CCR.

ACMUA failed to report to NJDEP the accurate number and percentage of filtered water turbidity measurements ≤ 0.3 NTU, in the months of January 2021, March 2021, and February 2022. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA complied with the notice on March 20, 2023, by submitting the revised turbidity calculations for the previously mentioned months.

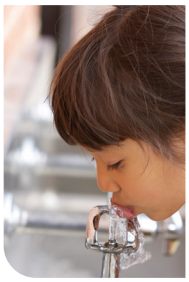
ACMUA did not provide evidence that the thermometer located at the high lift lab sink is being calibrated against a certified NIST thermometer. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA complied with the notice by purchasing new NIST certified reference thermometer, developing a Standard Operating Procedure (SOP) that includes recording the dates when the thermometer is calibrated.

ACMUA recorded Individual Filter Effuent (IFE) measurements within a range of 0 – 2.0 NTU and therefore failed to assess compliance with the Surface Water Treatment Rule (SWTR). At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA complied with the notice by resetting all IFE turbidimeters to record turbidity data between 0 – 2.5 NTU.

ACMUA failed to provide a sampling plan for the monitoring and control of disinfection byproducts precursors (Total Organic Carbon or TOC). At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. ACMUA complied with the notice on February 9, 2023 submitting a monitoring plan for Stage 1 and Stage 2 DBP rules.

ACMUA failed to demonstrate compliance N.J.A.C. 7:10-11.7(j) due to wells that appeared to be abandoned and not properly sealed (7, 8, 9, 10, 11, and 24). At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers as each of the wells has either been disconnected from the system or valves have been isolated. ACMUA will submit an action plan to EPA and NJDEP for review and approval that will include interim measures for the protection of public health and underground sources of drinking water while final determinations on the operational usage of the wells are made.

What's Your Water Footprint?



You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business.

For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef. According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking.

The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish. To check out your own water footprint, go to www.watercalculator.org.

Water Conservation Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

Call us at (609) 641-0024 to find out how to get your water tested for lead. Testing is essential because you cannot see, taste, or smell lead in drinking water.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample collected.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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.

REGULATED SUBSTANCES [1]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
1,2-Dibromo-3-Chloropropane (ppb)	2022	0.02	NA	<0.01	NA	No	Human-made compounds used for a variety of industrial and agricultural purposes
Arsenic (ppb)	2022	5	0	<0.001	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2022	2	2	0.0527	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	2022	4	4	<0.0003	NA	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	2022	5	5	<0.001	NA	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chlorine (ppm)	2022	[4]	[4]	0.96	0.67–1.83	No	Water additive used to control microbes
Chromium (ppb)	2022	100	100	<0.004	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Ethylene Dibromide (ppt)	2022	50	0	<0.01	NA	No	Discharge from petroleum refineries
Fluoride (ppm)	2022	4	4	0.47	0.437–0.512	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2022	60	NA	1.1225	ND–7.7	No	By-product of drinking water disinfection
Nickel (ppb)	2022	100	NA	0.00374	NA	No	Pollution from mining and refining operations; Natural occurrence in soil
Perfluorononanoic Acid [PFNA] (ppt)	2022	13	NA	<2	NA	No	Discharge from industrial chemical factories
Perfluorooctanesulfonic Acid [PFOS] (ppt)	2022	13	NA	<2	NA	No	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives, and photographic films
Perfluorooctanoic Acid [PFOA] (ppt)	2022	14	NA	<2	NA	No	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives, and photographic films
Selenium (ppb)	2022	50	50	<0.003	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2022	80	NA	8.855	1.22–36.8	No	By-product of drinking water disinfection
Turbidity (NTU)	2022	TT[2]	NA	0.36	0.01–0.36	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2022	TT = 95% of samples meet the limit	NA	99	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2020	1.3	1.3	0.093	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2020	15	0	ND	0/30	No	Lead service lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	RUL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Sodium (ppm)	2022	50	NA	8.88	NA	No	Naturally occurring

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
1,2,3-Trichloropropane (ppb)	2022	<0.01	NA	Human-made compounds used for a variety of industrial and agricultural purposes
Bromochloroacetic Acid (ppb)	2020	1.85	1.1–2.4	By-product of drinking water disinfection
Bromodichloroacetic Acid (ppb)	2020	1.95	1.4–2.9	By-product of drinking water disinfection
Chlorodibromoacetic Acid (ppb)	2020	0.57	0.52–0.074	By-product of drinking water disinfection
Dibromoacetic Acid (ppb)	2020	0.75	0.44–0.095	By-product of drinking water disinfection
Manganese (ppb)	2020	6.75	4.9–8.6	Naturally occurring
Monobromoacetic Acid (ppb)	2020	ND	NA	By-product of drinking water disinfection
Monochloroacetic Acid (ppb)	2020	ND	NA	By-product of drinking water disinfection
Tribromoacetic Acid (ppb)	2020	ND	NA	By-product of drinking water disinfection
Trichloroacetic Acid (ppb)	2020	4.63	2.9–8.6	By-product of drinking water disinfection

[1] Under a waiver granted on December 30, 1998, by NJDEP, our system does not have to monitor for synthetic organic chemicals or pesticides because several years of testing have indicated that these substances do not occur in our source water. 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 received monitoring waivers for synthetic organic chemicals and asbestos.

[2] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU (no sample may exceed 1 NTU).

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

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

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

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

RUL (Recommended Upper Limit): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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

Turbidity: The measure of the cloudiness of the water.