

ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2018



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।
कृपया कारके 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 and 讯息，请找
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Presented By
**Atlantic City Municipal
Utilities Authority**

Our Mission Continues

Once again, the Atlantic City Municipal Utilities Authority (ACMUA) is pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. 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.

We encourage our customers to share their thoughts or concerns with us on the information contained in this report. Please remember that we are always available should you ever have any questions or concerns about your water.

Community Water Fluoridation

The safety and benefits of fluoride are well documented. For over 70 years, U.S. citizens have benefited from drinking water containing fluoride, leading to better dental health. Drinking fluoridated water keeps the teeth strong and has reduced tooth decay by approximately 25 percent in children and adults.

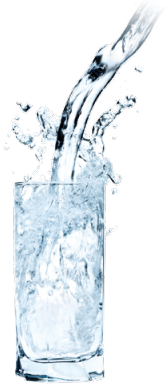
Over the past several decades, there have been major improvements in oral health. Still, tooth decay remains one of the most common chronic diseases of childhood. Community water fluoridation has been identified as the most cost-effective method of delivering fluoride to all members of the community, regardless of age, educational attainment, or income level.

Nearly all water contains some fluoride, but usually not enough to help prevent tooth decay or cavities. Public water systems can add the right amount of fluoride to the local drinking water to prevent tooth decay.

Community water fluoridation is recommended by nearly all public health, medical, and dental organizations in the U.S. Because of its contribution to the dramatic decline in tooth decay, the Centers for Disease Control and Prevention (CDC) named community water fluoridation one of the greatest public health achievements of the 20th century. (Courtesy of CDC: cdc.gov/fluoridation)

Protecting Your Water

Bacteria are a natural and important part of our world. There are around 40 trillion bacteria living in each of us; without them, we would not be able to live healthy lives. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern, however, because it indicates that the water may be contaminated with other organisms that can cause disease.

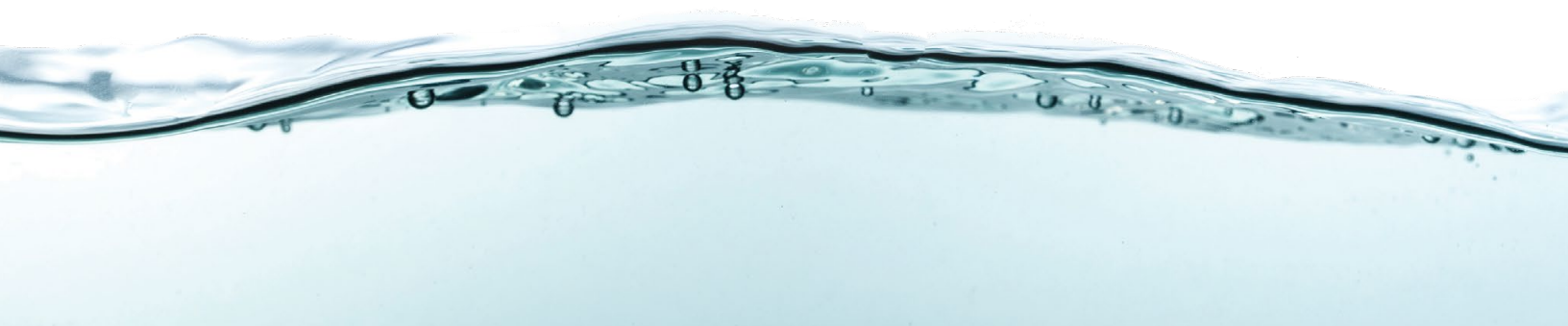


In 2016 the U.S. EPA passed a new regulation called the Revised Total Coliform Rule, which requires additional steps that water systems must take in order to ensure the integrity of the drinking water distribution system by monitoring for the presence of bacteria like total coliform and *E. coli*. The rule requires more stringent standards than the previous regulation, and it requires water systems that may be vulnerable to contamination to have procedures in place that will minimize the incidence of contamination. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment of their system and correct any problems quickly. The U.S. EPA anticipates greater public health protection under the new regulation due to its more preventive approach to identifying and fixing problems that may affect public health.

Though we have been fortunate to have the highest-quality drinking water, our goal is to eliminate all potential pathways of contamination into our distribution system, and this new rule helps us to accomplish that goal.

Community Participation

The Atlantic City Municipal Utilities Authority 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 N. Virginia Avenue, Atlantic City, New Jersey.



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 contaminants does not necessarily indicate that 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.

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.

CONTAMINANT CATEGORY	SUSCEPTIBILITY RATING	TOTALS FOR EACH RATING	
		17 WELLS	1 SURFACE WATER INTAKE
Pathogens	H		1
	M	13	
	L	4	
Nutrients	H		
	M	12	1
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		

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 Anthony Palombi at (609) 641-0024, ext. 323.

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.

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 was taken.

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
Arsenic (ppb)	2018	5	0	<0.00035	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2018	2	2	0.0572	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	2018	4	4	<0.000046	NA	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	2018	5	5	<0.000052	NA	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chlorine (ppm)	2018	[4]	[4]	0.82	0.42–1.70	No	Water additive used to control microbes
Fluoride (ppm)	2018	4	4	0.73	ND–2.21	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nickel (ppb)	2018	100	NA	<0.0040	NA	No	Pollution from mining and refining operations; Occurs naturally in soil
Selenium (ppb)	2018	50	50	<0.00076	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Turbidity (NTU)	2018	TT	NA	1.71	0.02–1.71	Yes	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2018	TT = 95% of samples meet the limit	NA	99.6	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)	2017	1.3	1.3	0.312	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2017	15	0	ND	1/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine [Distribution] (ppm)	2018	4	4	0.69	0.20–1.02	No	Water additive used to control microbes
Haloacetic Acids [ACMUA Office] (ppb)	2018	60	NA	7.4	4.2–9.1	No	By-product of drinking water disinfection
Haloacetic Acids [Bella Condominium] (ppb)	2018	60	NA	5.83	1.1–10.0	No	By-product of drinking water disinfection
Haloacetic Acids [Jefferies Towers] (ppb)	2018	60	NA	6.23	ND–12.2	No	By-product of drinking water disinfection
Haloacetic Acids [Southern Cafe] (ppb)	2018	60	NA	6.48	2.5–11.2	No	By-product of drinking water disinfection
TTHMs [ACMUA Office] (ppb)	2018	80	NA	52.75	35.0–66.0	No	By-product of drinking water disinfection
TTHMs [Bella Condominium] (ppb)	2018	80	NA	42.5	23.0–92.0	No	By-product of drinking water disinfection
TTHMs [Jefferies Towers] (ppb)	2018	80	NA	43.25	22.0–64.0	No	By-product of drinking water disinfection
TTHMs [Southern Cafe] (ppb)	2018	80	NA	46.5	25.0–73.0	No	By-product of drinking water disinfection

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	RUL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Sodium (ppm)	2018	50	NA	0.0137	NA	No	Naturally occurring

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chromium (ppb)	2018	<0.0033	NA	Discharge from steel and pulp mills; Erosion of natural deposits

¹Under a waiver granted on December 30, 1998, by the State of New Jersey Department of Environmental Protection, 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 SDWA 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.

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.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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).

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.

Violation Information

This violation/exceedance occurred and ended on Saturday, November 3, 2018. ACMUA experienced a turbidity issue when the decant valve for our clarifier malfunctioned and failed in a fully open position, allowing a large volume of water back to the head of the treatment train. This caused a strain on our pretreatment processes. The issue was resolved by taking the valve out of service. ACMUA continues to constantly monitor our system valves.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

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 (ASR) well in the city. In 2018 the system processed 3.367 billion gallons of water for the year, with a maximum daily demand of 12.6880 million gallons per day (mgd) in the month of August and an average daily demand of approximately 9.2155 mgd.

ACMUA 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. Well water collected from the well fields is transported to ACMUA's water treatment plant facility. The treatment process includes pretreatment with sodium hypochlorite solution for disinfection, poly aluminum chloride addition for turbidity removal, aeration, mixing, settling, and filtration with mixed media including sand, gravel, and granular activated carbon. Post-treatment includes disinfection, pH adjustment with lime, fluoride addition, and corrosion inhibitor chemical addition. After the treatment process is completed, the potable water produced is conveyed to the Atlantic City distribution system via two large transmission mains to be used by all our customers.

We remain vigilant in delivering the best-quality drinking water

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. ACMUA is 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

