

City of Camden PWS ID: NJ0408001





**WE KEEP LIFE FLOWING™** 

## A message from Contract Service Group's American Water's President

American Water's Contract Service Group provides water and wastewater management solutions for municipal and industrial clients. The Contract services Group is part of American Water Enterprises, a market-based subsidiary of American Water. As a part of the nation's largest and most geographically diverse publicly traded U.S. water and wastewater utility company, American Water is uniquely qualified to operate and maintain this system. Our Company's Vision – "We Keep Life Flowing" drives everything we do for you, our customers. To reinforce our vision and maintain your trust, it's important that we share with you information about our commitment to providing high-quality water service.

I am pleased to provide you with the 2020 Annual Water Quality Report with detailed information about the source and quality of your drinking water. We have prepared this report using the data from water quality testing conducted for your local water system from January through December 2020.

With equal importance, we place a strong focus on acting as stewards of our environment. In all the communities we serve, we work closely with the local directorates of public works, civil engineering squadrons, local environmental departments and state regulatory agencies to protect environmental quality, educate customers on how to use water wisely, and ensure the high quality of your drinking water every day.

At American Water, our values – safety, trust, environmental leadership, teamwork, and high performance – mean more than simply making water available "on-demand". It means every employee working to deliver a key resource for public health, fire protection, the economy and the overall quality of life we enjoy – We Keep Life Flowing. For more information or for additional copies of this report, visit us online at www.amwater.com.

Stephen Curtis, President Contract Service Group American Water This report contains important information about your drinking water. If you do not understand it, please have someone explain or translate it for you.

Este informe contiene información muy importante sobre su agua potable. Si no lo comprende, favor acudir a alguien que se lo pueda traducir o explicar.



## ATTENTION: Landlords and Apartment Owners

Please share a copy of this notice with your tenants. It includes important information about their drinking water quality.



Once again, we proudly present our Annual Water Quality Report, also referred to as a Consumer Confidence Report (CCR). CCRs let consumers know what contaminants, if any, were detected in their drinking water as well as related potential health effects. CCRs also include details about where your water comes from and how it is treated. Additionally, they educate customers on what it takes to deliver safe drinking water and highlight the need to protect drinking water sources.

The Contract Service Group of American Water is committed to delivering high quality drinking water service. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, environmental compliance, sustainability and community education while continuing to serve the needs of all our water users.

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# WHERE YOUR WATER COMES FROM

The City of Camden Division of Utilities owns a public community water system consisting of eighteen (18) wells that draw raw water from the Lower Potomac-Raritan-Magothy (PRM) Aquifer. The Division of Utilities also has three (3) emergency interconnections:

- New Jersey American Water Company
- Gloucester City Water Department
- Merchantville-Pennsauken Water Commission

The New Jersey American Water Company Interconnect was utilized in 2020 due to the need of additional water supply in the summer months while additional City of Camden Division of Utilities wells were taken out of service due to elevated PFC levels.

**Disinfection treatment:** Groundwater supplies are disinfected at both of Camden's treatment plants with chlorine to maintain water quality in the distribution system.

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate certain monitoring requirements. The City of Camden's Division of Utilities has received monitoring waivers from the regulatory agencies for:

- Asbestos
- Synthetic Organic Chemicals



## QUICK FACTS ABOUT THE City of Camden's Water SYSTEM

#### **Communities served:**

All City residents west of the Cooper River. Excluding only East Camden and Cramer Hill residents.

#### Water source:

Fifteen (15) groundwater wells at the Morris-Delair Water Treatment Plant and two (2) wells at the Parkside Water Treatment Plant.

Average amount of water supplied to customers on a daily basis: 7.04 million gallons per day



## Protecting Your Drinking Water Supply

Protecting drinking water at its source is an important part of the process to treat and deliver high quality water. It takes a community effort to protect our shared water resources. This includes utilities, businesses, residents, government agencies and organizations. Everyone who lives, works, and plays in the area has a role and stake in clean water supplies.

#### WHAT CAN YOU DO?

Quality drinking water starts upstream. Everyone can help maintain and improve drinking water supplies through the following actions:

- Properly dispose of pharmaceuticals, household chemicals, oils and paints.
   Materials can impact water ways if poured down the drain, flushed down the toilet, or dumped on the ground.
- Check for leaks from automobiles and heating fuel tanks. Clean up any spills using an absorbent material like cat litter. Sweep up the material and put it in a sealed bag in the trash.
- Clean up after your pets and limit the use of fertilizers and pesticides.
- · Take part in watershed activities.

Report any spills, illegal dumping or suspicious activity to NJ Department of Environmental Protection-Bureau of Safe Drinking Water (609) 292-5550 www.stat.nj.us/dep

#### FOR MORE INFORMATION

To learn more about your water supply and local activities, visit us online at <a href="https://www.amwater.com">www.amwater.com</a>, contact the Director of Public Works, contact the Division of Utilities directly or attend a Camden City Council meeting which take place on the second Tuesday of each month.

## WHAT ARE WE DOING?

Our priority is to provide reliable, quality drinking water service for customers. The source of supply is an important part of that mission. We work to understand and reduce potential risks to your drinking water supply. The NJDEP has developed a Source Water Assessment Plan (SWAP) to study existing and potential threats to the quality of public drinking water sources throughout the state. Sources are rated depending upon their contaminant susceptibility. Source Water Assessment Reports and Summaries are available for public water systems at http://www.nj.gov/dep/watersupply/swap/index.html Or by contacting the NJDEP's Bureau of Safe Drinking Water at (609) 292-5550 or watersupply@dep.nj.gov

## How to contact us

Thank you...for allowing us to continue to provide you with quality drinking water this year. We ask that all our customers protect the water sources. If you have questions, please call the Division of Utilities (operated by American Water Contract Services) at 856-635-1496 or you can stop at the office at: American Water Contract Services

Camden Operations Center

100 South 17<sup>th</sup> Street

Camden, NJ 08105



## SPECIAL HEALTH INFORMATION

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/Centers for Disease Control and Prevention (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 (800-426-4791).

## What are the **Sources of Contaminants**?

To provide tap water that is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, aquifers and/or groundwater. 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 may result from urban storm water 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 by-products of industrial processes and petroleum production, and may also, come from gas stations, urban storm water runoff, and septic systems.
Radioactive Contaminants	which can be naturally occurring or may be the result of oil and gas production and mining activities.

# Protecting Your Water Sources

#### WHAT IS S.W.A.P.

The Source Water Assessment Program (SWAP) is a program of the New Jersey Department of Environmental Protection (NJDEP) to study existing and potential threats to the quality of public drinking water sources throughout the state. Sources are rated depending upon their contaminant susceptibility.

## **SUSCEPTIBILITY RATINGS FOR City of Camden System**

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) 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. Source Water Assessment Reports and Summaries 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 CATEGORIES**

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 the SWAP, 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 a low rating was assigned.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

As a result of the assessments, the NJDEP may customize (change existing)

monitoring schedules based on the susceptibility ratings.

Source water protection is a long-term dedication to clean and safe drinking water. It is more cost effective to prevent contamination than to address contamination after the fact. Every member of the community plays an important role in source water protection. The NJDEP recommends controlling activities and development around drinking water sources, whether it is through land acquisition, conservation easements or hazardous waste collection programs. We will continue to keep you informed of SWAP's progress and developments.

#### SUSCEPTIBILITY CHART DEFINITIONS

- Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human 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: 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 and 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 manmade. Examples include arsenic, asbestos, copper, lead, and nitrate.
- Radionuclides: Radioactive substances that are both naturally occurring and manmade. 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 By-product Precursors: A common source is naturally occurring
  organic matter in surface water. Disinfection by-products are formed when the
  disinfectants (usually chlorine) used to kill pathogens react with dissolved organic
  material (for example leaves) present in surface water.

## **Protecting Your Water Sources**

Sources	١	Pathoge	ns	١	Nutrients	3	I	Pesticio	des		latile Or Compou		lr	norganic	s	Rad	ionuclid	es		Radon		В	sinfection yproduct recursors	t
	Н	M	L	н	M	L	Н	M	L	н	M	L	Н	М	L	н	M	L	н	M	L	н	M	L
Morris North Well Field (4)		4		2	2				4	3		1	4				4			2	2		4	
Morris South Well Field (10)		7	3		9	1			10	3		7	8	2			10			10			10	
Delair Well Field (2))		3			3				3	3			3				3			3			3	
Parkside Well Field (2)			2		2				2	2			2			2					2	2		

#### **Violations**

Tier 1	Any time a situation occurs where there is the potential for human health to be immediately impacted, water suppliers have 24 hours to notify people who may drink the water about the situation.
Tier 2	Any time a water system provides water with levels of a contaminant that exceed EPA or state standards or that hasn't been treated properly, but that doesn't pose an immediate risk to human health, the water system must notify its customers as soon as possible, but within 30 days of the violation.
Tier 3	When water systems violate a drinking water standard that does not have a direct impact on human health (for example, failing to take a required sample on time) the water supplier has up to a year to provide a notice of this situation to its customers.

#### Third Quarter Volatile Organic Compounds (VOC) Monitoring, Routine (Naphthalene)

A Tier 3 Notice of Violation (NOV) was issued for failure of our Contract Lab to upload and submit the test results for the contaminant of Naphthalene at both Morris-Delair and Parkside Water Treatment Plants in a timely fashion to New Jersey Department of Environmental Protection (NJDEP).

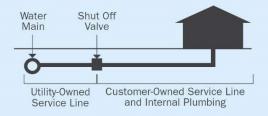
#### Corrective Actions Taken

- American Water Contract Services contacted the third-party laboratory to determine the root cause of the failure. American Water Contract Services expressed its concerns regarding their failure to submit the results on time to the NJDEP. The samples were analyzed for the contaminant of Naphthalene, but the third-party laboratory mistakenly omitted the uploading due to a switch in reporting software. The third-party laboratory proceeded to make the required upload.
- American Water Contract Services has placed extra managerial controls (oversight) into the timely submission of the sample results.

## About **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. American Water 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, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/ safewater/lead.

## UTILITY-OWNED VS. CUSTOMER-OWNED PORTION OF THE SERVICE LINE



Please note: This diagram is a generic representation. Variations may apply.

## The most common source of lead in tap water is from the customer's plumbing and their service line.

Our water mains are not made of lead; however, the water service line that carries the water from the water main in the street to your home could be. Homeowners' service lines may be made of lead, copper, galvanized steel or plastic. You can assess your service line material where it enters your home, typically in your basement, crawl space or garage, near the inlet valve.

#### **MINIMIZING YOUR POTENTIAL EXPOSURE**

You cannot see, smell or taste lead, and boiling water will not remove lead. Here are steps you can take to reduce your potential exposure if lead exists in your home plumbing.

#### CHECK YOUR PLUMBING AND SERVICE LINE

If you live in an older home, consider having a licensed plumber check your plumbing for lead. If your service line is made of lead, and you're planning to replace it, be sure to contact us at 1-855-769-3164.



1. Flush your taps. The longer the water lies dormant in your home's plumbing, the more lead it might contain. If the water in your faucet has gone unused for more than six hours, flush the tap with cold water for 30 seconds to two minutes before drinking or using it to cook. To conserve water, catch the running water and use it to water your plants.



2. Use cold water for drinking and cooking. Hot water has the potential to contain more lead than cold water. If hot water is needed for cooking, heat cold water on the stove or in the microwave.



3. Routinely remove and clean all faucet aerators.



Look for the "Lead Free" label when replacing or installing plumbing fixtures.



5. Follow manufacturer's instructions for replacing water filters in household appliances, such as refrigerators and ice makers, as well as home water treatment units and pitchers. Look for NSF 53 certified filters.



6. Flush after plumbing changes. Changes to your service line, meter, or interior plumbing may result in sediment, possibly containing lead, in your water supply. Remove the strainers from each faucet and run the water for 3 to 5 minutes.



## UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

The EPA created the Unregulated Contaminants Monitoring Rule (UCMR) to assist them in determining the occurrence of unregulated contaminants in drinking water and whether new regulations are warranted. The first Unregulated Contaminants Monitoring Rule (UCMR1) testing was completed in 2003 for a list of contaminants specified by the EPA. Unregulated contaminants are those for which the EPA has not established drinking water standards. UCMR2 testing was conducted between November 2008 and August 2009, and UCMR3 assessment monitoring was conducted between January 2013 and December 2016. The fourth list of contaminants to monitor as part of the UCMR was published by the EPA in December 2016. UCMR4 testing began in 2018 and will continue until 2020. The results from the UCMR monitoring are reported directly to the EPA. The results of this monitoring are incorporated in the data tables in this report as appropriate. For more information, contact EPA's Safe Drinking Water Hotline at 1-800-426-4791 or visit

http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr4

## **PFAS Monitoring**

Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA) and perfluorooctanesulfonic acid (PFOS) are fluorinated organic chemicals that are part of a larger group of chemicals referred to as per- and poly-fluoroalkyl substances (PFASs). PFOS and PFOA have been extensively produced and studied in the United States. They have been used in consumer products such as carpets, clothing, fabrics for furniture, paper packaging for food, and other materials (e.g., cookware) designed to be waterproof, stain-resistant or non-stick. In addition, they have been used in fire-retarding foam and various industrial processes.

Exposure to PFOA, PFNA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), thyroid effects and other effects (e.g., cholesterol changes). While people are exposed to PFOS, PFNA and PFOA largely through food, food packaging, consumer products, and house dust, the exposure through drinking water has become an increasing concern due to the tendency of PFASs to accumulate in groundwater. In 2020, New Jersey DEP established Notification Levels (NLs) at 13 ppt for PFOS, 13 ppt for PFNA and 14 ppt for PFOA in drinking water.

American Water CSG conducted voluntary PFOA, PFNA & PFOS monitoring in the source waters and effluent waters of the City of Camden's water system in 2020. PFOA , PFNA and PFOS were detected in the water above the detection limits for the testing in certain wells and those wells were removed from service.

This is one of the most rapidly changing landscapes in drinking water contamination. We have invested time and effort on our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence, fate and transport in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critical for addressing this issue.

**Lauren Weinrich** 

Principal Scientist, Water Research and Development



# WATER QUALITY STATEMENT

We are pleased to report that during calendar year 2020, the results of testing of your drinking water complied with all state and federal drinking water requirements.

For your information, we have compiled a list in the tables below showing the testing of your drinking water during 2020. The New Jersey department of Environmental Protection (NJDEP) allows us to monitor for some contaminants less than once per year because the concentration of the contaminants does not change frequently. Some of our data, though representative, are more than one year old.

## Definitions of Terms Used in This Report

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

**LRAA:** Locational Running Annual Average

#### Maximum Contaminant Level (MCL):

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. Secondary MCLs (SMCL) are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): 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.

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

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

MFL: Million fibers per liter.

micromhos per centimeter (µmhos/

**cm):** A measure of electrical conductance.

NA: Not applicable

N/A: No data available

ND: Not detected

Nephelometric Turbidity Units (NTU):

Measurement of the clarity, or turbidity, of the water.

**pH:** A measurement of acidity, 7.0 being neutral.

## picocuries per liter (pCi/L):

Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

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

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

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

**Primary Drinking Water Standard** (**PDWS**): MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

RAA: Running Annual Average

**Secondary Maximum Contaminant Level (SMCL):** Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

TON: Threshold Odor Number

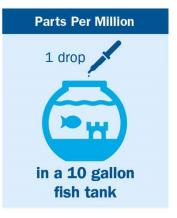
**Total Dissolved Solids (TDS):** An overall indicator of the amount of minerals in water.

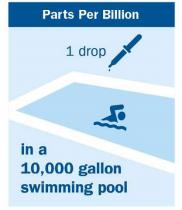
**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

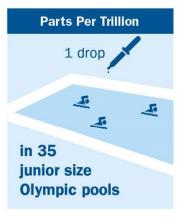
**Variances and Exemptions:** State or EPA permission not to meet an MCL or utilize a treatment technique under certain conditions.

%: Percent

#### **MEASUREMENTS**







American Water Contract Service Group – Camden conducts extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2020, certain substances are monitored less than once per year because the levels do not change frequently. Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information. For help with interpreting the tables below, see the "Definition of Terms Used in This Report" on the previous page.

#### **HOW TO READ THIS TABLE (FROM LEFT TO RIGHT)**

- · Starting with Substance (with units), read across.
- Year Sampled is usually in 2020, but may be a prior year.
- A Yes under Compliance Achieved means the amount of the substance met government requirements.
- MCLG/MRDLG is the goal level for that substance (this may be lower than what is allowed).
- MCL/MRDL/TT/Action Level shows the highest level of substance (contaminant) allowed.
- Highest, Lowest or Average Compliance Result represents the measured amount detected.
- Range tells the highest and lowest amounts measured.

Were negative.

• Typical Source tells where the substance usually originates. .

NOTE: Regulated contaminants not listed in this table were not found in the treated water supply.

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/Centers for Disease Control and Prevention (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 (800-426-4791)

## **PRIMARY REGULATED SUBSTANCES**

	TOTAL COLIFORM RULE - At least 50 samples collected each month in the distribution system													
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Percentage OR Highest No. of Samples									
Total Coliform	2020	Yes	NA	*MCL = Less than 5% OR MCL = No more than 1 positive monthly sample	9*	Naturally present in the environment.								
E. Coli	2020	Yes	0	TT = No confirmed samples	1	Human and animal fecal waste.								

NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator of the general bacteriological quality of the water. We are reporting the highest percentage of positive samples / highest number of positive samples in any month. \* A Level 1 Assessment was performed for the positive coliform event in April. There were no sanitary defects to be found during the assessment that was completed in accordance with the EPA RTCR Assessments and Corrective Actions Guidance Manual. All repeat samples and upstream/downstream check samples

	DISINFECTANTS - Collected in the Distribution System & At the Treatment Plants Point of Entry												
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source						
Chlorine Residual (ppm) (Distribution System)	2020	Yes	MRDLG = 4	4.0	1.56 <sup>1</sup>	0.30 to 2.50	Water additive used to control microbes.						
Chlorine Residual (ppm) (Point of Entry)	2020	Yes	MRDLG = 4	4.0	3.80 <sup>2</sup>	0.58 to 3.80	Water additive used to control microbes.						

- 1 Data represents the highest monthly average of chlorine residuals measured throughout our distribution system.
- 2 Data represents the highest residual entering the distribution system from our water treatment plants.

## LEAD AND COPPER MONITORING PROGRAM - At least 30 tap water samples collected at customers' taps every three (3) years

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	No. of Homes Sampled	Homes Above Action Level	Typical Source
Lead	2018	Yes	0	15	3.3	30	1	Corrosion of household plumbing systems.
Copper (ppm)	2018	Yes	1,300	1,300	27.9	30	0	Corrosion of household plumbing systems.

## DISINFECTION BYPRODUCTS – Total Trihalomethanes (TTHM's) - Collected in the Distribution System

Sample Locations	Year Sampled	Units	Compliance Achieved	MCLG	MCL	Locational Running Annual Average (LRRA)	Range Detected	Typical Source
DBP2-1	2020	ppb	Yes	NA	80	36	1.37 to 36	By-product of drinking water disinfection.
DBP2-2	2020	ppb	Yes	NA	80	34.87	1.38 to 54	By-product of drinking water disinfection.
DBP2-3	2020	ppb	Yes	NA	80	46.90	1.31 to 95	By-product of drinking water disinfection.
DBP2-4	2020	ppb	Yes	NA	80	40.98	1.4 to 57	By-product of drinking water disinfection.

NOTE: Compliance is based on the running annual average at each location. The range detected reflects all sample results from the year 2020, which are used to calculate the Locational Running Annual Average.

## **DISINFECTION BYPRODUCTS - Haloacetic Acids (HAA5's) - Collected in the Distribution System**

Sample Locations	Year Sampled	Units	Compliance Achieved	MCLG	MCL	Locational Running Annual Average (LRAA)	Range Detected	Typical Source
DBP2-1	2020	ppb	Yes	NA	60	10.38	8 to 12.5	By-product of drinking water disinfection.
DBP2-2	2020	ppb	Yes	NA	60	10.75	7.2 to 12.0	By-product of drinking water disinfection.
DBP2-3	2020	ppb	Yes	NA	60	11.13	9 to 15	By-product of drinking water disinfection.
DBP2-4	2020	ppb	Yes	NA	60	13.43	9.0 to 17	By-product of drinking water disinfection.

NOTE: Compliance is based on the Locational Running Annual Average at each location. The Range Detected reflects all samples from the year 2020 which are used to calculate the Locational Running Annual Average.

	REGULATED SUBSTANCES - Volatile Organic Compounds - Collected at the Treatment Plants													
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source							
Methyl Tertiary Butyl Ether	2020	Yes	70	70	0.20	0.11 to 0.20	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills.							
CIS-1,2 Dichloroethylene	2020	Yes	70	70	0.20	0.1 to 0.20	Discharge from Industrial Chemical Factories							
Trichloroethylene (TCE)	2020	Yes	1	1	0.20	0.19 to 0.20	Discharge from metal degreasing sites and other factories							
1,2 - Dichloroethane	2020	Yes	2	2	0.16	0.10 to 0.16	A solvent that discharges from Industrial sites							

REGULATED SUBSTANCES - Collected at the Treatment Plant											
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source				
Nitrate (ppm)	2020	Yes	10	10	1.4	0.33 to 1.4	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits.				

## **PFAS MONITORING**

Per- or polyfluoroalkyl substances (PFASs) are synthetic substances used in a variety of products, such as: stain resistant fabric, non-stick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. While the EPA has not developed drinking water standards for PFAS, American Water Contract Services recognizes the importance of testing for these contaminants. Compounds detected are tabulated below, along with typical sources

	Regulated Substances – Perflourononanoic Acid (PFNA) – Collected at the Treatment Plants												
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source						
Perflourononanoic Acid (PFNA) (ppt)	2020	Yes	13	13	6.6	1.7 to 6.6	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films						

			Rad	iological Contaminant	s - Collected at the	Treatment Plant						
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source					
Alpha Emitters (pCi/L)	2017	Yes	0	15	3.55	ND to 3.55	Erosion of natural deposits.					
Combined Radium (pCi/L)	2017	Yes	0	5	1.58	ND to 1.58	Erosion of natural deposits.					
	REGULATED SUBSTANCES – Inorganics - Collected at the Treatment Plants											
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source					
Arsenic (ppm)	2020	Yes	0	10	.0024	.0018 to .0024	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes					
Barium (ppm)	2020	Yes	70	70	0.20	0.052 to 0.20	Discharge from Industrial Chemical Factories					
Chromium (ppm)	2020	Yes	1	1	0.20	0.19 to 0.20	Discharge from metal degreasing sites and other factories					
Mercury (ppb)	2020	Yes	2	2	0.16	0.10 to 0.16	A solvent that discharges from Industrial sites					
Total Thalium (ppm)	2020	Yes	2	2	.00017	.000091 to .00017	Leeching from ore-processing sites; Discharge from electronics, glass and drug factories.					
			Synthe	etic Organic Compound	ls – Collected at th	e Treatment Plants						
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source					
1,2 Dibromo-3- Chloropropane (DBCP) (ppm)	2020	Yes	0	.0002	.0000024 ND to .0000024		Runoff/leaching from soil fumigant used on agricultural products.					
Ethylene Dibromide (EDB) (ppm)	2020	Yes	0	.00005	.0000025	ND to .0000025	Discharge from Petroleum refineries.					
1,2,3 Trichloropropane (123 TCP) (ppm)	2020	Yes	0	.00003	.0000099	ND to .0000099	Discharge from metal degreasing sites and other factories, Runoff/leaching from soil fumigant used on agricultural products.					

	SECONDARY CONTAMINANTS - Collected in the Distribution System										
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Limit	Highest Result	Range Detected	Typical Source				
Iron <sup>1</sup>	2020	Yes	NA	0.30	0.058	0.31 to 0.58	Erosion of natural occurring deposits present in the environment				
Manganese <sup>1</sup>	2020	Yes	NA	0.05	.014	.0057 to .014	Erosion of natural occurring deposits present in the environment				

1 - Substances with Secondary MCLs do not have MCLGs and are not legally enforceable; these limits are primarily established to address aesthetic concerns.

Physical Characteristics										
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Optimum Range	Highest Result	Range Detected	Description			
pH (S.U.)	2020	Yes	NA	6.5 to 8.5	8.62	7.10 to 8.62	A measurement of acidity, 7.0 being neutral			

## **Additional Monitoring**

	UNREGULATED COMPOUNDS								
Parameter	Units	Average Result	Range Detected	Typical Source					
1,4 dioxane	ppb	1.4	0.1 to 5.8	Solvent or solvent stabilizer in manufacturing and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos					
Chromium-6	ppb	0.15	ND to .21	Naturally-occurring element; used in making steel and other alloys.					

## **PFAS MONITORING**

Per- or polyfluoroalkyl substances (PFASs) are synthetic substances used in a variety of products, such as: stain resistant fabric, non-stick coatings, firefighting foam, paints, waxes, and cleaning products. They are also components in some industrial processes like electronics manufacturing and oil recovery. While the EPA has not developed drinking water standards for PFAS, American Water Contract Services recognizes the importance of testing for these contaminants. Compounds detected are tabulated below, along with typical sources

Unre	gulated Comp	ounds - Water Leav	ing the Treatment Fac	ility & Source Water) 2020 Results
Substance	Units	Average Result	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)	ppt	11.0	5.2 to 30	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perfluoropentanoic Acid (PFOS)	ppt	11.4	4.2 to 26	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorononanoic Acid (PFNA)	ppt	4.1	1.1 to 10	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perffluorohexanoic Acid (PFHxA)	ppt	2.75	1.9 to 4.2	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Perfluorohexane sulfonic Acid (PFHxS)	ppb	4.9	4.0 to 6.3	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Perfluoroheptanoic Acid (PFHpA)	ppt	1.6	.90 to 2.5	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Perflurobutane sulfonic Acid (PFBS)	ppt	2.9	2.0 to 4.2	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Perfluorohexane sulfonic Acid (PFHxS)	ppt	6.8	2.0 to 17.0	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
Perflurodecanoic Acid (PFDA)	ppt	.40	ND to 1.1	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
2-(N-Ethyl-perfluorooctane sulfonamido) Acetic Acid (NEtFOSSA)	ppt	2.0	.63 to 7.5	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.
2-(N-Methyl-perfluorooctane sulfonamido) Acetic Acid (NMeFOSSA)	ppt	.07	ND to .67	Used in the production of Teflon, firefighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.

#### **UNREGULATED CONTAMINANT MONITORING RULE 4**

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 necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored. The City of Camden Division of Utilities participated in the Unregulated Contaminant Rule fourth phase (UCMR4) in 2018.

#### ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST - Water Leaving the Treatment Facility & Distribution System) 2018 Results **Parameter** Units **Average Result Range Detected Typical Source Bromochloroacetic Acid** ppb 3.9 2.6 to 5.8 By-product of drinking water disinfection **Bromodichloroacetic acid** ppb 3.6 1.8 to 5.0 By-product of drinking water disinfection Chlorodibromoacetic acid By-product of drinking water disinfection 1.6 .90 to 2.5 ppb 2.75 1.9 to 4.2 By-product of drinking water disinfection **Dibromoacetic Acid** ppb **Dichloroacetic Acid** ppb 4.9 4.0 to 6.3 By-product of drinking water disinfection **Monobromoacetic Acid** ppb .32 ND to .68 By-product of drinking water disinfection **Total Haloacetic Acids** 10.1 7.5 to 14 By-product of drinking water disinfection ppb Total Haloacetic Acids - Br 12.1 9.3 to 16 By-product of drinking water disinfection ppb By-product of drinking water disinfection **Total Haloacetic Acids-UCMR4** 19.1 15 to 25 ppb **Trichloroacetic Acid** 2.1 1.6 to 3.1 By-product of drinking water disinfection ppb Used as a solvent in varnishes, dyes, resins, airplane deicing solutions. It is also used ND ND 2-Methoxyethanol ppb in organometallic chemistry synthesis. Naturally-occurring elemental metal; largely used in aluminum alloy production. Manganese\* ppb .73 ND o 1.6 Essential dietary element.

<sup>\*</sup> Manganese has a Secondary MCL of 50 ppb.

New Jersey American Water conducts extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2020, certain substances are monitored less than once per year because the levels do not change frequently. Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information. **Regulated contaminants not listed in this table were not found in the treated water supply.** 

## NJ American Water - DRRWTP - PWSID# NJ0327001 - TP002049

#### **PRIMARY REGULATED SUBSTANCES**

	DISINFECTANTS - Collected at the Surface Water Treatment Plant								
Substance (with units)	Year Sampled	Compliance Achieved	MRDLG	MRDL	Minimum Chlorine Residual	Compliance Result	Range Detected	Typical Source	
Entry Point Chlorine Residual (ppm) <sup>1</sup>	2020	Yes	4	4	TT ≥ 0.20	1.46	0.56 to 1.46	Water additive used to control microbes.	

<sup>1 -</sup> Data represents the lowest residual entering the distribution system from our water treatment plant.

	TREATMENT BYPRODUCTS PRECURSOR REMOVAL - Collected at the Treatment Plant										
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Range of % Removal Required	Range of % and Ratio Removal Achieved	Number of Quarters Out of Compliance	Typical Source			
Total Organic Carbon (TOC)	2020	Yes	NA	TT ≥ 35% Removal	35% to 45%	45% to 66%	0	Naturally present in the environment.			
Actual / Required TOC Removal (Ratio)	2020	Yes	NA	TT: Running Annual Average ≥ 1.0		1.29 to 1.89	0	Naturally present in the environment.			

#### **PRIMARY REGULATED SUBSTANCES**

	TURBIDITY - Continuous Monitoring at the Treatment Plant									
Substance (with units)	Year Sampled	Complianc e Achieved	MCLG	MCL	Highest Single Measurement and Lowest Monthly % of Samples ≤ 0.3 NTU	Highest				
Turbidity (NTU) <sup>2</sup>	2020	Yes	0	TT: Single result > 1 NTU	0.1	1/3/2020	Soil runoff.			
	2020	Yes	NA	TT: At least 95% of samples ≤ 0.3 NTU	100%	NA	Soil runoff.			

<sup>2 - 100%</sup> of the turbidity readings were below the treatment technique requirement of 0.3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

	OTHER REGULATED SUBSTANCES - Collected at the Treatment Plant									
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL/SMCL	Highest Compliance Result	Range Detecte d	Typical Source			
Nitrate (ppm)	2020	Yes	10	10	0.99	NA	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits.			

	UNREGULATED PERFLUORINATED COMPOUNDS										
Parameter	Units	Average Result	Range Detected	Typical Source							
Perfluorooctanoic Acid (PFOA)	ppt	3.46	2.4 to 5.0	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire- fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films.							
Perfluorooctanesulfonic Acid (PFOS)	ppt	3.13	1.8 to 4.8	Synthetic chemical; used in products for stain, grease, heat and water resistance							

	Unregulated Contaminants Monitoring (UCMR4) 2019									
Parameter	Units	Average Result	Range Detected	Typical Source						
Manganese <sup>3</sup>	ppb	1.02	ND to 1.8	Naturally occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.						

<sup>3 -</sup> Manganese is regulated as a secondary contaminant with a secondary maximum contaminant level of 50 ppb



- 1,1,1-Trichloroethane
- 1,1,2-Trichloroethane
- 1,1-Dichloroethene
- 1,1-Dichloroethane
- 1,2,4-Trichlorobenzene
- 1,2-Dichlorobenzene
- 1,2-Dichloropropane
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- 1,1-Dichloropropene
- 1,3-Dichloropropane
- 2,2-Dichloropropane
- 2-Chlorotoluene
- 4-Chlorotoluene
- Trans-1,3-Dichloropropene
- Cis-1,3-Dichloropropene
- 1,1,1,2-Tetrachloroethane
- 1,1,2,2-Tetrachloroethane
- 1,2,3-Trichlorobenzene
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- 1,2,3-Trichloropropane
- Benzene

- Bromobenzene
- Bromochloromethane
- Bromodichloromethane
- Bromoform
- Bromomethane
- Sec-Butylbenzene
- Tert-Butylbenzene
- N-Butylbenzene
- Carbon tetrachloride
- Chlorobenzene
- Chloroethane
- Chloroform
- Chloromethane
- Dibromomethane
- Dichlorodifluoromethane
- Ethyl Benzene
- Methylene chloride
- Hexachlorobutadiene
- Isopropylbenzene
- P-Isopropyltoluene
- Naphthalene
- N-Propylbenzene
- Styrene

- Tetrachloroethene (PCE)
- Trichlorofluoromethane Tetrachloroethene (PCE)
- Toluene
- trans-1,2-Dichloroethene
- Vinyl chloride
- Xylene (total)
- Fluoride
- Chromium
- Copper
- Nickel
- **Antimony**
- Berylium
- Cadmium
- Lead
- Selenium
- Mercury
- Cyanide, Total
- Chloride
- Aluminum
- Copper
- Silver
- Zinc

- Nitrite
- Perfluorododecanoic Acid (PFDoA)
- Perfluorotetradecanoic Acid (PFTA)
- Perfluorotridecanoic Acid (PFTrDA)