

# WATER QUALITY REPORT





Celebrating 10 Years of Investing in Our Community from Raindrop to River

# MESSAGE FROM OUR CEO





Este informe contiene información importante acerca de su agua potable. Que alguien traduzca este informe para usted ó contacted Capital Region Water llamando (888-510-0606) ó por correo electrónico (info@capitalregionwater.com) para recibir una copia traducida del inform.

This report contains important information about your drinking water. Have someone translate it for you, or contact Capital Region Water by phone (888-510-0606) or email (info@capitalregionwater.com) to receive a translated copy of the report. Copies can also be found on our website at: www.capitalregionwater.com

#### Public Water System Identification Number: 7220049 Name: Capital Region Water, Drinking Water Dept.

If you have any questions about this report or your drinking water, please contact Amy Borden at 888-510-0606, or email: info@capitalregionwater.com. Dear Customer,

Capital Region Water is proud to share this 2023 Drinking Water Quality Report with you summarizing water quality tests from 2022. The Environmental Protection Agency (EPA) requires all water utilities to produce and distribute water quality reports on an annual basis to help you understand what is in your water.

Capital Region Water's dedicated team of professionals works 24 hours a day, 7 days a week, 365 days to provide our community with some of the highest quality drinking water in the country.

This 2023 report includes water quality information for the 2022 calendar year. In 2022, Capital Region Water conducted over 200,000 tests to ensure that high-quality water reached residents and businesses in our service area. The water we supplied to your home or business in 2022 outperformed all federal and state drinking water standards. This level of service is possible due to Capital Region Water's continuous investment in our community's water system.

We look forward to building on this foundation for future growth in our community.

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**Charlotte Katzenmoyer** Chief Executive Officer, Capital Region Water



#### **DEHART DAM & RESERVOIR**

The place where your drinking water comes from is called its source. Your primary source of drinking water comes from the DeHart Dam and Reservoir, located 20 miles northeast of Harrisburg in the pristine Clarks Valley.

A watershed is the area of land draining to the source. Capital Region Water and its customer are fortunate to have its watershed made up almost entirely of forest; the best type of land use for drinking water.

Our secondary source is the Susquehanna River, which is utilized for a brief period each year to ensure resiliency in the case of severe drought or emergency. As part of Capital Region Water's ongoing efforts to be proactive and ensure reliable service, Capital Region Water temporarily pumped and treated a blend of water from the Susquehanna River and DeHart for 12 days in November 2022 to ensure its reliability during a potential emergency.

#### **PROTECTING THE SOURCE**

A Source Water Assessment of Capital Region Water's sources was completed by the Pennsylvania Department of Environmental Protection (DEP) in 2003. The Assessment found that on lot septic systems and fuel oil storage facilities pose the greatest threat to the DeHart Dam Intake. Agriculture activities, gas stations, urban runoff, and the potential for spills from bridges crossing the river are the most significant potential sources of contamination to the Susquehanna River.



A summary report is available by visiting the Source Water Assessment Summary Reports eLibrary at:

www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045.

Copies of the complete report are available for review at the Pennsylvania DEP South Central Regional Office, Records Management Unit at: (717)705-4700.

A voluntary Source Water Protection Plan was completed by Capital Region Water and approved by DEP in 2015. This plan includes the inventory of potential sources of contaminants in the assessment area and identifies management options for best protecting our water sources. You can find this plan and more information about CRW's Source Water Protection efforts online at capitalregionwater.com.

Capital Region Water has prioritized watershed protection and pollution prevention. Over the last few years, efforts have been made to permanently protect the DeHart Property and Capital Region Water's primary source of water supply.

# MONITORING YOUR WATEF

### **MONITORING YOUR WATER**

Capital Region Water routinely monitors for contaminants in your drinking water in compliance with all federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2022. DEP allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.



#### **MICROBIOLOGICAL SAMPLING AND ANALYSES**

Capital Region Water's water quality laboratory collects and analyzes over 70 drinking water samples each month from the distribution system to test for total coliform and E.coli bacteria, which are naturally present in the environment. Their presence is an indicator that other potentially harmful pathogens may be present. The maximum contaminant level for coliform bacteria is less than 5% positive samples; our maximum contaminant level goal is zero.

#### **DEFINITIONS**

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

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.

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 a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the 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.

*Minimum Residual Disinfectant Level (MinRDL)* - The minimum level of residual disinfectant required at the entry point to the distribution system. **Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

*Mrem/year* = millirems per year (a measure of radiation absorbed by the body)

pCi/L = picocuries per liter (a measure of radioactivity)

ppb = parts per billion, or micrograms per liter
(µg/L)

ppm = parts per million, or milligrams per liter
(mg/L)

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter

*Level 1 Assessment -* A Level 1 Assessment is a study of the water system to identy potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

*Level 2 Assessment* - A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on mulitple occasions.

#### WATER CONTAMINANTS

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 can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

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

*Inorganic contaminants,* such as salts and metals, which can be naturally occurring or result from urban 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and

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

In order to ensure that tap water is safe to drink, EPA and DEP prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. FDA (U.S. Food and Drug Administration) and DEP regulations establish limits for contaminants in bottled water which must provide the same protections 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).

#### **SPECIAL HEALTH INFORMATION**

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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

#### **CRYPTOSPORIDIUM MONITORING**

Capital Region Water collected a set of cryptosporidium samples from its primary and secondary source water, prior to treatment, every month between January and September 2017. No cryptosporidium was found on the primary source water (DeHart Reservoir) and the highest cryptosporidium count was 1.0 Oocyst per 10 liters on the secondary source water (Susquehanna River).

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal.

Capital Region Water's monitoring indicates the presence of these organisms in its secondary source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing a life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

#### **Detected Chemical Contaminant**

## **2022 SAMPLE RESULTS**

Contaminant	MCL	MCLG	Level Detected	Range of Detection	Units	Sample Date	Violation?	Sources of Contamination
Fluoride*	2	4	0.51	<0.50 - 0.51	mg/L	11/3/2022	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids (HAA5)	0.06	n/a	0.057	0.030 - 0.057	mg/L	10/18/2022	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	0.08	n/a	0.060	0.033 - 0.060	mg/L	4/13/2022	No	By-product of drinking water chlorination
Distribution Chlorine	4.0	4	2.07	0.26 - 2.07	mg/L	11/1/2022	No	Water additive used to control microbes.

\*EPA's MCL for Fluoride is 4ppm. However, Pennsylvania has set a lower MCL to better protect human health.

#### **Entry Point Disinfectant Residual**

Contaminant	MinRDL	Lowest Level Detected	Range of Detection	Units	Sample Date	Violation?	Sources of Contamination
Chlorine	0.2	0.69	0.69 - 2.18	ppm	7/23/2022	No	Water additive used to control microbes

#### Lead & Copper

Contaminant	Action Level (AL)	MCLG	90% of Samples Were Less Than:	Units	#of Sites Above AL	Violation?	Sources of Contamination
Lead	90% of samples must be below: 15	0	0	ppb	0	No	Corrosion of household plumbing
Copper	90% of samples must be below: 1.3	1.3	0.074	ppm	0	No	Corrosion of household plumbing

#### **Microbial Contaminants**

Contaminant	Treatment Technique	MCLG	Assessments/ Corrective Actions	Violation?	Sources of Contamination
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement.	N/A	0	No	Naturally present in the environment
E.Coli	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement.	N/A	0	No	Human and animal fecal waste

#### Turbidity

	Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation?	Sources of Contamination			
	Turbidity	1 NTU for a single measurement		0.109 NTU highest level detected	2/10/2022	No	Coll run off			
		at least 95% of monthly sample should be < 0.3 NTU	1077	100% of samples < 0.3 NTU	12 Months		Solitation			

#### **Total Organic Carbon**

Contaminant	Range of % Removal Required	Range of % Removal Achieved	# of quarters out of compliance	Violation?	Sources of Contamination	
Total Organic Carbon (TOC)	25-45	45.8-55.0	0	No	Naturally present in the environment	

#### INFO ABOUT PFAS:

**On February 24, 2021,** representatives from the Department of Environmental Protection Bureau of Safe Drinking Water conducted a site visit at our Water Services Center to collect samples to be analyzed for the presence of Polyfluoroalkyl substances or PFAS in the drinking water supply. The samples collected during the site visit indicated that these substances were not detected. DEP has posted all results on their PFAS webpage at: www.dep.pa.gov

Furthermore, Capital Region Water tests quarterly for 29 PFAS compounds and lithium in 2023 for the Fifth Unregulated Contaminant Monitoring Rule (UCMR5) program for the EPA. We have completed both first and second-quarter sampling and **all data to date has been non-detect.** 



# **Mission & Values**

We are a municipal authority that improves, maintains, and operates the water system and infrastructure of the greater Harrisburg area—from raindrop to river.

Capital Region Water is the steward for drinking water, wastewater and stormwater services for the City of Harrisburg and portions of surrounding municipalities including Penbrook, Paxtang, and Steelton Boroughs, as well as Susquehanna, Swatara, and Lower Paxton Townships. This year marks 10 years since the water systems were transferred to Capital Region Water for ownership and operation. In all that we do, we commit to the following through our core values:



# Updates to look for:



#### Customer Survey Coming Soon! Service Line Inventory

Capital Region Water is soon launching a customer survey to assist in identifying service line material. With your assistance, we'll complete a thorough inventory of water service lines. As a reminder, service lines are the pipes that carry drinking water to homes and buildings from Capital Region Water's distribution main. There are about 20,000 customer-owned service lines.

To confirm a thorough inventory, Capital Region Water will provide instructions on how to properly document and photograph water service lines inside your home.

Your participation is critical to ensuring Capital Region Water can continue protecting public health by providing safe, reliable drinking water through our service territory. We appreciate your cooperation.

#### **Advanced Metering Infrastructure**

Capital Region Water currently gathers water usage readings from meters through a radio-read system. A transceiver (MXU) unit with each meter allows CRW employees to drive a vehicle throughout the distribution system and collect consumption readings on a monthly basis. The antiquated meters and reading system were installed in 2001.

A new automated meter reading system and advanced infrastructure network will soon take its place. Among its many benefits is expanded access for customers to review water use. Customers can be alerted to abnormally high usage and potential water leaks - saving water and money.

Installation of new meters and transmitters will occur over a 3-year period.

