Chester Water Authority 2023

PWS ID# 1230004

WATER QUALITY REPORT

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you or speak with someone who understands it.)

A Message from Our Executive Manager

On behalf of Chester Water Authority (CWA), I am pleased to share our 2023 Water Quality Report, which is also known as a Consumer Confidence Report (CCR). This report includes water quality data from testing performed between January 1, 2023 and December 31, 2023. As you review this report, please note that we continue to supply water that meets or exceeds all state and federal drinking water standards. This CCR was produced in accordance with regulations by the United States Environmental Protection Agency (US EPA) and the Pennsylvania Department of Environmental Protection (PA DEP), and contains information on the communities we serve, the water sources we use to produce your drinking water, the 2023 testing results, educational information on your drinking water, and our contact information.

Water is an essential resource for public health, quality of life, fire protection, and economic development. CWA employees are committed to providing our customers with high quality drinking water. Please review this report to learn about the sources and the quality of your drinking water.

The CWA is committed to providing our customers with high quality drinking water at a reasonable cost. We welcome your questions about this report, your drinking water, and our organization. Please share this information with others who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or by distributing copies by hand or by mail.

Please go to **https://chesterwater.com/CCR2023.pdf** for an electronic copy of our 2023 CCR. If you would like more information regarding this report, please contact our Customer Service Department at 610.876.8181 or 1.800.793.2323, or visit our website at: **www.chesterwater.com**.

At CWA, we take pride in our ability to provide our customers with high quality water and reliable service. We value our customers, are committed to keeping you informed about the quality of your water, and appreciate the opportunity to serve you.

Darryl A. Jenkins, P.E.
Executive Manager

Commitment to Water Quality

Chester Water Authority (CWA) has achieved the Phase IV “Excellence in Treatment” designation, the highest level awarded by the Partnership for Safe Water (PfSW). The PfSW is an alliance of six prestigious drinking water organizations, including the American Water Works Association and U.S. Environmental Protection Agency. This noteworthy achievement places CWA among an elite group as, to date, only 19 treatment plants across the United States have successfully attained this prestigious recognition.

CWA’s Octoraro Water Treatment Plant has been consistently honored by the PfSW program. Awards include the Phase III Directors Award in 2004, the President’s Award in 2012, 5-year Legacy President’s Award in 2017, 10-year Legacy President’s Award in 2022, the Phase IV Excellence Award in 2013, 5-year Legacy Excellence Award in 2018, and the 10-year Legacy Excellence Award in 2022. By securing Phase IV status and surpassing federal and state drinking water standards, CWA joins the top ranks of treatment facilities nationally recognized for their commitment to delivering the highest quality drinking water. This Phase IV accomplishment reflects CWA’s dedication to going above and beyond when it comes to safeguarding public health.

Where Does Your Water Come From?

The water treated at the Octoraro Treatment Plant comes from two sources: the Octoraro Reservoir and the Susquehanna River. Both of these sources are in the Susquehanna River Basin. The water is treated and pumped to our customers from the CWA Octoraro Treatment Plant which produces an average of 29 million gallons per day.

The US EPA and PA DEP have established regulations that require public water systems to monitor for certain contaminants. They have also set limits for the amounts of contaminants that may be present in drinking water.

As your water supplier, we recognize that contaminants may be present in source waters and we operate the treatment processes of the Octoraro Treatment Plant to ensure the water we provide to our customers meets all drinking water standards.

(Octoraro Reservoir in Lancaster County, PA)

Source Water Protection Plan and Source Water Assessments

In 1988, a Source Water Assessment (SWA) of the Octoraro Reservoir was completed by the Cadmus Group. The SWA identified and ranked sources of potential threats of source water contamination. The SWA indicated that the Octoraro Reservoir was most susceptible to contamination by nutrients and sediments from agricultural activity. Other potential sources of contamination include spills from roads and bridges, residential and municipal wastewater treatment, urban storm water runoff and industrial discharges. To better protect the source water in the Octoraro Reservoir, CWA and PA DEP used the SWA as a foundation to develop a Source Water Protection Plan (SWPP) that was finalized in July 2015. The SWPP is a voluntary effort by interested parties or stakeholders to take action to prevent contaminants from entering CWA's Octoraro Reservoir.

PENNSYLVANIA SOURCE WATER PROTECTION
Safe Drinking Water Starts at the Source!

The goal of the SWPP is to improve and protect the quality of the surface water within the Octoraro's 139 square mile watershed and within the Octoraro Reservoir. Improved water quality will benefit our customer's drinking water, as well as residents and businesses within the watershed. CWA hosts an annual steering committee meeting to continue protection efforts and to gain public participation and support. The steering committee is made up of residents, township officials, regulators, conservation districts, and other partnering stakeholders. The stakeholders include the Octoraro Watershed Association (OWA), the Alliance for the Chesapeake Bay, the Chester County Water Resources Authority, and the Lancaster County and Chester County Conservation Districts.

In addition to the Octoraro SWPP, the Susquehanna River Basin Commission (SRBC) completed a SWA for the Susquehanna River Conowingo Pond in 2003. The SWA indicated that Conowingo Pond was most susceptible to contamination from agricultural contaminants, spills from roads and bridges, and urban storm water runoff. Other potential sources of contamination include discharges from wastewater treatment plants, water treatment plants, and industries. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page:

http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4513

Complete reports were distributed to municipalities, water suppliers, local planning agencies and PA DEP offices. Copies of the complete report are available for review at the PA DEP Southeast Regional Office at 484.250.5110 or by calling CWA at 1.800.217.7880.

Information about the Octoraro Watershed Association (OWA) may be obtained by contacting OWA directly at 484.947.9390.

Frequently Asked Questions

Why is my water discolored?

If your water is rusty, yellowish, or brownish in color, it is likely due to the presence of iron or rust. This may occur when there is an upset in the distribution system (such as a water main break) or when the direction of water flow changes (such as during hydrant use to extinguish a fire or during routine hydrant flushing). Discolored water may also result from internal plumbing issues. If you experience this, simply run your cold and hot water for a couple of minutes to make sure the rust does not accumulate or stay in your plumbing.

Why does my water appear cloudy?

Cloudy water, which is normal, occurs when air becomes trapped in the water. When water is cold, such as during the winter, there is more air in it. When the cold water enters your home, the water warms up and air is released from the water giving it a milky or cloudy appearance. So, when you open the faucet to fill a glass, the air is released as bubbles similar to what you see when shaking a soda. As the water sits in the glass, it will clear from the bottom of the glass to the top. The more air in the water, the longer it will take for the water to clear. It is important to understand that this cloudiness does not reduce the water's quality.

Why is there pink slimy material in my toilet bowl, my pet's dish, my sink drain, bathtub, or shower head?

Bacteria grow well in these areas because they are moist and provide a food source for the bacteria to thrive on. The bacteria can be found in the air, in soil, in water, or on household surfaces. Orange and pink are common colors for many bacteria, but the bacteria known as *Serratia marcescens* is often the source of the "orangy/pink stuff". This bacteria is not easily eliminated from these areas. Periodic and routine cleaning of these areas followed by disinfection with a chlorine-based cleaner is the best way to control it.

What are these black particles in my water?

Black particles may arise from a broken household water filter that contains a carbon cartridge and the particles will look like coffee grounds. If you see particles you should replace the cartridge. Black particles may also be a result of a degrading faucet washer or gasket or a disintegrating black rubber liner inside a woven stainless steel flexible hose used in many plumbing connections. These particles are often described as small, like a spec of black pepper or oily; and is a sign you may want to consider replacing the washer, gasket, or hose. Choose a hose with a different style that does not contain a black rubber liner.

Why does my water smell like rotten eggs or sewage?

If you notice a smell similar to rotten eggs (sulfur) or sewage when running water, it might be caused by gases residing in the sink drain. In the drain, bacteria live on food, soap, hair, and so on creating gases which are released into the air when water goes down the drain. These odors are often mistakenly associated with the water because they are observed only when the water is running. In this case, the odor is not in the water, it is merely the water pushing the gas out of the drain. You can confirm this by getting a glass of water from the faucet and carrying it away from the sink and drain. If the odor is coming from the drain, the odor will not be noticed in the glass of water once you move away from the sink drain. To resolve the drain odor, we recommend that you clean the drain.

2023 Water Quality Results

The following water quality tables show the quality of your drinking water compared to the standards set by the US EPA and the PA DEP. Although we test your water for more than 100 substances per year, only the substances that were detected are shown in the table below. The US EPA and PA DEP allow 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, therefore, is more than one year old. For data that is more than one year old, the year of the most recent monitoring results is shown on the table.

TURBIDITY - is a measure of the clarity or cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

	MCLG	MCL	Level Detected	Violation	Source of Substance
Turbidity (NTU)	NA	TT = 1 NTU for a single measurement	0.24	No	Soil Runoff
	NA	TT = at least 95% of monthly samples less than or equal to 0.3 NTU	100%	No	Soil Runoff

LEAD AND COPPER (2022)

	MCLG	AL	90th Percentile	Samples > AL	Violation	Source of Substance
Copper (ppm)	1.3	1.3	0.24	0	No	Corrosion of household plumbing
Lead (ppb)	0	15	14	5	No	Corrosion of household plumbing

INORGANIC CHEMICALS

	MCLG	MCL	Level Detected	Range of Detections	Violation	Source of Substance
Barium (ppm)	2	2	0.03	0.03 - 0.03	No	Erosion of natural deposits
Fluoride (ppm)	2	2	0.9	0.4 - 0.9	No	Water additive that promotes strong teeth
Nitrate (ppm)	10	10	9	1 - 9	No	Source water contaminant from fertilizer use

ENTRY POINT DISINFECTION RESIDUALS

	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Violation	Source of Substance
Chloramine (ppm)	0.20	0.7	0.7 - 3.3	No	Water additives to control microbes

DISTRIBUTION DISINFECTION RESIDUALS

	MRDLG	MRDL	Level Detected	Range of Detections	Violation	Source of Substance
Chloramine (ppm)	4	4	2.8	2.3 - 2.8	No	Water additives to control microbes

DISINFECTION BY-PRODUCTS						
	MCLG	MCL	Level Detected	Range of Detections	Violation	Source of Substance
Total Trihalomethanes (ppb)	NA	80	49	29 - 77	No	By-product of drinking water chlorination
Haloacetic Acids (ppb)	NA	60	37	18 - 77	No	By-product of drinking water disinfection

TOTAL ORGANIC CARBON (TOC)						
	MCL	% Removal Required	% Removal Achieved	Number of Quarters Out of Compliance	Violation	Source of Substance
TOC (ppm)	TT	25 - 45	32 - 55	0	No	Naturally present in the environment

SYNTHETIC ORGANIC CHEMICALS						
	MRDLG	MRDL	Level Detected	Range of Detections	Violation	Source of Substance
Atrazine (ppb)	3	3	0.4	ND - 0.4	No	Runoff from herbicide used in row crops

Definitions of Terms Used in the Data Table

> : A symbol used to designate "greater than."

% : A symbol that means "percent."

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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 (see below) 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 Disinfection Level (MRDL): The highest level of disinfectant that is allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfection 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 contaminant.

NA: Not applicable.

ND: Not detected.

Nephelometric Turbidity Unit (NTU): A measure of water clarity.

Parts per billion (ppb): One microgram per liter, or one in a billion.

Parts per million (ppm): One milligram per liter, or one in a million.

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

Special Health Concerns

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. U.S. Environmental Protection Agency (EPA)/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1.800.426.4791.

Information 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.

CWA 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 two minutes before using water for drinking or cooking.

If you are concerned about lead in your drinking 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 1.800.426.4791, or go to US EPA's website at: **www.epa.gov/safewater/lead**.

Fluoride

CWA follows the PA DEP standard for fluoride in drinking water. PA DEP's standard is referred to as Maximum Contaminant Level (MCL). PA DEP set the MCL at 2 ppm for fluoride. CWA's treatment process is carefully controlled to achieve a targeted concentration level of 0.7 ppm in the water leaving our treatment plant.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. In 2023, CWA monitored the Octoraro and Susquehanna source waters for Cryptosporidium. Cryptosporidium was detected in the Octoraro source in none of six samples and in the Susquehanna in one of five samples. Although our treatment process includes filtration to remove Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. 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 a greater risk of developing 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.

Nitrates

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Other Water Quality Interest

How hard is your water? Hardness is a measure of the concentration of calcium and magnesium that are naturally present in water. High hardness levels cause soap not to foam as easily as it would at lower levels. Hardness levels ranged from 80 to 145 ppm, or 5 to 9 gpg. One grain per gallon is equal to 17.1 ppm of hardness.

What is the alkalinity in your water? Alkalinity is a measure of the water's ability to resist changes in the pH level and a good indicator of overall water quality. Alkalinity levels ranged from 35 to 67 ppm and averaged 53 ppm.

What is the pH (acidity) of your water? pH is a measure of acidity or alkalinity in water. A pH of 7.0 is considered neutral, neither acidic nor basic. The pH of the water averaged 7.9 pH units and ranged from 7.7 to 8.0 pH units.

Substances Expected in Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- 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, the US EPA and PA DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and PA DEP 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the US EPA's Safe Drinking Water Hotline at 1.800.426.4791.

Unregulated Contaminants

EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that may be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA). In 2024, CWA is monitoring unregulated contaminants. The results of this monitoring will be included in our 2024 Water Quality Report. If you are interested in the results prior to the publishing our the 2024 Water Quality Report, please contact the CWA Water Quality Laboratory during normal business hours at (800) 217-7880.

For More Information

If you would like more information regarding the Chester Water Authority, please contact our Customer Service Department at 610.876.8181 or 1.800.793.2323, or visit our website at www.chesterwater.com.

Chester Water Authority Board of Directors have regularly scheduled meetings on the third Thursday of every month at 2:00 pm in the first floor conference room located at its Distribution Headquarters at 437 W. Front Street, Chester, PA unless changed. Board agendas will be posted on the CWA website at www.chesterwater.com prior to the meetings. Information on any changes will be made publicly available prior to the meeting on CWA's website.

About Chester Water Authority

CWA is a Pennsylvania Municipal Authority that was established in 1939 to provide potable water to our customers. We are a public water supplier, but we are not a for-profit organization. CWA serves the following areas:

Aston Township
Bethel Township
Birmingham Township
Brookhaven Borough
Chadds Ford Township
Chester Heights Township
Chester Township
City of Chester
Concord Township
East Marlborough Township
East Nottingham Township
Franklin Township
Kennett Square Borough
Kennett Township
Londonderry Township
London Grove Township
Lower Chichester Township
Lower Oxford Township
Marcus Hook Borough
Middletown Township
Nether Providence Township
New Garden Township
New London Township
Oxford Borough
Parkside Borough
Penn Township
Pennsbury Township
Thornbury Township (Chester County)
Thornbury Township (Delaware County)
Trainer Borough
Upland Borough
Upper Chichester Township
Upper Oxford Township
West Nottingham Township

AWARDS FOR OUTSTANDING WATER TREATMENT

- **Best Tasting Water**
  First Place and Peoples Choice Taste Test 2023
  PA American Water Works Association
- **Phase IV Excellence in Treatment**
  Partnership for Safe Water 2013
- **Phase III Directors Award**
  Partnership for Safe Water 2004
- **President's Award**
  Partnership for Safe Water 2012
- **5-Year Legacy President's Award**
  Partnership for Safe Water 2017
- **10-Year Legacy President's Award**
  Partnership for Safe Water 2022
- **10-Year Legacy Excellence Award** *(for maintaining Phase IV status)*
  Partnership for Safe Water 2018
- **10-Year Legacy Excellence Award** *(for maintaining Phase IV status)*
  Partnership for Safe Water 2022

American Water Works Association

Partnership for Safe Water

Chester Water Authority

415 Welsh Street
Chester, PA 19013
610.876.8181
1.800.793.2323

www.chesterwater.com
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